

HPC

Mechanical components by mail order

1/5
2016



Mechanical drive components

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www.hpceurope.com



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 <p>Index bolt p.53</p>	 <p>Actuating plunger p.59</p>	 <p>INCREASED STOCK</p> <p>Spring plunger p.63</p>	 <p>stainless steel</p> <p>Indexing handle p.74</p>
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Discounts: maximum discount on price list 2015

Stock: depending on availability

New: new product

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 <p>✓ INCREASED STOCK</p>			
Latch clamp p.131	Toggle clamp p.134		
 <p>✓ INCREASED STOCK</p>	 <p>✓ INCREASED STOCK</p>		
Retaining clamp p.146	Magnetic stud p.148	Manual bonnet fastener p.155	
		 <p>NEW</p>	
Aluminium ruler p.160	Digital position indicator p.162	Multifunction display p.172	Compression spring p.180
 <p>stainless steel</p>			
Extension spring p.194	Die spring p.206	Dynamic washer p.214	
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Turn the page please



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 Articulated foot p.278	 Fixed levelling foot p.283	 stainless steel Articulated foot p.286	 Fixed anti-vibration foot mount p.289
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 Rigging screw p.312	 NEW stainless steel Manual rigging screw p.316	 NEW Identification tag p.318	 stainless steel INCREASED STOCK Threaded eye hook p.319
 Chain p.320	 INCREASED STOCK Quick link p.324	 stainless steel INCREASED STOCK Male eye bolt p.329	 INCREASED STOCK Male swivelling p.336

Discounts: maximum discount on price list 2015

Stock: depending on availability

New: new product

4/4

 <p>NEW</p>			 <p>INCREASED STOCK</p>
Box of assorted spring pins p.348	Keysteel p.355	External circlip p.358	Shaft locking washer p.360
 <p>Until -50%</p>	 <p>INCREASED STOCK</p>		
Self locking counter nut p.361	Linch pin p.362	Coiled spring pin p.364	Dowel pin p.368
	 <p>INCREASED STOCK</p>	 <p>stainless steel</p>	 <p>stainless steel</p>
Extractable dowel pin p.372	Hitch pin p.373	Hexagonal spacer p.376	Cylindrical spacer p.388
			 <p>INCREASED STOCK</p>
Steel U bolt p.392	Steel thread inserts p.396	Self tapping steel insert p.402	Cylindrical threaded sleeves p.410
 <p>stainless steel</p>			
Threaded bar p.411	Shoulder screw p.412	Hexagonal headed screw p.418	Socket-head screw p.420
 <p>stainless steel</p>	 <p>stainless steel</p>		
Countersunk screw p.426	Set screw p.429	Manually operated wing nut p.440	Security strap p.442

INDEX ICONS

Internal bore



Modifiable



Non-modifiable

Angles



Load



Axial load



Radial load



Heavy duty



Max load
1 tonne

Delivery time



48h



In hours or weeks

Method of fabrication



Moulded



Machined

Material



Steel



Stainless steel



Aluminium



Brass



Bronze



Nylon



Copper



Plastic



Delrin



Peek



Cast iron

Resistant to



Low temperatures



High temperatures



Corrosion



Shock

Special HPC



Custom-made



In stock



In imperial

Compatibility



Robotic industry



Food industry

Maintenance



Maintenance free



No lubrication

Applicable



Industrial



Manual

Standards



DIN



ISO

Origin



Japan



Switzerland

Quality



from 1 to 8

Others



Bi-directional



Precision



Duo



Bearings



Light



No fixing



Miniature size



Low cost range



Modulable



High speed of rotation



Easy assembly

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SERVICES AVAILABLE FROM **HPC**



EASY ORDERING

- Personalised advice from our technical and sales teams is available by telephone from Monday to Friday from 08.00 to 12.20 and 13.40 to 18.00, just call +33 (0) 4 37 496 496
- We can also be contacted by fax, email or post.



PERSONALISED SOLUTIONS

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- Items not listed in catalogue can also be supplied
- Medium and large production runs available on request



ONLINE ORDERING AVAILABLE 24/24

- **www.hpceurope.com** references 31,000 parts
- Instant online quote generation
- Datasheets in PDF format and 3D models can be **downloaded free of charge** from the site
- Package tracking





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Cheque



**Bank
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Our bank details:
BNP PARIBAS
18 Chemin de Gargantua
69570 Dardilly
N° de compte: 00010041122



FAST DELIVERY

- Any order for articles in stock received before
- **14.00 will** be delivered before 18.00 the following day*
- Free delivery for all orders over 50€*



GENERAL INFORMATION

Engrenages HPC SARL, share capital 76 224€
N°382 911 907 RCS Lyon
French SIC code : APE 4669B
TVA FR 41 382 911 907

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*Some restrictions apply. For deliveries to French mainland only.

Buyers guide

Indexing



















Part number	CFC	BSM	BSM/LOK	BPMZ, BPM, BPM/C	BPM/LOK	BLM
Type	plunger	plunger	plunger	plunger	plunger	plunger
Characteristics	electric contact	hexagonal socket	hexagonal socket	slotted	slotted	slotted
Advantage	end position feedback	standard	secured thread	standard	secured thread	simple assembly
Indexing system						
Thread/ diameter	M6 → M10	M3 → M24	M3 → M24	M6 → M20	M3 → M20	Ø5 → Ø10
Material	Steel	steel, S/steel or plastic	steel, S/steel or plastic	steel, S/steel or plastic or ceramic	steel or S/steel	steel or S/steel
Quality	☆☆☆	☆☆	☆☆☆	☆☆	☆☆☆	☆☆
Price	€€	€	€	€	€	€
Pages	1 57	1 60	1 61	1 63 - 66	1 65	1 62






Handwheels



Part number	VPRA-M	SHA-PT	SHA-PTR	SHA	V3RA-PT
handle	revolving	revolving	revolving folds away	-	revolving
Material	thermosetting plastic	technoplastic	technoplastic	technoplastic	technoplastic
Ext/ diameter	Ø50 → Ø300	Ø100 → Ø200	Ø100 → Ø200	Ø100 → Ø200	Ø100 → Ø200
Advantage	High working temperature	everyday applications	everyday applications	everyday applications	light
Custom bore diameter and keysteel	✓	✓	✓	✓	✓
Quality	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆
price	€€€	€€	€€€	€	€€
Pages	1 81	1 82	1 83	1 84	1 85

 : pressure pin  : ball

						
DIV	DIL	DIA	SLB	SLBW	SLBS	PPJ, PPG, PPF
locking bolt	locking bolt	locking bolt	locking bolt	locking bolt	locking bolt	Index bolt with flange
turn to unlock	turn to unlock	pull to unlock	pull to unlock	pull to unlock	pull to unlock	pull to unlock
lockable	lockable	can be automated	lockable	lockable	lockable	lockable
						
M2 → M20	M6 → M16	M8x1 → M20x1,5	M10x1 → M20x1,5	Ø4 → Ø10	M8x1 → M20x1,5	flange
steel or S/steel	steel	steel	steel or S/steel	steel or S/steel	s/steel	s/steel or Zamak
☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆
€€	€	€	€€€	€€	€€€	€€
1 44	1 46	1 47	1 52	1 54	1 56	1 48 - 49

				
V3RA-PTR	V3RA	HLUT, HLU	MH-MEP	MH-PGR
revolving folds away	-	revolving	revolving	folds away
technoplastic	technoplastic	aluminium	technoplastic	technoplastic
Ø100 → Ø200	Ø100 → Ø200	Ø80 → Ø500	R65 → R160	R80 → R160
light	light	large diameter	light	light
✓	✓	✓	✗	✓
☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆
€€€	€	€€€	€€	€€
1 86	1 87	1 90 - 91	1 78	1 80

Buyers guide

Knobs, handles and levers

To do manual locking or unlocking









Part number	712-019, 712-015	712-051	SK	GLB, GLP	VB, VBFP	VP, VPSS
Description	star knob	star knob	star knob	knurled knob	knurled knob	knurled knob
Fixing method	male / female	female	male / female	male / female	female	male
Attachment diameter	M4→M6	square hole ∅6,5x6,5 M10 thread	M4→M10	M6→M16	M4→M10	M4→M14
Material	plastic	plastic	plastic	plastic	plastic	plastic
Ext. diameter	∅10 → ∅25	∅50 → ∅63	∅20 → ∅50	∅30 → ∅70	∅20 → ∅50	∅20 → ∅70
Quality	☆☆	☆☆	☆☆	☆☆	☆☆☆	☆☆☆
Price	€	€	€	€	€	€
Pages	1 92 - 93	1 94	1 95	1 98 - 99	1 100 - 101	1 102 - 103

Handles for pushing, pulling and carrying

Carrying



Part number	PX	PO	GPB, 712-001	712-026	PGNT	PSPT
Description	simple	with backplate	smooth handle	mushroom handle	T handle	handle for tube
Characteristics	-	load up to 60kg	smooth or threaded hole M3 → M12	threaded hole M6 → M10	M5 → M12	∅18 → ∅33
Material	steel	steel	plastic	plastic	plastic	black PVC
Ext. diameter	-	-	∅15 → ∅47	∅30 → ∅50	40 → 80	∅31 → ∅42
Quality	☆	☆☆	☆☆	☆☆	☆☆	☆☆
Price	€	€€	€	€	€	€
Pages	1 114	1 114	1 104	1 113	1 112	1 115

					
GGG, GGP	VMS	EMS	VML	EML	EMR
poignée T	vis de pression moletée	écrou moleté	vis pression à lobes	écrou à main à lobes	écrou moleté serrage rapide
male / female	male	female	male	female	female
M6 → M8	M4 → M10	M3 → M12	M6 → M12	M5 → M12	M5 → M12
plastic	stainless steel	stainless steel	polished stainless steel	polished stainless steel	steel
Ø34 → Ø48	Ø16 → Ø36	Ø12 → Ø36	Ø21 → Ø60	Ø27 → Ø60	Ø20 → Ø40
☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆
€	€€	€€	€€€	€€€	€€
1 96 - 97	1 106	1 107	1 109	1 110	1 108

Clamp levers

Allows rotation of several degrees around an axle



Part number	PCLA-M	PCLA-T	CLB-M	CLB-T	CLASS	CLASS-T
Material	plastic	plastic	Zamak	Zamak	Stainless steel	Stainless steel
Fixing diameter	threaded hole M4 → M16	threaded rod M5 → M16	threaded hole M4 → M16	threaded rod M5 → M16	threaded hole M5 → M12	threaded rod M5 → M12
Handle length (mm)	47 → 126	47 → 126	47 → 126	47 → 126	47 → 109	47 → 109
Quality	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆☆	☆☆☆☆
Price	€€	€€	€€	€€	€€€	€€€
Pages	1 70	1 71	1 72	1 73	1 74	1 75

Buyers guide

Spring latches

Manual fastening









Part number	GE5/GE18	GE14	GE1006	GP22, GP23	SRG20	SRG25
Type	elastic ring	elastic ring	elastic ring	linked springs	ajustable ring	ajustable ring
Models	standard/ miniature	with padlock- holder	hooks into slot	recommended if no joint	with catch- plate	with catch- plate
Material	steel or s/steel	steel	steel or s/steel	steel or s/steel	steel or s/steel	steel or s/steel
Max. tension	300 → 500N	500N	550N	450N	-	-
Torque (mm)	-	-	-	-	77,3 → 83	96 → 121,7
Quality	☆☆	☆☆	☆☆	☆☆	☆☆☆	☆☆☆
Price	€	€	€	€	€€	€€
Pages	1 120	1 121	1 122	1 123	1 126	1 127





Toggle clamps

For easy manual locking



Part number	SLV	SLH	SEH	SEV	SCH
Type	vertical lever	horizontal lever	horizontal stirrup	vertical stirrup	horizontal hook
Secured by	pressure	pressure	hook	hook	hook
Material	steel or s/steel	steel	steel or s/steel	steel or s/steel	steel or s/steel
Force	700 → 8000N	320 → 650N	1800 → 4500N	1800 → 4500N	1500 → 4000N
Quality	☆☆	☆☆	☆☆	☆☆	☆☆
Price	€€	€€	€€€	€€€	€€€
Pages	1 134 - 135	1 136	1 137	1 138	1 139

					
SRG40	SRG52	SVG26	SVG32	SVG39	SVG50
ajustable ring	ajustable ring	ajustable ring	ajustable ring	ajustable ring	ajustable ring
with catch-plate	with catch-plate	with catch-plate	with catch-plate	with catch-plate	with catch-plate
steel or s/steel	steel or s/steel	steel or s/steel	steel or s/steel	steel or s/steel	steel or s/steel
-	-	-	-	-	-
117,4 → 128	78 → 98	82 → 92	106,7 → 121,4	118 → 130,5	174 → 190
☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆
€€	€€	€€	€€	€€	€€
1 128	1 129	1 130	1 131	1 132	1 133

			
SLVVlok	SLVHlok	SLHVlok	SLHHlok
vertical lever with safety interlock	vertical lever with safety interlock	vertical lever with safety interlock	vertical lever with safety interlock
pressure	pressure	pressure	pressure
steel	steel	steel	steel
1350 → 5500N	1350 → 5500N	1350 → 5500N	1350 → 5500N
☆☆☆	☆☆☆	☆☆☆	☆☆☆
€€€	€€€	€€€	€€€
1 144	1 145	1 143	1 142

Buyers guide

Feet



Part number	PFC	TAD	PR	PTA	PTA-SS	PTAF
Material embase	rubber	plastic	polyamide	sheet steel	sheet s/ steel	sheet steel
Base diameter	Ø40	Ø25 → Ø55	Ø40 → Ø123	Ø50 → Ø100	Ø50 → Ø100	Ø80 → Ø100
Screw diameter	M8 à M12	M6 à M12	M8 à M30	M10 à M24	M10 à M24	M12 à M24
Articulation	fixed	swiver	swiver	articulated	articulated	articulated
Static load (N)	1800 → 3150	500 → 2500	10000 → 35000	4000 → 15000	4000 → 15000	1000 → 15000
Rubber pad	yes	no	yes	yes	yes	yes
Fittable	no	no	yes	no	no	yes
Custom made*	no	no	yes	yes	yes	yes
Quality	☆	☆	☆☆	☆☆☆	☆☆☆	☆☆☆
Price	€	€	€€	€€	€€€	€€







Pages	1 272	1 273	1 274	1 278	1 278	1 280
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Position indicator



Part number	OP3	OP6	OP2	EP7
Description	mechanical indicator	mechanical indicator	mechanical indicator	electronic indicator
Display	4 digit display	5 digit display	3 digit display	5 digit display
Shaft diameter	Ø14	Ø20	Ø8, Ø10 or Ø12	Ø20
Quality	☆☆☆	☆☆☆	☆☆☆	☆☆☆
Price	€€	€€	€€	€€€

Pages	1 164 - 165	1 166 - 167	1 162 - 163	1 170 - 171
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PAMF	PAM	PRS	PFM	PMC	PML
sheet s/ steel	massif s/steel	massif s/steel	sheet steel or s/steel	sheet steel	steel
Ø80 → Ø100	Ø30 → Ø38	Ø50 → Ø100	Ø80 → Ø100	-	Ø80 → Ø200
M12 à M24	M8 à M24	M10 à M24	M12 à M16	M8 à M16	M12 à M20
articulated	articulated	swiver	articulated	-	fixed
10000 → 15000	8000 → 9000	15000 → 55000	4500 → 9000	1900 → 23000	5000 → 35000
yes	no	yes	yes	no	yes
yes	no	no	no	yes	no
yes	yes	yes	no	no	no
☆☆☆	☆☆☆	☆☆☆☆	☆☆☆	☆☆☆	☆☆☆☆
€€€	€€	€€€	€€	€€	€€€
1 280	1 285	1 286 + 288	1 283	1 292 + 293	1 290

Multifunction display









Part number	F7-E	F7-I
Description	electronic indicator	electronic indicator
Sensor	external	internal
Quality	☆☆☆	☆☆☆
Price	€€	€€
Pages	1 175	1 174

Buyers guide

Hoist rings



Part number	ADLM	ADLF	VRS	VRM	VRSss
Fixing	threaded	threaded	threaded	threaded	threaded
Models	DIN 580	DIN 580	rotatable ring	rotatable ring	rotatable ring
Rotatable	no	no	yes	yes	yes
Type	male	female	male	female	male
Material	steel or stainless steel	steel or stainless steel	steel	steel	stainless steel
Load SWL (t)*	8,6	8,6	4,5	4,5	2,6
Ø thread	M6 to M48	M6 to M48	M6 to M30	M6 to M30	M12 to M24
Quality	☆	☆	☆☆☆	☆☆☆	☆☆☆
Price	€	€	€€	€€	€€€
Pages	1 330	1 331	1 336 - 337	1 339	1 338

					
VLBG	PPS	WBG	VLBS	VRBS	BAB-A
threaded	threaded	threaded	welded	welded	ball pin
arched	threaded hook	ring link	ring with central bearing	ring with 2 bearings	adjustable ring
yes	yes	yes	articulated	articulated	yes
male	male	male	-	-	-
steel	steel	steel	steel	steel	steel
5	8	6	10	50	0,48
M8 to M30	M12 to M36	M8 to M30	-	-	Ø10 to Ø16
☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆
€€€	€€€	€€€	€€	€€	€€€
1 342	1 345	1 344	1 340	1 341	1 332 - 333

Buyers guide

Fastener

Circlips

Keysteel



Part number	CX/CY	BFA	PAL	KK	KS
Description	external or internal	external	self locking counter nut	rectangular	bar
Standard	DIN 471 DIN 472	DIN 6795	DIN 7967	DIN 6885	-
Characteristics	shaft or bore stop component	shaft locking washer	for axial locking	type A	cut to desired length
Material	stainless steel	stainless steel	stainless steel	steel or stainless steel	steel or stainless steel
Quality	☆☆	☆☆	☆☆	☆☆	☆☆
Price	€	€	€	€	€€€
Pages	1 358 - 359	1 360	1 361	1 356	1 355





Spacers/pillars



Part number	HS	HSE	HSB	MPE	MPB
Description	hexagonal	hexagonal	hexagonal	hexagonal	hexagonal
Characteristics	female/female M3 → M4	female/female M2 → M6	female/female M2 → M6	male/female M3 → M6	male/female M2 → M5
Material	stainless steel	steel	brass	steel	brass
Quality	☆☆☆	☆☆	☆☆	☆☆	☆☆
Price	€€€	€€	€€	€€	€€
Pages	1 382	1 376 - 377	1 376 - 377	1 378 - 379	1 380 - 381

Pins

				
BETA	EP	SRP	DHX	DP, DH
hitch pin BETA	colled spring	slotted spring	extractable dowel	dowel
-	ISO 8750	ISO 8752	DIN 7979D	DIN 6325 ISO 2338
manual assembly	very high shear strength	good shear strength	easy extraction	relative positioning
steel	stainless steel	stainless steel	hardened steel	hardened steel stainless steel
☆	☆☆☆	☆☆	☆☆☆	☆☆☆
€	€€€	€€	€€€	€
1 373	1 364 - 365	1 366 - 367	1 372	1 368 - 371

			
MPS	PLS	PLN	PLB
hexagonal	cylindrical machined	cylindrical moulded	cylindrical machined
male/female M3 → M4	Ø3 → Ø4	Ø3 → Ø4	Ø2 → Ø5
stainless steel	stainless steel	nylon	brass
☆☆☆	☆☆☆	☆	☆☆
€€€	€€€	€	€
1 383	1 390	1 386 - 387	1 388 - 389

Buyers guide

Screws

Shoulder screws

Set screws

















	HSS	SHS	SHSS	HC	NTM
Part number	HSS	SHS	SHSS	HC	NTM
Diagram					
Standard	ISO 7379	-	-	DIN 916	DIN 975
Characteristics	centering or guidance by precision shoulder	centering or guidance by precision shoulder	centering or guidance by precision shoulder	force concentrated into cup lips	strong grip, won't damage the shaft
Material	hardened steel	stainless steel 303	S/steel 416 pretreated	stainless steel A2	stainless steel A2
Corrosion resistance	☆	☆☆☆	☆☆	☆☆☆	☆☆☆
Mechanical resistance	☆☆☆	☆☆	☆☆☆	☆☆	☆☆
Price	€	€€	€€€	€€	€€€
Pages	1 412 - 413	1 414 - 415	1 416 - 417	1 434 - 435	1 429

Nuts



	SHN	SHN-A	NIN	NINA	WING
Part number	SHN	SHN-A	NIN	NINA	WING
Description	hexagonal	hexagonal	hexagonal	hexagonal	butterfly
Standard	DIN 934	DIN 934	DIN 935	DIN 935	DIN 314/35
Characteristics	standard	standard	loosening anti-vibration	loosening anti-vibration	manually operated
Material	stainless steel A2	steel	stainless steel A2	steel	steel/S/steel A2
Corrosion resistance	☆☆☆	☆☆	☆☆☆	☆	☆/☆☆☆
Mechanical resistance	☆☆	☆☆	☆☆	☆☆	☆☆
Price	€	€	€€	€	€
Pages	1 438	1 438	1 439	1 439	1 440

Set screws		Assembly screws				
						
NTMBR	NTMDL	CHC	CHC/SS	FHC	BHC	VTH
						
-	-	DIN 912	DIN 912	DIN 7991	ISO 7380	DIN 933
strong grip won't damage the shaft	strong grip, won't damage the shaft	head can be countersunk	head can be countersunk	centering, head can be countersunk	round head	strong tightening
steel	steel	steel	stainless steel A2	stainless steel A2	stainless steel A2	steel
☆	☆	☆	☆☆☆	☆☆☆	☆☆☆	☆
☆☆	☆☆	☆☆☆	☆☆	☆☆	☆☆	☆☆
€	€	€	€€	€€	€€	€€
1 432 - 433 1 430 - 431		1 420 - 423 1 424 - 425		1 426 - 427		1 428 1 418 - 419

Washers



Part number	SHW	SHWA	RCX, RCC
Description	simple	simple	concave or convex
Standard	DIN 125	DIN 125	-
Characteristics	standard	standard	ensures good seating of screw-head
Material	stainless steel A2	steel	stainless steel
Corrosion resistance	☆☆☆	☆	☆☆☆
Mechanical resistance	☆☆	☆☆	☆☆
Price	€	€	€€
Pages	1 437	1 437	1 436

BALL PIN

Stainless steel



p.24

CLAMPING PIN

Stainless steel



p.36

LOCKING BOLT



p.44

POSITIONING AND INDEXING

p.24 - 67

INDEX BOLT

Stainless steel



p.53

ACTUATING PLUNGER



p.59

SPRING PLUNGER

✓ INCREASED
STOCK



p.63

Ball pin, 303 stainless steel



BABss

Fast, simple locking



- Self locking

- Materials:

Body: Stainless steel 303

Spring: Stainless steel

Handle: PA6 plastic

- Working temp: -30° to 80°C

Advantages

- Press to unlock, Quick to insert, block, change and stop
- Simply and easily released when performing repetitive operations
- Corrosion resistant
- Resists high loads
- Ergonomic handle
- Handle designed to avoid accidental blocking

Accessory

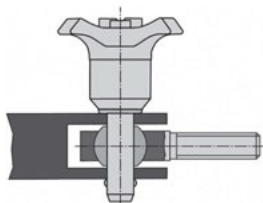
- CDR retaining cable

Options

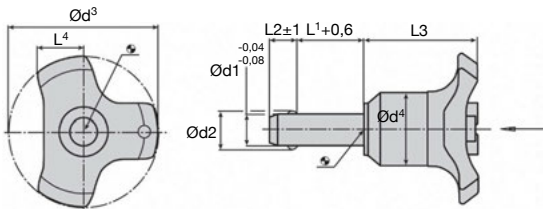
- Possibility of different colour combinations
- BAB Ball pin manufactured from hardened stainless steel (630) offers increased double shear strength

stainless steel (303)

New lower cost material



Typical application



DISCOUNTS

Qty	1+	6+	10+	25+
Disc.	List	-5%	-10%	On request

Part number	Ød ₁	l ₁	Ød ₂	Ød ₃	Ød ₄	l ₂	l ₃	l ₄	For bore (H11)	Double shear resistance (kN ^{**})	Price each. 1 to 5
BAB5-10/SS	5	10	5,5	33,2	14,5	6,0	26,7	10,8	5	14	21,11 €
BAB5-15/SS	5	15	5,5	33,2	14,5	6,0	26,7	10,8	5	14	21,11 €
BAB5-20/SS	5	20	5,5	33,2	14,5	6,0	26,7	10,8	5	14	21,11 €
BAB5-25/SS	5	25	5,5	33,2	14,5	6,0	26,7	10,8	5	14	21,11 €
BAB5-30/SS	5	30	5,5	33,2	14,5	6,0	26,7	10,8	5	14	22,28 €
BAB6-10/SS	6	10	7,0	33,2	14,5	7,0	26,7	10,8	6	21	21,18 €
BAB6-15/SS	6	15	7,0	33,2	14,5	7,0	26,7	10,8	6	21	21,18 €
BAB6-20/SS	6	20	7,0	33,2	14,5	7,0	26,7	10,8	6	21	21,18 €
BAB6-25/SS	6	25	7,0	33,2	14,5	7,0	26,7	10,8	6	21	21,18 €
BAB6-30/SS	6	30	7,0	33,2	14,5	7,0	26,7	10,8	6	21	22,28 €
BAB6-35/SS	6	35	7,0	33,2	14,5	7,0	26,7	10,8	6	21	22,28 €
BAB6-40/SS	6	40	7,0	33,2	14,5	7,0	26,7	10,8	6	21	22,28 €
BAB6-45/SS	6	45	7,0	33,2	14,5	7,0	26,7	10,8	6	21	22,28 €
BAB6-50/SS	6	50	7,0	33,2	14,5	7,0	26,7	10,8	6	21	22,28 €
BAB8-20/SS	8	20	9,6	39,2	19,3	8,2	33,3	13,4	8	38	22,87 €
BAB8-25/SS	8	25	9,6	39,2	19,3	8,2	33,3	13,4	8	38	22,87 €
BAB8-30/SS	8	30	9,6	39,2	19,3	8,2	33,3	13,4	8	38	24,65 €
BAB8-35/SS	8	35	9,6	39,2	19,3	8,2	33,3	13,4	8	38	24,65 €
BAB8-40/SS	8	40	9,6	39,2	19,3	8,2	33,3	13,4	8	38	24,65 €
BAB8-45/SS	8	45	9,6	39,2	19,3	8,2	33,3	13,4	8	38	24,65 €
BAB8-50/SS	8	50	9,6	39,2	19,3	8,2	33,3	13,4	8	38	24,65 €
BAB10-20/SS	10	20	12,0	39,2	19,3	9,6	33,3	13,4	10	60	35,75 €
BAB10-25/SS	10	25	12,0	39,2	19,3	9,6	33,3	13,4	10	60	35,75 €
BAB10-30/SS	10	30	12,0	39,2	19,3	9,6	33,3	13,4	10	60	37,46 €
BAB10-35/SS	10	35	12,0	39,2	19,3	9,6	33,3	13,4	10	60	37,46 €
BAB10-40/SS	10	40	12,0	39,2	19,3	9,6	33,3	13,4	10	60	37,46 €
BAB10-45/SS	10	45	12,0	39,2	19,3	9,6	33,3	13,4	10	60	37,46 €
BAB10-50/SS	10	50	12,0	39,2	19,3	9,6	33,3	13,4	10	60	37,46 €
BAB10-60/SS	10	60	12,0	39,2	19,3	9,6	33,3	13,4	10	60	39,43 €
BAB12-25/SS	12	25	14,5	47,6	26,3	10,6	39,7	16,7	12	87	36,37 €
BAB12-30/SS	12	30	14,5	47,6	26,3	10,6	39,7	16,7	12	87	38,05 €
BAB12-35/SS	12	35	14,5	47,6	26,3	10,6	39,7	16,7	12	87	38,05 €
BAB12-40/SS	12	40	14,5	47,6	26,3	10,6	39,7	16,7	12	87	38,05 €
BAB12-45/SS	12	45	14,5	47,6	26,3	10,6	39,7	16,7	12	87	38,05 €
BAB12-50/SS	12	50	14,5	47,6	26,3	10,6	39,7	16,7	12	87	38,05 €
BAB12-60/SS	12	60	14,5	47,6	26,3	10,6	39,7	16,7	12	87	40,03 €
BAB12-70/SS	12	70	14,5	47,6	26,3	10,6	39,7	16,7	12	87	40,03 €
BAB12-80/SS	12	80	14,5	47,6	26,3	10,6	39,7	16,7	12	87	41,72 €
BAB16-30/SS	16	30	19,0	47,6	26,3	14,0	39,7	16,7	16	155	65,08 €
BAB16-35/SS	16	35	19,0	47,6	26,3	14,0	39,7	16,7	16	155	65,08 €
BAB16-40/SS	16	40	19,0	47,6	26,3	14,0	39,7	16,7	16	155	65,08 €
BAB16-45/SS	16	45	19,0	47,6	26,3	14,0	39,7	16,7	16	155	65,08 €
BAB16-50/SS	16	50	19,0	47,6	26,3	14,0	39,7	16,7	16	155	65,08 €
BAB16-60/SS	16	60	19,0	47,6	26,3	14,0	39,7	16,7	16	155	70,17 €
BAB16-70/SS	16	70	19,0	47,6	26,3	14,0	39,7	16,7	16	155	70,17 €
BAB16-80/SS	16	80	19,0	47,6	26,3	14,0	39,7	16,7	16	155	74,33 €

** Resistance acc DIN 50141 - Dimensions in mm

- Self locking

- Materials:

Pin: Hardened stainless steel 1.4542

Spring: stainless steel

Handle: plastic (PA6)

- Working temperature: -30°C to 80°C

Advantages

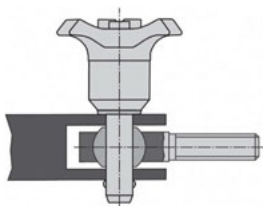
- Released by simple push action. For clamping pieces in place easily and quickly
- Quick release mechanism for repeated operations
- Hard wearing treated pin resists wear (Stainless steel 1.4542)
- Works under heavy load conditions
- Corrosion resistant
- Ergonomically designed handle avoids unintentional release

Accessories

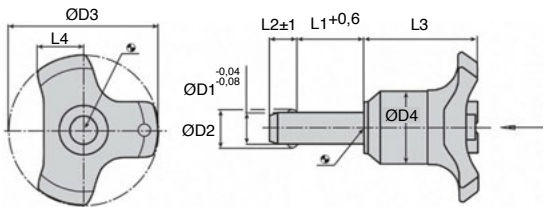
- CDR retaining cable

Options

- Many alternative colour combinations available



Example of use



DISCOUNTS

Qty	1+	6+	10+	25+
Disc.	List	-5%	-10%	On request

**Double shear strength as per DIN 50141

Part number	Ød1	l1	Ød2	Ød3	Ød4	l2	l3	l4	For bore diameter (H11)	Double shear strength (kN**)	Stock*	Price each 1 to 5
BAB5-10	5	10	5,5	33,2	14,5	6,0	26,7	10,8	5	24	✓	39,92 €
BAB5-15	5	15	5,5	33,2	14,5	6,0	26,7	10,8	5	24	-	39,92 €
BAB5-20	5	20	5,5	33,2	14,5	6,0	26,7	10,8	5	24	-	39,92 €
BAB5-25	5	25	5,5	33,2	14,5	6,0	26,7	10,8	5	24	-	39,92 €
BAB5-30	5	30	5,5	33,2	14,5	6,0	26,7	10,8	5	24	-	42,24 €
BAB6-10	6	10	7,0	33,2	14,5	7,0	26,7	10,8	6	35	-	39,92 €
BAB6-15	6	15	7,0	33,2	14,5	7,0	26,7	10,8	6	35	-	39,92 €
BAB6-20	6	20	7,0	33,2	14,5	7,0	26,7	10,8	6	35	✓	39,92 €
BAB6-25	6	25	7,0	33,2	14,5	7,0	26,7	10,8	6	35	-	39,92 €
BAB6-30	6	30	7,0	33,2	14,5	7,0	26,7	10,8	6	35	✓	42,24 €
BAB6-35	6	35	7,0	33,2	14,5	7,0	26,7	10,8	6	35	✓	42,24 €
BAB6-40	6	40	7,0	33,2	14,5	7,0	26,7	10,8	6	35	✓	42,24 €
BAB6-45	6	45	7,0	33,2	14,5	7,0	26,7	10,8	6	35	-	42,24 €
BAB6-50	6	50	7,0	33,2	14,5	7,0	26,7	10,8	6	35	✓	42,24 €
BAB8-20	8	20	9,6	39,2	19,3	8,2	33,3	10,8	8	63	-	38,61 €
BAB8-25	8	25	9,6	39,2	19,3	8,2	33,3	10,8	8	63	✓	38,61 €
BAB8-30	8	30	9,6	39,2	19,3	8,2	33,3	10,8	8	63	✓	41,29 €
BAB8-35	8	35	9,6	39,2	19,3	8,2	33,3	10,8	8	63	-	41,29 €
BAB8-40	8	40	9,6	39,2	19,3	8,2	33,3	10,8	8	63	✓	41,29 €
BAB8-45	8	45	9,6	39,2	19,3	8,2	33,3	10,8	8	63	✓	41,29 €
BAB8-50	8	50	9,6	39,2	19,3	8,2	33,3	10,8	8	63	-	41,29 €
BAB10-20	10	20	12,0	39,2	19,3	9,6	33,3	13,4	10	100	✓	67,55 €
BAB10-25	10	25	12,0	39,2	19,3	9,6	33,3	13,4	10	100	-	67,55 €
BAB10-30	10	30	12,0	39,2	19,3	9,6	33,3	13,4	10	100	✓	71,07 €
BAB10-35	10	35	12,0	39,2	19,3	9,6	33,3	13,4	10	100	✓	71,07 €
BAB10-40	10	40	12,0	39,2	19,3	9,6	33,3	13,4	10	100	✓	71,07 €
BAB10-45	10	45	12,0	39,2	19,3	9,6	33,3	13,4	10	100	-	71,07 €
BAB10-50	10	50	12,0	39,2	19,3	9,6	33,3	13,4	10	100	-	71,07 €
BAB10-60	10	60	12,0	39,2	19,3	9,6	33,3	13,4	10	100	-	74,50 €
BAB12-25	12	25	14,5	47,6	26,3	10,6	39,7	16,7	12	144	✓	69,01 €
BAB12-30	12	30	14,5	47,6	26,3	10,6	39,7	16,7	12	144	-	72,43 €
BAB12-35	12	35	14,5	47,6	26,3	10,6	39,7	16,7	12	144	✓	72,43 €
BAB12-40	12	40	14,5	47,6	26,3	10,6	39,7	16,7	12	144	✓	72,43 €
BAB12-45	12	45	14,5	47,6	26,3	10,6	39,7	16,7	12	144	-	72,43 €
BAB12-50	12	50	14,5	47,6	26,3	10,6	39,7	16,7	12	144	-	72,43 €
BAB12-60	12	60	14,5	47,6	26,3	10,6	39,7	16,7	12	144	✓	75,70 €
BAB12-70	12	70	14,5	47,6	26,3	10,6	39,7	16,7	12	144	✓	75,70 €
BAB12-80	12	80	14,5	47,6	26,3	10,6	39,7	16,7	12	144	✓	79,26 €
BAB16-30	16	30	19,0	47,6	26,3	14,0	39,7	16,7	16	257	-	123,50 €
BAB16-35	16	35	19,0	47,6	26,3	14,0	39,7	16,7	16	257	-	123,50 €
BAB16-40	16	40	19,0	47,6	26,3	14,0	39,7	16,7	16	257	-	123,50 €
BAB16-45	16	45	19,0	47,6	26,3	14,0	39,7	16,7	16	257	-	123,50 €
BAB16-50	16	50	19,0	47,6	26,3	14,0	39,7	16,7	16	257	-	123,50 €
BAB16-60	16	60	19,0	47,6	26,3	14,0	39,7	16,7	16	257	-	132,77 €
BAB16-70	16	70	19,0	47,6	26,3	14,0	39,7	16,7	16	257	-	132,77 €
BAB16-80	16	80	19,0	47,6	26,3	14,0	39,7	16,7	16	257	-	141,17 €

*Depending on availability - Dimensions in mm

Adjustable locking pin hardened steel

BAB

Locking length adjustable

- **Self locking**
- For joining two pieces or to ensure a solid contact against a corresponding support
- Manually adjustable locking length by use of a nut/counter-nut
- Material :
 - Shaft: hardened steel 1.4542
 - Spring: stainless steel
 - Adjusting nut: Silver thermoplastic
 - Counter nut: Black thermoplastic
 - Working temp range: -30°C to 80°C
- Compatible with H11 bores

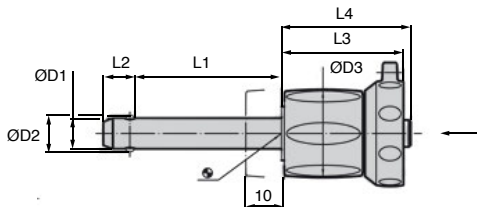
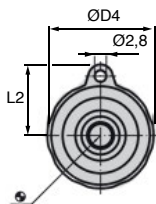
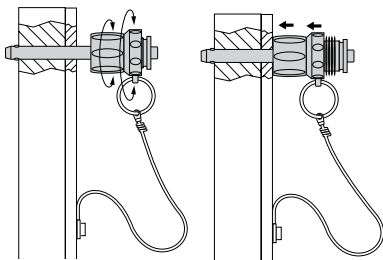


Advantages

- Corrosion free
- Wide working load
- Excellent wear resistance

Accessory

- Retaining cable CDR



DISCOUNTS

Qty	1+	6+	10+	25+
Disc.	List	-5%	-10%	On request

Part number	ØD1	L1	ØD2	ØD3	ØD4	L2	L3	L4	L5	Double shear resistance (kN min)	Weight (g)	Price each 1 to 5
BAB5-0-10	5	0-10	5.5	17.6	23.6	6.0	25.7	26.2	15.9	24	24	40.53 €
BAB5-5-15	5	0-15	5.5	17.6	23.6	6.0	25.7	26.2	15.9	24	25	43.63 €
BAB5-10-20	5	10-20	5.5	17.6	23.6	6.0	25.7	26.2	15.9	24	26	43.63 €
BAB6-15-25	5	15-25	5.5	17.6	23.6	6.0	25.7	26.2	15.9	24	27	43.82 €
BAB5-20-30	5	20-30	5.5	17.6	23.6	6.0	25.7	26.2	15.9	24	27	44.97 €
BAB6-0-10	6	0-10	7.0	17.6	23.6	7.0	25.7	26.2	15.9	35	25	43.82 €
BAB6-5-15	6	5-15	7.0	17.6	23.6	7.0	25.7	26.2	15.9	35	26	43.82 €
BAB6-10-20	6	10-20	7.0	17.6	23.6	7.0	25.7	26.2	15.9	35	27	43.82 €
BAB6-15-25	6	15-25	7.0	17.6	23.6	7.0	25.7	26.2	15.9	35	28	43.82 €
BAB6-20-30	6	20-30	7.0	17.6	23.6	7.0	25.7	26.2	15.9	35	29	46.31 €
BAB6-25-35	6	25-35	7.0	17.6	23.6	7.0	25.7	26.2	15.9	35	30	46.31 €
BAB6-30-40	6	30-40	7.0	17.6	23.6	7.0	25.7	26.2	15.9	35	31	46.31 €
BAB6-35-45	6	35-45	7.0	17.6	23.6	7.0	25.7	26.2	15.9	35	32	46.31 €
BAB6-40-50	6	40-50	7.0	17.6	23.6	7.0	25.7	26.2	15.9	63	33	46.31 €
BAB8-10-20	8	10-20	9.6	23.0	27.6	8.2	31.2	33.1	18.0	63	57	46.50 €
BAB8-15-25	8	15-25	9.6	23.0	27.6	8.2	31.2	33.1	18.0	63	58	46.50 €
BAB8-20-30	8	20-30	9.6	23.0	27.6	8.2	31.2	33.1	18.0	63	60	49.29 €
BAB8-25-35	8	25-35	9.6	23.0	27.6	8.2	31.2	33.1	18.0	63	62	49.29 €
BAB8-30-40	8	30-40	9.6	23.0	27.6	8.2	31.2	33.1	18.0	63	64	49.29 €
BAB8-35-45	8	35-45	9.6	23.0	27.6	8.2	31.2	33.1	18.0	63	66	49.29 €
BAB8-40-50	8	40-50	9.6	23.0	27.6	8.2	31.2	33.1	18.0	63	68	49.29 €
BAB10-10-20	10	10-20	12.0	23.0	27.6	9.6	31.2	33.1	18.0	100	63	58.90 €
BAB10-15-25	10	15-25	12.0	23.0	27.6	9.6	31.2	33.1	18.0	100	66	58.90 €
BAB10-20-30	10	20-30	12.0	23.0	27.6	9.6	31.2	33.1	18.0	100	69	60.67 €
BAB10-25-35	10	25-35	12.0	23.0	27.6	9.6	31.2	33.1	18.0	100	72	60.67 €
BAB10-30-40	10	30-40	12.0	23.0	27.6	9.6	31.2	33.1	18.0	100	75	60.67 €
BAB10-35-45	10	35-45	12.0	23.0	27.6	9.6	31.2	33.1	18.0	100	78	60.67 €
BAB10-40-50	10	40-50	12.0	23.0	27.6	9.6	31.2	33.1	18.0	100	81	60.67 €
BAB10-50-60	10	50-60	12.0	23.0	27.6	9.6	31.2	33.1	18.0	100	87	62.62 €
BAB12-15-25	12	15-25	14.5	29.0	34.6	10.6	36.7	39.5	21.8	144	123	61.66 €
BAB12-20-30	12	20-30	14.5	29.0	34.6	10.6	36.7	39.5	21.8	144	127	63.23 €
BAB12-25-35	12	25-35	14.5	29.0	34.6	10.6	36.7	39.5	21.8	144	131	63.23 €
BAB12-30-40	12	30-40	14.5	29.0	34.6	10.6	36.7	39.5	21.8	144	135	63.23 €
BAB12-35-45	12	35-45	14.5	29.0	34.6	10.6	36.7	39.5	21.8	144	140	63.23 €
BAB12-40-50	12	40-50	14.5	29.0	34.6	10.6	36.7	39.5	21.8	144	144	63.23 €
BAB12-50-60	12	50-60	14.5	29.0	34.6	10.6	36.7	39.5	21.8	144	152	65.18 €
BAB12-60-70	12	60-70	14.5	29.0	34.6	10.6	36.7	39.5	21.8	144	161	65.18 €
BAB12-70-80	12	70-80	14.5	29.0	34.6	10.6	36.7	39.5	21.8	144	169	67.06 €
BAB16-20-30	16	20-30	19.0	29.0	34.6	14.0	36.7	39.5	21.8	257	159	90.27 €
BAB16-25-35	16	25-35	19.0	29.0	34.6	14.0	36.7	39.7	21.8	257	166	90.27 €
BAB16-30-40	16	30-40	19.0	29.0	34.6	14.0	36.7	39.5	21.8	257	174	90.27 €
BAB16-35-45	16	35-45	19.0	29.0	34.6	14.0	36.7	39.5	21.8	257	182	90.27 €
BAB16-40-50	16	40-50	19.0	29.0	34.6	14.0	36.7	39.5	21.8	257	189	90.27 €
BAB16-50-60	16	50-60	19.0	29.0	34.6	14.0	36.7	39.5	21.8	257	205	95.31 €
BAB16-60-70	16	60-70	19.0	29.0	34.6	14.0	36.7	39.5	21.8	257	220	95.31 €
BAB16-70-80	16	70-80	19.0	29.0	34.6	14.0	36.7	39.5	21.8	257	235	99.54 €

Dimensions in mm - Shear resistance acc DIN 50141

BABS303

Compact

- **Self locking**
- **Materials:**
Shaft: Stainless steel 303
Spring: Stainless steel
- Working temp: max 150°C

Advantages

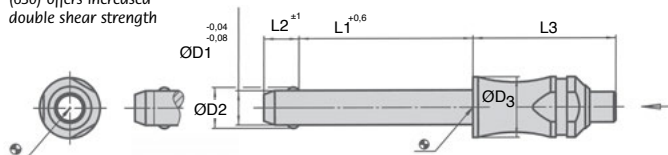
- Press to unlock, Block, Quick to insert, block, change and stop
- Simply and quickly released when performing repetitive operations
- Corrosion resistant
- Handle designed to avoid accidental blocking

Options

- BABS Ball pin manufactured from hardened stainless steel (630) offers increased double shear strength



Lower cost material

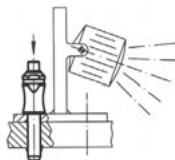
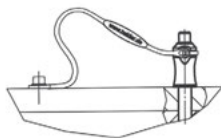
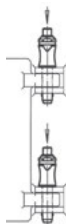


DISCOUNTS

Qty	1+	6+	10+	25+
Disc.	List	-5%	-10%	On request

Part number	Ød1	L1	Ød2	Ød3	L2	L3	For bore H11	Double shear strength (kN)	Weight (g)	Price each 1 to 5
BAB5-10/S303	5	10	5,5	10	6,0	26,2	5	14	10	17,21 €
BAB5-15/S303	5	15	5,5	10	6,0	26,2	5	14	11	17,23 €
BAB5-20/S303	5	20	5,5	10	6,0	26,2	5	14	12	17,23 €
BAB5-25/S303	5	25	5,5	10	6,0	26,2	5	14	13	17,23 €
BAB5-30/S303	5	30	5,5	10	6,0	26,2	5	14	13	18,33 €
BAB6-10/S303	6	10	7,0	10	7,0	26,2	6	21	11	17,34 €
BAB6-15/S303	6	15	7,0	10	7,0	26,2	6	21	12	17,34 €
BAB6-20/S303	6	20	7,0	10	7,0	26,2	6	21	13	17,34 €
BAB6-25/S303	6	25	7,0	10	7,0	26,2	6	21	14	17,34 €
BAB6-30/S303	6	30	7,0	10	7,0	26,2	6	21	15	19,40 €
BAB6-35/S303	6	35	7,0	10	7,0	26,2	6	21	16	19,40 €
BAB6-40/S303	6	40	7,0	10	7,0	26,2	6	21	17	19,40 €
BAB6-45/S303	6	45	7,0	10	7,0	26,2	6	21	18	19,40 €
BAB6-50/S303	6	50	7,0	10	7,0	26,2	6	21	19	19,40 €

Dimensions in mm



DISCOUNTS

Qty	1+	6+	10+	25+
Disc.	List	-5%	-10%	On request

Part number	Ød1	L1	Ød2	Ød3	L2	L3	For bore H11	Double shear strength (kN)	Weight (g)	Price each 1 to 5
BAB8-20/S303	8	20	9,6	14	8,2	33,1	8	38	33	18,71 €
BAB8-25/S303	8	25	9,6	14	8,2	33,1	8	38	34	18,71 €
BAB8-30/S303	8	30	9,6	14	8,2	33,1	8	38	36	21,01 €
BAB8-35/S303	8	35	9,6	14	8,2	33,1	8	38	38	21,01 €
BAB8-40/S303	8	40	9,6	14	8,2	33,1	8	38	40	21,01 €
BAB8-45/S303	8	45	9,6	14	8,2	33,1	8	38	42	21,01 €
BAB8-50/S303	8	50	9,6	14	8,2	33,1	8	38	44	21,01 €
BAB10-20/S303	10	20	12,0	14	9,6	33,1	10	60	39	28,53 €
BAB10-25/S303	10	25	12,0	14	9,6	33,1	10	60	42	28,53 €
BAB10-30/S303	10	30	12,0	14	9,6	33,1	10	60	45	30,12 €
BAB10-35/S303	10	35	12,0	14	9,6	33,1	10	60	48	30,12 €
BAB10-40/S303	10	40	12,0	14	9,6	33,1	10	60	51	30,12 €
BAB10-45/S303	10	45	12,0	14	9,6	33,1	10	60	54	30,12 €
BAB10-50/S303	10	50	12,0	14	9,6	33,1	10	60	57	30,12 €
BAB10-60/S303	10	60	12,0	14	9,6	33,1	10	60	63	31,60 €
BAB12-25/S303	12	25	14,5	20	10,6	39,5	12	87	84	29,12 €
BAB12-30/S303	12	30	14,5	20	10,6	39,5	12	87	88	30,52 €
BAB12-35/S303	12	35	14,5	20	10,6	39,5	12	87	92	30,52 €
BAB12-40/S303	12	40	14,5	20	10,6	39,5	12	87	96	30,52 €
BAB12-45/S303	12	45	14,5	20	10,6	39,5	12	87	101	30,52 €
BAB12-50/S303	12	50	14,5	20	10,6	39,5	12	87	105	30,52 €
BAB12-60/S303	12	60	14,5	20	10,6	39,5	12	87	113	32,00 €
BAB12-70/S303	12	70	14,5	20	10,6	39,5	12	87	122	32,00 €
BAB12-80/S303	12	80	14,5	20	10,6	39,5	12	87	130	33,28 €
BAB16-30/S303	16	30	19,0	20	14,0	39,5	16	155	120	52,03 €
BAB16-35/S303	16	35	19,0	20	14,0	39,5	16	155	127	52,03 €
BAB16-40/S303	16	40	19,0	20	14,0	39,5	16	155	135	52,03 €
BAB16-45/S303	16	45	19,0	20	14,0	39,5	16	155	143	52,03 €
BAB16-50/S303	16	50	19,0	20	14,0	39,5	16	155	150	52,03 €
BAB16-60/S303	16	60	19,0	20	14,0	39,5	16	155	166	56,08 €
BAB16-70/S303	16	70	19,0	20	14,0	39,5	16	155	181	56,08 €
BAB16-80/S303	16	80	19,0	20	14,0	39,5	16	155	196	59,55 €
BAB20-60/S303	20	60	25,0	28	20,5	50,1	20	244	322	105,35 €
BAB20-80/S303	20	80	25,0	28	20,5	50,1	20	244	370	109,60 €
BAB20-100/S303	20	100	25,0	28	20,5	50,1	20	244	414	114,96 €
BAB20-120/S303	20	120	25,0	28	20,5	50,1	20	244	466	119,32 €

Dimensions in mm

BABs

Compact

- Auto-blocking

- Material:

Pin: Hardened stainless steel (630)
with resistant finish
Spring: stainless steel

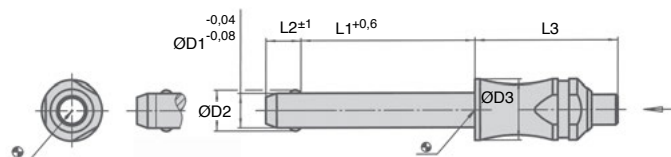
- Maximum working temperature: 250°C

Advantages

- Released by simple push action. For locking pieces in places easily and quickly
- Quick release mechanism for repeated operations
- Hard wearing treated pin resists wear (Stainless steel 1.4542)
- Works under heavy load conditions
- Corrosion resistant
- Compact size with ergonomically designed



Press to unlock

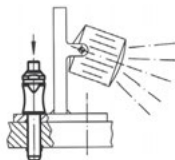
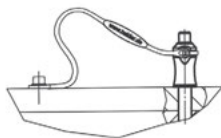
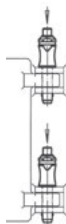


DISCOUNTS

Qty	1+	6+	10+	25+
Disc.	List	-5%	-10%	On request

Part number	ØD1	L1	ØD2	ØD3	L2	L3	Fir bore H11	Double shear strength (kN)	Weight (g)	Stock*	Price each 1 to 5
BAB5-10/S	5	10	5,5	10	6,0	26,2	5	24	15	✓	27,34 €
BAB5-15/S	5	15	5,5	10	6,0	26,2	5	24	16	✓	27,34 €
BAB5-20/S	5	20	5,5	10	6,0	26,2	5	24	17	✓	27,34 €
BAB5-25/S	5	25	5,5	10	6,0	26,2	5	24	18	-	27,34 €
BAB5-30/S	5	30	5,5	10	6,0	26,2	5	24	19	△	28,95 €
BAB6-10/S	6	10	7,0	10	7,0	26,2	6	35	17	-	27,62 €
BAB6-15/S	6	15	7,0	10	7,0	26,2	6	35	18	✓	27,62 €
BAB6-20/S	6	20	7,0	10	7,0	26,2	6	35	19	✓	27,62 €
BAB6-25/S	6	25	7,0	10	7,0	26,2	6	35	20	✓	27,62 €
BAB6-30/S	6	30	7,0	10	7,0	26,2	6	35	21	✓	30,65 €
BAB6-35/S	6	35	7,0	10	7,0	26,2	6	35	22	△	30,65 €
BAB6-40/S	6	40	7,0	10	7,0	26,2	6	35	23	△	30,65 €
BAB6-45/S	6	45	7,0	10	7,0	26,2	6	35	24	△	30,65 €
BAB6-50/S	6	50	7,0	10	7,0	26,2	6	35	25	△	30,65 €

*Depending on availability - Dimensions in mm



DISCOUNTS

Qty	1+	6+	10+	25+
Disc.	List	-5%	-10%	On request

Part number	ØD1	L1	ØD2	ØD3	L2	L3	For bore H11	Double shear strength (kN)	Weight (g)	Stock*	Prix Uni. 1 à 5
BAB8-20/S	8	20	9,6	14	8,2	33,1	8	63	23	-	29,60 €
BAB8-25/S	8	25	9,6	14	8,2	33,1	8	63	25	↗	29,60 €
BAB8-30/S	8	30	9,6	14	8,2	33,1	8	63	27	↗	33,23 €
BAB8-35/S	8	35	9,6	14	8,2	33,1	8	63	29	-	33,23 €
BAB8-40/S	8	40	9,6	14	8,2	33,1	8	63	30	↗	33,23 €
BAB8-45/S	8	45	9,6	14	8,2	33,1	8	63	32	-	33,23 €
BAB8-50/S	8	50	9,6	14	8,2	33,1	8	63	34	↗	33,23 €
BAB10-20/S	10	20	12,0	14	9,6	33,1	10	100	35	-	45,38 €
BAB10-25/S	10	25	12,0	14	9,6	33,1	10	100	37	-	45,38 €
BAB10-30/S	10	30	12,0	14	9,6	33,1	10	100	40	-	47,50 €
BAB10-35/S	10	35	12,0	14	9,6	33,1	10	100	43	-	47,50 €
BAB10-40/S	10	40	12,0	14	9,6	33,1	10	100	46	-	47,50 €
BAB10-45/S	10	45	12,0	14	9,6	33,1	10	100	49	-	47,50 €
BAB10-50/S	10	50	12,0	14	9,6	33,1	10	100	52	-	47,50 €
BAB10-60/S	10	60	12,0	14	9,6	33,1	10	100	56	-	50,06 €
BAB12-25/S	12	25	14,5	20	10,6	39,5	12	144	51	-	46,18 €
BAB12-30/S	12	30	14,5	20	10,6	39,5	12	144	55	✓	48,19 €
BAB12-35/S	12	35	14,5	20	10,6	39,5	12	144	59	-	48,19 €
BAB12-40/S	12	40	14,5	20	10,6	39,5	12	144	64	✓	48,19 €
BAB12-45/S	12	45	14,5	20	10,6	39,5	12	144	68	-	48,19 €
BAB12-50/S	12	50	14,5	20	10,6	39,5	12	144	72	↗	48,19 €
BAB12-60/S	12	60	14,5	20	10,6	39,5	12	144	80	-	50,70 €
BAB12-70/S	12	70	14,5	20	10,6	39,5	12	144	89	-	50,70 €
BAB12-80/S	12	80	14,5	20	10,6	39,5	12	144	98	-	52,99 €
BAB16-30/S	16	30	19,0	20	14,0	39,5	16	257	138	-	82,52 €
BAB16-35/S	16	35	19,0	20	14,0	39,5	16	257	147	✓	82,52 €
BAB16-40/S	16	40	19,0	20	14,0	39,5	16	257	156	↗	82,52 €
BAB16-45/S	16	45	19,0	20	14,0	39,5	16	257	165	-	82,52 €
BAB16-50/S	16	50	19,0	20	14,0	39,5	16	257	175	✓	82,52 €
BAB16-60/S	16	60	19,0	20	14,0	39,5	16	257	193	✓	88,90 €
BAB16-70/S	16	70	19,0	20	14,0	39,5	16	257	212	-	88,90 €
BAB16-80/S	16	80	19,0	20	14,0	39,5	16	257	233	-	94,25 €
BAB20-60/S	20	60	25,0	28	20,5	50,1	20	403	338	-	188,05 €
BAB20-80/S	20	80	25,0	28	20,5	50,1	20	403	388	-	193,39 €
BAB20-100/S	20	100	25,0	28	20,5	50,1	20	403	438	-	204,37 €
BAB20-120/S	20	120	25,0	28	20,5	50,1	20	403	488	-	212,49 €

*Depending on availability - Dimensions in mm

Ball pin, 303 stainless steel



BABTSS

With T handle

- Self locking

- Materials:

Shaft: Stainless steel 303

Spring: Stainless steel

Handle: Black aluminium RAL9005

Button: Black stainless steel

- Working temp: -30° to 150°C

Advantages

- Press to unlock, Block, Quick to insert, block, change and stop
- Simply and quickly released when performing repetitive operations
- Corrosion resistant
- Resists high loads
- Ergonomic handle
- Handle designed to avoid accidental blocking



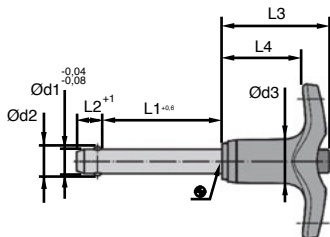
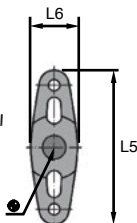
Lower cost material

Info

- Shear resistance acc DIN 50141

Options

- BABT Ball pin manufactured from hardened stainless steel (630) offers increased double shear strength

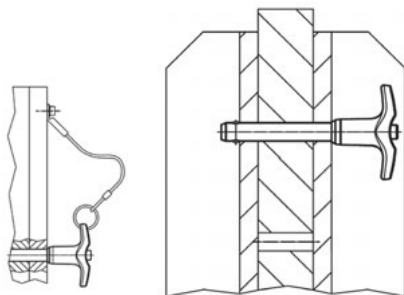


DISCOUNTS

Qty	1+	6+	10+	25+
Disc. List	-5%	-10%	On request	

Part number	Ød1	L1	Ød2	Ød3	L2	L3	L4	L5	L6	Corresponding bore H11	Double shear resistance kN min.	Weight (g)	Price each 1 to 5
BAB5-10/T/SS	5	10	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	14	19	22,54 €
BAB5-15/T/SS	5	15	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	14	20	22,54 €
BAB5-20/T/SS	5	20	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	14	20	22,87 €
BAB5-25/T/SS	5	25	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	14	21	22,87 €
BAB5-30/T/SS	5	30	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	14	22	24,48 €
BAB6-10/T/SS	6	10	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	20	23,08 €
BAB6-15/T/SS	6	15	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	21	23,08 €
BAB6-20/T/SS	6	20	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	22	23,08 €
BAB6-25/T/SS	6	25	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	23	23,08 €
BAB6-30/T/SS	6	30	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	24	24,48 €

Dimensions in mm



DISCOUNTS

Qty	1+	6+	10+	25+
Disc.	List	-5%	-10%	On request

Part number	Ød1	l1	Ød2	Ød3	l2	l3	l4	l5	l6	Corresponding bore H11	Double shear resistance kN min.	Weight (g)	Price each 1 to 5
BAB6-35/T/SS	6	35	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	25	24,12 €
BAB6-40/T/SS	6	40	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	26	24,12 €
BAB6-45/T/SS	6	45	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	27	24,48 €
BAB6-50/T/SS	6	50	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	28	24,48 €
BAB8-20/T/SS	8	20	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	37	25,17 €
BAB8-25/T/SS	8	25	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	39	25,17 €
BAB8-30/T/SS	8	30	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	41	26,86 €
BAB8-35/T/SS	8	35	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	43	26,86 €
BAB8-40/T/SS	8	40	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	44	26,86 €
BAB8-45/T/SS	8	45	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	46	26,86 €
BAB8-50/T/SS	8	50	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	48	26,86 €
BAB10-20/T/SS	10	20	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	44	37,25 €
BAB10-25/T/SS	10	25	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	47	37,25 €
BAB10-30/T/SS	10	30	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	49	39,15 €
BAB10-35/T/SS	10	35	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	52	39,15 €
BAB10-40/T/SS	10	40	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	55	39,15 €
BAB10-45/T/SS	10	45	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	58	39,15 €
BAB10-50/T/SS	10	50	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	61	39,15 €
BAB10-60/T/SS	10	60	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	67	41,11 €
BAB12-25/T/SS	12	25	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	73	37,84 €
BAB12-30/T/SS	12	30	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	77	39,84 €
BAB12-35/T/SS	12	35	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	81	39,84 €
BAB12-40/T/SS	12	40	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	86	39,84 €
BAB12-45/T/SS	12	45	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	90	39,84 €
BAB12-50/T/SS	12	50	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	94	39,84 €
BAB12-60/T/SS	12	60	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	103	41,63 €
BAB12-70/T/SS	12	70	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	111	41,63 €
BAB12-80/T/SS	12	80	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	119	43,40 €

Dimensions in mm

hardened stainless steel clamping pin

BABT

With T handle

- **Self locking**
- **Materials**
 - Shaft: Stainless steel 1.4542, precipitation hardened with scratch resistant coating
 - Spring: Stainless steel
 - Handle: Black aluminium (RAL9005)
 - Release button: Black stainless steel
- Working temperature range: -30°C to +150°C

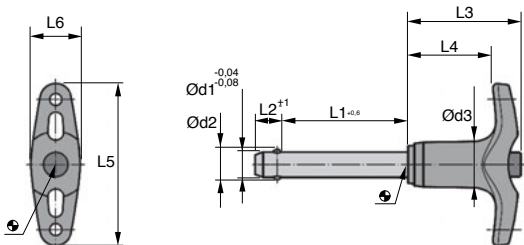


Advantages

- Push to release
- Easy and quick method of attaching, blocking, adjusting etc... Quickly and easily unlocked for frequently repeated operations.
- Corrosion resistant
- Highly resistant, anti-wear, suitable for heavy duty applications
- Can be used with the **CDR** retaining cable

Info.

- Shear resistance conforms to DIN 50141

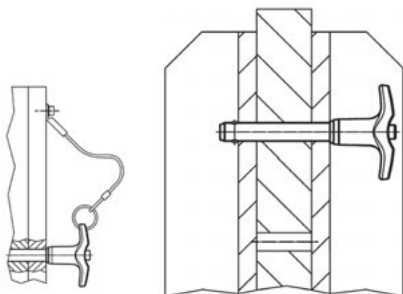


DISCOUNTS

Qty	1+	6+	10+	25+
Disc.	List	-5%	-10%	On request

Part number	Ød1	L1	Ød2	Ød3	L2	L3	L4	L5	L6	Corresponding bore H11	Double shear resistance kN min.	Weight (g)	Price each 1 to 5
BAB5-10/T	5	10	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	24	19	30,54 €
BAB5-15/T	5	15	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	24	20	30,54 €
BAB5-20/T	5	20	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	24	20	30,54 €
BAB5-25/T	5	25	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	24	21	30,54 €
BAB5-30/T	5	30	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	24	22	34,93 €
BAB6-10/T	6	10	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	20	32,88 €
BAB6-15/T	6	15	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	21	32,88 €
BAB6-20/T	6	20	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	22	32,88 €
BAB6-25/T	6	25	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	23	32,88 €
BAB6-30/T	6	30	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	24	34,93 €

Dimensions in mm



DISCOUNTS

Qty	1+	6+	10+	25+
Disc.	List	-5%	-10%	On request

Part number	Ød1	L1	Ød2	Ød3	L2	L3	L4	L5	L6	Corresponding bore H11	Double shear resistance kN min.	Weight (g)	Price each 1 to 5
BAB6-35/T	6	35	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	25	32,44 €
BAB6-40/T	6	40	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	26	32,44 €
BAB6-45/T	6	45	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	27	32,44 €
BAB6-50/T	6	50	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	28	32,44 €
BAB8-20/T	8	20	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	37	36,30 €
BAB8-25/T	8	25	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	39	35,99 €
BAB8-30/T	8	30	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	41	38,27 €
BAB8-35/T	8	35	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	43	38,27 €
BAB8-40/T	8	40	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	44	38,27 €
BAB8-45/T	8	45	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	46	38,27 €
BAB8-50/T	8	50	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	48	38,27 €
BAB10-20/T	10	20	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	44	53,08 €
BAB10-25/T	10	25	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	47	53,08 €
BAB10-30/T	10	30	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	49	55,88 €
BAB10-35/T	10	35	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	52	55,88 €
BAB10-40/T	10	40	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	55	55,88 €
BAB10-45/T	10	45	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	58	55,88 €
BAB10-50/T	10	50	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	61	55,88 €
BAB10-60/T	10	60	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	67	58,60 €
BAB12-25/T	12	25	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	73	54,16 €
BAB12-30/T	12	30	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	77	56,93 €
BAB12-35/T	12	35	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	81	56,93 €
BAB12-40/T	12	40	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	86	56,93 €
BAB12-45/T	12	45	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	90	56,93 €
BAB12-50/T	12	50	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	94	56,93 €
BAB12-60/T	12	60	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	103	59,56 €
BAB12-70/T	12	70	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	111	59,56 €
BAB12-80/T	12	80	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	119	62,19 €

Dimensions in mm

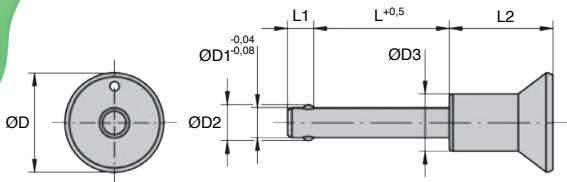
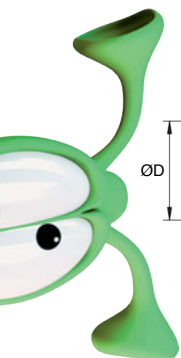
- **Self locking**
- **Materials:**
 - Body: Stainless steel 303, natural finish
 - Spring: Stainless steel 301
 - Pin: Stainless steel
- Max working temp: 250°C

Advantages

- Handle shape protects button to prevent any inadvertent operation
- Press to unlock
- Quick to insert, block, change and stop
- Simply and easily released when performing repetitive operations
- Corrosion resistant

Accessory

- CDR retaining cable



DISCOUNTS

Qty	1+	6+	10+	25+
Disc.	List	-5%	-10%	On request

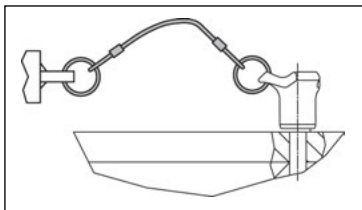
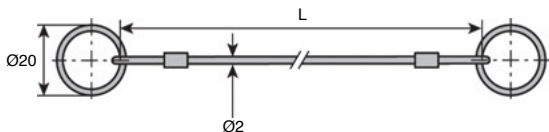
Part number	ØD	ØD1	ØD2	ØD3	L	L1	L2	For bore H11	Double shear resistance (kN)	Price each 1 to 5
BAB5-10/P/SS	25	5	5,5	14	10	6	26,5	5	15	16,62 €
BAB5-15/P/SS	25	5	5,5	14	15	6	26,5	5	15	16,93 €
BAB5-20/P/SS	25	5	5,5	14	20	6	26,5	5	15	17,23 €
BAB5-25/P/SS	25	5	5,5	14	25	6	26,5	5	15	18,51 €
BAB5-30/P/SS	25	5	5,5	14	30	6	26,5	5	15	18,79 €
BAB6-10/P/SS	25	6	6,85	14	10	7	26,5	6	22	17,71 €
BAB6-15/P/SS	25	6	6,85	14	15	7	26,5	6	22	18,30 €
BAB6-20/P/SS	25	6	6,85	14	20	7	26,5	6	22	18,74 €
BAB6-25/P/SS	25	6	6,85	14	25	7	26,5	6	22	19,14 €
BAB6-30/P/SS	25	6	6,85	14	30	7	26,5	6	22	19,83 €
BAB6-35/P/SS	25	6	6,85	14	35	7	26,5	6	22	20,32 €
BAB6-40/P/SS	25	6	6,85	14	40	7	26,5	6	22	20,76 €
BAB6-45/P/SS	25	6	6,85	14	45	7	26,5	6	22	21,68 €
BAB6-50/P/SS	25	6	6,85	14	50	7	26,5	6	22	22,16 €
BAB8-20/P/SS	25	8	9,5	14	20	8	26,5	8	38	18,92 €
BAB8-25/P/SS	25	8	9,5	14	25	8	26,5	8	38	19,31 €
BAB8-30/P/SS	25	8	9,5	14	30	8	26,5	8	38	19,68 €
BAB8-35/P/SS	25	8	9,5	14	35	8	26,5	8	38	20,09 €
BAB8-40/P/SS	25	8	9,5	14	40	8	26,5	8	38	20,47 €
BAB8-45/P/SS	25	8	9,5	14	45	8	26,5	8	38	20,88 €
BAB8-50/P/SS	25	8	9,5	14	50	8	26,5	8	38	21,26 €
BAB10-20/P/SS	33	10	12	19	20	9	34,6	10	60	20,17 €
BAB10-25/P/SS	33	10	12	19	25	9	34,6	10	60	20,44 €
BAB10-30/P/SS	33	10	12	19	30	9	34,6	10	60	20,85 €
BAB10-35/P/SS	33	10	12	19	35	9	34,6	10	60	21,21 €
BAB10-40/P/SS	33	10	12	19	40	9	34,6	10	60	21,57 €
BAB10-45/P/SS	33	10	12	19	45	9	34,6	10	60	21,89 €
BAB10-50/P/SS	33	10	12	19	50	9	34,6	10	60	23,49 €
BAB10-60/P/SS	33	10	12	19	60	9	34,6	10	60	25,34 €
BAB12-25/P/SS	33	12	14,5	19	25	10	34,6	12	86	24,65 €
BAB12-30/P/SS	33	12	14,5	19	30	10	34,6	12	86	25,17 €
BAB12-35/P/SS	33	12	14,5	19	35	10	34,6	12	86	25,65 €
BAB12-40/P/SS	33	12	14,5	19	40	10	34,6	12	86	26,15 €
BAB12-45/P/SS	33	12	14,5	19	45	10	34,6	12	86	26,64 €
BAB12-50/P/SS	33	12	14,5	19	50	10	34,6	12	86	27,64 €
BAB12-60/P/SS	33	12	14,5	19	60	10	34,6	12	86	29,69 €
BAB12-70/P/SS	33	12	14,5	19	70	10	34,6	12	86	31,80 €
BAB12-80/P/SS	33	12	14,5	19	80	10	34,6	12	86	34,01 €
BAB16-30/P/SS	33	16	19	20	30	13,3	34,6	16	153	64,22 €
BAB16-35/P/SS	33	16	19	20	35	13,3	34,6	16	153	64,63 €
BAB16-40/P/SS	33	16	19	20	40	13,3	34,6	16	153	65,06 €
BAB16-45/P/SS	33	16	19	20	45	13,3	34,6	16	153	66,75 €
BAB16-50/P/SS	33	16	19	20	50	13,3	34,6	16	153	68,58 €
BAB16-60/P/SS	33	16	19	20	60	13,3	34,6	16	153	71,11 €
BAB16-70/P/SS	33	16	19	20	70	13,3	34,6	16	153	74,50 €
BAB16-80/P/SS	33	16	19	20	80	13,3	34,6	16	153	77,87 €

Dimensions in mm

- **With fastening loops**
- **Materials:**
Cable: stainless steel with transparent PVC covering
- Rings: stainless steel
- **Maximum operating temperature:**
80°C

Info.

- This cable attaches to the **BAB** clamping pin (except BAB/S)
- Its role is to prevent it from getting lost
- This cable is used to retain BAB clamping pins in the area where they are to be used. It is secured in place with an M6 screw.



Typical application

DISCOUNTS

Qty	1+	6+	10+	25+
Disc.	List	-5%	-10%	On request

Part number	L (mm)	Weight (g)	Stock*	Price each 1 to 5
CDR-150	150	5	✓	12,19 €
CDR-200	200	5	✓	13,30 €
CDR-300	300	6	✓	13,68 €

*Depending on availability - Dimensions in mm

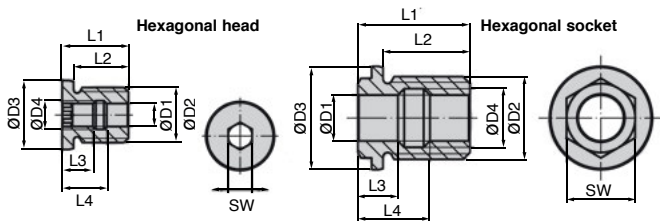
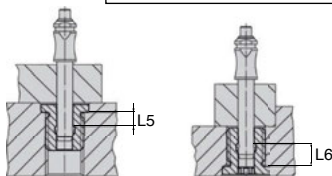
- Allows ball pins to be positioned quickly and securely
- Material:
Stainless steel 1.4305 (303)

Advantages

- Precision collar means optimised centring
- Simple and safe assembly
- Suitable for use in different materials
- Suitable for use in thin walled materials
- Corrosion resistant
- Wear resistant
- Can be mounted on either side

Simple and safe assembly

stainless steel



DISCOUNTS

Qty	1+	6+	10+	25+
Disc.	List	-5%	-10%	On request

Part number	ØD1 H11	ØD2	ØD3	ØD4	L1	L2	L3	L4	L5	L6	SW	Weight (g)	Price each 1 to 5
Hexagonal head													
BAB5-M12	5	M12	18	6,0	19	15	9,0	13,0	5,1	9,0	5	15	17,83 €
BAB6-M12	6	M12	18	7,5	19	15	9,4	13,0	5,6	8,8	6	13	17,83 €
BAB8-M16	8	M16	22	10,0	25	20	12,0	17,0	7,3	11,7	8	29	26,30 €
BAB10-M24	10	M24	30	12,5	29	24	13,5	19,5	8,9	14,1	10	75	30,53 €
BAB12-M24	12	M24	30	15,0	29	24	14,0	20,0	9,6	14,4	12	66	31,55 €
Hexagonal socket													
BAB16-M30	16	M30	36	19,5	39	29	15,5	23,5	6,1	12,8	24	124	34,73 €
BAB20-M36	20	M36	45	25,5	49	38	17,5	31,5	7,7	19,3	30	208	57,88 €

Dimensions in mm

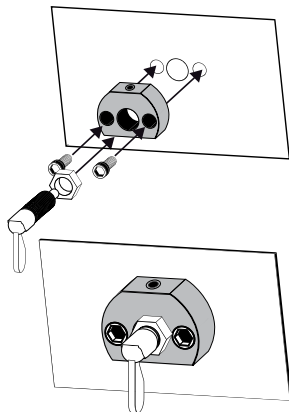
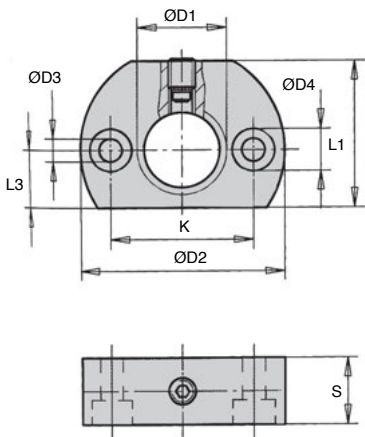
Locating bolt support bracket



SDA Mounting holes parallel to locating bolt

- Use of a support bracket allows locating bolts to be positioned quickly
- Compatible with all types of locating bolts
- Material: blackened steel

Positioned quickly



DISCOUNTS

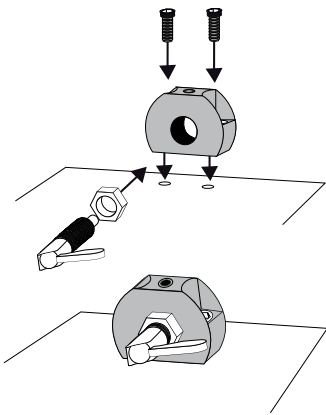
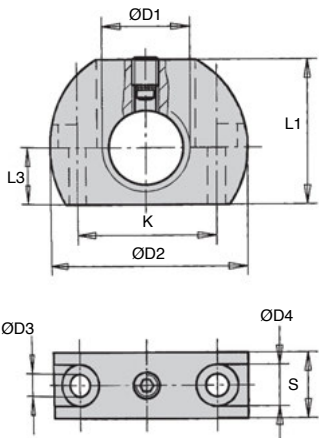
Qty	1+	6+	20+
Disc.	List	-10%	On request

Part number	ØD1	ØD2	ØD3	ØD4	K	L1	L3	S	Stock*	Price each 1 to 5
SDA12	M12	36	5,5	10	24	25	10	12	✓	11,37 €
SDA12-F	M12 x 1,5	36	5,5	10	24	25	10	12	✓	11,37 €
SDA16	M16	46	5,5	10	32	33	13	15	✓	12,31 €
SDA16-F	M16 x 1,5	46	5,5	10	32	33	13	15	✓	12,31 €
SDA20	M20	46	5,5	10	32	33	13	15	✓	15,51 €
SDA20-F	M20 x 1,5	46	5,5	10	32	33	13	15	✓	12,31 €

*Depending on availability - Dimensions in mm

- Use of a support bracket allows locating bolts to be mounted quickly or in different applications.
- Compatible with all types of locating bolts
- Material:
 - Body: blackened steel
 - Screw: brass

Positioned quickly



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-10%	On request

Part number	ØD1	ØD2	ØD3	ØD4	K	L1	L3	S	Stock*	Price each 1 to 5
SDB12	M12	36	5,5	10	24	25	10	12	✓	14,97 €
SDB12-F	M12 x 1,5	36	5,5	10	24	25	10	12	✓	14,97 €
SDB16	M16	46	5,5	10	32	33	13	15	✓	14,86 €
SDB16-F	M16 x 1,5	46	5,5	10	32	33	13	15	✓	14,86 €
SDB20	M20	46	5,5	10	32	33	13	15	✓	17,43 €
SDB20-F	M20 x 1,5	46	5,5	10	32	33	13	15	✓	14,45 €

*Depending on availability - Dimensions in mm

Materials:

- Body: Blackened steel (class 5.8)
- Handle: Powder coated steel
- Pin: Hardened steel

- Locking nut supplied

Turn to unlock

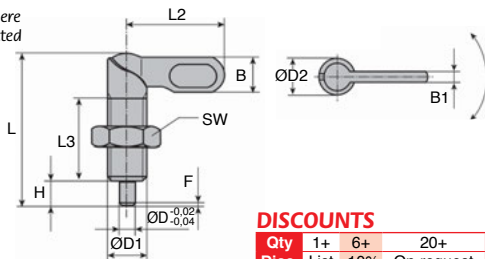


Options

- Stainless steel version
- Fine thread (on request)

Uses

- Locking bolts are used where the pin needs to be retracted completely
- Rotating the handle through 180° moves the pin between the two positions



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-10%	On request

Part number	ØD1	ØD	ØD2	L	L2	L3	B	B1	H	SW	Fx30°	Spring strength		Stock*	Price each 1 to 5
												initial F(N)	final F2(N)		
DIV12-5	M12	5	46,8	30	25	25	10,8	3,6	8	19	1,3	8	15	✓	16,29 €
DIV12x1.5-5	M12x1.5	5	46,8	30	25	25	10,8	3,6	8	19	1,3	8	15	-	16,29 €
DIV12-6	M12	6	46,8	30	25	25	10,8	3,6	8	19	1,8	8	15	✓	16,29 €
DIV12x1.5-6	M12x1.5	6	46,8	30	25	25	10,8	3,6	8	19	1,8	8	15	-	16,29 €
DIV12-8	M12	8	46,8	30	25	25	10,8	3,6	8	19	2,3	8	15	✓	16,29 €
DIV12x1.5-8	M12x1.5	8	46,8	30	25	25	10,8	3,6	8	19	2,3	8	15	-	16,29 €
DIV16-6	M16	6	60,4	40	32	32	14,4	4,8	10	24	1,8	15	35	✓	19,53 €
DIV16x1.5-6	M16x1.5	6	60,4	40	32	32	14,4	4,8	10	24	1,8	15	35	-	19,53 €
DIV16-8	M16	8	60,4	40	32	32	14,4	4,8	10	24	2,3	15	35	✓	19,53 €
DIV16x1.5-8	M16x1.5	8	60,4	40	32	32	14,4	4,8	10	24	2,3	15	35	-	19,53 €
DIV16-10	M16	10	60,4	40	32	32	14,4	4,8	10	24	2,8	15	35	✓	19,53 €
DIV16x1.5-10	M16x1.5	10	60,4	40	32	32	14,4	4,8	10	24	2,8	15	35	-	19,53 €
DIV20-8	M20	8	70,0	50	35	35	18,0	6,0	12	30	2,3	20	60	-	22,29 €
DIV20x1.5-8	M20x1.5	8	70,0	50	35	35	18,0	6,0	12	30	2,3	20	60	-	22,29 €
DIV20-10	M20	10	70,0	50	35	35	18,0	6,0	12	30	2,8	20	60	✓	22,29 €
DIV20x1.5-10	M20x1.5	10	70,0	50	35	35	18,0	6,0	12	30	2,8	20	60	-	22,29 €
DIV20-12	M20	12	70,0	50	35	35	18,0	6,0	12	30	3,0	20	60	✓	22,29 €
DIV20x1.5-12	M20x1.5	12	70,0	50	35	35	18,8	6,0	12	30	3,0	20	60	-	22,29 €

*Depending on availability - Dimensions in mm

Turn to unlock

DIVss

- **Material:** Stainless steel

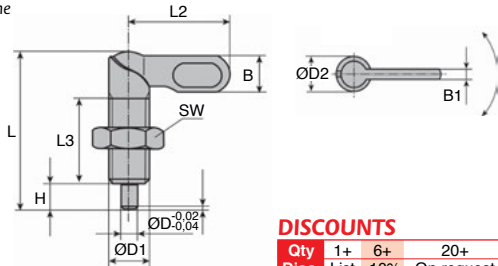
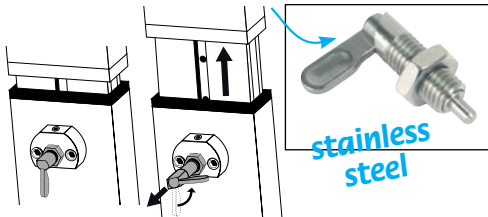
- Locking nut supplied

Options

- Fine thread (on request)

Uses

- Locking bolts are used where the pin needs to be retracted completely
- Rotating the handle through 180° moves the pin between the two positions



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-10%	On request

Part number	ØD1	ØD	ØD2	L	L2	L3	B	B1	H	SW	F _{x30°}	Spring strength		Price each 1 to 5	
												initial F(N)	final F2(N)		
DIV12-5/SS	M12	5	12	46,8	30	25	10,8	3,6	8	19	1,3	8	15	✓	22,10 €
DIV12x1.5-5/SS	M12x1.5	5	12	46,8	30	25	10,8	3,6	8	19	1,3	8	15	-	22,10 €
DIV12-6/SS	M12	6	12	46,8	30	25	10,8	3,6	8	19	1,8	8	15	✓	22,10 €
DIV12x1.5-6/SS	M12x1.5	6	12	46,8	30	25	10,8	3,6	8	19	1,8	8	15	-	22,10 €
DIV12-8/SS	M12	8	12	46,8	30	25	10,8	3,6	8	19	2,3	8	15	✓	22,10 €
DIV12x1.5-8/SS	M12x1.5	8	12	46,8	30	25	10,8	3,6	8	19	2,3	8	15	-	22,10 €
DIV16-6/SS	M16	6	16	60,4	40	32	14,4	4,8	10	24	1,8	15	35	✓	24,81 €
DIV16x1.5-6/SS	M16x1.5	6	16	60,4	40	32	14,4	4,8	10	24	1,8	15	35	-	24,81 €
DIV16-8/SS	M16	8	16	60,4	40	32	14,4	4,8	10	24	2,3	15	35	✓	24,81 €
DIV16x1.5-8/SS	M16x1.5	8	16	60,4	40	32	14,4	4,8	10	24	2,3	15	35	-	24,81 €
DIV16-10/SS	M16	10	16	60,4	40	32	14,4	4,8	10	24	2,8	15	35	✓	24,81 €
DIV16x1.5-10/SS	M16x1.5	10	16	60,4	40	32	14,4	4,8	10	24	2,8	15	35	-	24,81 €
DIV20-8/SS	M20	8	20	70,0	50	35	18,0	6,0	12	30	2,3	20	60	-	30,89 €
DIV20x1.5-8/SS	M20x1.5	8	20	70,0	50	35	18,0	6,0	12	30	2,3	20	60	-	30,89 €
DIV20-10/SS	M20	10	20	70,0	50	35	18,0	6,0	12	30	2,8	20	60	✓	30,89 €
DIV20x1.5-10/SS	M20x1.5	10	20	70,0	50	35	18,0	6,0	12	30	2,8	20	60	-	30,89 €
DIV20-12/SS	M20	12	20	70,0	50	35	18,0	6,0	12	30	3,0	20	60	✓	30,89 €
DIV20x1.5-12/SS	M20x1.5	12	20	70,0	50	35	18,0	6,0	12	30	3,0	20	60	-	30,89 €

*Depending on availability - Dimensions in mm

Lever operated locking bolt



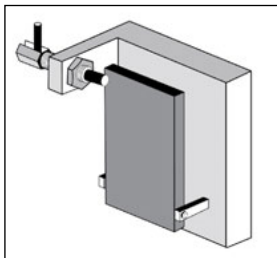
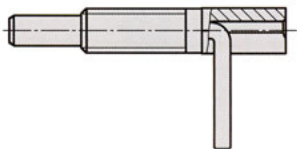
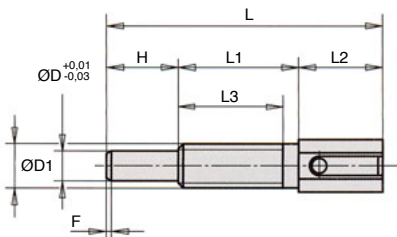
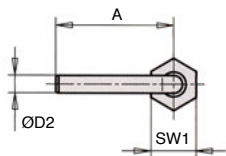
DIL

Lift the lever to unlock

- Locking bolt
- Material: steel (class 5.8)
- Finish: blue zinc plated

Info.

- Locking bolts can be used where lateral movement needs to be restricted
- Raising the lever unlocks the bolt



Typical application: locking

DISCOUNTS

Qty	1+	6+	20+
Disc.	List -10%	On request	

Part number	ØD	ØD1	ØD2	L	L1	L2	L3	H	A	SW1	Fx30°	Spring strength			Price each 1 to 5	
												initial F1 (N)	final F2 (N)	Tightening Force max (Nm)		
DIL6	4	M6	2,3	41,5	20,0	12,0	17,0	9,5	15,5	6	0,7	3	10	1,6	✓	7,95 €
DIL10	6	M10	3,5	65,0	33,5	17,5	30,0	14,0	22,9	10	1,1	4	16	10,0	✓	8,51 €
DIL12	8	M12	4,7	73,0	31,8	22,2	28,0	19,0	31,2	12	1,3	4	22	13,0	✓	9,25 €
DIL16	10	M16	4,7	102,5	50,5	27,0	44,5	25,0	32,7	16	1,6	4	23	42,0	✓	11,05 €

*Depending on availability - Dimensions in mm

- Materials:

Steel version

Body : steel (class 5.8)

Pin: hardened steel

Stainless steel version

Body: stainless steel 303

Pin: Hardened stainless steel 420

Ring: Stainless steel 301

- Finish: Steel version

Pin: hardened, ground and blackened

Stainless steel version

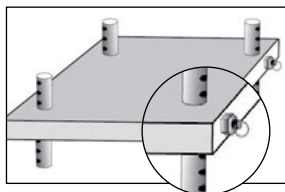
Pin : hardened , polished and ground



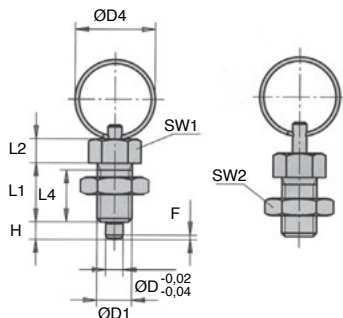
Info.

- Index bolts are used whenever lateral movement needs to be blocked. Once released, another position can be set.

- The ring allows the unlocking action to be automated; by using pneumatic cylinder for example or some other remote control mechanism.



Typical application



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-10%	On request

Part number	ØD	ØD1	ØD4	L1	L2	L4	H	SW1	SW2	Fx30°	Spring strength			Price each 1 to 5
											F1 (N)	F2 (N)	Stock*	
Steel, hardened steel pin														
DIA8-4	4	M8x1,0	15	15	6	13	4	10	13	1,0	6	12	✓	9,69 €
DIA10-5	5	M10x1,0	23	17	7	15	5	13	17	1,3	5	12	✓	9,23 €
DIA12-6	6	M12x1,5	23	20	8	17	6	14	19	1,8	6	14	✓	10,25 €
DIA16-8	8	M16x1,5	28	26	10	23	8	19	24	2,3	15	35	✓	13,66 €
DIA20-10	10	M20x1,5	28	28	12	25	10	22	30	2,8	15	40	✓	19,45 €
Stainless steel, hardened stainless steel pin														
DIA8-4/SS	4	M8x1,0	15	15	6	13	4	10	13	1,0	6	12	✓	16,95 €
DIA10-5/SS	5	M10x1,0	23	17	7	15	5	13	17	1,3	5	12	✓	16,15 €
DIA12-6/SS	6	M12x1,5	23	20	8	17	6	14	19	1,8	6	14	✓	18,98 €
DIA16-8/SS	8	M16x1,5	28	26	10	23	8	19	24	2,3	15	35	✓	25,35 €
DIA20-10/SS	10	M20x1,5	28	28	12	25	10	22	30	2,8	15	40	✓	41,90 €

*Depending on availability - Dimensions in mm

Index plunger with pull ring

PPJ

With horizontal flange

- **Mounting flange with screw holes**

- **Materials:**

Body: Zamak with black plastic coating

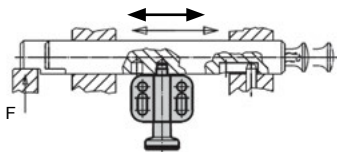
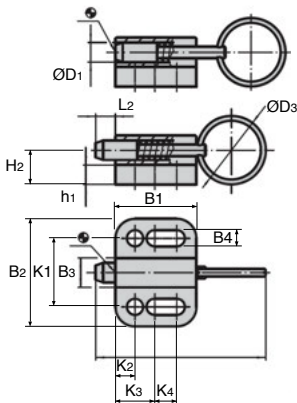
Pin: Stainless steel 1.4305

Pull ring: Stainless steel 1.4305

- **Working temp range:** -30 /+100 °C

Info

- Thanks to the pull ring, it is possible to automate the index plunger with, for example, a pneumatic actuator or remote control



Typical application

DISCOUNTS

Qty	1+	6+	20+	50+
Disc. List	-5%	-10%	On request	

Part number	Locking	ØD1	ØD3	B1	B2	B3	B4 (-0,2)	h1	h2
PPJ4-16-22	Without	4	14	16,5	22	6	3,3	4	7
PPJ5-22-28	Without	5	18	22	28	8	4,3	4,5	9,5
PPJ6-27-32	Without	6	24	27,5	32	10	5,4	5	10,5
PPJ8-33-34	Without	8	30	33	34	12	5,4	6	12,5

Part number	K1 (+/-0,05)	K2	K3	K4	L1	L2	Pressure F1 (N)	Pressure F2 (N)	Weight (g)	Price each 1 to 5
PPJ4-16-22	14	4	8	4,5	34,5	4	3	12	10	7,06 €
PPJ5-22-28	18	5	10	7	45	5	5	24	20	7,36 €
PPJ6-27-32	21	5,5	12	10	57,5	6	5	21	40	8,28 €
PPJ8-33-34	23	5,5	12	15,5	71	8	6	22	58	8,93 €

Dimensions in mm

Index plunger

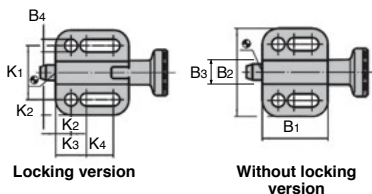
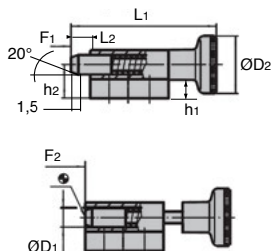
With horizontal flange

PPG
PPH

- **Mounting flange with screw holes**
- **Materials:**
 - Body: Zamak with black plastic coating
 - Pin: Stainless steel i.4305
 - Button : PA6 with black matt finish
- Working temp range: -30 /+80 °C

Info

- For the locking version, if the button is pulled and turned through 90°, the pin retained by a notch



DISCOUNTS

Qty	1+	6+	20+	50+
Disc.	List	-5%	-10%	On request

Part number	Locking	ØD1	ØD2	B1	B2	B3	B4 (-0,2)	h1	h2
PPG4-16-22	Without	4	12	16,5	22	6	3,3	4	7
PPG5-22-28	Without	5	16	22	28	8	4,3	4,5	9,5
PPG6-27-32	Without	6	18	27,5	32	10	5,4	5	10,5
PPG8-33-34	Without	8	21	33	34	12	5,4	6	12,5
PPH4-19-22	With	4	12	19	22	6	3,3	4	7
PPH5-25-28	With	5	16	25,5	28	8	4,3	4,5	9,5
PPH6-30-32	With	6	18	30,5	32	10	5,4	5	10,5
PPH8-37-34	With	8	21	37,5	34	12	5,4	6	12,5

Part number	K1 (+/-0,05)	K2	K3	K4	L1	L2	Pressure F1 (N)	Weight F2 (N)	Price each 1 to 5	
PPG4-16-22	14	4	8	4,5	30,5	4	3	12	11	7,44 €
PPG5-22-28	18	5	10	7	40	5	5	24	20	7,98 €
PPG6-27-32	21	5,5	12	10	49	6	5	21	37	9,16 €
PPG8-33-34	23	5,5	12	15,5	59	8	6	22	61	10,29 €
PPH4-19-22	14	4	8	4,5	33	4	3	12	10	7,49 €
PPH5-25-28	18	5	10	10,5	43,5	5	5	24	26	7,98 €
PPH6-30-32	21	5,5	12	13	52	6	5	21	40	9,16 €
PPH8-37-34	23	5,5	12	20	63,5	8	6	22	67	10,37 €

Dimensions in mm

Clamping pin for sheets

Stock

PPD

With or without locking

- For sheet or thin walled workpieces

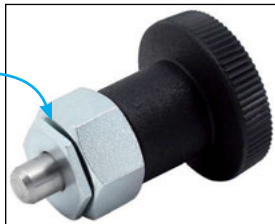
- Material:

Polyamide knurled knob,
matt surface finish

Body: Chromed steel

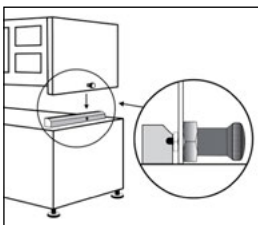
Pin: stainless steel

Location of
the thin wall

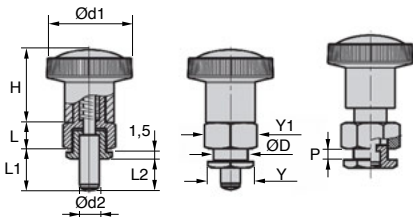


Info.

- Locking version, pull and turn to lock.



Typical application:
locking



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-10%	On request

Part number	Ød1	Ød2	L	H	L1	L2	ØD	Y	Y1	P	Weight (g)	Price each	
												Stock*	1 to 5
Non-locking													
PPD6-8	26	6	9	23	8,5	6,0	10x1,0	14	16	from 1 to 5	40	✓	22,63 €
PPD6-10	26	6	9	23	10,5	6,0	10x1,0	14	16	from 1 to 5	40	✓	22,63 €
PPD8-10	32	8	8	28	10,0	7,5	12x1,5	16	18	from 1 to 5	62	-	24,91 €
PPD8-12	32	8	8	28	12,0	7,5	12x1,5	16	18	from 1 to 5	65	✓	24,91 €
Locking													
PPD6-8/A	26	6	9	23	8,5	6,0	10x1,0	14	16	from 1 to 5	40	✓	22,63 €
PPD6-10/A	26	6	9	23	10,5	6,0	10x1,0	14	16	from 1 to 5	40	✓	22,63 €
PPD8-10/A	32	8	10	28	10,0	7,5	12x1,5	16	18	from 1 to 5	62	-	24,91 €
PPD8-12/A	32	8	10	28	12,0	7,5	12x1,5	16	18	from 1 to 5	65	-	24,91 €

*Depending on availability - Dimensions in mm

- With predrilled mounting flange

- Material:

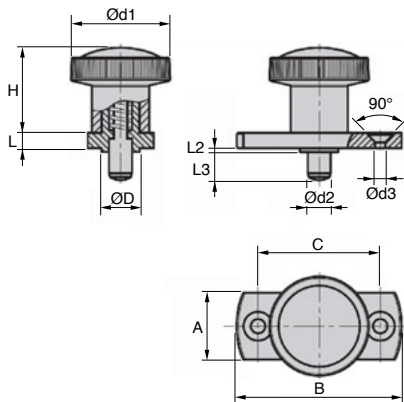
Polyamide knurled head with matt finish

Flange: Plated steel

Pin: Stainless steel

Info.

- Locking version: Pull and turn to lock

**DISCOUNTS**

Qty	1+	6+	20+
Disc.	List	-10%	On request

Part number	Ød1	Ød2	L	H	L3	ØD	L2	A	B	C	Ød3	Weight (g)	Stock*	Price each 1 to 5
Non-locking														
PPF6-6	26	6	5	23	6	10	2	16	42	30	4,30	40,9	✓	36,01 €
PPF6-14	26	6	5	23	14	10	2	16	42	30	4,30	41,9	✓	36,01 €
PPF8-8	32	8	6	28	8	12	2	20	50	34	5,30	71,4	✓	39,67 €
PPF8-18	32	8	6	28	18	12	2	20	50	34	5,30	74,4	✓	39,67 €
Locking														
PPF6-6/A	26	6	5	23	6	10	2	16	42	30	4,30	40,9	✓	34,61 €
PPF6-14/A	26	6	5	23	14	10	2	16	42	30	4,30	42,9	✓	34,61 €
PPF8-8/A	32	8	6	28	8	12	2	20	50	34	5,30	72,4	-	38,09 €
PPF8-18/A	32	8	6	28	18	12	2	20	50	34	5,30	73,4	✓	38,09 €

*Depending on availability - Dimensions in mm

Steel index bolt



SLB

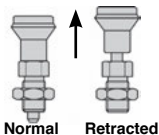
Pull to unlock

- **Manual indexing bolt**
- Exists in 4 different versions
- **Materials:**
 - Bolt: Glass reinforced polyamide
 - Body: Blackened steel (class 5.8)
 - Tip: Hardened steel
 - Spring: Steel
- Working temp: -50°C to +130°C



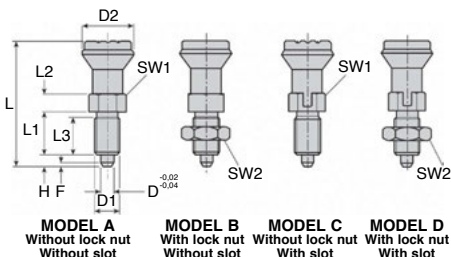
Uses

- Locating and indexing
- Pull to retract locking pin.
- Turn through 90° to retain (Models C + D)



Normal

Retracted



MODEL A
Without lock nut
Without slot

MODEL B
With lock nut
Without slot

MODEL C
Without lock nut
With slot

MODEL D
With lock nut
With slot

DISCOUNTS

Qty	1+	6+	20+
Disc.	List -10%	On request	On request

Part number	D	D1	D2	L	L1	L2	L3	H	SW1	SW2	F x 30°	Spring strength		Price each 1 to 5	
												initial F1 (N)	final F2 (N)		
SLB10-A	5	M10x1,0	21	47	17	7	15	5	13	-	1,3	5	12	✓	11,36 €
SLB10-B	5	M10x1,0	21	47	17	7	15	5	13	17	1,3	5	12	✓	11,73 €
SLB10-C	5	M10x1,0	21	47	17	7	15	5	13	-	1,3	5	12	✓	14,37 €
SLB10-D	5	M10x1,0	21	47	17	7	15	5	13	17	1,3	5	12	✓	14,50 €
SLB12-A	6	M12x1,5	25	56	20	8	17	6	14	-	1,8	6	14	✓	12,67 €
SLB12-B	6	M12x1,5	25	56	20	8	17	6	14	19	1,8	6	14	✓	13,05 €
SLB12-C	6	M12x1,5	25	56	20	8	17	6	14	-	1,8	6	14	✓	15,92 €
SLB12-D	6	M12x1,5	25	56	20	8	17	6	14	19	1,8	6	14	✓	16,33 €
SLB16-A	8	M16x1,5	33	74	26	10	23	8	19	-	2,3	15	35	✓	16,33 €
SLB16-B	8	M16x1,5	33	74	26	10	23	8	19	24	2,3	15	35	✓	17,43 €
SLB16-C	8	M16x1,5	33	74	26	10	23	8	19	-	2,3	15	35	✓	19,07 €
SLB16-D	8	M16x1,5	33	74	26	10	23	8	19	24	2,3	15	35	✓	20,16 €
SLB20-A	10	M20x1,5	33	80	28	12	25	10	22	-	2,8	15	40	✓	23,62 €
SLB20-B	10	M20x1,5	33	80	28	12	25	10	22	30	2,8	15	40	✓	24,73 €
SLB20-C	10	M20x1,5	33	80	28	12	25	10	22	-	2,8	15	40	✓	30,92 €
SLB20-D	10	M20x1,5	33	80	28	12	25	10	22	30	2,8	15	40	✓	32,00 €

*Depending on availability - Dimensions in mm

Pull to unlock

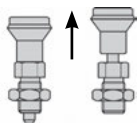
SLBss

- **Manual indexing bolt**
- Exists in 4 different versions
- **Materials:**
 - Bolt: Glass reinforced polyamide
 - Body: Stainless steel (1.4305 x 10 CrNiS 18 9)
 - Tip: Stainless steel (1.4304 x 46 Cr13)
 - Spring: Stainless steel (5.8)
- **Working temp:** -50° to +130°C

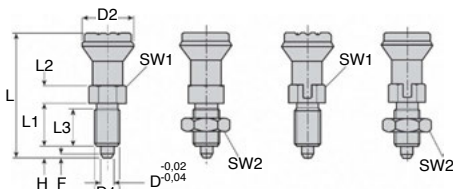


Uses

- Locating and indexing
- Pull to retract locking pin.
- Turn through 90° to retain (Models C + D)



Normal Retracted



MODEL A
Without lock nut
Without slot

MODEL B
With lock nut
Without slot

MODEL C
Without lock nut
With slot

MODEL D
With lock nut
With slot

DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-10%	On request

Part number	D	D1	D2	L	L1	L2	L3	H	SW1	SW2	Spring strength			Price each 1 to 5	
											F x 30°	initial F1 (N)	final F2 (N)		
SLB10-A/SS	5	M10 x 1,0	21	47	17	7	15	5	13	-	1,3	5	12	✓	18,58 €
SLB10-B/SS	5	M10 x 1,0	21	47	17	7	15	5	13	17	1,3	5	12	✓	20,54 €
SLB10-C/SS	5	M10 x 1,0	21	47	17	7	15	5	13	-	1,3	5	12	✓	20,93 €
SLB10-D/SS	5	M10 x 1,0	21	47	17	7	15	5	13	17	1,3	5	12	✓	22,89 €
SLB12-A/SS	6	M12 x 1,5	25	56	20	8	17	6	14	-	1,8	6	14	✓	21,92 €
SLB12-B/SS	6	M12 x 1,5	25	56	20	8	17	6	14	19	1,8	6	14	✓	24,14 €
SLB12-C/SS	6	M12 x 1,5	25	56	20	8	17	6	14	-	1,8	6	14	✓	24,69 €
SLB12-D/SS	6	M12 x 1,5	25	56	20	8	17	6	14	19	1,8	6	14	✓	26,98 €
SLB16-A/SS	8	M16 x 1,5	33	74	26	10	23	8	19	-	2,3	15	35	✓	29,13 €
SLB16-B/SS	8	M16 x 1,5	33	74	26	10	23	8	19	24	2,3	15	35	✓	32,27 €
SLB16-C/SS	8	M16 x 1,5	33	74	26	10	23	8	19	-	2,3	15	35	✓	33,62 €
SLB16-D/SS	8	M16 x 1,5	33	74	26	10	23	8	19	24	2,3	15	35	✓	36,81 €
SLB20-A/SS	10	M20 x 1,5	33	80	28	12	25	10	22	-	2,8	15	40	✓	49,80 €
SLB20-B/SS	10	M20 x 1,5	33	80	28	12	25	10	22	30	2,8	15	40	✓	53,34 €
SLB20-C/SS	10	M20 x 1,5	33	80	28	12	25	10	22	-	2,8	15	40	-	64,72 €
SLB20-D/SS	10	M20 x 1,5	33	80	28	12	25	10	22	30	2,8	15	40	✓	68,20 €

*Depending on availability - Dimensions in mm

- **Manual indexing button, smooth body, no flange**

- Two versions available.

- Material :

Body: Steel 1.0403 (suitable for welding)

Pin: Hardened steel, Resistance class 5.

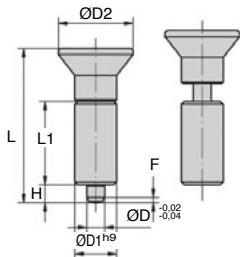
Head: Dark grey thermosetting plastic



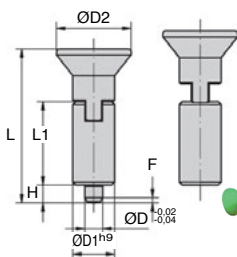
Info.

- Index bolts are used where lateral movement is required to be blocked. Pulling the handle releases the pin. The M version allows the pin to be held in the retained position.

- Bolts should be welded using a WIG inert gas process.



“L” type without retaining mechanism



“M” type without retaining mechanism

DISCOUNT

Qty	1+	6+	20+
Disc.	List	-10%	On request



Part number	ØD	ØD1	ØD2	L	L1	H	Fx30°	Spring force		Price each 1 to 5
								Initial (N)	Final (N)	
SLBW10-L	4	10	18	38,5	21	4	1,0	6	12	7,27 €
SLBW10-M	4	10	18	38,5	21	4	1,0	6	12	9,33 €
SLBW12-L	5	12	21	43,5	24	5	1,3	5	12	6,90 €
SLBW12-M	5	12	21	43,5	24	5	1,3	5	12	8,88 €
SLBW14-L	6	14	25	51,7	28	6	1,8	6	14	8,23 €
SLBW14-M	6	14	25	51,7	28	6	1,8	6	14	10,58 €
SLBW18-L	8	18	33	68,0	36	8	2,3	15	35	10,65 €
SLBW18-M	8	18	33	68,0	36	8	2,3	15	35	12,57 €
SLBW22-L	10	22	33	74,0	40	10	2,8	15	40	16,33 €
SLBW22-M	10	22	33	74,0	40	10	2,8	15	40	19,17 €

Dimensions in mm

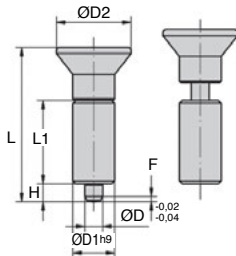
- Manual indexing button, smooth body, no flange
- Two versions available.
- Material :
 - Body: Stainless steel 303
 - Pin: Hardened stainless steel 420
 - Head: Dark grey thermosetting plastic

Info.

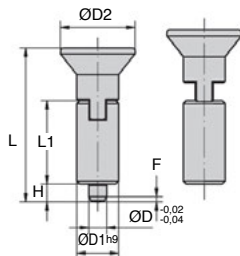
- Index bolts are used where lateral movement is required to be blocked. Pulling the handle releases the pin. With the M version, the pin can be held in the retained position.
- Bolts should be welded using a WIG inert gas process



stainless steel



“L” type without retaining mechanism



“M” type with retaining mechanism

DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-10%	On request

Part number	ØD	ØD1	ØD2	L	L1	H	Fx30°	Spring force		Price each 1 to 5
								Initial (N)	Final (N)	
SLBW10-L/SS	4	10	18	38,5	21	4	1,0	6	12	12,62 €
SLBW10-M/SS	4	10	18	38,5	21	4	1,0	6	12	15,86 €
SLBW12-L/SS	5	12	21	43,5	24	5	1,3	5	12	11,78 €
SLBW12-M/SS	5	12	21	43,5	24	5	1,3	5	12	15,10 €
SLBW14-L/SS	6	14	25	51,7	28	6	1,8	6	14	14,43 €
SLBW14-M/SS	6	14	25	51,7	28	6	1,8	6	14	18,53 €
SLBW18-L/SS	8	18	33	68,0	36	8	2,3	15	35	19,17 €
SLBW18-M/SS	8	18	33	68,0	36	8	2,3	15	35	22,63 €
SLBW22-L/SS	10	22	33	74,0	40	10	2,8	15	40	30,33 €
SLBW22-M/SS	10	22	33	74,0	40	10	2,8	15	40	35,61 €

Dimensions in mm

- Locating bolt for manual indexing applications

- Exists in 4 versions

- Material:

Body: Stainless steel 303

Pin: Hardened stainless steel 420

- Finish:

Ground and blackened

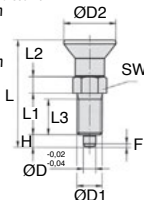
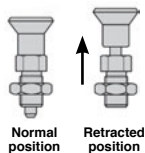
Mushroom headed button:

Electropolished finish



Info.

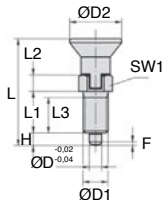
- These locating bolts can be used to restrict lateral movement. Raising the button releases the pin



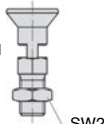
Form A
Without slot,
without lock
nut



Form B
Without slot,
with lock
nut



Form C
With slot,
without lock
nut



Form D
With slot,
with lock
nut

DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-10%	On request

Part number	ØD	ØD1	ØD2	L	L1	L2	L3	H	SW1	SW2	Spring strength				Price each 1 to 5
											F x 30°	initial (N)	final (N)	Stock	
SLBS8-A	4	M8 x 1,0	18	43,0	15	6	13	4	10	13	1,0	6	12	✓	20,50 €
SLBS8-B	4	M8 x 1,0	18	43,0	15	6	13	4	10	13	1,0	6	12	✓	22,58 €
SLBS8-C	4	M8 x 1,0	18	38,5	15	6	13	4	10	13	1,0	6	12	✓	24,63 €
SLBS8-D	4	M8 x 1,0	18	38,5	15	6	13	4	10	13	1,0	6	12	✓	27,00 €
SLBS10-A	5	M10 x 1,0	21	50,0	17	7	15	5	13	17	1,3	5	12	✓	19,50 €
SLBS10-B	5	M10 x 1,0	21	50,0	17	7	15	5	13	17	1,3	5	12	✓	21,57 €
SLBS10-C	5	M10 x 1,0	21	43,5	17	7	15	5	13	17	1,3	5	12	-	23,49 €
SLBS10-D	5	M10 x 1,0	21	43,5	17	7	15	5	13	17	1,3	5	12	✓	25,70 €
SLBS12-A	6	M12 x 1,5	25	59,0	20	8	17	6	14	19	1,8	6	14	✓	23,03 €
SLBS12-B	6	M12 x 1,5	25	59,0	20	8	17	6	14	19	1,8	6	14	✓	25,30 €
SLBS12-C	6	M12 x 1,5	25	52,0	20	8	17	6	14	19	1,8	6	14	✓	27,77 €
SLBS12-D	6	M12 x 1,5	25	52,0	20	8	17	6	14	19	1,8	6	14	✓	30,32 €
SLBS16-A	8	M16 x 1,5	33	77,0	26	10	23	8	19	24	2,3	15	35	✓	30,55 €
SLBS16-B	8	M16 x 1,5	33	77,0	26	10	23	8	19	24	2,3	15	35	✓	33,79 €
SLBS16-C	8	M16 x 1,5	33	68,0	26	10	23	8	19	24	2,3	15	35	✓	37,73 €
SLBS16-D	8	M16 x 1,5	33	68,0	26	10	23	8	19	24	2,3	15	35	✓	41,32 €
SLBS20-A	10	M20 x 1,5	33	83,0	28	12	25	10	22	30	2,6	15	40	-	52,20 €
SLBS20-B	10	M20 x 1,5	33	83,0	28	12	25	10	22	30	2,6	15	40	✓	55,88 €
SLBS20-C	10	M20 x 1,5	33	74,0	28	12	25	10	22	30	2,6	15	40	-	72,70 €
SLBS20-D	10	M20 x 1,5	33	74,0	28	12	25	10	22	30	2,6	15	40	✓	76,57 €

*Depending on availability - Dimensions in mm

Spring loaded position switch

Limit switch feedback

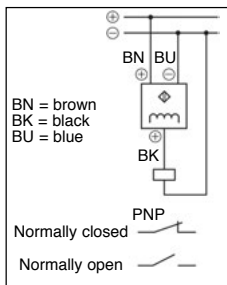
CFC

- **Threaded position switch**
- Inductive limit switch for position sensing
- Electrical characteristics:
 - Supply voltage 10 to 30V dc
 - Max switching current 200mA
 - Working temperature: -25°C to +70°C
 - Ingress protection: IP67
 - Connecting cable: Ø3.5mm, length 2m
- Materials:
 - Body: blackened steel
 - Spring: steel
 - Pin: Hardened steel

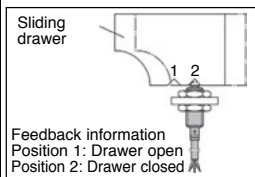
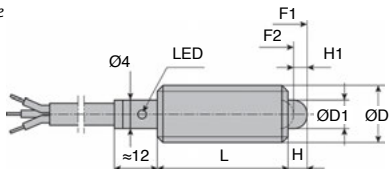


Safety

- This position switch is not suitable for use in personnel safety applications



Wiring diagram



Typical application

DISCOUNTS

Qty	1+	6+	20+
Disc. List	-5%	On request	

Part number	ØD	ØD1	L	H	H1	L1	Contact pressure (N) initial	final	Stock*	Price each 1 to 5
Type O - contact normally open										
CFC-M6-O	M6	2,5	27,0	3	2	0,5	6	20	✓	63,08 €
CFC-M8-O	M8	4,0	28,5	3	2	0,7	15	30	✓	68,71 €
CFC-M10-O	M10	4,5	32,0	4	3	1,0	9	35	✓	72,18 €
Type F - contact normally closed										
CFC-M6-F	M6	2,5	3	3	2	1,2	6	20	✓	67,91 €
CFC-M8-F	M8	4,0	3	3	2	1,5	15	30	✓	68,71 €
CFC-M10-F	M10	4,5	4	4	3	2,0	9	35	✓	72,18 €

*Depending on availability - Dimensions in mm

Spring plunger

New

PDD

With adaptor for sensor

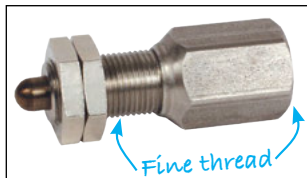
- **Spring plunger with sensor adaptor**
- specially designed for flush fitting inductive proximity sensors.
- Robust, compact design with fine pitch thread
- Switching point is adjusted via the position of the sensor
- Sensitivity of switching point can be adjusted over the entire stroke.

- Materials:

Body and pin: Stainless steel 1.4305

Spring: Stainless steel

Nut: Nickel plated brass (ISO 4035)

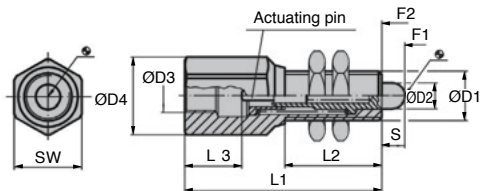


Application

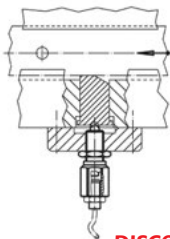
- Positioning with built in position detection

Info

- Detector not supplied



Typical application



DISCOUNTS

Qty	1+	6+	20+	50+
Disc.	List	-5%	-10%	On request

Part number	ØD1	ØD2	ØD3	ØD4	L1	L2	L3	S	SW	Pressure F1(N)	Weight F2(N)	Price each (g)	1 to 5
PDD-M12C-M8C	M12x1	6,2	M8x1	19	44	20	15,5	5,6	17	24	41,5	57	48,67 €
PDD-M16C-M12C	M16x1	8,5	M12x1	21,5	65	32	20	7,5	19	32,5	65,5	103	58,81 €

Dimensions in mm

- An actuating plunger suitable for use with a rear mounted detector
- Can be used with any type of detector
- Materials:
 - Body: Burnished steel
 - Spring: Stainless steel
 - Nut: Blackened steel (ISO 4035)
 - Detector shaft: Black nitride steel



Application

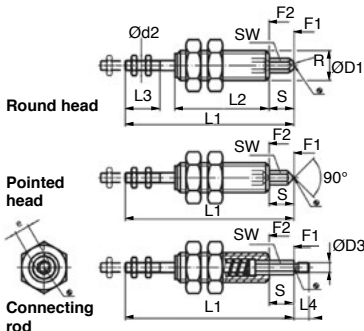
- Plunger for use in tools where detection is required

Info

- Detector not supplied



Typical application



DISCOUNTS

Qty	1+	6+	20+	50+
Disc.	List	-5%	-10%	On request

Part number	ØD1	S	ØD2	ØD3	E	L1	L2	L3	L4	R	SW	Pressure		Weight (g)	Price each 1 to 5
												F1(N)	F2(N)		
With round headed end															
PDD-M8-R	M8	6	M2,5	-	3,5	50	32	9	-	1,75	3	4,1	7,6	15	26,28 €
PDD-M10-R	M10	8	M3	-	4,6	59	35	11	-	2,3	4	5	9	28	26,93 €
PDD-M12-R	M12	10	M4	-	5,8	68	38	14	-	2,9	5	5,1	11	44	27,99 €
PDD-M16-R	M16	12	M5	-	6,9	78	42	16	-	3,5	6	7,5	13,8	87	36,11 €
With pointed end															
PDD-M8-P	M8	6	M2,5	-	3,5	50	32	9	-	-	3	4,1	7,6	14	26,28 €
PDD-M10-P	M10	8	M3	-	4,6	59	35	11	-	-	4	5	9	29	26,93 €
PDD-M12-P	M12	10	M4	-	5,8	68	38	14	-	-	5	5,1	11	44	27,99 €
PDD-M16-P	M16	12	M5	-	6,9	78	42	16	-	-	6	7,5	13,8	88	36,11 €
With a threaded connection															
PDD-M8-F	M8	6	M2,5	M2,5	3,5	50	32	9	4	-	3	4,1	7,6	15	26,28 €
PDD-M10-F	M10	8	M3	M3	4,6	59	35	11	5	-	4	5	9	29	26,93 €
PDD-M12-F	M12	10	M4	M4	5,8	68	38	14	6	-	5	5,1	11	44	27,99 €
PDD-M16-F	M16	12	M5	M5	6,9	78	42	16	7	-	6	7,5	13,8	89	36,11 €

Dimensions in mm

Spring plunger with internal hexagonal socket

With pressure pin

BSM
BSMP
BSMss

- Three versions to choose from
- Materials:
Body: blackened steel (class 5.8) or stainless steel (303)
Pin: steel, stainless steel or plastic



Steel body and pin



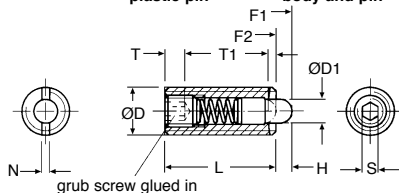
Steel body plastic pin



Stainless steel body and pin

Uses

- Locating
- Retaining



DISCOUNTS

Qty	1+	6+	20+	50+	100+	250+	400+
Disc.	List	-5%	-10%	-15%	-30%	-50%	On request

Part number	ØD	ØD1	L	H	T	T1	N	S	Pressure (N)		Price each 1 to 5	
									F1 initial	F2 final		
Steel body / steel pin												
BSM3	M3	1,0	10	1,5	1,5	1,0	0,4	0,7	0,5	3	✓	9,01 €
BSM4	M4	1,5	15	1,5	2,0	0,6	0,6	1,3	5	16	✓	6,91 €
BSM5	M5	2,4	18	2,3	2,0	0,8	0,8	1,5	6	20	✓	6,73 €
BSM6	M6	2,7	20	2,5	2,5	1,0	1,0	2,0	7	20	✓	6,97 €
BSM8	M8	3,5	22	3,0	3,0	1,4	1,2	2,5	9	35	✓	8,22 €
BSM10	M10	4,0	22	3,0	3,5	1,4	1,6	3,0	9	35	✓	9,20 €
BSM12	M12	6,0	28	4,0	5,0	2,0	2,0	4,0	10	55	✓	12,02 €
BSM16	M16	7,5	32	5,0	6,0	2,5	2,5	5,0	45	100	✓	13,27 €
BSM20	M20	10,0	40	7,0	8,0	3,0	2,5	6,0	60	120	✓	15,70 €
BSM24	M24	12,0	52	10,0	10,0	3,0	2,5	8,0	80	160	-	25,28 €
Steel body / plastic pin												
BSM4P	M4	1,5	15	1,5	2,0	1,0	0,6	1,3	5	16	✓	8,03 €
BSM5P	M5	2,4	18	2,3	2,0	0,6	0,8	1,5	6	20	✓	7,83 €
BSM6P	M6	2,7	20	2,5	2,5	0,8	1,0	2,0	7	20	✓	8,03 €
BSM8P	M8	3,5	22	3,0	3,0	1,0	1,2	2,5	9	35	✓	9,36 €
BSM10P	M10	4,0	22	3,0	3,5	1,4	1,6	3,0	9	35	-	11,20 €
BSM12P	M12	6,0	28	4,0	5,0	1,4	2,0	4,0	10	55	-	14,15 €
BSM16P	M16	7,5	32	5,0	6,0	2,0	2,5	5,0	45	100	-	17,30 €
Stainless steel body / stainless steel pin												
BSM5SS	M5	2,4	18	2,3	2,0	0,8	0,8	1,5	5	17	✓	19,83 €
BSM6SS	M6	2,7	20	2,5	2,5	1,0	1,0	2,0	6	17	✓	19,78 €
BSM8SS	M8	3,5	22	3,0	3,0	1,4	1,2	2,5	7	29	✓	22,03 €
BSM10SS	M10	4,0	22	3,0	3,5	1,4	1,6	3,0	8	31	✓	30,06 €
BSM12SS	M12	6,0	28	4,0	5,0	2,0	2,0	4,0	10	47	✓	40,70 €

*Depending on availability - Dimensions in mm

With pressure pin

BSMLOK BSMSSLOK BSMPLOK

- Screw for positioning and indexing
- Spring plunger with LONG-LOK anti-vibration treatment
- For locating and positioning
- Hexagonal socket
- Materials:
 - Body: blackened steel (class 5.8) or stainless steel (303)
 - Pin: hardened steel, hardened stainless steel or plastic
 - LONG-LOK nylon thread
- Finish:
 - Body: black oxide (steel) or polished (stainless steel)

Size	Screwing in torque (Nm)	Unscrewing torque (Nm)
M5	0.10	0.25
M6	0.25	0.45
M8	0.40	0.60
M10	0.70	0.80
M12	1.00	1.20
M16	4.20	4.30

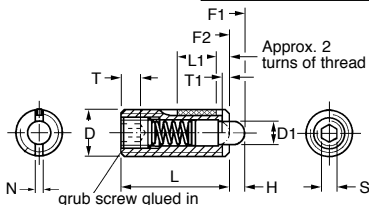


Advantages

- Vibration proof
- High torque required to unscrew
- Mounts securely in any orientation

Application

- Use where spring plungers are repeatedly installed and removed



DISCOUNTS

Qty	1+	6+	20+	50+	100+	250+	400+
Disc.	List	-5%	-10%	-15%	-20%	-25%	On request

Part number	D	D1	L	L1 ^{+0.5}	H	T	T1	N	S	Pressure (N)		Price each 1 to 5	
										F1 initial	F2 final		
Steel body / steel pin													
BSM5/LOK	M5	2.4	18	7	2.3	2.0	0.8	0.8	1.5	6	20	✓	3,75 €
BSM6/LOK	M6	2.7	20	7	2.5	2.5	1.0	1.0	2.0	7	20	✓	3,86 €
BSM8/LOK	M8	3.5	22	8	3.0	3.0	1.4	1.2	2.5	9	35	✓	4,48 €
BSM10/LOK	M10	4.0	22	9	3.0	3.5	1.4	1.6	3.0	9	35	✓	4,89 €
BSM12/LOK	M12	6.0	28	10	4.0	5.0	2.0	2.0	4.0	10	55	✓	7,93 €
BSM16/LOK	M16	7.5	32	14	5.0	6.0	2.5	2.5	5.0	45	100	-	11,05 €
Stainless steel body / stainless steel pin													
BSM5SS/LOK	M5	2.4	18	7	2.3	2.0	0.8	0.8	1.5	5	17	✓	8,49 €
BSM6SS/LOK	M6	2.7	20	7	2.5	2.5	1.0	1.0	2.0	6	17	✓	8,49 €
BSM8SS/LOK	M8	3.5	22	8	3.0	3.0	1.4	1.2	2.5	7	29	✓	9,51 €
BSM10SS/LOK	M10	4.0	22	9	3.0	3.5	1.4	1.6	3.0	8	31	✓	10,99 €
BSM12SS/LOK	M12	6.0	28	10	4.0	5.0	2.0	2.0	4.0	10	47	✓	15,94 €
Steel body / plastic pin													
BSM5P/LOK	M5	2.4	18	7	2.3	2.0	0.6	0.8	1.5	6	20	✓	4,14 €
BSM6P/LOK	M6	2.7	20	7	2.5	2.5	0.8	1.0	2.0	7	20	✓	4,36 €
BSM8P/LOK	M8	3.5	22	8	3.0	3.0	1.0	1.2	2.5	9	35	✓	4,97 €
BSM10P/LOK	M10	4.0	22	9	3.0	3.5	1.4	1.6	3.0	9	35	✓	5,72 €
BSM12P/LOK	M12	6.0	28	10	4.0	5.0	1.4	2.0	4.0	10	55	✓	8,88 €
BSM16P/LOK	M16	7.5	32	14	5.0	6.0	2.0	2.5	5.0	45	100	-	20,08 €

*Depending on availability - Dimensions in mm

Spring loaded plunger



BLM

Ball end

- **Plunger for positioning and locating**

- **Materials :**

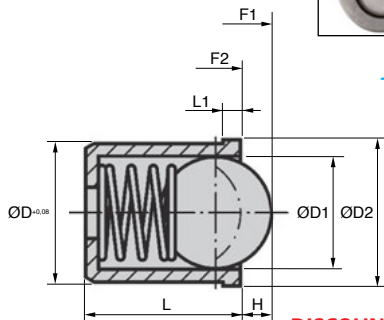
Body: Stainless steel or thermosetting plastic

Spring: Stainless steel

Ball: Stainless steel or Delrin



Ball stainless steel or Delrin



DISCOUNTS

Qty	1+	6+	20+	50+	100+	250+	400+
Disc.	List	-5%	-10%	-15%	-20%	-25%	On request

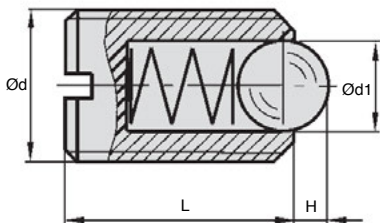
Part number	Ball	ØD	ØD1	ØD2	L	L1	H	Contact Pressure		Weight (g)	Stock*	Price each 1 to 5
								Initial F1 (N)	Final F2 (N)			
Stainless steel body												
BLM5SS	Stainless steel	5	4	5,6	6	1	1,0	4	7	0,60	✓	1,47 €
BLM6SS	Stainless steel	6	5	6,5	7	1	1,5	6	12	1,00	✓	1,68 €
BLM8SS	Stainless steel	8	6,5	8,5	9	1	1,8	6	12	2,00	✓	2,07 €
BLM10SS	Stainless steel	10	8	12,0	13,5	2,5	2,7	10	20	6,00	✓	2,68 €
BLM5P	Delrin	5	4	5,6	6	1	0,6	4	7	0,60	-	1,84 €
BLM6P	Delrin	6	5	6,5	7	1	1,1	6	12	1,00	✓	1,88 €
BLM8P	Delrin	8	6,5	8,5	9	1	1,5	6	12	2,00	✓	2,34 €
BLM10P	Delrin	10	8	12,0	13,5	2,5	2,3	10	20	6,00	✓	2,94 €
Plastic body												
BLM5PP	Stainless steel	5	4	5,6	6	1	1,0	4	7	0,40	-	0,97 €
BLM6PS	Stainless steel	6	5	6,5	7	1	1,5	6	12	0,70	✓	1,08 €
BLM8PS	Stainless steel	8	6,5	8,5	9	1	1,8	6	12	1,50	✓	1,27 €
BLM10PS	Stainless steel	10	8	12,0	13,5	2,5	2,7	10	20	3,14	✓	2,34 €
BLM5PP	Delrin	5	4	5,6	6	1	1,2	4	7	0,35	✓	1,13 €
BLM6PP	Delrin	6	5	6,5	7	1	1,5	6	12	0,66	✓	1,23 €
BLM8PP	Delrin	8	6,5	8,5	9	1	2	6	12	1,46	✓	1,44 €
BLM10PP	Delrin	10	8	12,0	13,5	2,5	2,7	10	20	1,44	-	2,73 €

*Depending on availability - Dimensions in mm

- **Positioning and locating screw**
- Slotted set screw
- Working temperature : -30°C to +50°C
- Materials :
 - Body : plastic
 - Ball : stainless steel or plastic
 - Spring : Stainless steel 1,4310



Ball Stainless steel or Delrin



INCREASED STOCK

DISCOUNTS

Qty	1+	6+	20+	50+	100+	250+	400+
Disc.	List	-5%	-10%	-15%	-20%	-25%	On request

Part number	Ød	Ød1	L	H	Pressure (N)		Stock*	Price each 1 to 5
					Initial	final		
Stainless steel ball								
BPM6Z/SS	M6	3,5	14	1,0	9	13	✓	1,61 €
BPM8Z/SS	M8	5,0	16	1,5	15	30	✓	1,98 €
BPM10Z/SS	M10	6,0	19	2,0	20	40	✓	2,34 €
Plastic ball								
BPM6Z/P	M6	3,5	14	1,0	9	13	✓	1,85 €
BPM8Z/P	M8	5,0	16	1,5	15	30	✓	2,30 €
BPM10Z/P	M10	6,0	19	2,0	20	40	-	2,53 €

Dimensions in mm

Spring plunger with slotted head

BPM

With ball tip

- Positioning and locating screw

- Materials:

- Body: steel (class 5.8)
- Ball: stainless steel 303

- Finish:

- Body: black oxide
- Ball: bright hardened

See also...

- BSM, BPM/LOK and BSM/LOK spring plungers

Applications

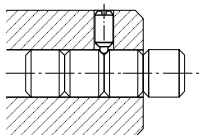
- Shaft positioning
- Locating handles and grips



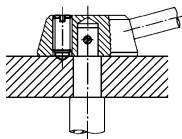
Steel version



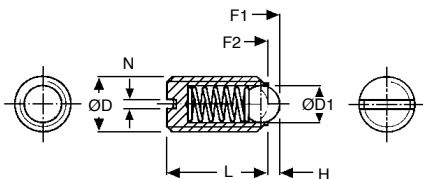
Stainless steel version



Typical application :
adjustable column



Typical application :
positioning pin



DISCOUNTS

Qty	1+	6+	20+	50+	100+	250+	400+
Disc.	List	-5%	-10%	-15%	-25%	-40%	On request

Part number	Stainless	ØD	ØD1	L	H	N	Pressure (N)		Approx weight (g)	Stock		Price each	
							F1 initial	F2 final		Steel	Stainless steel	1 to 5	Stainless steel
BPM3	BPM3SS	M3	1,5	7	0,5	0,4	1,5	3	0,2	✓	✓	2,04 €	5,72 €
BPM4	BPM4SS	M4	2,5	9	0,8	0,6	4	10	0,6	✓	✓	1,48 €	4,75 €
BPM5	BPM5SS	M5	3,0	12	0,9	0,8	6	11	0,9	✓	✓	1,48 €	4,78 €
BPM6	BPM6SS	M6	3,5	14	1,0	1,0	9	13	1,5	✓	✓	1,48 €	4,79 €
BPM8	BPM8SS	M8	5,0	16	1,5	1,2	15	30	3,5	✓	✓	2,04 €	6,32 €
BPM10	BPM10SS	M10	6,0	19	2,0	1,6	20	35	7,0	✓	✓	2,15 €	7,07 €
BPM12	BPM12SS	M12	8,0	22	2,5	2,0	30	55	10,0	✓	✓	3,36 €	8,76 €
BPM16	BPM16SS	M16	10,0	24	3,5	2,5	65	125	24,0	✓	✓	4,46 €	10,45 €
BPM20	BPM20SS	M20	12,0	30	4,5	2,5	80	160	44,3	✓	-	6,78 €	13,62 €

*Depending on availability - Dimensions in mm

- Positioning and locating screw LONG-LOK anti-vibration finish

- Materials:

Body: steel (class 5.8) or stainless steel
LONG-LOK nylon thread
Ball: stainless steel 303

- Finish:

Body: black oxide
Ball: bright hardened



Version acier



Version inox

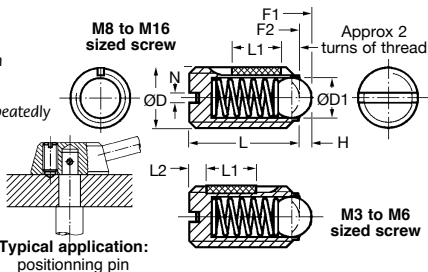
Advantages

- Vibration proof
- High torque required to unscrew
- Mounts securely in any orientation

Applications

- Use where spring plungers are repeatedly installed and removed

Size	Screwing-in torque (Nm)	Unscrewing torque (Nm)
M3	0.10	0.25
M4	0.10	0.25
M5	0.10	0.25
M6	0.25	0.45
M8	0.40	0.60
M10	0.70	0.80
M12	1.00	1.20
M16	4.20	4.30



Typical application:
positioning pin

DISCOUNTS

Qty	1+	6+	20+	50+	100+	250+	400+
Disc.	List	-5%	-10%	-15%	-25%	-40%	On request

Part number	ØD	ØD ₁	L	L ₁ ±0.5	H	N	Pressure (N)		Stock*	Price each 1 to 5
							F ₁ initial	F ₂ final		
Steel										
BPM3/LOK	M3	1,5	7	4	0,5	0,4	1,5	3	✓	6,16 €
BPM4/LOK	M4	2,5	9	5	0,8	0,6	4,0	10	✓	3,41 €
BPM5/LOK	M5	3,0	12	6	0,9	0,8	6,0	11	✓	3,53 €
BPM6/LOK	M6	3,5	14	7	1,0	1,0	9,0	13	✓	3,61 €
BPM8/LOK	M8	5,0	16	8	1,5	1,2	15,0	30	✓	4,36 €
BPM10/LOK	M10	6,0	19	9	2,0	1,6	20,0	35	✓	4,58 €
BPM12/LOK	M12	8,0	22	10	2,5	2,0	30,0	55	✓	12,57 €
BPM16/LOK	M16	10,0	24	14	3,5	2,5	65,0	125	-	16,10 €
Stainless steel										
BPM3SS/LOK	M3	1,5	7	4	0,5	0,4	1,5	3	✓	10,99 €
BPM4SS/LOK	M4	2,5	9	5	0,8	0,6	4,0	10	✓	7,55 €
BPM5SS/LOK	M5	3,0	12	6	0,9	0,8	6,0	11	✓	7,62 €
BPM6SS/LOK	M6	3,5	14	7	1,0	1,0	9,0	13	✓	7,62 €
BPM8SS/LOK	M8	5,0	16	8	1,5	1,2	15,0	30	✓	9,68 €
BPM10SS/LOK	M10	6,0	19	9	2,0	1,6	20,0	35	✓	11,10 €
BPM12SS/LOK	M12	8,0	22	10	2,5	2,0	30,0	55	-	18,55 €
BPM16SS/LOK	M16	10,0	24	14	3,5	2,5	65,0	125	-	23,28 €

*Depending on availability - Dimensions in mm

Stainless steel slotted spring plunger

BPMc

With ceramic ball tip

- **Positioning and locating screw**

- **Materials:**

Body: Stainless steel 303, natural finish

Spring: Stainless steel

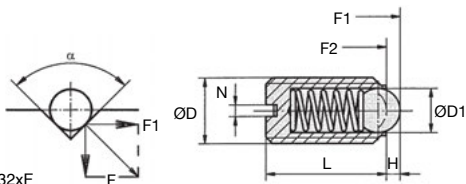
Ball: Ceramic (Si3N4)

stainless steel



Info

- Use of a Si3N4 ceramic offers high resistance and grip, is hard wearing and is chemically resistant.



$\alpha = 60^\circ$, $F1 = 1,732xF$

$\alpha = 90^\circ$, $F1 = F$

$\alpha = 120^\circ$, $F1 = 0,577xF$

DISCOUNTS

Qty	1+	6+	20+	50+	100+	250+	400+
Disc.	List	-5%	-10%	-15%	-30%	-50%	On request

Part number	ØD	ØD1	L	H	N	Pressure (N)		Weight (g)	Price each
						Initial F1	Final F2		
BPM5SS/C	M5	3	12	0,9	0,8	6	11	0,9	4,97 €
BPM6SS/C	M6	3,5	14	1	1	9	13	1,5	4,97 €
BPM8SS/C	M8	5	16	1,5	1,2	15	30	3,5	6,73 €
BPM10SS/C	M10	6	19	2	1,6	20	35	7	7,69 €
BPM12SS/C	M12	8	22	2,5	2	30	55	10	11,82 €
BPM16SS/C	M16	10	24	3,5	2,5	65	125	24	14,84 €

Dimensions in mm

Full range of

LOCATING COMPONENTS

on HPCEUROPE.COM



- Stainless steel
- Plastic
- Steel



POIGNÉE



p.76

MANIVELLE



p.78

VOLANT PLEIN



p.82

BOUTON MOLETÉ



p.92

ECROU ET VIS À OREILLES



p.96

PETIT VOLANT À 6 LOBES



p.98

**POIGNÉE
SPHÉRIQUE**



p.104

**OPERATING
ELEMENTS**
p.70 - 117

**ECROU MOLETÉ
À SERRAGE RAPIDE**



p.108

**VIS DE PRESSION
À LOBES**

stainless
steel



p.109

**POIGNÉE
THERMOPLASTIQUE**



p.112

LEVIER À CAME

stainless
steel



p.116

Clamp lever with threaded insert

PCLAM
PCLAMSS

With thread insert

- Control lever with threaded insert

- Materials:

Insert: steel (class 5.8) or stainless steel (303)

Handle: glass fibre reinforced polyamide plastic

Mechanism: splined diecast zinc

- Finish: Blackened steel

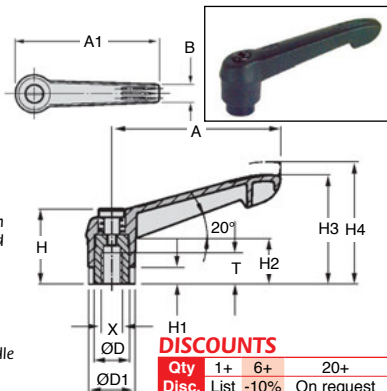
- Color : black

Uses

- The lever is normally in a locked position
- Raise the handle to release the lever and turn to required position
- When handle is released, lever will automatically lock in new position

Info.

- H4 = clearance height required for handle



Part number	Thread	X	T	ØD	ØD1	H	H1	H2
PCLA01M4	M4	9	10.0	10.0	13.0	24.5	4.0	15.0
PCLA01M5	M5	9	10.0	10.0	13.0	24.5	4.0	15.0
PCLA01M6	M6	9	10.0	10.0	13.0	24.5	4.0	15.0
PCLA02M6	M6	12	13.5	18.0	18.0	28.5	6.5	17.5
PCLA02M8	M8	12	13.5	18.0	18.0	28.5	6.5	17.5
PCLA03M8	M8	14	16.0	21.5	21.5	37.0	10.0	24.0
PCLA03M10	M10	14	16.0	21.5	21.5	37.0	10.0	24.0
PCLA04M10	M10	17	19.0	25.5	25.5	43.0	10.0	26.0
PCLA04M12	M12	17	19.0	25.5	25.5	43.0	10.0	26.0
PCLA05M12	M12	23	23.0	30.0	30.0	49.0	12.0	33.0
PCLA05M16	M16	23	23.0	30.0	30.0	49.0	12.0	33.0

Part number								Stock*			
Steel	Stainless	H3	H4	A	A1	B	Steel	StS	Steel	Stainless	
PCLA01M4	-	30.0	33.5	40	47.0	7.5	✓	-	7.50 €	-	
PCLA01M5	PCLA01M5SS	30.0	33.5	40	47.0	7.5	✓	-	8.07 €	12.64 €	
PCLA01M6	PCLA01M6SS	30.0	33.5	40	47.0	7.5	✓	-	8.07 €	12.64 €	
PCLA02M6	PCLA02M6SS	41.5	45.5	65	75.0	9.5	✓	-	9.59 €	14.87 €	
PCLA02M8	PCLA02M8SS	41.5	45.5	65	75.0	9.5	✓	✓	9.59 €	14.87 €	
PCLA03M8	PCLA03M8SS	53.5	58.0	80	91.5	11.0	✓	✓	11.77 €	18.30 €	
PCLA03M10	PCLA03M10SS	53.5	58.0	80	91.5	11.0	✓	-	11.77 €	18.30 €	
PCLA04M10	PCLA04M10SS	61.0	66.0	95	109.0	13.0	✓	-	15.01 €	26.45 €	
PCLA04M12	PCLA04M12SS	61.0	66.0	95	109.0	13.0	✓	-	15.01 €	26.45 €	
PCLA05M12	PCLA05M12SS	72.0	77.0	110	126.0	15.5	✓	-	18.15 €	31.89 €	
PCLA05M16	PCLA05M16SS	72.0	77.0	110	126.0	15.5	✓	-	18.15 €	31.89 €	

*Depending on availability - Dimensions in mm



Clamp lever

With male thread

PCLAT
PCLATss

- Clamp lever with male thread and reduced tip according to DIN 78

- Materials:

Insert: steel (class 5.8) or stainless steel (303)

Handle: glass fibre reinforced polyamide plastic

Mechanism: splined diecast zinc

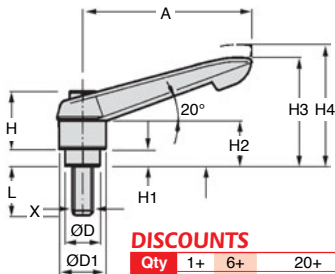
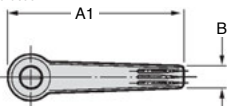
- Finish: Blackened steel, fine grained surface

- Matte surface with fine grains

- Colour: black

- Working temp.: -50°C to +130°C

With male thread



Uses

- The lever is normally in a locked position
- Raise the handle to release the lever and turn to required position
- When handle is released, lever will automatically lock in new position

Info.

- H4 = clearance height required for handle

DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-10%	On request

Part number		Threaded bolt X	H1	L			ØD	ØD1	H
Steel	Stainless			Steel	StS				
PCLA01T5	PCLA01T5SS	M5	4.0	50	25	10.0	13.0	24.5	
PCLA01T6	PCLA01T6SS	M6	4.0	50	50	10.0	13.0	24.5	
PCLA02T8	PCLA02T8SS	M8	6.5	60	60	13.5	18.0	28.5	
PCLA02T10	PCLA02T10SS	M10	6.5	60	60	13.5	18.0	28.5	
PCLA03T10	PCLA03T10SS	M10	10.0	60	60	16.0	21.5	37.0	
PCLA04T10	-	M10	10.0	90	-	19.0	25.5	43.0	
PCLA04T12	PCLA04T12SS	M12	10.0	90	60	19.0	25.5	43.0	
PCLA05T12	-	M12	12.0	90	-	23.0	30.0	49.0	
PCLA05T16	PCLA05T16SS	M16	12.0	90	60	23.0	30.0	49.0	

Part number		Stock*							Price each 1 to 5		
Steel	Stainless	A	H2	H3	H4	A1	B	Steel	StS	Steel	Stainless
PCLA01T5	PCLA01T5SS	40	15.0	30.0	33.5	47.0	7.5	✓	✓	9.83 €	13.52 €
PCLA01T6	PCLA01T6SS	40	15.0	30.0	33.5	47.0	7.5	✓	✓	9.83 €	14.53 €
PCLA02T8	PCLA02T8SS	65	17.5	41.5	45.5	75.0	9.5	✓	✓	11.46 €	17.36 €
PCLA02T10	PCLA02T10SS	65	17.5	41.5	45.5	75.0	9.5	✓	✓	11.46 €	17.36 €
PCLA03T10	PCLA03T10SS	80	24.0	53.5	58.0	91.5	11.0	✓	✓	14.14 €	21.57 €
PCLA04T10	-	95	26.0	61.0	66.0	109.0	13.0	✓	-	18.72 €	-
PCLA04T12	PCLA04T12SS	95	26.0	61.0	66.0	109.0	13.0	✓	✓	18.72 €	31.50 €
PCLA05T12	-	110	33.0	72.0	77.0	126.0	15.5	-	-	23.18 €	-
PCLA05T16	PCLA05T16SS	110	33.0	72.0	77.0	126.0	15.5	-	-	23.18 €	37.27 €

*Depending on availability - Dimensions in mm

CLB_M CLB_{MS}

With threaded insert

- Clamp lever with threaded insert

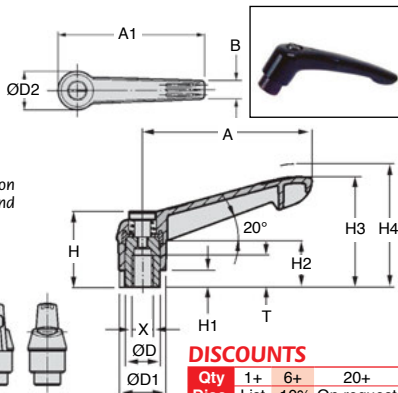
- Materials:

Handle: diecast zinc, complies with DIN 1743

- Finish:

Steel: blackened steel

Handle: black plastic coating



Uses

- The lever is normally in a locked position
- Raise the handle to release the lever and turn to required position
- When handle is released, lever will automatically lock in new position

Info.

- H4 = clearance height required for handle

DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-10%	On request

Part number	Thread		ØD	ØD1	ØD2	H	H1	H2
	X	T						
CLB01M4	M4	9	10,0	13,0	14,5	24,5	4,0	15,0
CLB01M5	M5	9	10,0	13,0	14,5	24,5	4,0	15,0
CLB01M6	M6	9	10,0	13,0	14,5	24,5	4,0	15,0
CLB02M6	M6	12	13,5	18,0	19,5	28,5	6,5	17,5
CLB02M8	M8	12	13,5	18,0	19,5	28,5	6,5	17,5
CLB03M8	M8	14	16,0	21,5	23,0	37,0	10,0	24,0
CLB03M10	M10	14	16,0	21,5	23,0	37,0	10,0	24,0
CLB04M10	M10	17	19,0	25,5	27,5	43,0	10,0	26,0
CLB04M12	M12	17	19,0	25,5	27,5	43,0	10,0	26,0
CLB05M12	M12	23	23,0	30,0	32,5	49,0	12,0	33,0
CLB05M16	M16	23	23,0	30,0	32,5	49,0	12,0	33,0

Part number	Steel		H3	H4	A	A1	B	N° of teeth	Stock*		Prix Uni. 1 à 5	
	Steel	Sts							Steel	Sts		
CLB01M4	-	-	30,0	33,5	40	47,0	7,5	16	✓	-	11,46 €	-
CLB01M5	CLB01M5SS	-	30,0	33,5	40	47,0	7,5	16	✓	-	11,46 €	16,07 €
CLB01M6	CLB01M6SS	-	30,0	33,5	40	47,0	7,5	16	✓	-	11,46 €	16,07 €
CLB02M6	CLB02M6SS	✓	41,5	45,5	65	75,0	9,5	20	✓	✓	14,48 €	19,93 €
CLB02M8	CLB02M8SS	✓	41,5	45,5	65	75,0	9,5	20	✓	-	14,48 €	19,93 €
CLB03M8	CLB03M8SS	✓	53,5	58,0	80	91,5	11,0	22	✓	-	15,82 €	22,63 €
CLB03M10	CLB03M10SS	✓	53,5	58,0	80	91,5	11,0	22	✓	-	15,82 €	22,63 €
CLB04M10	CLB04M10SS	✓	61,0	66,0	95	109,0	13,0	24	✓	-	17,90 €	29,44 €
CLB04M12	CLB04M12SS	✓	61,0	66,0	95	109,0	13,0	24	✓	✓	17,90 €	29,44 €
CLB05M12	CLB05M12SS	✓	72,0	77,0	110	126,0	15,5	26	✓	-	22,23 €	35,83 €
CLB05M16	CLB05M16SS	✓	72,0	77,0	110	126,0	15,5	26	✓	-	22,23 €	35,90 €

*Depending on availability - Dimensions in mm

With male thread

CLBT
CLBTss

- Clamp lever with male thread and flattened end according to DIN 78

- Materials:

Insert: steel (class 5.8) or

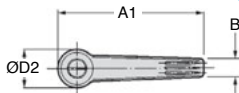
stainless steel (303)

Handle: diecast zinc,

complies with DIN 1743

- Finish: Blackened steel

With threaded shaft



Uses

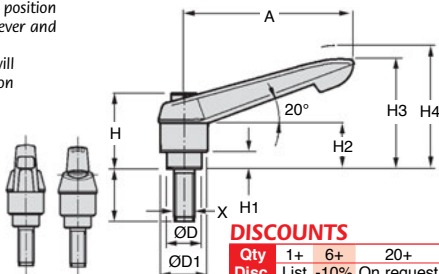
- The lever is normally in a locked position
- Raise the handle to release the lever and turn to required position
- When handle is released, lever will automatically lock in new position

Options

- Alternate lengths of threaded shaft available for orders of more than 10 pieces

Info.

- H4 = clearance height required for handle



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-10%	On request

Part number		Threaded rod X	H1	L		ØD	ØD1	ØD2
Steel	Stainless			Steel	Stainless			
CLB01T5	CLB01T5SS	M5	4,0	50	25	10,0	13,0	14,5
CLB01T6	CLB01T6SS	M6	4,0	50	50	10,0	13,0	14,5
CLB02T8	CLB02T8SS	M8	6,5	60	60	13,5	18,0	19,5
CLB02T10	CLB02T10SS	M10	6,5	60	60	13,5	18,0	19,5
CLB03T10	CLB03T10SS	M10	10,0	60	60	16,0	21,5	23,0
CLB04T10	-	M10	10,0	90	-	19,0	25,5	27,5
CLB04T12	CLB04T12SS	M12	10,0	90	60	19,0	25,5	27,5
CLB05T12	-	M12	12,0	90	-	23,0	30,0	32,5
CLB05T16	CLB05T16SS	M16	12,0	90	60	23,0	30,0	32,5

Part number		H	H2	H3	H4	A	A1	B	N° of teeth	Stock*		Price each 1 to 5	
Steel	Stainless									Steel	Sts	Steel	Stainless
CLB01T5	CLB01T5SS	24,5	15,0	30,0	33,5	40	47,0	7,5	16	✓	✓	13,26 €	17,02 €
CLB01T6	CLB01T6SS	24,5	15,0	30,0	33,5	40	47,0	7,5	16	✓	✓	13,26 €	18,30 €
CLB02T8	CLB02T8SS	28,5	17,5	41,5	45,5	65	75,0	9,5	20	✓	✓	16,40 €	22,71 €
CLB02T10	CLB02T10SS	28,5	17,5	41,5	45,5	65	75,0	9,5	20	✓	✓	16,40 €	22,63 €
CLB03T10	CLB03T10SS	37,0	24,0	53,5	58,0	80	91,5	11,0	22	✓	✓	18,15 €	25,85 €
CLB04T10	-	43,0	26,0	61,0	66,0	95	109,0	13,0	24	✓	-	21,68 €	-
CLB04T12	CLB04T12SS	43,0	26,0	61,0	66,0	95	109,0	13,0	24	✓	✓	21,68 €	33,25 €
CLB05T12	-	49,0	33,0	72,0	77,0	110	126,0	15,5	26	✓	-	27,29 €	-
CLB05T16	CLB05T16SS	49,0	33,0	72,0	77,0	110	126,0	15,5	26	✓	-	27,29 €	42,42 €

*Depending on availability - Dimensions in mm

- Stainless steel indexing handle with threaded insert

- Materials:

Precision cast handle: stainless steel 304

Other components: stainless steel 303

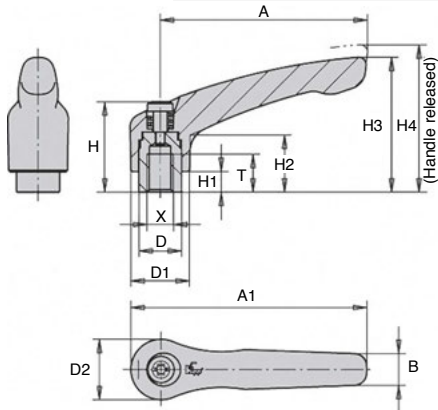
- Finish:

Handle: electrolytically polished stainless steel

Other components: polished stainless steel



stainless steel



Pull the handle to unlock



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-10%	On request

Part number	Thread		D	D1	D2	H	H1	H2	H3	H4	A	A1	B	N° of teeth	Price each	
	X	T													Stock*	1 to 5
CLA01M5/SS	M5	9	10,0	13,0	14,0	24,5	4,0	14,5	31,0	34,0	40	47,0	7	16	✓	21,06 €
CLA01M6/SS	M6	9	10,0	13,0	14,0	24,5	4,0	14,5	31,0	34,0	40	47,0	7	16	-	21,06 €
CLA02M6/SS	M6	12	13,5	18,5	19,0	28,5	6,5	17,5	42,5	45,5	65	74,5	10	20	✓	28,38 €
CLA02M8/SS	M8	12	13,5	18,5	19,0	28,5	6,5	17,5	42,5	45,5	65	74,5	10	20	✓	28,38 €
CLA03M8/SS	M8	14	16,0	21,0	22,0	37,0	10,0	24,0	54,5	58,5	80	91,0	11	22	✓	34,19 €
CLA03M10/SS	M10	14	16,0	21,0	22,0	37,0	10,0	24,0	54,5	58,5	80	91,0	11	22	✓	34,19 €
CLA04M10/SS	M10	17	19,0	27,0	27,5	43,0	10,0	27,0	63,0	67,5	95	109,0	13	24	✓	40,03 €
CLA04M12/SS	M12	17	19,0	27,0	27,5	43,0	10,0	27,0	63,0	67,5	95	109,0	13	24	✓	40,03 €

*Depending on availability - Dimensions in mm

- Stainless steel indexing handle with threaded shaft

- Materials:

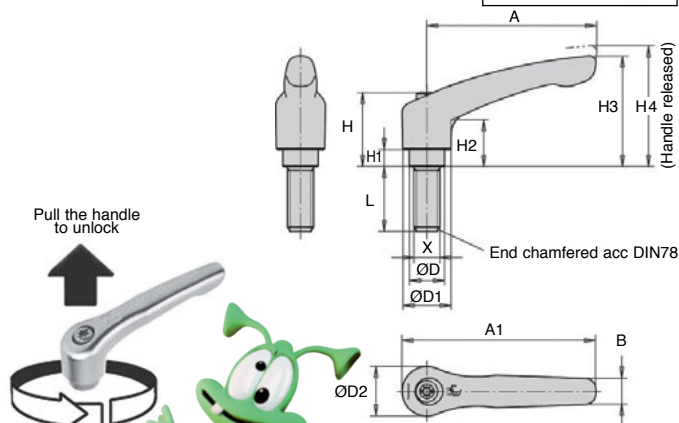
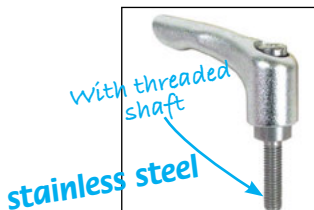
Precision cast handle: stainless steel 304

Other components: stainless steel 303

- Finish:

Handle: electrolytically polished stainless steel

Other components: polished stainless steel



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-10%	On request

Part number	Thread				H	H1	H2	H3	H4	A	A1	B	N° of teeth	Thread length L	Price each
	X	D	D1	D2											
CLA01T5/SS	M5	10,0	13,0	14,0	24,5	4,0	14,5	31,0	34,0	40	47,0	7	16	20	✓ 21,67 €
CLA01T6/SS	M6	10,0	13,0	14,0	24,5	4,0	14,5	31,0	34,0	40	47,0	7	16	30	✓ 21,67 €
CLA02T6/SS	M6	13,5	18,5	19,0	28,5	6,5	17,5	42,5	45,5	65	74,5	10	20	50	✓ 30,12 €
CLA02T8/SS	M8	13,5	18,5	19,0	28,5	6,5	17,5	42,5	45,5	65	74,5	10	20	50	✓ 30,12 €
CLA02T10/SS	M10	13,5	18,5	19,0	28,5	6,5	17,5	42,5	45,5	65	74,5	10	20	50	✓ 30,12 €
CLA03T8/SS	M8	16,0	21,0	22,0	37,0	10,0	24,0	54,5	58,5	80	91,0	11	22	50	✓ 36,16 €
CLA03T10/SS	M10	16,0	21,0	22,0	37,0	10,0	24,0	54,5	58,5	80	91,0	11	22	50	✓ 36,16 €
CLA04T12/SS	M12	19,0	27,0	27,5	43,0	10,0	27,0	63,0	67,5	95	109,0	13	24	50	✓ 42,45 €

*Depending on availability - Dimensions in mm

Cylindrical revolving handle



MEP

Technopolymer with steel
or **stainless steel** shaft

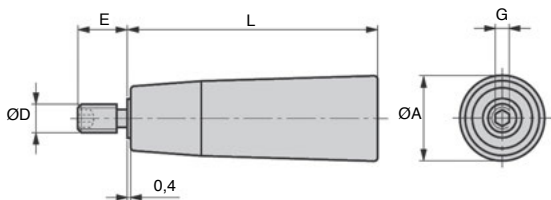
- Cylindrical revolving handle with
hexagonal blocking insert

- Operating element

- Material :

Body: Black glass fibre reinforced
polyamide

Threaded shaft: Plated steel or
stainless steel



DISCOUNTS

Qty	1+	6+	10+	20+
Disc.	List	-5%	-10%	On request

Part number	Steel	Stainless steel	ØA	L	ØD	E	G	Stock*		Price each 1 to 5	
								Steel	Stainless steel	Steel	Stainless steel
MEP21-50	MEP21-50/SS		21	50	M6	13	3	✓	✓	6,03 €	17,82 €
MEP23-70	MEP23-70/SS		23	70	M8	14	4	✓	✓	7,46 €	21,21 €
MEP26-90	MEP26-90/SS		26	90	M10	17	5	✓	✓	8,47 €	24,09 €

*Depending on availability - Dimensions in mm

Stock **Folding cylindrical revolving handle**

Technopolymer with steel
or **stainless steel** shaft

PGR

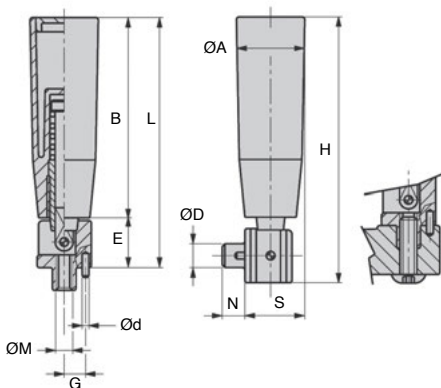
- **Folding cylindrical revolving handle with release mechanism**

- Operating element

- Material :

Body: Black glass fibre reinforced polyamide

Mechanism: Chromed steel or stainless steel



DISCOUNTS

Qty	1+	6+	10+	20+
Disc. List	-5%	-10%	On request	

Part number		ØA	H	S	ØD	N	ØM	Ød	G	F	E	B	L	Stock* Price each 1 to 5				
Steel	Stainless steel													Steel	Steel	Stainless steel		
PGR21-50	PGR21-50/SS	21	69	19	7	8	M5	2,5	6,3	4	16,5	50	66,5	✓	31,48	€	65,36	€
PGR23-70	PGR23-70/SS	23	92	21	8	8	M6	2,5	7,5	4	16,5	70	86,5	✓	34,29	€	70,94	€
PGR26-90	PGR26-90/SS	26	114	24	8	10	M6	2,5	7,5	4	20	90	110	✓	40,21	€	78,33	€

*Depending on availability - Dimensions in mm

Arm with rotating handle



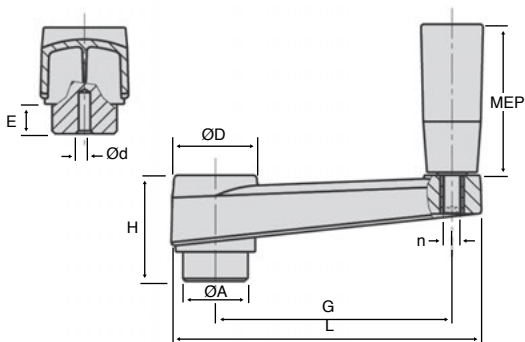
MH_{MEP}

Technopolymer

- Arm with rotating handle
- Operating elements
- Material:
Black glass fibre reinforced polyamide
Matt surface finish

Options

- Alternative bores on request
- Industry standard keyways available



INCREASED STOCK

DISCOUNTS

Qty	1+	10+	20+	50+	100+
Disc.	List	-5%	-10%	-15%	On request

Part number	G	L	ØA	ØD	E	H	Prebored Ød	MEP	n	Stock*	Price each 1 to 9
MH65-MEP	65	87	18	27	10	33	4	21x50	M6	✓	16,70 €
MH80-MEP	80	105	22	30	10	36	4	21x50	M6	✓	19,02 €
MH100-MEP	100	128	24	34	10	40	4	23x70	M8	✓	21,78 €
MH130-MEP	130	162	28	40	14	49	6	26x90	M8	✓	30,70 €
MH160-MEP	160	196	34	45	15	55	6	26x90	M10	✓	38,87 €

Dimensions in mm



Arm with rotating handle

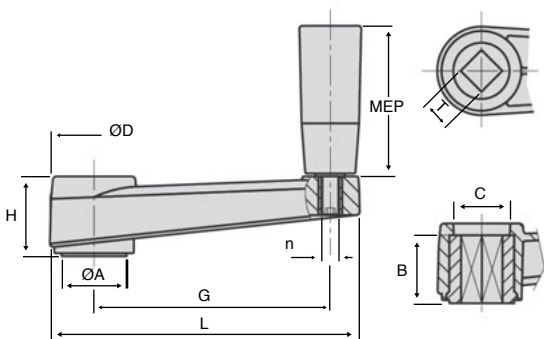
Square bore, technopolymer

MHQ_{MEP}

- Arm with rotating handle and a square through-bored hole
- Operating elements
- Material:
Black glass fibre reinforced polyamide
Matt surface finish

Options

- Alternative bores on request
- Industry standard keyways available



DISCOUNTS

Qty	1+	10+	20+	50+	100+
Disc.	List	-5%	-10%	-15%	On request

Part number	G	L	ØA	ØD	H	T	B	C	MEP	n	Stock*	Price each 1 to 9
MHQ65-MEP	65	87	18	27	23	8x8	20	16	21x50	M6	✓	17,45 €
MHQ80-MEP	80	105	22	30	26	10x10	22	19	21x50	M6	✓	19,50 €
MHQ100-MEP	100	128	24	34	30	12x12	27	22	23x70	M8	✓	23,15 €
MHQ130-MEP	130	162	28	40	35	14x14	30	25	26x90	M8	✓	31,04 €
MHQ160-MEP	160	196	34	45	40	17x17	34	28	26x90	M10	✓	40,29 €

Dimensions in mm

Arm with rotating handle



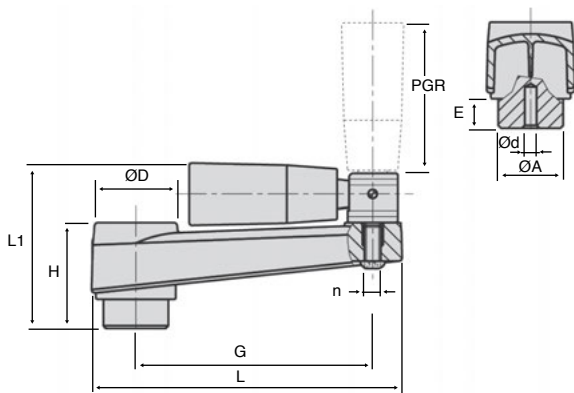
MHPGR Folding handle, technopolymer

- Arm with folding rotating handle
- Operating elements
- Material:
Black glass fibre reinforced polyamide
Matt surface finish



Options

- Alternative bores on request
- Industry standard keyways available



INCREASED STOCK

DISCOUNTS

Qty	1+	10+	20+	50+	100+
Disc.	List	-5%	-10%	-15%	On request

Part number	G	L	L1	ØA	ØD	E	H	Prebored Ød	PGR	n	Stock*	Price each
												1 to 9
MH80-PGR	80	105	55	22	30	10	36	4	21x50	M5	-	55,01 €
MH100-PGR	100	128	63	24	34	10	40	4	23x70	M6	✓	55,71 €
MH130-PGR	130	162	74	28	40	14	49	6	23x70	M6	✓	64,89 €
MH160-PGR	160	196	86	34	45	15	55	6	26x90	M6	✓	72,31 €

Dimensions in mm



Handwheel with handle

VPRA_M

Thermosetting plastic

- Handwheel with handle for manual use
- Pre-bored
- Working temperature: -20°C to +140°C
- Materials:
 - Wheel: thermosetting plastic
 - Hub: galvanised steel or stainless steel
 - Handle: thermosetting plastic
 - Axle: galvanised steel

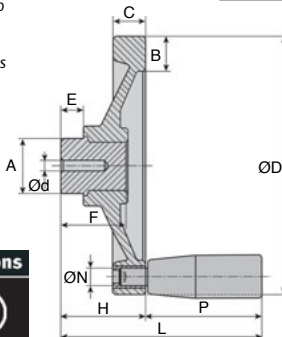


Options

- Different bore diameters
- Keyway
- See modification info

Uses

- All types of machines



Bore modifications



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-5%	On request

Part number	ØD	H	L	C	B	ØA	Ød	E	F	P	ØN	Stock*	Price each 1 to 5
Steel													
VPRA50-M	50	23	50	11	10	16	4	9	20	13x27	M6	✓	14,84 €
VPRA65-M	65	28	55	13	13	20	4	10	24	13x27	M6	✓	17,22 €
VPRA80-M	80	31	71	14	15	20	4	10	27	17x40	M6	✓	18,91 €
VPRA100-M	100	35	85	14	16	24	4	11	29	21x50	M8	✓	23,36 €
VPRA125-M	125	44	99	16	18	32	6	13	35	23x55	M8	✓	29,98 €
VPRA150-M	150	48	113	18	20	32	6	13	37	25x65	M10	✓	36,82 €
VPRA200-M	200	58	143	21	24	40	6	16	44	28x85	M10	✓	58,15 €
VPRA250-M	250	66	151	22	30	48	6	17	49	28x85	M10	-	82,34 €
VPRA300-M	300	76	161	24	35	58	6	18	55	28x85	M10	-	127,42 €
Stainless steel													
VPRA100-M/SS	100	35	85	14	16	24	4	11	29	21x50	M8	-	40,79 €
VPRA150-M/SS	150	48	113	18	20	32	6	13	37	25x65	M10	-	54,38 €
VPRA200-M/SS	200	58	143	21	24	40	6	16	44	28x85	M10	-	79,34 €

*Depending on availability - Dimensions in mm

- **Manual operating element**
- **Materials:**
Wheel: glass fibre reinforced polyamide
Hub: galvanised steel

Options

- Different bore diameters
- Keyways
- See modification info on page 54

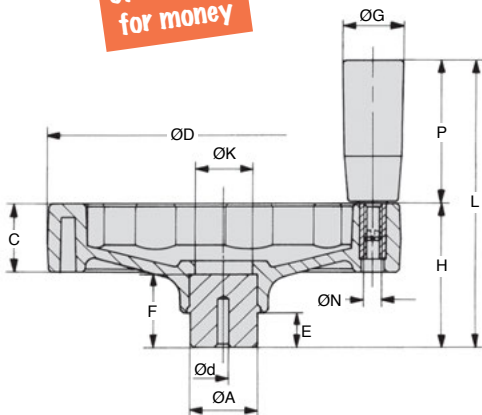
Uses

- All types of machines



Great value
for money

Bore modifications



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-5%	On request

Part number	Ød		ØD	H	C	ØA	E	F	ØK	L	ØG	P	ØN	Stock	Price each
	Pre-bore														1 to 5
SHA-100-PT	4	100	46	20	24	12	24	18	96	21	50	M6	✓	17,89 €	
SHA-125-PT	6	125	51	24	24	12	28	20	101	21	50	M6	✓	21,63 €	
SHA-160-PT	6	160	61	28	32	15	31	30	131	23	70	M8	✓	28,09 €	
SHA-200-PT	6	200	74	32	40	15	40	35	164	26	90	M10	✓	40,36 €	

*Depending on availability - Dimensions in mm

- **Manual operating element**
- **Materials:**
Wheel: glass fibre reinforced polyamide
Hub: galvanised steel

Info.

- Revolving handle folds away for safety

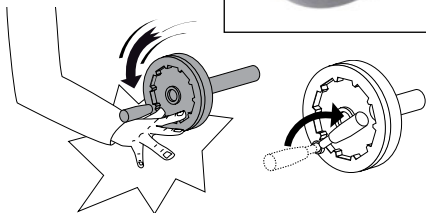
Options

- Different bore diameters
- Keyways
- See modification info on page 54

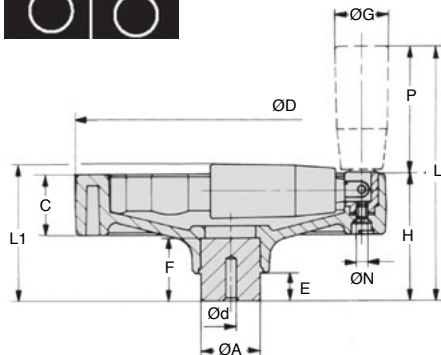
Uses

- All types of machines

Great value for money



Bore modifications



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-5%	On request

Part number	Ød Pre-bore	ØD	H	C	ØA	E	F	L	L1	ØG	P	ØN	Price each	
													Stock*	1 to 5
SHA-100-PTR	4	100	46	20	24	12	24	98	50	21	52	M4	✓	42,14 €
SHA-125-PTR	6	125	51	24	24	12	28	103	54	21	52	M4	✓	46,79 €
SHA-160-PTR	6	160	61	28	32	15	31	133	65	23	72	M5	✓	53,09 €
SHA-200-PTR	6	200	74	32	40	15	40	166	79	26	92	M6	✓	66,54 €

*Depending on availability - Dimensions in mm

- **Manual operating element**
- **Materials:**
Wheel: glass fibre reinforced polyamide
Hub: galvanised steel

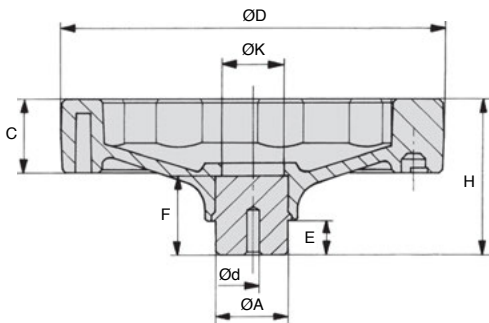
Great value for money

Options

- Different bore diameters
- Keyways
- See modification info on page 54

Uses

- All types of machines



Bore modifications



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-5%	On request

Part number	Ød		H	C	ØA	E	F	ØK	Stock*	Price each 1 to 5
	Pre-bore	ØD								
SHA-100	4	100	46	20	24	12	24	18	✓	12,05 €
SHA-125	6	125	51	24	24	12	28	20	-	14,14 €
SHA-160	6	160	61	28	32	15	31	30	✓	20,93 €
SHA-200	6	200	74	32	40	15	40	35	✓	31,69 €

*Depending on availability - Dimensions in mm



3-spoked handwheel

With revolving handle

V3RAPT

- **Manual operating element**
- **Materials:**
Wheel: glass fibre reinforced polyamide
Hub: galvanised steel

Options

- Different bore diameters
- Keyways
- See modification info on page 64

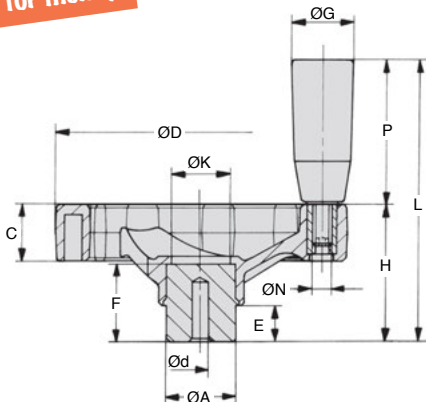
Uses

- All types of machines

Great value for money



Bore modifications



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-5%	On request

Part number	Ød Pre-bore	ØD	H	C	ØA	E	F	ØK	L	ØG	P	ØN	Stock	Price each 1 to 5
V3RA-100-PT	4	100	46	20	24	12	24	18	96	21	50	M6	✓	16,05 €
V3RA-125-PT	6	125	51	24	24	12	28	20	101	21	50	M6	✓	18,57 €
V3RA-160-PT	6	160	61	28	32	15	31	30	131	23	70	M8	✓	23,93 €
V3RA-200-PT	6	200	74	32	40	15	40	35	164	26	90	M10	✓	33,20 €

*Depending on availability - Dimensions in mm

3-spoked handwheel



V3RAPTR With revolving foldaway handle

- **Manual operating element**
- **Materials:**
Wheel: glass fibre reinforced polyamide
Hub: galvanised steel

Info.

- Revolving handle folds away for safety

Great value for money

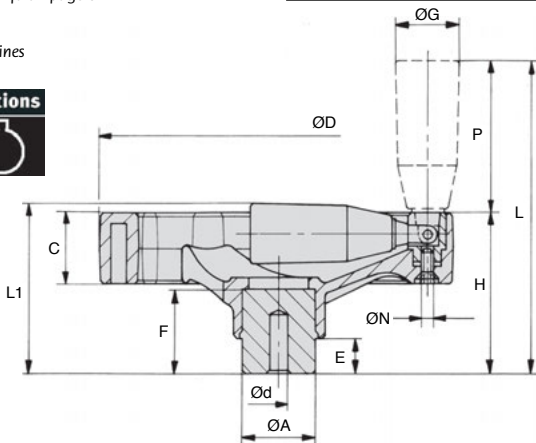
Options

- Different bore diameters
- Keyways
- See modification info on page 64

Uses

- All types of machines

Bore modifications



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-5%	On request

Part number	Ød Pre-bore	ØD	H	C	ØA	E	F	L	L1	ØG	P	ØN	Price each	
													Stock*	1 to 5
V3RA-100-PTR	4	100	46	20	24	12	24	100	50	21	54	M4	✓	37,95 €
V3RA-125-PTR	6	125	51	24	24	12	28	105	54	21	54	M4	✓	41,92 €
V3RA-160-PTR	6	160	61	28	32	15	31	135	65	23	74	M5	✓	47,60 €
V3RA-200-PTR	6	200	74	32	40	15	40	168	79	26	94	M6	✓	56,94 €

*Depending on availability - Dimensions in mm



3-spoked handwheel

Without handle

V3RA

- Manual operating element

- Materials:

Wheel: glass fibre reinforced polyamide

Hub: galvanised steel

Options

- Different bore diameters

- Keyways

- See modification info on page 64

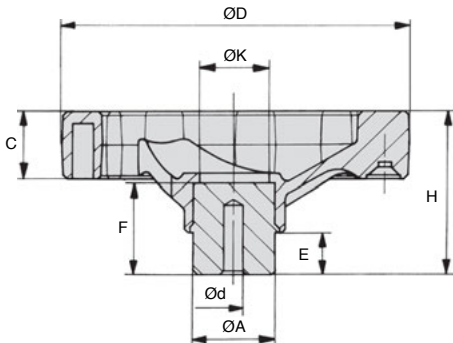
Uses

- All types of machines

Great value
for money



Bore modifications



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-5%	On request

Part number	Ød Pre-bore	ØD	H	C	ØA	E	F	ØK	Stock*	Price each 1 to 5
V3RA-100	4	100	46	20	24	12	24	18	✓	9,68 €
V3RA-125	6	125	51	24	24	12	28	20	✓	12,21 €
V3RA-160	6	160	61	28	32	15	31	30	✓	17,23 €
V3RA-200	6	200	74	32	40	15	40	35	✓	25,99 €

*Depending on availability - Dimensions in mm

Handwheels

V3RA SHA

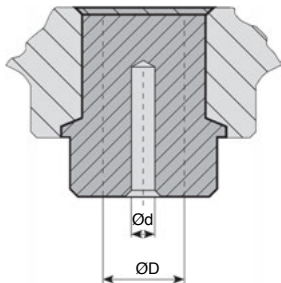
Modification of bores to suit your requirements

Info.

It is possible to modify the bores of the V3RA and SHA handwheels to suit your requirements. This is possible for versions without a handle, with a revolving handle and with a foldaway revolving handle.

Ordering example

V3RA-125-PT-16: A 3 spoked handwheel with revolving handle, external diameter 125mm and 16mm bore diameter



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-5%	On request

Part number	Ød Pre-bore	ØD Max. bore	Bore	Price each
				1 to 5
V3RA-100	4	18	8-9-10-11-12-13-14	15,68 €
			15-16-17-18	16,54 €
V3RA-125	6	18	8-9-10-11-12-13-14	17,40 €
			15-16-17-18	18,29 €
V3RA-160	6	24	8-9-10-11-12-13-14	23,76 €
			15-16-17-18-19-20	24,71 €
			21-22-23-24	32,58 €
V3RA-200	6	32	8-9-10-11-12-13-14	32,54 €
			15-16-17-18-19-20	33,50 €
			21-22-23-24-25	41,36 €
			26-27-28-29-30	45,84 €
SHA-100	4	18	8-9-10-11-12-13-14	18,57 €
			15-16-17-18	19,52 €
SHA-125	6	18	8-9-10-11-12-13-14	20,68 €
			15-16-17-18	21,62 €
SHA-160	6	24	8-9-10-11-12-13-14	27,46 €
			15-16-17-18-19-20	28,39 €
			21-22-23-24	36,29 €
SHA-200	6	32	8-9-10-11-12-13-14	38,22 €
			15-16-17-18-19-20	39,18 €
			21-22-23-24-25	47,05 €
			26-27-28-29-30	51,54 €

Dimensions in mm

Modification of bores and keyways to suit your requirements

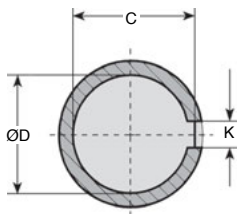
V3RA SHA

Info.

It is possible to modify the bores and keyways of the V3RA and SHA handwheels to suit your requirements. This is possible for versions without a handle, with a revolving handle and with a foldaway revolving handle

Ordering example

V3RA-125-PT-14K: A 3 spoked handwheel with revolving handle, external diameter 125mm, 14mm bore diameter and 5mm standardised keyway



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-5%	On request

Part number	Ød Pre-bore	ØD Max. bore	K max.	C ^{0/+0,1}	Bore	Price each 1 to 5
V3RA-100	4	14	5	16,3	8-9-10-11-12-13-14	39,44 €
V3RA-125	6	14	5	16,3	8-9-10-11-12-13-14	41,17 €
V3RA-160	6	20	6	22,8	8-9-10-11-12-13-14	49,33 €
					15-16-17-18-19-20	50,29 €
V3RA-200	6	28	8	31,3	8-9-10-11-12-13-14	58,14 €
					15-16-17-18-19-20	59,06 €
					21-22-23-24-25	66,97 €
					26-27-28	71,47 €
SHA-100	4	14	5	16,3	8-9-10-11-12-13-14	44,18 €
SHA-125	6	14	5	16,3	8-9-10-11-12-13-14	46,26 €
SHA-160	6	20	6	22,8	8-9-10-11-12-13-14	53,02 €
					15-16-17-18-19-20	28,39 €
SHA-200	6	28	8	31,3	8-9-10-11-12-13-14	63,82 €
					15-16-17-18-19-20	64,77 €
					21-22-23-24-25	72,67 €
					26-27-28	77,17 €

Dimensions in mm

Spoked handwheel with revolving handle

HLUT

Aluminium

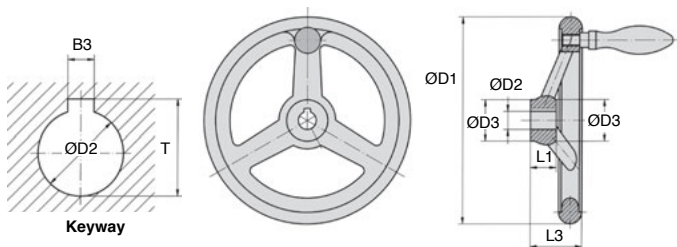
- Handwheel with revolving handle
- Materials:
 - Wheel: aluminium
 - Handle: aluminium with steel axle
- Finish: edges machined and polished
- Keyway conforms to DIN6885-1

Advantages

- Light

Options

- Handwheel without handle **HLU**



DISCOUNTS

Qty	1+	6+	15+	20+
Disc.	List	-5%	-10%	On request

Part number		Revolving handle	ØD2	B3	ØD1 (H7)	ØD3	L1	L3 (P9)	T	Stock*	Stock*	Price each 1 to 5	
With keyway	Without keyway									With keyway	Without keyway	With keyway	Without keyway
Avec 3 bras													
HLUT80-10K	HLUT80-10	Ø16xM6x54,5	80	10	24	16	29	3	11,4	✓	-	37,56 €	34,76 €
HLUT100-10K	HLUT100-10	Ø16xM6x54,5	100	10	26	17	33	3	11,4	✓	-	40,03 €	36,11 €
HLUT125-12K	HLUT125-12	Ø20xM8x67,0	125	12	28	18	36	4	13,8	✓	-	48,23 €	43,88 €
HLUT140-14K	HLUT140-14	Ø20xM8x67,0	140	14	30	19	39	5	16,3	✓	-	53,81 €	49,23 €
HLUT160-14K	HLUT160-14	Ø25xM10x83,0	160	14	32	20	40	5	16,3	✓	✓	63,01 €	59,75 €
HLUT180-16K	HLUT180-16	Ø25xM10x83,0	180	16	35	22	43	5	18,3	✓	✓	72,69 €	69,33 €
HLUT200-18K	HLUT200-18	Ø25xM10x83,0	200	18	38	24	45	6	20,8	✓	✓	81,57 €	77,57 €
Avec 5 bras													
HLUT250-22K	HLUT250-22	Ø32xM12x105,5	250	22	45	28	50	6	24,8	-	✓	122,40 €	117,86 €
HLUT315-26K	HLUT315-26	Ø32xM12x105,5	315	26	53	33	56	8	29,3	-	-	167,04 €	162,35 €
HLUT400-30K	HLUT400-30	Ø36xM16x117,0	400	30	65	38	63	8	33,3	-	-	276,20 €	270,91 €
HLUT500-34K	HLUT500-34	Ø36xM16x117,0	500	34	78	45	72	10	37,3	-	-	431,03 €	420,47 €

*Depending on availability - Dimensions in mm

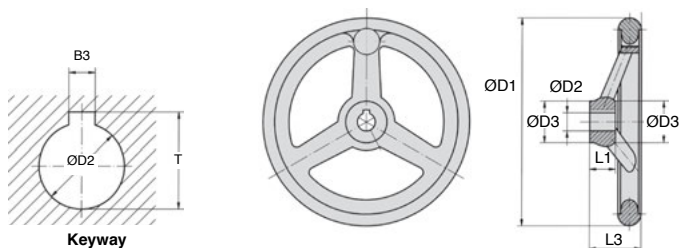
- Handwheel
- Material: aluminium
- Finish: edges machined and polished
- Keyway conforms to DIN6885-1

Advantages

- Light

Options

- A version with a handle exists, see HLU T



DISCOUNTS

Qty	1+	6+	15+	20+
Disc.	List	-5%	-10%	On request

Part number		ØD1	ØD2 (H7)	ØD3	L1	L3	B3 (P9)	T	Stock* with keyway	Stock* without keyway	Price each 1 to 5	
with keyway	without keyway										with keyway	without keyway
With 3 spokes												
HLU80-10K	HLU80-10	80	10	24	16	29	3	11,4	-	-	18,15 €	15,48 €
HLU100-10K	HLU100-10	100	10	26	17	33	3	11,4	✓	-	19,89 €	16,93 €
HLU125-12K	HLU125-12	125	12	28	18	36	4	13,8	✓	✓	24,42 €	21,22 €
HLU140-14K	HLU140-14	140	14	30	19	39	5	16,3	✓	-	28,59 €	25,35 €
HLU160-14K	HLU160-14	160	14	32	20	40	5	16,3	-	-	33,46 €	30,04 €
HLU180-16K	HLU180-16	180	16	35	22	43	5	18,3	-	-	39,73 €	36,27 €
HLU200-18K	HLU200-18	200	18	38	24	45	6	20,8	✓	-	48,57 €	44,88 €
With 5 spokes												
HLU250-22K	HLU250-22	250	22	45	28	50	6	24,8	-	✓	78,50 €	73,69 €
HLU315-26K	HLU315-26	315	26	53	33	56	8	29,3	-	-	122,90 €	118,18 €
HLU400-30K	HLU400-30	400	30	65	38	63	8	33,3	-	-	225,22 €	218,12 €
HLU500-34K	HLU500-34	500	34	78	45	72	10	37,3	-	-	376,48 €	367,69 €

*Depending on availability - Dimensions in mm

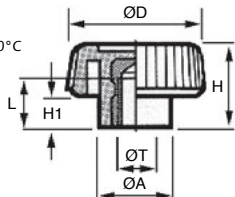
Female knurled knob



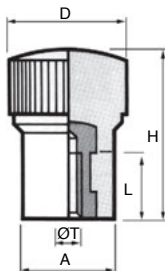
712

Threads M4-M6

- **Operating elements**
- With brass insert
- Working temperature: -30°C to +140°C
- Material: black phenolic plastic



Type 1



Type 4

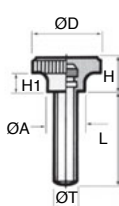
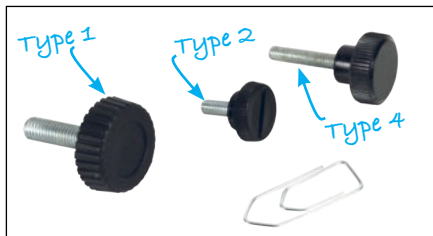
DISCOUNTS

Qty	1+	10+	20+	50+	100+
Disc.	List	-20%	-30%	-40%	On request

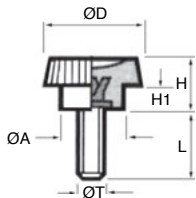
Part number	Thread	ØT	ØD	H	H1	L	ØA	Stock*	Price each 1 to 9
TYPE 1									
712-019	M6		23	14	5,50	10	12	✓	3,32 €
TYPE 4									
712-031	M4		12	14	-	10	10	✓	3,28 €
712-032	M5		15	16	-	10	12	✓	4,49 €
712-033	M6		17	22	-	9	12	✓	5,12 €

*Depending on availability - Dimensions in mm

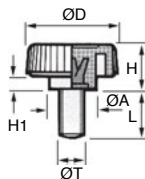
- **Operating elements**
- With threaded steel insert
- Working temperature: 30°C to +140°C
- Material: black phenolic plastic



TYPE 1



TYPE 2
With slot for screwdriver



TYPE 4

DISCOUNTS

Qty	1+	10+	20+	50+	100+
Disc.	List	-20%	-30%	-40%	On request

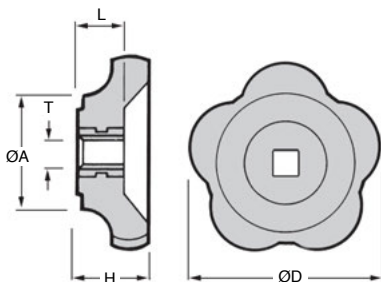
Part number	Thread	L	ØD	H	H1	ØA	Stock*	Price each 1 to 9
TYPE 1								
712-015	M4	20	18	12	6,50	10	✓	3,28 €
712-016	M5	20	22	13	7,00	12	✓	2,47 €
712-017	M6	25	26	13	7,00	15	✓	2,92 €
TYPE 2								
712-020	M4	10	15	8	4	10	✓	1,44 €
TYPE 4								
712-018	M6	20	23	12	3,50	12	✓	2,31 €

*Depending on availability - Dimensions in mm



- **Operating elements**
- Working temperature: -30°C to +140°C
- Material: black phenolic plastic

Square bore



DISCOUNTS

Qty	1+	10+	20+	50+	100+
Disc.	List	-20%	-30%	-40%	On request

Part number	ØD	H	L	ØA	T	Stock*	Price each 1 to 9
712-051	50	18	12	22	6,5 x 6,5	✓	3,75 €
712-052	63	20	12	22	8 x 8	✓	5,12 €

*Depending on availability - Dimensions in mm



Male or female star knob

Threads M4-M10

SKM SKF

- With male or female threaded insert
- Material: black phenolic plastic
- Working temperature: -30°C to +140°C

Advantages

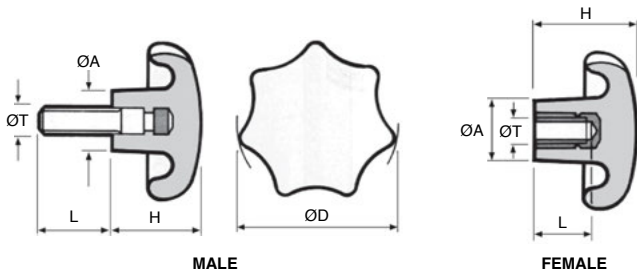
- Better grip



Button male



Button female



MALE

FEMALE

DISCOUNTS

Qty	1+	10+	20+	50+	100+	200+
Disc.	List	-20%	-30%	-40%	-50%	On request

Part number	Thread ØT	L	ØA	ØD	H	Stock*	Price each 1 to 9
Male							
SK4M	M4	10,0	10	20	17	✓	3,40 €
SK10M	M5	10,0	12	25	16	✓	2,13 €
SK15M	M6	15,0	14	32	20	✓	2,26 €
SK20M	M8	20,0	16	40	25	✓	3,48 €
SK30M	M10	30,0	21	50	32	✓	5,56 €
Female							
SK4F	M4	8,0	10	20	17	✓	2,83 €
SK10F	M5	9,0	12	25	16	✓	2,83 €
SK15F	M6	13,5	14	32	20	✓	2,59 €
SK20F	M8	16,0	16	40	25	✓	4,08 €
SK30F	M10	21,0	21	50	32	✓	5,62 €

*Depending on availability - Dimensions in mm

Female wing knob

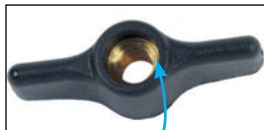
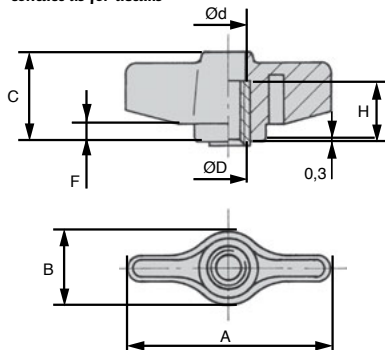
Stock

GGB Technopolymer with brass insert

- Female wing knob with tapped hole (blind or fully threaded)
- For manual tightening
- Material:
Matt black polyamide with brass insert

Info.

- Not sold individually, please contact us for details



with brass insert

DISCOUNTS

Qty	1+	10+	20+	50+	100+	200+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	A	B	C	ØD	Ød	H	F	Stock*	Price each 1 to 9
Knob with blind thread									
GGB34-M6	34	14	18	M6	-	9	4	✓	1,88 €
GGB34-M8	34	14	18	M8	-	9	4	✓	1,88 €
GGB40-M6	40	15	19	M6	-	9	4	✓	1,98 €
GGB40-M8	40	15	19	M8	-	9	4	✓	1,98 €
GGB48-M6	48	17	20	M6	-	13	4	-	2,06 €
GGB48-M8	48	17	20	M8	-	13	4	✓	2,06 €
Knob, fully threaded									
GGB34-M6/FP	34	14	18	M6	7	15	4	✓	2,06 €
GGB40-M6/FP	40	15	19	M6	9	15	4	✓	2,11 €
GGB40-M8/FP	40	15	19	M8	9	15	4	✓	2,11 €
GGB48-M6/FP	48	17	20	M6	9	15	4	✓	2,21 €
GGB48-M8/FP	48	17	20	M8	9	15	4	✓	2,21 €

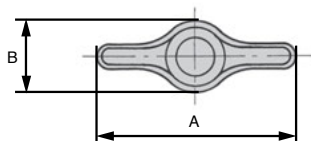
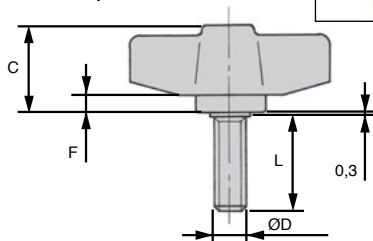
*Depending on availability - Dimensions in mm

- Male wing knob
- For manual tightening
- Material:
Matt black polyamide
Threaded shaft: zinc plated steel or stainless steel

Info.

- Not sold individually, please contact us for details

shaft zinc plated steel or stainless steel



DISCOUNTS

Qty	1+	10+	20+	50+	100+	200+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	A	B	C	ØD	L	F	Stock*	Price each 1 to 9
Steel								
GGP34-M6-25	34	14	18	M6	25	4	✓	2,06 €
GGP34-M8-25	34	14	18	M8	25	4	✓	2,21 €
GGP40-M8-25	40	15	19	M8	25	4	✓	2,41 €
GGP48-M8-25	48	17	20	M8	25	4	✓	2,83 €
GGP48-M8-40	48	17	20	M8	40	4	✓	2,88 €
Stainless steel								
GGP34-M6-20/SS	34	14	18	M6	20	4	✓	4,46 €
GGP34-M6-30/SS	34	14	18	M6	30	4	-	4,69 €

*Depending on availability - Dimensions in mm

Small 6 lobe female handle

Stock

GLB Technopolymer, with brass insert

- Small 6 lobe handle with a female tapped insert (blind or fully threaded)

- Material :

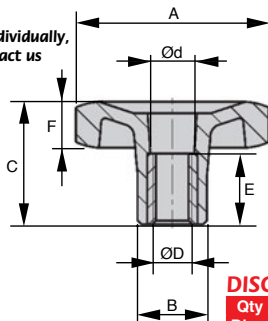
Matt black polyamide with brass or stainless steel insert

with brass or stainless steel insert



Info.

- Not sold individually, please contact us for details



DISCOUNTS

Qty	1+	10+	20+	50+	100+	200+
Disc.	List	-5%	-10%	-15%	-20%	On request

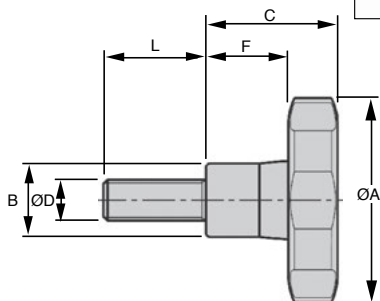
Part number		A	B	C	F	ØD	E	Ød	Stock*	Price each 1 to 9	
Steel	S/steel								Steel	Steel	S/steel
Handle, blind thread											
GLB30-M6	GLB30-M6/SS	30	14	24	15	M6	13	-	✓	2,41 €	6,07 €
GLB30-M8	-	30	14	24	15	M8	13	-	✓	2,55 €	-
GLB40-M6	GLB40-M6/SS	40	16	28	18	M6	13	-	✓	2,83 €	6,86 €
GLB40-M8	GLB40-M8/SS	40	16	28	18	M8	13	-	✓	2,83 €	6,90 €
GLB50-M8	GLB50-M8/SS	50	18	32	20	M8	15	-	✓	3,32 €	8,70 €
GLB50-M10	GLB50-M10/SS	50	18	32	20	M10	16	-	✓	3,56 €	8,70 €
GLB60-M12	GLB60-M12/SS	60	20	36	22	M12	18	-	✓	4,79 €	14,06 €
GLB70-M12	-	70	23	40	24	M12	18	-	✓	5,99 €	-
GLB70-M14	-	70	23	40	24	M14	20	-	✓	7,47 €	-
GLB70-M16	-	70	23	40	24	M16	20	-	✓	7,99 €	-
Handle fully threaded											
GLB30-M6/FP	GLB30-M6/FP/SS	30	14	24	15	M6	11	8	✓	2,98 €	10,27 €
GLB30-M8/FP	-	30	14	24	15	M8	11	10	✓	3,27 €	-
GLB40-M6/FP	GLB40-M6/FP/SS	40	16	28	18	M6	15	7	✓	3,65 €	11,42 €
GLB40-M8/FP	GLB40-M8/FP/SS	40	16	28	18	M8	15	11	✓	3,90 €	12,16 €
GLB50-M8/FP	GLB50-M8/FP/SS	50	18	32	20	M8	18	11	✓	4,70 €	13,33 €
GLB50-M10/FP	GLB50-M10/FP/SS	50	18	32	20	M10	18	11	✓	4,83 €	14,06 €
GLB60-M12/FP	-	60	20	36	22	M12	25	13	✓	6,46 €	-
GLB70-M12/FP	-	70	23	40	24	M12	25	14	✓	8,04 €	-
GLB70-M14/FP	-	70	23	40	24	M14	25	15	✓	9,82 €	-
GLB70-M16/FP	-	70	23	40	24	M16	25	17	✓	11,43 €	-

*Depending on availability - Dimensions in mm

- Small 6 lobe male handle with steel stud
- Material :
Matt black polyamide
Stud: zinc plated steel or stainless steel

Option

- Stainless steel or polyamide colored insert on quantities



DISCOUNTS

Qty	1+	10+	20+	50+	100+	200+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number		ØA	B	C	F	ØD	L	Stock*	Price each 1 to 9	
Steel	Stainless steel								Steel	Stainless steel
GLP30-M6-20	GLP30-M6-20/SS	30	14	24	15	M6	20	✓	2,06 €	4,96 €
GLP30-M6-30	GLP30-M6-30/SS	30	14	24	15	M6	30	✓	2,41 €	5,46 €
GLP30-M8-20	-	30	14	24	15	M8	20	✓	2,41 €	-
GLP30-M8-30	-	30	14	24	15	M8	30	✓	2,46 €	-
GLP40-M8-20	GLP40-M8-20/SS	40	16	28	18	M8	20	✓	2,68 €	6,30 €
GLP40-M8-30	GLP40-M8-30/SS	40	16	28	18	M8	30	✓	2,74 €	6,68 €
GLP40-M8-40	-	40	16	28	18	M8	40	✓	2,83 €	-
GLP50-M10-20	-	50	18	32	20	M10	20	✓	3,74 €	-
GLP50-M10-30	GLP50-M10-30/SS	50	18	32	20	M10	30	✓	3,84 €	9,95 €
GLP50-M10-40	GLP50-M10-40/SS	50	18	32	20	M10	40	✓	3,95 €	10,09 €
GLP60-M12-30	GLP60-M12-30/SS	60	20	36	22	M12	30	✓	6,40 €	12,16 €
GLP60-M12-50	GLP60-M12-50/SS	60	20	36	22	M12	50	✓	6,98 €	14,06 €
GLP70-M12-30	-	70	23	40	24	M12	30	✓	6,98 €	-
GLP70-M12-50	-	70	23	40	24	M12	50	✓	7,47 €	-

*Depending on availability - Dimensions in mm

Small 6 lobe threaded handle



VB

Black Duroplast blind insert

- **Operating element**
- **Materials:**
Black phenolic Duroplast
Insert: brass or stainless steel

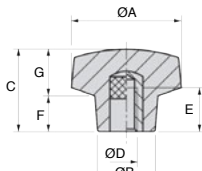
Advantages

- Easy grip
- Temperature resistant
- Good chemical resistance
- Easier to clean than technopolymer
- In machining applications, less likely to retain swarf

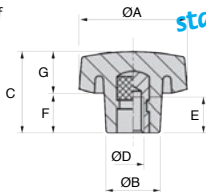
**Good
resistance**



**brass or
stainless steel
insert**



VB20-VB50



DISCOUNTS VB60-VB70

Qty	1+	10+	20+	50+	100+	200+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	ØA	ØB	C	ØD	E	F	G	Weight (g)	Price each 1 to 9
Brass insert									
VB20-M4	20	13	15	M4	9	7	8	5	2,95 €
VB20-M5	20	13	15	M5	9	7	8	5	3,07 €
VB20-M6	20	13	15	M6	9	7	8	5	3,15 €
VB30-M6	30	17	24	M6	9	11	13	15	3,88 €
VB30-M8	30	17	24	M8	15	11	13	17	3,98 €
VB40-M8	40	21	28	M8	15	12	16	34	4,82 €
VB40-M10	40	21	28	M10	16	12	16	36	4,93 €
VB50-M8	50	25	33	M8	15	13	20	54	5,88 €
VB50-M10	50	25	33	M10	16	13	20	56	5,88 €
VB50-M12	50	25	33	M12	18	13	20	58	6,21 €
VB60-M12	60	28	35	M12	18	15	20	70	7,71 €
VB70-M12	70	32	42	M12	18	21	21	95	9,51 €
VB70-M14	70	32	42	M14	20	21	21	100	10,57 €
VB70-M16	70	32	42	M16	20	21	21	102	10,90 €
Stainless steel insert									
VB20-M5/SS	20	13	15	M5	9	7	8	5	6,03 €
VB20-M6/SS	20	13	15	M6	9	7	8	5	6,32 €
VB30-M6/SS	30	17	24	M6	9	11	13	15	8,33 €
VB40-M8/SS	40	21	28	M8	15	12	16	33	9,58 €
VB50-M8/SS	50	25	33	M8	15	13	20	54	11,37 €
VB50-M10/SS	50	25	33	M10	16	13	20	55	16,24 €

Dimensions in mm



Small 6 lobe threaded handle

Black Duroplast bored insert

VBFP

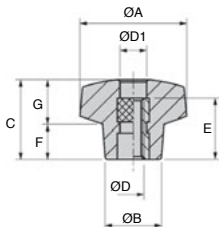
- Operating element
- Materials:
Black phenolic Duraplast
Insert; brass or stainless steel

Advantages

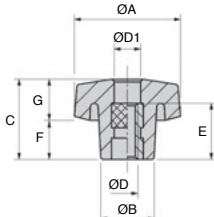
- Easy grip
- Temperature resistant
- Good chemical resistance
- Easier to clean than technopolymer
- In machining applications, less likely to retain swarf

Good
resistance

brass or
stainless steel
insert



VBFP20-VBFP30-VBFP/SS



VBFP40 to VBFP70

DISCOUNTS

Qty	1+	10+	20+	50+	100+	200+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	ØA	ØB	C	ØD	E	F	G	ØD1	Weight (g)	Price each 1 to 9
Brass insert										
VBFP20-M4	20	13	15	M4	11	7	8	7,5	6	4,05 €
VBFP20-M5	20	13	15	M5	11	7	8	7,5	7	4,20 €
VBFP20-M6	20	13	15	M6	11	7	8	7,5	10	4,27 €
VBFP30-M6	30	17	24	M6	15	11	12,5	9	16	4,90 €
VBFP30-M8	30	17	24	M8	15	11	12,5	9	17	5,15 €
VBFP40-M8	40	21	28	M8	18	13	15	11	29	5,96 €
VBFP40-M10	40	21	28	M10	18	13	15	11	31	6,00 €
VBFP50-M8	50	25	33	M8	18	15	18	13	43	7,42 €
VBFP50-M10	50	25	33	M10	18	15	18	13	45	7,49 €
VBFP50-M12	50	25	33	M12	18	15	18	13	47	7,49 €
VBFP60-M12	60	28	35	M12	25	15	20	13	70	9,36 €
VBFP70-M12	70	32	42	M12	25	21	21	13	96	11,37 €
VBFP70-M14	70	32	42	M14	25	21	21	15	94	11,37 €
VBFP70-M16	70	32	42	M16	25	21	21	17	93	12,59 €
Stainless steel insert										
VBFP20-M6/SS	20	13	15	M6	11	7	8	7,5	10	9,32 €
VBFP30-M6/SS	30	17	24	M6	15	11	12,5	9	16	9,95 €
VBFP40-M8/SS	40	21	28	M8	18	13	15	11	34	11,15 €
VBFP50-M8/SS	50	25	33	M8	18	15	18	13	49	12,07 €
VBFP50-M10/SS	50	25	33	M10	18	15	18	13	52	12,69 €

Dimensions in mm

Small 6 lobe threaded handle



VP

Black Duroplast, steel thread

- Operating element

- Materials:

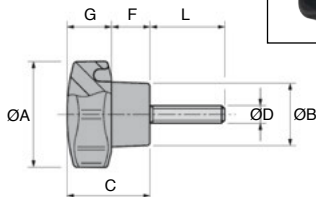
Black phenolic Duraplast
Threaded stud: chromed steel

Good resistance



Advantages

- Easy grip
- Temperature resistant
- Good chemical resistance
- Easier to clean that technopolymer
- In machining applications, less likely to retain swarf



DISCOUNTS

Qty	1+	10+	20+	50+	100+	200+
Disc. List	-5%	-10%	-15%	-20%	On request	

Part number	ØA	ØB	C	ØD	F	G	L	Weight (g)	Price each 1 to 9
VP20-M4-15	20	13	15	M4	7	8	15	5	2,73 €
VP20-M4-25	20	13	15	M4	7	8	25	6	2,73 €
VP20-M5-15	20	13	15	M5	7	8	15	7	2,95 €
VP20-M5-25	20	13	15	M5	7	8	25	8	3,02 €
VP20-M6-15	20	13	15	M6	7	8	15	8	2,95 €
VP20-M6-25	20	13	15	M6	7	8	25	11	3,02 €
VP30-M6-15	30	17	24	M6	11	13	15	18	3,46 €
VP30-M6-25	30	17	24	M6	11	13	25	21	3,54 €
VP30-M6-35	30	17	24	M6	11	13	35	23	3,61 €
VP30-M8-20	30	17	24	M8	11	13	20	25	3,73 €
VP30-M8-30	30	17	24	M8	11	13	30	27	3,73 €
VP40-M8-20	40	21	28	M8	13	15	20	38	4,61 €
VP40-M8-30	40	21	28	M8	13	15	30	40	4,68 €
VP40-M8-40	40	21	28	M8	13	15	40	44	4,75 €
VP50-M8-20	50	25	33	M8	15	18	20	52	5,37 €
VP50-M8-30	50	25	33	M8	15	18	30	56	5,41 €
VP50-M8-40	50	25	33	M8	15	18	40	60	5,41 €
VP50-M10-20	50	25	33	M10	15	18	20	61	5,48 €
VP50-M10-30	50	25	33	M10	15	18	30	65	5,63 €
VP50-M10-40	50	25	33	M10	15	18	40	70	6,00 €
VP60-M12-20	60	28	35	M12	15	20	20	101	7,56 €
VP60-M12-30	60	28	35	M12	15	20	30	107	7,71 €
VP60-M12-40	60	28	35	M12	15	20	40	115	7,75 €
VP70-M12-30	70	32	42	M12	21	21	30	133	9,29 €
VP70-M12-40	70	32	42	M12	21	21	40	138	9,44 €
VP70-M12-50	70	32	42	M12	21	21	50	145	9,58 €
VP70-M14-50	70	32	42	M14	21	21	50	181	13,20 €

Dimensions in mm

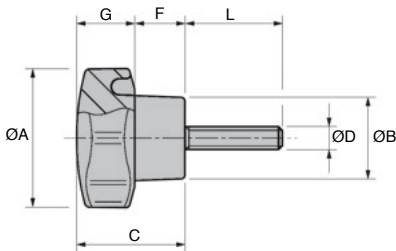
- **Operating element**
- **Materials:**
 Black phenolic Duraplast
 Threaded stud: stainless steel

Advantages

- Easy grip
- Temperature resistant
- Good chemical resistance
- Easier to clean than technopolymer
- In machining applications, less likely to retain swarf



Good resistance



DISCOUNTS

Qty	1+	10+	20+	50+	100+	200+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	ØA	ØB	C	ØD	F	G	L	Weight (g)	Price each 1 to 9
VP20-M5-15/SS	20	13	15	M5	7	8	15	9	4,54 €
VP20-M6-15/SS	20	13	15	M6	7	8	15	10	4,68 €
VP20-M6-20/SS	20	13	15	M6	7	8	20	13	4,68 €
VP30-M6-15/SS	30	17	24	M6	11	13	15	20	5,37 €
VP30-M6-20/SS	30	17	24	M6	11	13	20	21	5,55 €
VP30-M6-35/SS	30	17	24	M6	11	13	35	22	5,70 €
VP40-M8-20/SS	40	21	28	M8	12	16	20	42	6,73 €
VP40-M8-30/SS	40	21	28	M8	12	16	30	46	7,35 €
VP40-M8-45/SS	40	21	28	M8	12	16	45	51	8,19 €
VP50-M10-20/SS	50	25	33	M10	13	20	20	73	9,02 €
VP50-M10-30/SS	50	25	33	M10	13	20	30	78	10,02 €
VP50-M10-40/SS	50	25	33	M10	13	20	40	83	10,78 €
VP60-M12-30/SS	60	28	37	M12	15	22	30	118	14,51 €
VP60-M12-40/SS	60	28	37	M12	15	22	40	125	15,58 €

Dimensions in mm

Threaded spherical knob



GPB

Technopolymer

- Spherical knob with moulded thread or brass insert
- Small central groove
- Material :
Black Duroplast with brass insert

Option

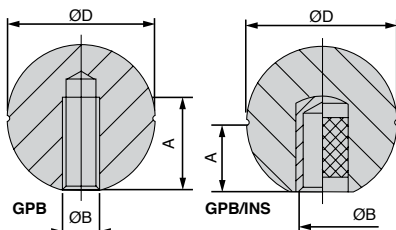
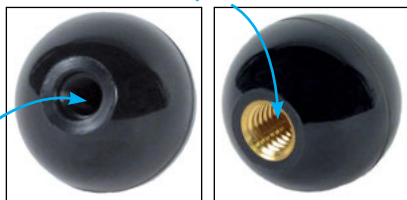
- Stainless steel or polyamide colored insert on quantities

Info.

- Not sold individually, please contact us for details

Moulded thread

Brass insert



DISCOUNTS

Qty	1+	10+	20+	50+	100+	200+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	ØD	A	ØB	Stock*	Price each 1 to 9
Moulded thread					
GPB19-M4	19	10	M4	✓	1,61 €
GPB19-M5	19	10	M5	✓	1,61 €
GPB19-M6	19	10	M6	✓	1,72 €
GPB25-M6	25	17	M6	✓	1,90 €
GPB25-M8	25	17	M8	✓	1,90 €
GPB32-M8	32	20	M8	✓	2,11 €
GPB32-M10	32	20	M10	✓	2,11 €
GPB32-M12	32	20	M12	✓	2,11 €
GPB41-M10	41	20	M10	✓	2,80 €
GPB41-M12	41	20	M12	✓	2,80 €
GPB47-M14	47	23	M14	✓	3,76 €
Threaded insert					
GPB19-M6/INS	19	9	M6	✓	2,73 €
GPB25-M8/INS	25	15	M8	✓	2,87 €
GPB32-M8/INS	32	15	M8	✓	2,94 €
GPB32-M10/INS	32	16	M10	✓	3,27 €
GPB41-M10/INS	41	16	M10	✓	4,31 €
GPB41-M12/INS	41	18	M12	✓	5,02 €

*Depending on availability - Dimensions in mm



Ball knobs

Smooth bored or female threads M3-M8 712

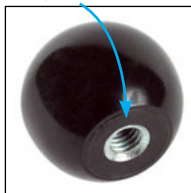
- Operating elements
- Working temperature: -30°C to +140°C
- Materials: black phenolic plastic

Moulded thread

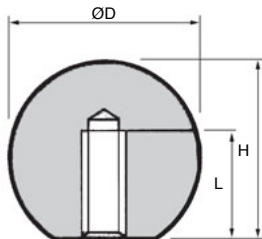


With moulded thread

Brass insert



With threaded insert



DISCOUNTS

Qty	1+	10+	20+	50+	100+
Disc.	List	-20%	-30%	-40%	On request

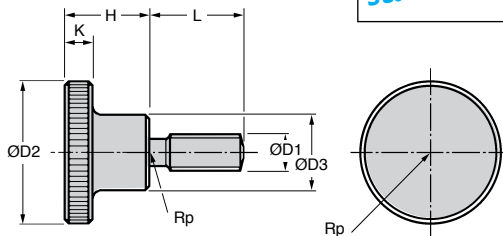
Part number	Thread ØT	ØD	H	L	Stock*	Price each 1 to 9
With moulded thread						
712-001	M3	10,00	9,50	5,55	✓	1,67 €
712-002	M4	12,00	11,00	7,50	✓	1,67 €
712-003	M4	16,00	15,00	7,50	✓	1,79 €
712-004	M5	20,00	18,00	10,50	✓	1,90 €
712-005	M6	25,00	22,50	13,50	✓	2,26 €
712-006	M8	32,00	29,00	16,00	✓	2,92 €
With threaded insert						
712-007	M4	16,00	15,00	7,50	✓	2,26 €
712-008	M5	20,00	18,00	10,50	✓	2,13 €
712-009	M6	25,00	22,50	13,50	✓	2,83 €
712-010	M8	32,00	29,00	16,00	✓	4,08 €

*Depending on availability - Dimensions in mm

VMS

Threads M4-M10

- **Material:** Polished stainless steel 303
- Operating elements
- Conforms to DIN 464
- ** These thumb screws are supplied with shaft threaded along the entire length (no groove)



DISCOUNTS

Qty	1+	6+	20+	40+	60+	101+
Disc.	List	-10%	-15%	-20%	-25%	On request

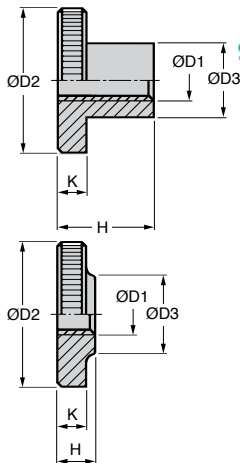
Part number	ØD1	ØD2	ØD3	H	K	L	Stock*	Price each 1 to 5
VMS4-10	M4	16	8	9,5	3,5	10	✓	2,55 €
VMS4-16	M4	16	8	9,5	3,5	16	✓	2,82 €
VMS4-20	M4	16	8	9,5	3,5	20**	✓	3,08 €
VMS5-10	M5	20	10	11,5	4,0	10	✓	3,14 €
VMS5-16	M5	20	10	11,5	4,0	16	✓	3,73 €
VMS5-20	M5	20	10	11,5	4,0	20**	✓	4,50 €
VMS6-10	M6	24	12	15,0	5,0	10	✓	6,75 €
VMS6-16	M6	24	12	15,0	5,0	16	✓	5,25 €
VMS6-20	M6	24	12	15,0	5,0	20	✓	9,50 €
VMS6-25	M6	24	12	15,0	5,0	25**	✓	7,71 €
VMS8-16	M8	30	16	18,0	6,0	16	✓	12,01 €
VMS8-20	M8	30	16	18,0	6,0	20	✓	13,02 €
VMS8-25	M8	30	16	18,0	6,0	25	✓	12,36 €
VMS10-20	M10	36	20	23,0	8,0	20	✓	18,28 €
VMS10-25	M10	36	20	23,0	8,0	25	✓	20,57 €

*Depending on availability - Dimensions in mm

Threads M3-M12

EMSH
EMS_B

- Solid knurled nut
- Material: stainless steel 18.9
- Conforms to DIN 466



Tall version EMS-H



Low version EMS-B

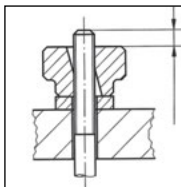
DISCOUNTS

Qty	1+	6+	20+	40+	60+	101+
Disc.	List	-10%	-15%	-20%	-25%	On request

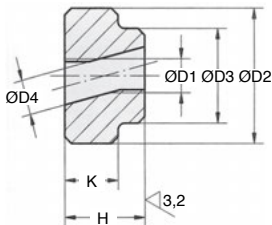
Part number	ØD1	ØD2	ØD3	H	K	Stock*	Price each 1 to 5
High version							
EMS-3H	M3	12	6	7,5	2,5	✓	1,08 €
EMS-4H	M4	16	8	9,5	3,5	✓	1,64 €
EMS-5H	M5	20	10	11,5	4,0	✓	1,91 €
EMS-6H	M6	24	12	15,0	5,0	✓	2,99 €
EMS-8H	M8	30	16	18,0	6,0	✓	6,56 €
EMS-10H	M10	36	20	23,0	8,0	✓	10,67 €
EMS-12H	M12	36	20	23,0	8,0	✓	18,05 €
Low version							
EMS-4B	M4	16	8	4,0	3,5	✓	1,26 €
EMS-5B	M5	20	10	5,0	4,0	✓	1,68 €
EMS-6B	M6	24	12	6,0	5,0	✓	2,65 €
EMS-8B	M8	30	16	8,0	6,0	✓	6,44 €
EMS-10B	M10	36	20	10,0	8,0	✓	11,59 €
EMS-12B	M12	36	20	10,0	8,0	✓	15,25 €

*Depending on availability - Dimensions in mm

- For use in applications that do not require very tight fastening
- Material: hardened steel
- Finish: hardened and blackened



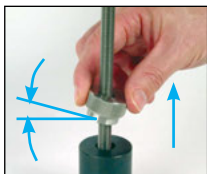
Threaded rod should be longer than dimension "H"



1) Tilt, and slide down.



2) Level and tighten or loosen.



3) Tilt, and slide back up.

DISCOUNTS

Qty	1+	6+	20+	40+	60+	101+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	ØD1	ØD2	ØD3	ØD4	H	K	Weight (g)	Stock*	Price each 1 to 5
								✓	
EMR-5	M5	20	14	5,2	12	8	25	✓	7,63 €
EMR-6	M6	24	16	6,2	14	10	38	✓	8,86 €
EMR-8	M8	30	20	8,2	17	12	75	✓	11,46 €
EMR-10	M10	36	28	10,3	20	14	130	✓	12,59 €
EMR-12	M12	40	32	12,3	24	16	185	✓	15,80 €

*Depending on availability - Dimensions in mm

- One piece construction
- Operating elements
- Material: stainless steel 304
- Finish: polished

Advantages

- Does not retain dirt or dust

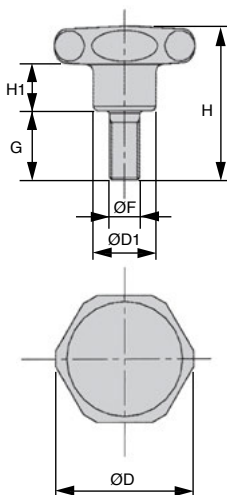
Applications

- Chemical, pharmaceutical and food industries

Solid stainless steel



Polished finish



DISCOUNTS

Qty	1+	6+	10+	25+
Disc. List		-5%	-10%	On request

Part number	ØF	ØD	ØD1	H	H1	G	Stock*	Price each 1 to 5
VML6-27	M6	27	15	30	10,0	10	✓	24,08 €
VML8-33	M8	33	19	43	11,0	20	✓	29,62 €
VML8-40	M8	40	21	47	15,0	20	✓	43,86 €
VML10-50	M10	50	25	63	17,5	30	✓	51,81 €
VML12-60	M12	60	27	77	20,0	40	✓	71,87 €

*Depending on availability - Dimensions in mm

Stainless steel hexagonal headed thumb nut **Sta Stock**

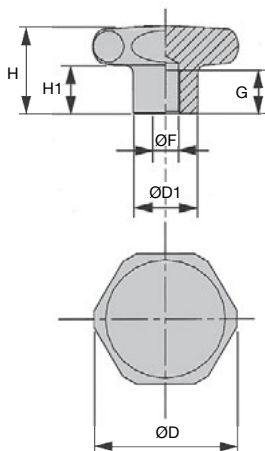
EML

Threads M5-M12

- One piece construction
- Material: stainless steel 304
- Finish: polished

Advantages

- Does not retain dirt or dust



Polished finish

DISCOUNTS

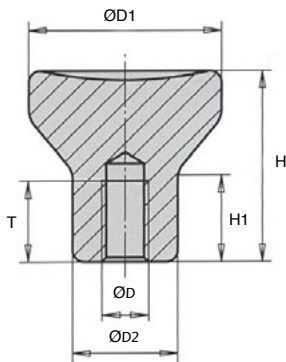
Qty	1+	6+	10+	25+
Disc. List		-5%	-10%	On request

Part number	ØF	ØD	ØD1	H	H1	G	Stock*	Price each 1 to 5
EML5-27	M5	27	15	19	10,0	10	✓	22,29 €
EML6-33	M6	33	19	23	12,0	12	✓	27,96 €
EML8-40	M8	40	21	27	15,0	13	✓	34,89 €
EML10-50	M10	50	25	33	17,5	17	✓	45,85 €
EML12-60	M12	60	27	37	20,0	20	✓	59,86 €

*Depending on availability - Dimensions in mm

- Suitable for linear (push/pull) operations
- Material:
Stainless steel 303
Finish: Electrolytically polish

Economical range



DISCOUNTS

Qty	1+	10+	20+	50+
Disc. List	-10%	-20%	On request	

Part number	ØD	ØD1	ØD2	H	H1	T	Stock*	Price each 1 to 9
BCH3-18/SS	M3	18	10	18	8,6	7,5	✓	8,99 €
BCH4-21/SS	M4	21	12	21	10,0	10,0	✓	9,84 €
BCH5-21/SS	M5	21	12	21	10,0	12,5	✓	10,59 €
BCH6-25/SS	M6	25	14	25	12,0	12,0	✓	11,78 €
BCH8-33/SS	M8	33	18	33	16,0	16,0	✓	17,24 €

*Depending on availability - Dimensions in mm

Thermoplastic T handle

PGNT

Pull or push

- Handle with threaded insert or threaded stem

- Material:

Black glass fibre reinforced thermoplastic

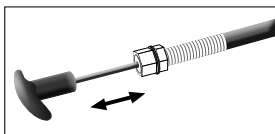
Threaded insert: brass

Threaded stem: Chromed steel

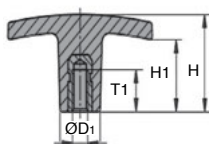
Advantage

- Excellent grip

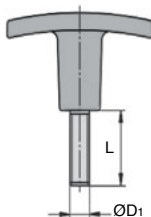
- Mechanical linkage applications



Typical application



T handle with insert



T handle with threaded stem

DISCOUNTS

Qty	1+	10+	20+	50+	100+	200+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	A	B	ØD1	ØD3	H	H1	T1	L	Weight (kg)	Price each 1 to 9
With threaded insert										
PGNT40-M5	40	13	M5	13	30,5	20	10	-	0,011	2,33 €
PGNT50-M5	50	15	M5	14	24	16	10	-	0,013	2,43 €
PGNT60-M6	60	17	M6	16	31,5	23	12	-	0,017	3,24 €
PGNT71-M8	71	19,5	M8	20	36	19	20	-	0,028	5,01 €
PGNT71-M10	71	19,5	M10	20	36	19	20	-	0,030	5,51 €
PGNT80-M10	80	26	M10	26	39,5	26	25	-	0,048	6,41 €
PGNT80-M12	80	26	M12	26	39,5	26	25	-	0,056	7,48 €
With threaded stem										
PGNT40-M5-15	40	13	M5	13	30,5	20	-	15	-	1,26 €
PGNT50-M5-20	50	15	M5	14	24	16	-	20	-	2,20 €
PGNT50-M6-25	60	17	M6	16	31,5	23	-	25	-	2,51 €
PGNT71-M8-30	71	19,5	M8	20	36	19	-	30	-	3,70 €
PGNT71-M10-30	71	19,5	M10	20	36	19	-	30	-	4,24 €
PGNT80-M10-30	80	26	M10	26	39,5	26	-	30	-	4,91 €
PGNT80-M12-40	80	26	M12	26	39,5	26	-	40	-	5,81 €

Dimensions in mm

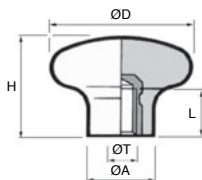


Mushroom headed knobs

Female threads M6-M10

712

- Suitable for linear (push/pull) operations
- With threaded female steel insert
- Working temperature: -30°C to +140°C
- Material: black phenolic plastic



DISCOUNTS

Qty	1+	10+	20+	50+	100+
Disc.	List	-20%	-30%	-40%	On request

Part number	Thread ØT	ØD	H	L	ØA	Stock*	Price each 1 to 9
712-026	M6	20	26	13,50	15	✓	4,49 €
712-027	M8	30	39	16,00	18	✓	5,12 €
712-028	M10	50	35	21,00	23	✓	7,43 €

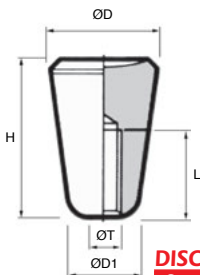
*Depending on availability - Dimensions in mm

Revolving knob

Female threads M6+M8

712

- Suitable for use with handwheels
- With moulded thread
- Working temperature: -30°C to +140°C
- Material: black phenolic plastic



DISCOUNTS

Qty	1+	10+	20+	50+	100+
Disc.	List	-20%	-30%	-40%	On request

Part number	Thread ØT	ØD	ØD1	H	L	Stock*	Price each 1 to 9
712-024	M6	20	12	30	13,50	✓	3,48 €
712-025	M8	30	18	45	15,00	✓	4,94 €

*Depending on availability - Dimensions in mm

Carrying handle

PX
PO

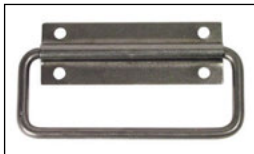
Steel

Handle PX399-BR:

- The plate and ring of the handle are not attached
- Plate: 1mm thick formed steel
- Ring: formed wire Ø4.9mm

Handle PO301-ZB:

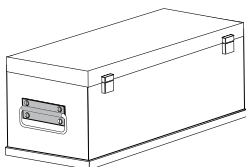
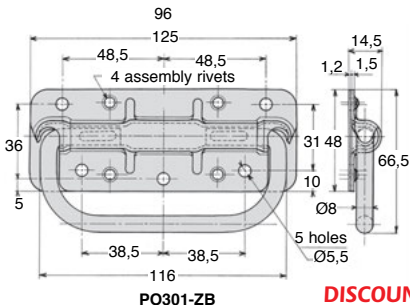
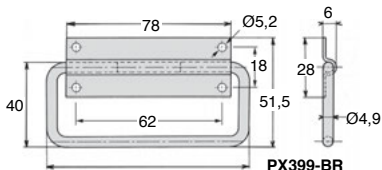
- Reduced height saves space
- Ring is secured to plate
- Two part riveted plate, 1.5mm
- 5 fixing holes Ø5.5mm
- Ring: Formed steel wire 8mm
- Plate secured using 4 x light alloy rivets Ø3mm



Handle PX399-BR



Handle PO301-ZB



Typical application

DISCOUNTS

Qty	1+	6+	20+	50+	250+	400+
Disc.	List	-5%	-10%	-15%	-25%	On request

Part number	Finish	Fixing	Max. load per handle (kgf)	Weight (kg)	Stock*	Price each 1 to 5
Ordinary carry handle						
PX399-BR	Unfinished	With hole	-	0,049	✓	1,25 €
Riveted carrying handle						
PO301-ZB	White zinc	With hole	60	0,023	✓	7,84 €

*Depending on availability - Dimensions in mm



Flexible tube handle

For Ø18 - Ø33 tubes

PSPT

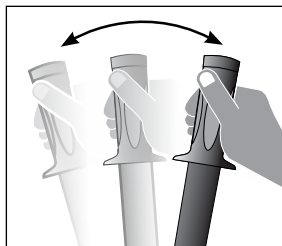
- Tube handle with collar
- Smooth interior
- Material:
Black PVC

Assembly

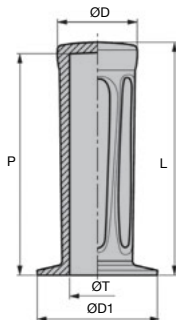
- Fit using a mallet,
no adhesive required

Advantages

- Resists oil, shocks and low temperatures



Typical application



DISCOUNTS

Qty	1+	60+	100+	200+
Disc.	List	-5%	-10%	On request

Part number	Tube ØT	L	ØD	ØD1	P	Weight (g)	Price each 1 to 59
PSPT18-115	18-19	115	31	44	110	62	2,69 €
PSPT20-115	20-21	115	31	44	110	56	2,38 €
PSPT22-115	22-23	115	31	44	110	46	2,06 €
PSPT24-125	24-25	125	36	49	120	72	3,07 €
PSPT26-125	26	125	36	49	120	60	2,69 €
PSPT27-125	27-28	125	36	49	120	50	2,60 €
PSPT29-125	29	125	36	49	120	50	2,60 €
PSPT30-130	30	130	42	51	125	92	3,07 €
PSPT33-130	33	130	42	51	125	74	2,69 €

Dimensions in mm

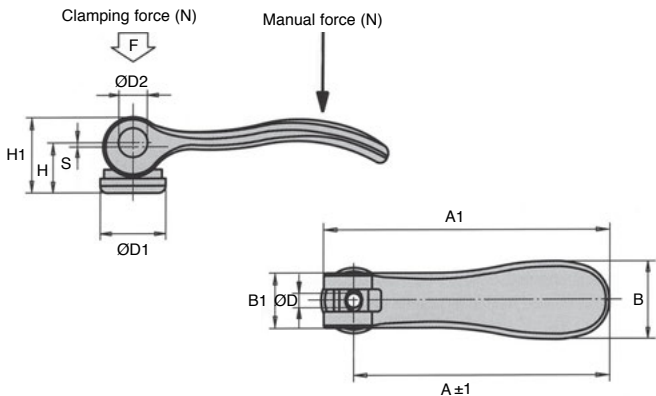
- Element of manual blocking

- Materials

Handle: Electrolytically stainless steel
Z6CN18.10M

Thrust washer: glass fibre reinforced
black plastic PA 6 GF 30

Hinge pin, threaded stud and washer:
polished stainless steel 303



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-10%	On request



Part number	Thread	ØD	ØD1	ØD2	B	B1	H	H1	A	A1	Clamping force F (kN)		Stroke S	Price each 1 to 5
											Manual force N	Stroke S		
LAC-M5/SS	M5	18	9	21,5	15	14,5	22,0	70,4	79,2	4	120	1,2	✓	25,99 €
LAC-M6/SS	M6	18	9	21,5	15	14,5	22,0	70,4	79,2	4	120	1,2	✓	25,99 €
LAC-M8/SS	M8	27	11	33,2	24	18,0	28,5	96,0	108,0	8	350	1,5	✓	36,06 €

*Depending on availability - Dimensions in mm

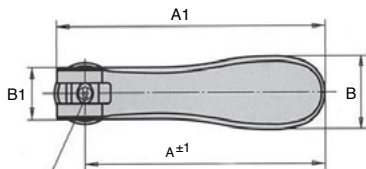
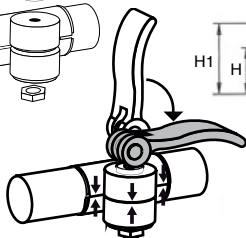
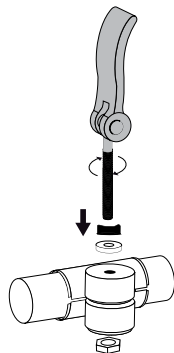
Sta Adjustable **stainless steel** cam lever

With external thread

LACTss

- Element of manual blocking
- Quick fixing
- Materials

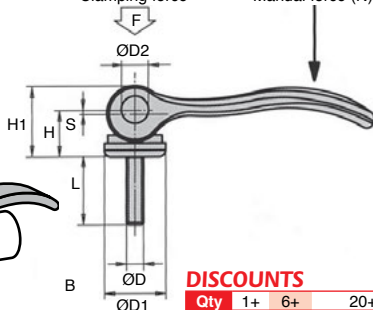
Handle: stainless steel Z6CN18.10M, electrolytically polished
 Thrust washer: glass fibre reinforced black plastic PA 6 GF 30
 Hinge pin, threaded stud and washer: polished stainless steel 303



Pin for fine adjustment of tensioning lever

Clamping force

Manual force (N)



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-10%	On request

Part number	Thread			B	B1	H	H1	A	A1	Clamping force F (kN)	Manual force N	Stroke S	L	Stock*	Price each 1 to 5
	ØD	ØD1	ØD2												
LAC-T5/SS	M5	18	9	21,5	15	14,5	22,0	70,4	79,2	4	120	1,2	40	✓	30,40 €
LAC-T6/SS	M6	18	9	21,5	15	14,5	22,0	70,4	79,2	4	120	1,2	40	✓	30,40 €
LAC-T8/SS	M8	27	11	33,2	24	18,0	28,5	96,0	108,0	8	350	1,5	50	✓	41,04 €
LAC-T10/SS	M10	27	11	33,2	24	18,0	28,5	96,0	108,0	8	350	1,5	50	✓	41,04 €

*Depending on availability - Dimensions in mm

TOGGLE LATCHES



p.120

TOGGLE CLAMP



p.134

RETAINING CLAMP

✓ INCREASED STOCK



p.146

FASTENING SYSTEMS

p.120 - 157

MAGNETIC



✓ INCREASED STOCK

p.148

MANUAL BONNET FASTENER



p.155

GE5 GE18

Standard and miniature versions

- Hook fastening
- Material: White zinc steel or stainless steel 303

Assembly

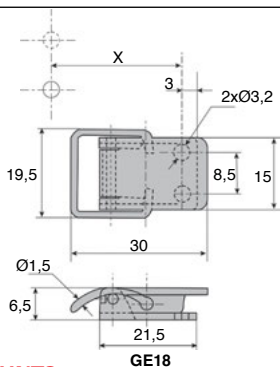
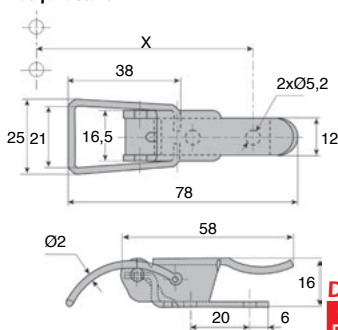
- GE5-ZB and GE5-SS are used with AC121-ZB and AC121-SS hooks, dimension X = 77.5mm to withstand a tension up to 350N
- GE18-ZB and GE18-SS are used with AC118-ZB and AC118-SS hooks, dimension X = 31.1mm to withstand a tension up to 150N

Advantages

- Very flexible
- Other types of rings are available

Info.

- Not sold individually, please contact us for details



DISCOUNTS

Qty	1+	51+	101+	250+	400+	500+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	Material	Wire Ø	Tab thickness mm	Back-plate thickness	Max. tension (N)	Weight (g)	Stock*	Price each 1 to 50
Standard								
GE5-ZB	steel	2,0	2.0mm	2.0mm	500	36,0	✓	2,78 €
GE5-SS	stainless steel	2,0	2.0mm	2.0mm	500	36,0	✓	6,01 €
Miniature								
GE18-ZB	steel	1,5	0.8mm	1.0mm	300	6,5	✓	1,78 €
GE18-SS	stainless steel	1,5	0.8mm	1.0mm	300	6,5	✓	2,85 €

*Depending on availability - Dimensions in mm

- Hook fastening
- Material: White zinc steel

Assembly

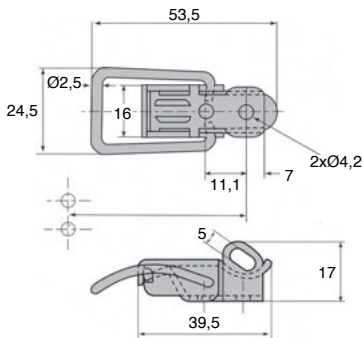
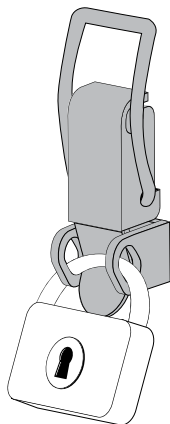
- GE14-ZB is used with AC101-ZB hook, dimension X = 53.9mm to withstand a tension up to 350N

Advantages

- Flexible positioning
- Allows many different movements without undoing the clasp
- More positions possible

Info.

- Not sold individually, please contact us for details



DISCOUNTS

Qty	1+	51+	101+	250+	400+	500+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	Wire Ø	Tab thickness	Back-plate thickness	Max. tension (N)	Weight (g)	Stock*	Price each 1 to 50
GE14-ZB	2,5	1.5mm	2mm	500	21,9	✓	2,93 €

*Depending on availability - Dimensions in mm

Elastic ringed latch

Stock StaSte

GE1006

Slot fastening

- Hook fastening
- Ring is slightly flexible
- Material: White zinc steel or stainless steel 303

Steel or stainless steel

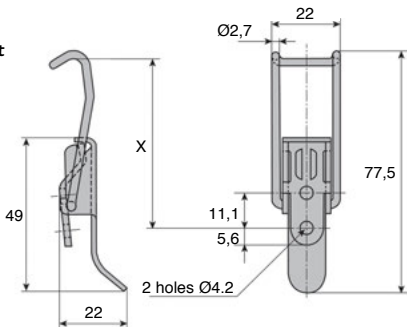
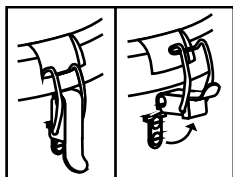


Assembly

- Approx mounting dimension:
X = 56.6mm to withstand a tension of 400N

Info

- Not sold individually, please contact us for details



DISCOUNTS

Qty	1+	51+	101+	250+	400+	500+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	Wire Ø	Tab thickness	Back-plate thickness	Max. Tension (N)	Weight (g)	Stock*	Price each 1 to 50
GE1006-ZB	2,7	1.5mm	2.0mm	550	25	✓	1,55 €
Stainless steel							
GE1006-SS	2,5	1.5mm	2.0mm	550	24	✓	7,84 €

*Depending on availability - Dimensions in mm

Recommended in absence of joint

GP22
GP23

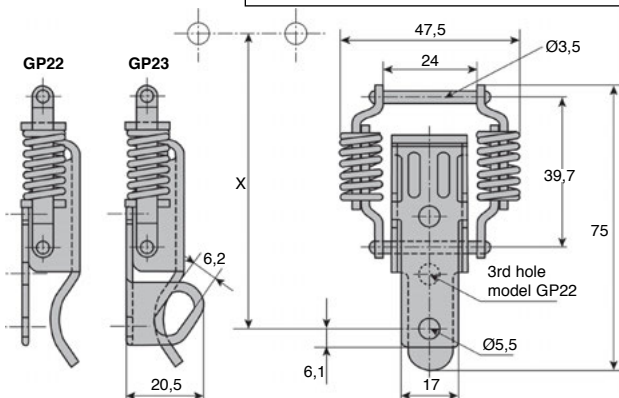
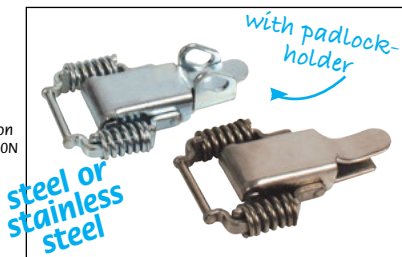
- Large positioning tolerances
- Very adaptable
- Materials: White zinc steel or stainless steel 303

Assembly

- When used with AC122 hook, dimension X= 87mm to withstand a tension of 350N

Info

- Not sold individually, please contact us for details



DISCOUNTS

Qty	1+	51+	101+	250+	400+	500+
Disc. List		-10%	-15%	-20%	-25%	On request

Part number	Wire Ø	Tab thickness	Back-plate thickness	Max. tension (N)	Weight (g)	Stock*	Price each 1 to 50
Steel							
GP22-ZB	1,7	2.00mm	2.5mm	450	75	✓	6,51 €
GP23-ZB	2,5	2.00mm	2.5mm	450	75	✓	7,22 €
Stainless steel							
GP22-SS	2,7	2.00mm	2.5mm	450	75	✓	14,44 €
GP23-SS	3,5	2.00mm	2.5mm	450	75	✓	14,88 €

*Depending on availability - Dimensions in mm

Hook for latch

Stock **Sta** **Ste**

ACZB
ACss

15mm wide

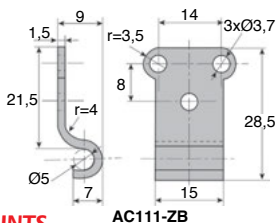
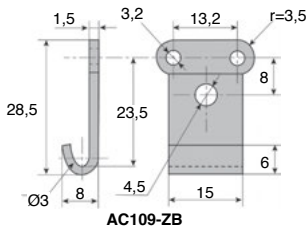
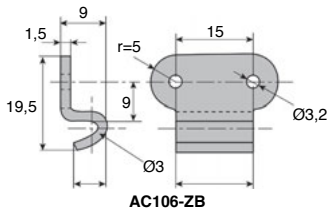
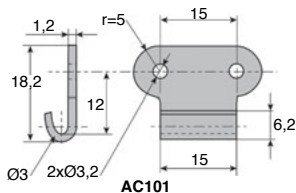
- Hook fastening
- Material: White zinc steel or stainless steel 303

Selection

- Choose your own hook/latch combination by simply verifying the interior width of the ring and selecting a hook with a smaller width

Info.

- Not sold individually, please contact us for details



DISCOUNTS

Qty	1+	51+	101+	250+	400+	500+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	Suitable for latch	Weight (g)	Stock*	Price each 1 to 50
Steel				
AC101-ZB	GE14-ZB	4,7	✓	0,53 €
AC106-ZB	GE14-ZB	5,2	✓	0,84 €
AC109-ZB	GE14-ZB	6,2	✓	0,78 €
AC111-ZB	GE14-ZB	6,8	✓	1,21 €
Stainless steel				
AC101-SS	GE1006-SS	4,7	✓	0,57 €

*Depending on availability - Dimensions in mm

Widths: 12, 13, 18 and 20mm

ACZB
ACSS

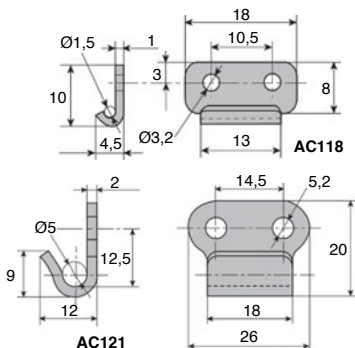
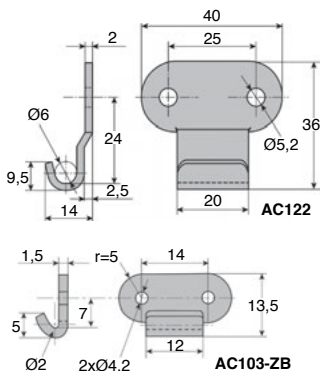
- Hook fastening
- Material: White zinc steel or stainless steel 303

Selection

- Choose your own hook/latch combination by simply verifying the interior width of the ring and selecting a hook with a smaller width

Info.

- Not sold individually, please contact us for details



DISCOUNTS

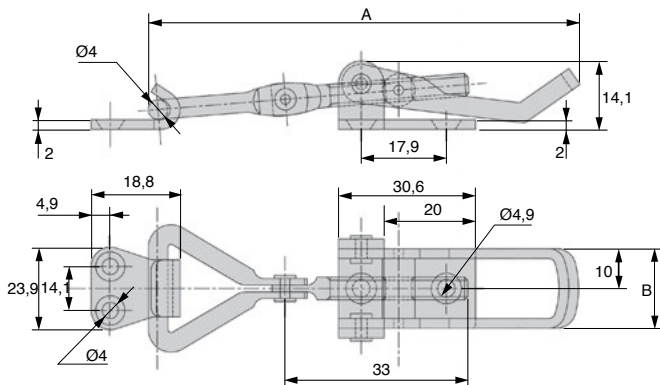
Qty	1+	51+	101+	250+	400+	500+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	Suitable for latch	Weight (g)	Stock*	Price each 1 to 50
Steel				
AC103-ZB	-	3,4	-	0,27 €
AC118-ZB	GE18-ZB	1,5	✓	0,20 €
AC121-ZB	GE5-ZB	9,4	✓	0,44 €
AC122-ZB	GP22-ZB and GP23-ZB	1,9	✓	0,78 €
Stainless steel				
AC118-SS	GE18-SS	1,5	✓	0,37 €
AC121-SS	GE5-SS	9,4	✓	1,11 €
AC122-SS	GP22-SS and GP23-SS	1,9	✓	2,13 €

*Depending on availability - Dimensions in mm

Adjustable latch clamp with catch-plate **Ste** **Sta**

SRG20 Span adjustable from 77.3 to 83mm



DISCOUNTS

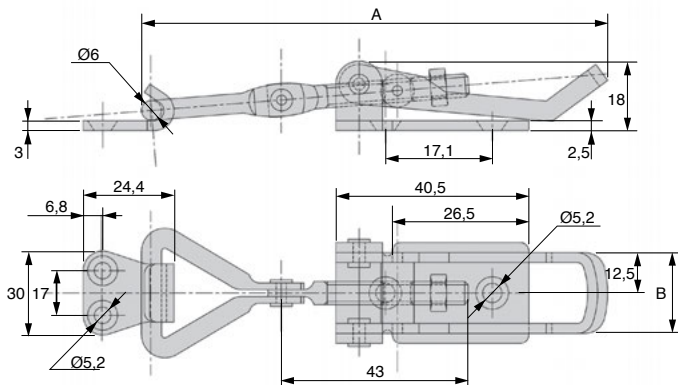
Qty	1+	51+	101+
Disc.	List -10%	On request	

Part number	A	B	Material	Finish	Weight(g)	Stock*	Price each 1 to 50
SRG40-117-128	117,4 to 128	40,6	Steel	Galvanised	130	✓	7,44 €
SRG40-117-128/SS	117,4 to 128	40,6	S-Steel 304	Natural	130	✓	24,30 €

*Depending on availability - Dimensions in mm

SteSta Adjustable latch clamp with catch-plate

Span adjustable from 96 to 121.7mm SRG25



DISCOUNTS

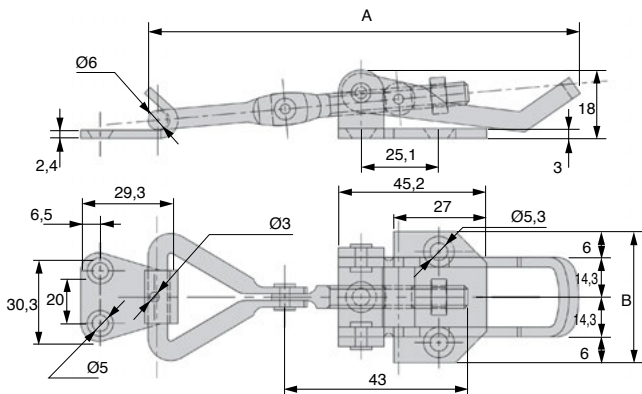
Qty	1+	51+	101+
Disc.	List -10%	On request	On request

Part number	X	A	B	Material	Finish	Weight(g)	Stock*	Price each 1 to 50
SRG52-78-90	78 to 90	67	52	Steel	Galvanised	100	✓	10,01 €
SRG52-78-90/SS	78 to 90	67	52	S-Steel 304	Natural	100	✓	22,58 €

*Depending on availability - Dimensions in mm

Adjustable latch clamp with catch-plate **SteSta**

SRG40 Span adjustable from 117.4 to 128mm



DISCOUNTS

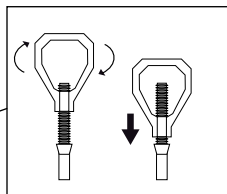
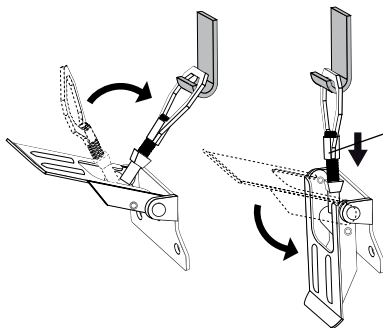
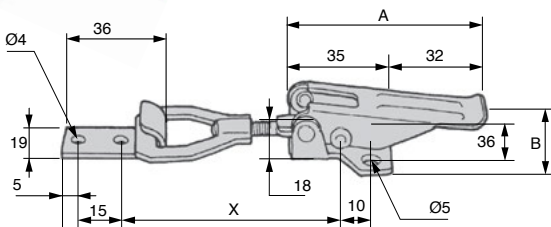
Qty	1+	51+	101+
Disc.	List	-10%	On request

Part number	A	B	Material	Finish	Weight(g)	Stock*	Price each 1 to 50
SRG40-117-128	117,4 to 128	40,6	Steel	Galvanised	130	✓	7,44 €
SRG40-117-128/SS	117,4 to 128	40,6	S-Steel 304	Natural	130	✓	24,30 €

*Depending on availability - Dimensions in mm

Ste Sta Adjustable latch clamp with catch-plate

Span adjustable from 78 to 90mm **SRG52**



DISCOUNTS

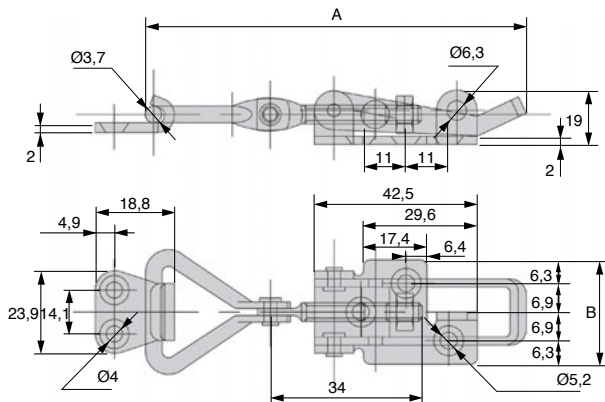
Qty	1+	51+	101+
Disc.	List	-10%	On request

Part number	X	A	B	Material	Finish	Weight(g)	Stock*	Price each 1 to 50
SRG52-78-90	78 to 90	67	52	Steel	Galvanised	100	✓	10,01 €
SRG52-78-90/SS	78 to 90	67	52	S-Steel 304	Natural	100	✓	22,58 €

*Depending on availability - Dimensions in mm

Adjustable latch clamp with catch-plate **Ste Sta**

SVG26 Span adjustable from 82 to 92mm



DISCOUNTS

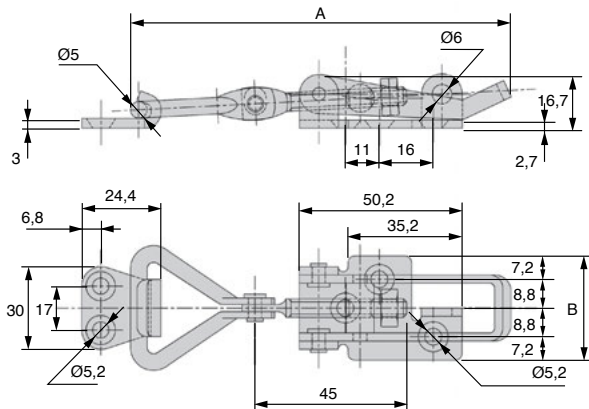
Qty	1+	51+	101+
Disc. List	-10%	On request	On request

Part number	A	B	Material	Finish	Weight (g)		Price each 1 to 50
SVG26-82-92	82 to 92	26,4	Steel	Galvanised	48	✓	6,24 €
SVG26-82-92/SS	82 to 92	26,4	S-Steel 304	Natural	48	✓✓	10,46 €

*Depending on availability - Dimensions in mm

Ste Sta Adjustable latch clamp with catch-plate

Span adjustable from 106.7 to 121.4mm SVG32



INCREASED STOCK

DISCOUNTS

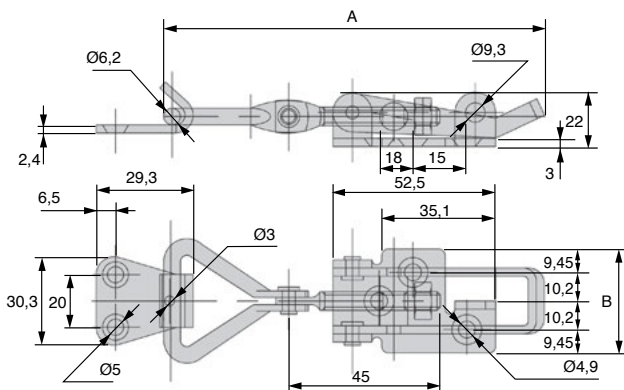
Qty	1+	51+	101+
Disc.	List	-10%	On request

Part number	A	B	Material	Finish	Weight (g)	Price each 1 to 50
SVG32-106-121	106.7 to 121.4	32	Steel	Galvanised	102	5.68 €
SVG32-106-121/SS	106.7 to 121.4	32	S-Steel 304	Natural	102	16.23 €

*Depending on availability - Dimensions in mm

Adjustable latch clamp with catch-plate **Ste|Sta**

SVG39 Span adjustable from 118 to 130.5mm



DISCOUNTS

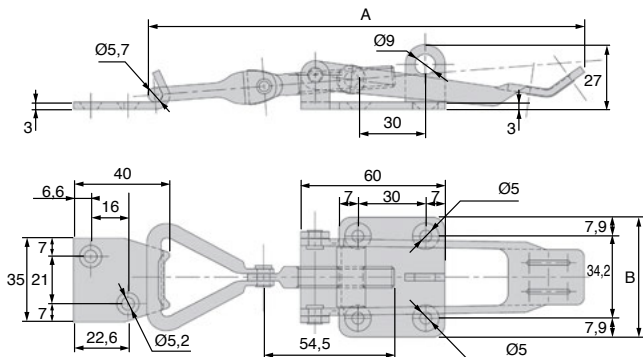
Qty	1+	51+	101+
Disc. List	-10%	On request	

Part number	A	B	Material	Finish	Weight (g)	Stock*	Price each 1 to 50
SVG39-118-130	118 to 130,5	39,3	Steel	Galvanised	124	✓	10,64 €
SVG39-118-130/SS	118 to 130,5	39,3	S-Steel 304	Natural	124	✓	23,30 €

*Depending on availability - Dimensions in mm

Ste Sta Adjustable latch clamp with catch-plate

Span adjustable from 174 to 190mm **SVG50**



DISCOUNTS

Qty	1+	51+	101+
Disc.	List	-10%	On request

Part number	A	B	Material	Finish	Weight (g)	Stock*	Price each 1 to 50
SVG50-174-190	174 to 190	50	Steel	Galvanised	236	✓	13,62 €
SVG50-174-190/SS	174 to 190	50	S-Steel 304	Natural	236	-	44,62 €

*Depending on availability - Dimensions in mm

- **Two materials to choose from**
- **Materials:**
SLV body: zinc plated steel
SCH/SS body: stainless steel 18.9 (303)
Rivets: stainless steel
Fastening pin and nuts: phosphated steel
Handle: oil-resistant plastic
- With fixing base and adjustable fastening pin

steel or stainless steel



Advantages

- The angle between securing arm to the handle can be adjusted by removing the gudgeon

Options

- Fixing bracket (please ask us)

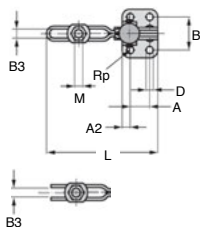
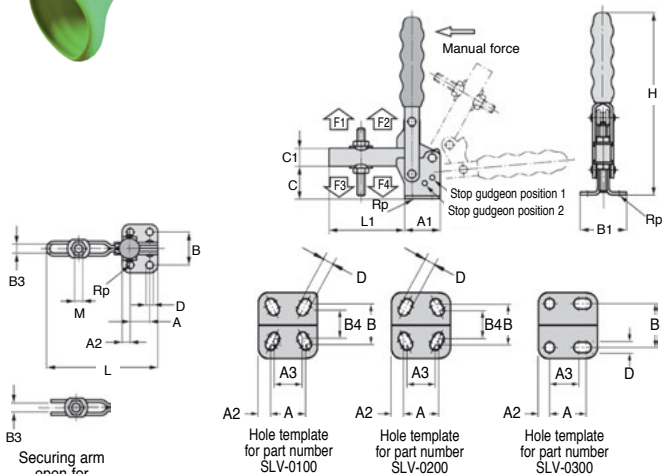


Typical application

Part number		Opening angle of securing arm			Opening angle of handle			A1	B1	H
Steel	Stainless steel	Pos.1	Pos.2	without gudgeon	Pos.1	Pos.2	without gudgeon			
SLV-0075	SLV-0075SS	130°	-	160°	90°	-	100°	25	34	94
SLV-0100	-	95°	-	185°	65°	-	105°	29	34	98
SLV-0150	SLV-0150SS	95°	-	185°	75°	-	110°	27	38	121
SLV-0200	-	105°	-	175°	70°	-	95°	35	42	135
SLV-0250	SLV-0250SS	95°	125°	160°	70°	85°	100°	35	45	175
SLV-0300	-	105°	-	160°	65°	-	90°	43	53	186
SLV-0350	-	90°	120°	180°	70°	80°	110°	50	64	220
SLV-0450	-	90°	125°	180°	70°	85°	110°	53	64	228
SLV-0550	-	90°	120°	180°	65°	80°	110°	76	95	312

Part number		Manual force (N)	Holding force		Locking force		C	C1	L1
Steel	Stainless steel	(N)	F1(N)	F2(N)	F3(N)	F4(N)			
SLV-0075	SLV-0075SS	80	700	1100	500	750	16	9,0	32
SLV-0100	-	80	700	1000	500	800	22	9,5	38
SLV-0150	SLV-0150SS	120	1350	1650	800	1050	23	11,0	43
SLV-0200	-	100	1000	2200	950	1350	30	12,7	44
SLV-0250	SLV-0250SS	190	1000	2800	900	1700	32	17,5	75
SLV-0300	-	130	2000	3700	900	1850	34	19,0	100
SLV-0350	-	230	2200	4500	1400	3000	43	22,0	95
SLV-0450	-	260	3200	7000	1400	3000	51	25,0	124
SLV-0550	-	290	3000	8000	1800	3900	84	32,0	156

*Depending on availability - Dimensions in mm



Securing arm
open for
SLV-0100,
SLV-0200, and
SLV-0300

DISCOUNTS

Qty	1+	6+	15+	20+
Disc.	List	-5%	-10%	On request

Part number	A	A2	A3	B	B3	B4	D	L	M	Stock*	Price each 1 to 5
Steel											
SLV-0075	16,0	5,0	-	24,0	5,5	-	4,4	57	M5x35	✓	18,75 €
SLV-0100	16,0	6,0	14,0	24,0	5,5	17,5	4,8	67	M5x35	✓	18,50 €
SLV-0150	12,7	7,0	-	27,0	6,4	-	5,1	70	M6x50	✓	21,35 €
SLV-0200	19,0	8,0	12,7	27,0	6,3	25,0	5,5	79	M6x50	✓	21,35 €
SLV-0250	19,0	8,0	-	32,0	8,8	-	7,1	110	M8x60	✓	32,99 €
SLV-0300	25,0	9,0	19,0	34,5	8,8	-	8,0	143	M8x60	✓	39,68 €
SLV-0350	32,0	9,0	-	45,0	10,6	-	8,3	145	M10x80	✓	44,29 €
SLV-0450	32,0	10,0	-	45,0	12,7	-	8,7	177	M12x100	✓	56,30 €
SLV-0550	51,0	12,5	-	70,0	16,5	-	12,3	232	M16x150	-	75,56 €
Stainless steel											
SLV-0075SS	16,0	5,0	-	24,0	5,5	-	4,4	57	M5x35	✓	47,40 €
SLV-0150SS	12,7	7,0	-	27,0	6,4	-	5,1	70	M6x50	✓	60,90 €
SLV-0250SS	19,0	8,0	-	32,0	8,8	-	7,1	110	M8x60	✓	85,20 €

*Depending on availability - Dimensions in mm

Horizontal toggle clamp



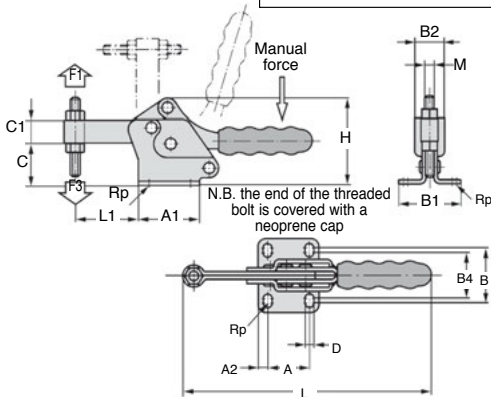
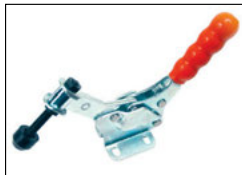
SLH

Secures by direct pressure

- Materials:
 Body: zinc plated steel
 Fastening pin and nuts: phosphated steel
 Handle: Oil resistant plastic
- With fixing base and adjustable fastening pin

Options

- Fixing bracket (please ask us)



DISCOUNTS

Qty	1+	6+	15+	20+
Disc. List	-5%	-10%	On request	

Part number	Opening angle of securing arm Pos. 1	Opening angle of handle Pos. 1	Manual force (N)	Manual force F1(N)	Securing force F3(N)
SLH-0075	90°	75°	80	750	320
SLH-0150	90°	80°	140	1500	650

Part number	A	A1	A2	B	B1	B2	B4	C	C1	D	H	L	L1	M	Stock*	Price each 1 to 5
SLH-0075	13,5	25	5,7	16,8	27	16	-	19	9,5	5,2	38	108	24,5	M5x35	✓	21,35 €
SLH-0150	26,0	38	6,0	28,0	40	20	22	25	14,0	5,5	53	155	38,0	M6x50	✓	25,13 €

*Depending on availability - Dimensions in mm

- 2 materials to choose from

- Materials:

SEH body: zinc plated steel

SEH/SS body: stainless steel 18.9 (303)

Handle: Oil-resistant plastic

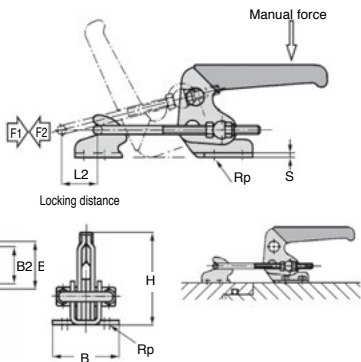
- Supplied with anchoring base

Advantages

- Distance of hook from toggle clamp easily adjustable

Uses

- Designed to secure covers and shutters



DISCOUNTS

Qty	1+	6+	15+	20+
Disc. List	-5%	-10%	On request	

Size	Traction force F1(N)	Pressure force F2(N)	Manual force (N)	Opening angle	B	B1	B2	H	Adjustable distance L		Locking distance L1	
									min.	max.	min.	max.
SEH-01	1800	2000	100	120°	36	24	19	42	105	135	38	68
SEH-02	2700	4000	150	120°	48	33	26	64	145	185	45	85
SEH-04	4500	7000	200	120°	64	45	36	85	190	250	65	120

Part number												Price each 1 to 5	
Steel	Stainless steel	A	A1	A2	A3	A4	B3	D	D1	S	Steel	StS	
SEH-0140	SEH-0140SS	26	13	4,5	11,0	23	16	5,2	4	2,5	39,72 €	44,99 €	
SEH-0250	SEH-0250SS	35	19	6,0	14,0	32	21	6,5	6	3,0	63,15 €	72,51 €	
SEH-0450	SEH-0450SS	51	32	8,0	19,0	40	28	8,5	8	4,0	105,84 €	147,49 €	

*Depending on availability - Dimensions in mm

Vertical stirrup toggle clamp **Ste Sta Stock**

SEV

Secures with a hook

- 2 materials to choose from

- Materials:

SEH body: zinc plated steel

SEH/SS body: stainless steel 18.9 (303)

Handle: Oil-resistant plastic

- Supplied with anchoring base

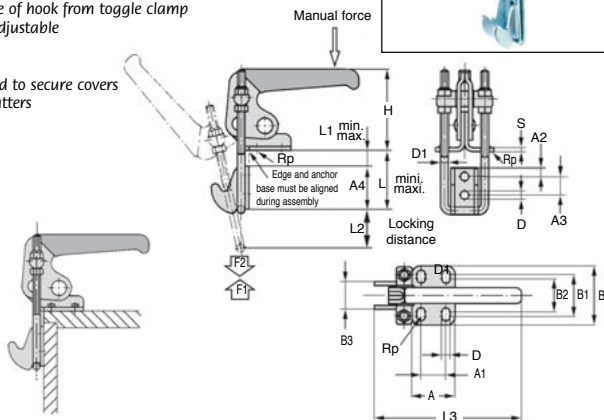
Advantages

- Distance of hook from toggle clamp easily adjustable

Uses

- Designed to secure covers and shutters

Steel or stainless steel



DISCOUNTS

Qty	1+	6+	15+	20+
Disc.	List	-5%	-10%	On request

Size	Traction force F1(N)	Pressure F2(N)	Manual force (N)	Opening angle of handle	Adjustable distance L1				Locking distance L2 L3	
					Min.	Max.	Min.	Max.	L2	L3
SEV-01	1800	2000	100	145°	25	49	1	25	22	76
SEV-02	2700	4000	150	145°	33	60	1	28	34	115
SEV-04	4500	7000	200	145°	41	80	1	40	45	152

Part number													Price each 1 to 5			
Steel	Stainless steel	A	A1	A2	A3	A4	B	B1	B2	B3	D	D1	H	S	Steel	StS
SEV-0140	SEV-0140SS	26	13	4,5	11	24	36	24	19	16	5,2	4	42	2,5	42,76	55,36
SEV-0250	SEV-0250SS	35	19	6,0	14	32	48	33	26	21	6,5	6	64	3,0	63,15	77,83
SEV-0450	SEV-0450SS	51	32	8,0	19	40	64	45	36	28	8,5	8	85	4,0	105,84	147,72

Dimensions in mm

- 2 materials to choose from

- Materials:

SEH body: zinc plated steel

SEH/SS body: stainless steel 18.9 (303)

Handle: Oil-resistant plastic

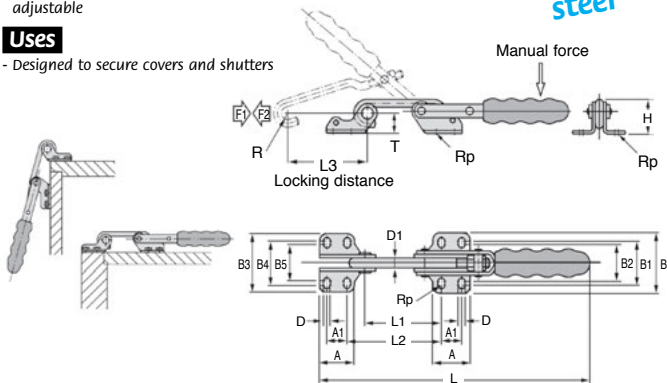
- Supplied with anchoring base

Advantages

- Distance of hook from toggle clamp easily adjustable

Uses

- Designed to secure covers and shutters



DISCOUNTS

Qty	1+	6+	15+	20+
Disc.	List	-5%	-10%	On request

Size	Traction force F1 (N)	Pressure F2 (N)	Manual force (N)	Handle opening angle	L	L1	L2	Locking distance L3	A	A1
SCH-01	1500	2000	100	155°	161	45	58	70	26	13
SCH-02	3000	4000	160	155°	248	68	84	90	35	19
SCH-04	4000	7000	200	155°	310	84	104	115	51	32

Part number												Stock*		Price each 1 to 5		
Steel	Stainless steel	B	B1	B2	B3	B4	B5	D	D1	H	R	T	Steel	StS	Steel	StS
SCH-0130	SCH-0130SS	39	27,0	22,2	43	31	26	5,2	6	26	6	13,5	✓	✓	52,21 €	60,90 €
SCH-0270	SCH-0270SS	52	36,0	29,0	57	41	34	6,5	8	35	7	20,0	✓	✓	77,14 €	92,04 €
SCH-0430	SCH-0430SS	72	52,5	43,5	78	59	50	8,5	12	49	10	27,0	-	-	97,83 €	192,29 €

*Depending on availability - Dimensions in mm

Toggle clamps

Rapid clamping - reliable fastening

Durable and reliable: More reliable, more user-friendly and safer. These clamps are quick to use, reliable and accurate. The use of high quality materials ensures a long working life.

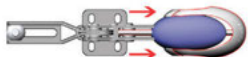
Advantages

- **Extremely tough** : All models will withstand 300,000 clamping cycles without problems
- **Durable** : High-quality bushes - no scratching
- **Extremely robust** : tCorrosion-resistant NITROX coating
- **Easy to use** : The fixed headed nut facilitates spindle adjustment
- **Reliable** : Constant level of force during both opening and closing
- **Ideal where space is restricted** : The slim design allows sufficient space for safe operation
- **Robust by design** : Thanks to use of U-shaped conical clamping arm
- **Safe to use** : No sharp edges prevent risk of anything getting trapped
- **Quick to put into operation** : Can be easily modified thanks to a wide range of accessories
- **Ergonomic design** : Easy to operate whilst wearing work gloves
- **Reflection free finish** : Suitable for use around lasers
- **Risk free use** : With increased space between clamping arm and handle avoids risks of squashing
- **Extremely adaptable** : Rectangular mounting holes allows installation on existing fixing points
- **Efficient clamping and locking** : The integrated design avoids any risks of squashing. Easy to use even whilst wearing gloves.

Locking mechanism – principal of operation



1. Locked in closed position. Redesigned handle ensures safe operation as the smooth contours avoid any risk of anything being trapped.



2. Inner locking mechanism with automatic safety catch. The lock is released by pulling the handle.



3. Locked in open position. Releasing the handle engages the locking mechanism.



Toggle clamps

Round faced nut

SLH-M

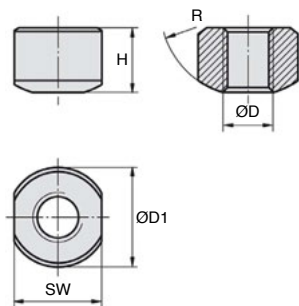
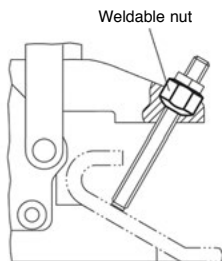
- Nut for toggle clamps

- Material : steel

- Finish : oxidised

Advantage

- Nut can be welded in place



DISCOUNTS

Qty	1+	6+	15+	20+
Disc.	List	-5%	-10%	On request

Part number	ØD	H	ØD1	SW	R	Price each 1 to 5
SLH-M4	M4	5,2	8	7	7	2,57 €
SLH-M5	M5	6,7	10	9	9	2,70 €
SLH-M6	M6	9,5	13,5	12,2	10	2,96 €
SLH-M8	M8	12,8	18	15,3	12	3,61 €
SLH-M10	M10	12,1	20	18,2	14	3,87 €
SLH-M12	M12	14,8	23	20	16	4,20 €

Dimensions in mm

Horizontal toggle clamp

SLHHLOK

With **locking mechanism**

High quality swivel bush with horizontal foot and adjustable spindle

Constant level of force during both opening and closing

Increased stability thanks to U-shaped clamping arm fitted with automatic locking mechanism

- Materials :

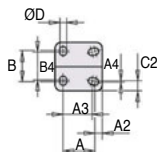
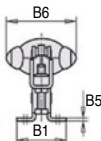
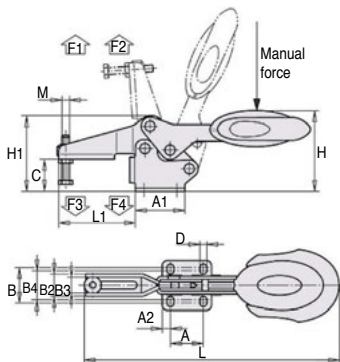
Nitro carburised steel with blackened finish

Polyamide handle

Locking mechanism TPE



Horizontal base



Hole positions

DISCOUNTS

Qty	1+	6+	15+	20+
Disc. List	-5%	-10%	On request	

Part number	Opening angle		Manual force N	Holding force		Clamping force		H	H1	L	L1
	Holding arm	Handle		F1 (N)	F2 (N)	F3 (N)	F4 (N)				
SLHH-6/LOK	87°	68°	160	1350	1900	720	1200	63,3	59,5	193,3	60,5
SLHH-8/LOK	86°	66°	200	2000	2800	830	1400	73,9	70	230,3	74,9
SLHH-10/LOK	90°	71°	250	2200	4500	1200	2800	94,8	87,9	286	103,9
SLHH-12/LOK	88°	68°	280	2400	5500	1000	2800	104,9	101,6	321,3	122

Part number	M	A	A1	A2	A3	A4	B	B1	B2	B3	B4	B5	B6	C	C2	ØD	Price each
																	1 to 5
SLHH-6/LOK	M6x35	26	39	6,5	-	-	28	39	17,5	12,4	24,6	53,4	53,4	25,5	-	5,5	51,38 €
SLHH-8/LOK	M8x45	26	44	9	-	-	31	45	21	15,7	26,1	51,1	51,1	32,2	-	6,2	52,31 €
SLHH-10/LOK	M10x55	41,5	59	9	-	-	43	59	26	18,7	39	56,5	56,5	40	-	8,8	75,52 €
SLHH-12/LOK	M12x70	44	65	10	40	1	42	67	28	20,9	40	56,5	56,5	52,3	13,5	8,5	78,77 €

Dimensions in mm

Horizontal toggle clamp

With **locking mechanism**

SLHV_{LOK}

High quality swivel bush with horizontal foot and adjustable spindle

Constant level of force during both opening and closing

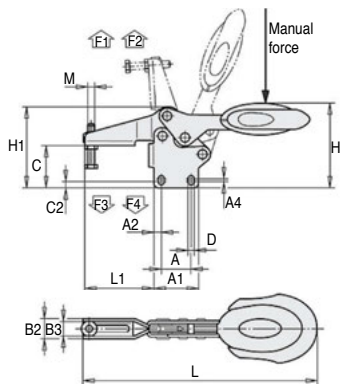
Increased stability thanks to U-shaped clamping arm fitted with automatic locking mechanism

-Material :

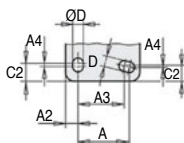
Nitro carburised steel with blackened finish

Polyamide handle

Locking mechanism TPE



vertical base



Hole positions

DISCOUNTS

Qty	1+	6+	15+	20+
Disc.	List	-5%	-10%	On request

Part number	Opening angle		Manual force N	Holding force		Clamping force		H	H1	L	L1
	Holding arm	Handle		F1 (N)	F2 (N)	F3 (N)	F4 (N)				
SLHV-6/LOK	87°	68°	160	1350	1900	720	1200	74,3	71	193,7	60,5
SLHV-8/LOK	86°	66°	200	2000	2800	830	1400	88,3	84,4	230,3	74,9
SLHV-10/LOK	90°	71°	250	2200	4500	1200	2800	114,4	107,5	286,4	103,9
SLHV-12/LOK	88°	68°	280	2400	5500	1000	2800	128,5	125,2	321,3	122

Part number	M	A	A1	A2	A3	A4	B	B1	B2	B3	B6	C	C2	ØD	Price each
															1 to 5
SLHV-6/LOK	M6x35	26	39	6,5	-	2,5	14,1	9,1	17,5	12,4	53,4	37	5,5	5,5	51,38 €
SLHV-8/LOK	M8x45	26	44	9	-	3,5	14,1	9,1	21	15,7	51,1	46,5	7	6,2	52,31 €
SLHV-10/LOK	M10x55	41,5	59	9	-	2	16,2	9,2	26	18,7	56,5	59,6	8	8,8	70,14 €
SLHV-12/LOK	M12x70	44	65	10	40	1	16,2	9,2	28	20,9	56,5	75,9	13,5	8,5	73,16 €

Dimensions in mm

Vertical toggle clamp

SLVHLOK

With locking mechanism

High quality swivel bush with vertical foot and adjustable spindle

Constant level of force during both opening and closing

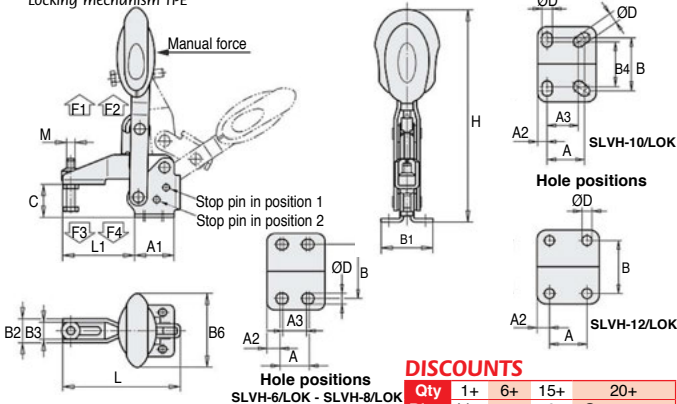
Increased stability thanks to U-shaped clamping arm
Fitted with automatic locking mechanism

- Material :

Nitro carburised steel with blackened finish

Polyamide handle

Locking mechanism TPE



DISCOUNTS

Qty	1+	6+	15+	20+
Disc. List	-5%	-10%	On request	

Part number	Opening angle (holding arm)			Opening angle (Handle)			Manual force N	Holding force		Clamping force	
	Pos. 1	Pos. 2	Stop pin removed	Pos. 1	Pos. 2	Stop pin removed		F1 (N)	F2 (N)	F3 (N)	F4 (N)
SLVH-6/LOK	56°	83°	156°	46°	56°	84°	160	1350	1650	920	1050
SLVH-8/LOK	13°	93°	157°	26°	61°	86°	190	2000	2800	940	1350
SLVH-10/LOK	6°	97°	175°	19°	59°	91°	250	2500	4500	1500	2800
SLVH-12/LOK	11°	88°	163°	24°	60°	91°	280	3000	5500	1400	2800

Part number	M	A	A1	A2	A3	B	B1	B2	B3	B4	B6	C	ØD	H	L	L1	Price
																	each 1 to 5
SLVH-6/LOK	M6x35	14	29	7	12	27	38	17,5	12,4	-	53,4	24,7	5,5	162,9	86,5	53	49,82 €
SLVH-8/LOK	M8x45	21	39	9	19	32	45	20,6	15,5	-	51,1	32,7	6,8	191,4	107	62	51,99 €
SLVH-10/LOK	M10x55	32	50	8	27	45	64	25,5	18,4	38	56,5	38,7	9	230,5	153	95	76,65 €
SLVH-12/LOK	M12x70	32	53	10,5	-	45	63	28	20,9	-	56,5	46,7	8,8	249,1	173,5	113,5	79,23 €

Dimensions in mm

Vertical toggle clamp

With **locking mechanism**

SLVVLOK

High quality swivel bush with vertical foot and adjustable spindle

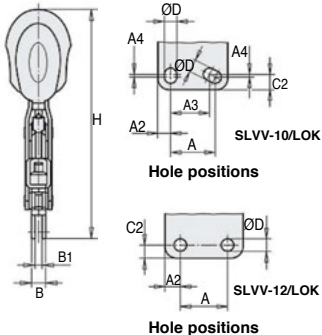
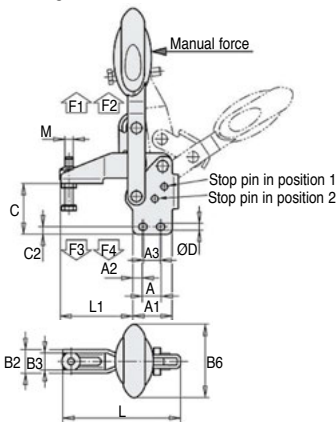
Constant level of force during both opening and closing
Increased stability thanks to U-shaped clamping arm
Fitted with automatic locking mechanism

- Material :

Nitro carburised steel with blackened finish

Polyamide handle

Locking mechanism TPE



DISCOUNTS

Qty	1+	6+	15+	20+
Disc.	List	-5%	-10%	On request

Part number	Opening angle (Holding arm)			Opening angle (Handle)			Manual force N	Holding force		Clamping force	
	Pos. 1	Pos. 2	Stop pin removed	Pos. 1	Pos. 2	F1 (N)		F2 (N)	F3 (N)	F4 (N)	
SLVV-6/LOK	56°	83°	156°	46°	56°	160	1350	1650	920	1050	
SLVV-8/LOK	13°	93°	157°	26°	61°	190	2000	2800	940	1350	
SLVV-10/LOK	6°	97°	175°	19°	59°	250	2500	4500	1500	2800	
SLVV-12/LOK	11°	88°	163°	24°	60°	280	3000	5500	1400	2800	

Part number	M	A	A1	A2	A3	A4	B	B1	B2	B3	B6	C	C2	ØD	H	L	L1	Price each 1 to 5
SLVV-6/LOK	M6x35	14	29	7	12	-	10,2	5,2	17,5	12,4	53,4	37,6	5,5	5,5	175,7	86,5	53	49,82 €
SLVV-8/LOK	M8x45	21	39	9	19	-	10,2	5,2	20,6	15,5	51,1	4,9	6,5	6,8	207,6	107	62	55,97 €
SLVV-10/LOK	M10x55	32	50	8	27	3,5	14,1	7,1	25,5	18,4	56,5	62,3	13	9	254	153	95	76,65 €
SLVV-12/LOK	M12x70	32	53	10,5	-	-	14,1	7,1	28	20,9	56,5	69,8	9	8,8	271,9	173,5	113,5	79,23 €

Dimensions in mm

Retaining clamp, single sided

VRC1

Indexed 4 x 90°

Adjustable retaining clamp

- For holding doors, drawers or pieces being machined

- Material :

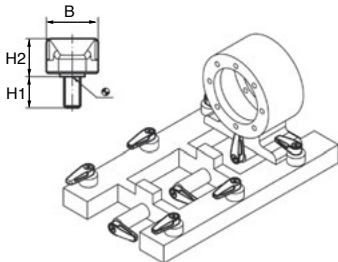
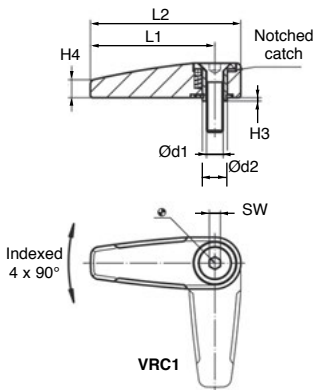
Body :

Die cast zinc, black similar to RAL 9005

Die cast zinc, silver similar to RAL 9006

Internal pieces : Sintered metal

Screw : A2 stainless steel (ISO 10642)



Typical application

DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-10%	On request

Part number	Colour	Ød1	Ød2	L1	L2	B	H1	H2	H3	H4	SW	Weight (g)	Price each 1 to 5
VRC1-M6/A	Silver	M6	9	45	55	19,0	12	13,3	0,8	6,5	4	59	20,13 €
VRC1-M8/A	Silver	M8	14	65	78	25,2	14	15,8	0,8	9,0	5	136	25,18 €
VRC1-M6/N	Black	M6	9	45	55	19,0	12	13,3	0,8	6,5	4	59	20,13 €
VRC1-M8/N	Black	M8	14	65	78	25,2	14	15,8	0,8	9,0	5	136	25,18 €

Dimensions in mm

Retaining clamp, dual sided

Indexed 4 x 90°

VRC2

Adjustable retaining clamp

- For holding doors, drawers or pieces being machined

- Material :

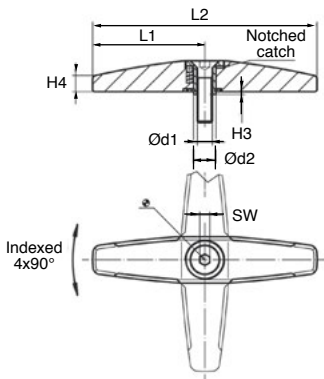
Body :

Die cast zinc, black similar to RAL 9005

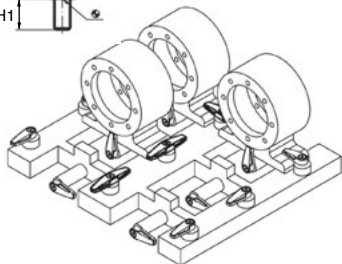
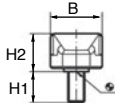
Die cast zinc, silver similar to RAL 9006

Internal pieces : Sintered metal

Screw : A2 stainless steel (ISO 10642)



VRC2



Typical application

DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-10%	On request

Part number	Colour	Ød1	Ød2	L1	L2	B	H1	H2	H3	H4	SW	Weight (g)	Price each 1 to 5
VRC2-M6/A	Silver	M6	9	45	90	19,0	12	13,3	0,8	6,5	4	93	22,53 €
VRC2-M8/A	Silver	M8	14	65	130	25,2	14	15,8	0,8	9,0	5	220	29,13 €
VRC2-M6/N	Black	M6	9	45	90	19,0	12	13,3	0,8	6,5	4	93	22,53 €
VRC2-M8/N	Black	M8	14	65	130	25,2	14	15,8	0,8	9,0	5	220	29,13 €

Dimensions in mm

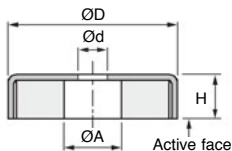
Magnetic stud with central hole



PLC

Ferrite

- Cup mounted Ferrite magnet with smooth bored hole
- Working temperature: -50°C to +100°C
- Good corrosion resistance
- Good mechanical resistance



Uses

- Mounting of objects where space is limited or mounting notice boards, protective covers etc
- Positioning of stops or inserts used in moulding machines

DISCOUNTS

Qty	1+	6+	20+	40+	60+
Disc.	List	-15%	-20%	-30%	On request

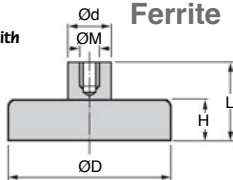
Part number	ØD	H	Ød	ØA	F (daN)	Weight (g)	Stock*	Price each 1 to 5
PLC50-10	50	10	8,5	22,0	18	85	✓	8,56 €
PLC63-14	63	14	6,5	24,0	29	197	✓	16,32 €
PLC80-18	80	18	6,5	11,5	54	458	✓	31,70 €

*Depending on availability - Dimensions in mm

PLT Magnetic stud with threaded hole

Ferrite

- Cup mounted Ferrite magnet with smooth bored hole
- Working temp.: -50°C to +100°C
- Good corrosion resistance
- Good mechanical resistance



Uses

- Fastening: protective casing, tool machines, support cables...
- Positioning: stops, inserts...
- Gripping: inaccessible places, transport

DISCOUNTS

Qty	1+	6+	20+	40+	60+
Disc.	List	-15%	-20%	-30%	On request

Part number	ØD	L	H	Ød	ØM	F (daN)	Weight (g)	Stock*	Price each 1 to 5
PLT25-15	25	15	7	8	M4	4,0	22	✓	5,10 €
PLT32-15	32	15	7	8	M4	8,0	32	✓	6,18 €
PLT40-18	40	18	8	10	M5	12,5	60	✓	8,29 €
PLT50-22	50	22	10	12	M6	22,0	110	✓	10,05 €
PLT63-30	63	30	14	15	M8	35,0	240	✓	18,79 €
PLT80-34	80	34	18	20	M10	60,0	520	-	33,24 €
PLT100-42	100	42	22	22	M12	90,0	940	-	78,80 €

*Depending on availability - Dimensions in mm



Magnetic stud with central hole

AlNiCo

VAP

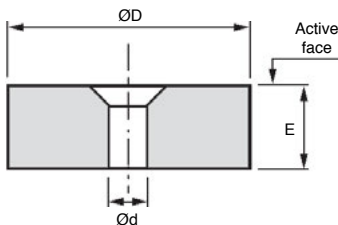
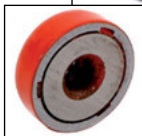
- AlNiCo magnets with central through drilled mounting hole
- Both faces are machine finished and have a strong attraction force in a reduced size
- Working temperature -50°C to +450°C
- Good shock resistance

For recessed mounting, following precautions should be observed

- in a non-ferrous support: none specified
- in a ferrous support: magnet should be isolated from the support by an air gap or non-ferrous material

Applications

- Suitable for fixing or positioning of components in reduced spaces and possibly subject to high temperatures
- Positioning of inserts in moulding machines...



DISCOUNTS

Qty	1+	6+	20+	40+	60+
Disc.	List	-15%	-20%	-30%	On request

Part number	ØD	Ød	E	F (daN)	Weight (g)	Stock*	Price each 1 to 5
VAP19-8	19	3,5	8,0	3,0	18	✓	6,65 €
VAP28-9	29	5,0	9,0	5,0	46	✓	10,62 €
VAP38-11	38	5,0	10,5	9,5	97	-	15,71 €

*Depending on availability - Dimensions in mm

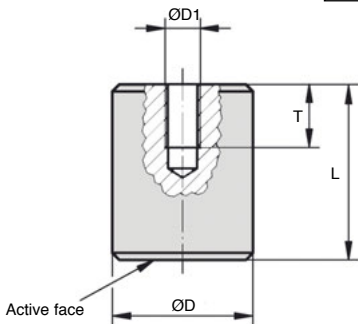
Magnetic stud



PLM

AlNiCo

- Solid magnet in steel reinforced casing
- Shielded system
- These magnetic studs can be used for support, lifting or assembly
- Max working temp +450°C
- **Material, finish:**
 - Steel body, red lacquered finish
 - Magnetic core AlNiCo



✓ INCREASED STOCK

DISCOUNTS

Qty	1+	6+	20+	40+	60+
Disc.	List	-15%	-20%	-30%	On request

Part number	ØD	ØD1	L	T	Attraction force (N)	Weight (g)	Stock*	Price each 1 to 5
PLM17-16/A	17	M6	16	4	18	26	✓	7,38 €
PLM21-19/A	21	M6	19	5	28	50	✓	7,86 €
PLM27-25/A	27	M6	25	6	65	110	✓	11,86 €
PLM35-30/A	35	M6	30	9	115	215	✓	21,48 €
PLM65-43/A	65	M12	43	13	400	1080	-	87,97 €

Dimensions in mm

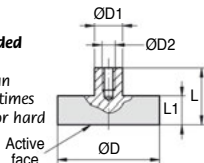


Flat magnet

SmCo

PLM

- Flat gripping magnet, shielded case
- Flat gripping magnets with an SmCo core have three to five times the adhesive force of AlNiCo or hard ferrites
- Max working temp +200°C
- **Material, finish**
Galvanised steel body,
Magnetic core SmCo



DISCOUNTS

Qty	1+	6+	20+	40+	60+
Disc.	List	-15%	-20%	-30%	On request

Part number	ØD	ØD1	ØD2	L	L1	Attraction force (N)	Stock*	Price each 1 to 5
PLM6-4-M3/SC	6 ^{±0,15}	6	M3	11,5	4,5	5	✓	5,14 €
PLM8-4-M3/SC	8 ^{±0,15}	6	M3	11,5	4,5	11	✓	5,95 €
PLM10-4-M3/SC	10 ^{±0,15}	6	M3	11,5	4,5	20	✓	8,27 €
PLM13-4-M3/SC	13 ^{±0,15}	6	M3	11,5	4,5	40	-	9,77 €
PLM16-4-M4/SC	16 ^{±0,15}	8	M4	11,5	4,5	60	✓	12,67 €
PLM20-6-M4/SC	20 ^{±0,15}	8	M4	13,0	6,0	90	-	20,38 €
PLM25-7-M4/SC	25 ^{±0,15}	8	M4	14,0	7,0	150	✓	31,03 €
PLM32-7-M5/SC	32 ^{±0,20}	10	M5	15,5	7,0	220	-	46,40 €

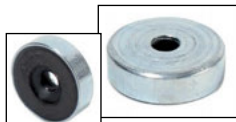
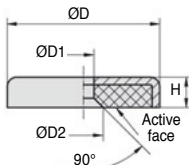
Dimensions in mm

Flat hard ferrite magnet

With milled bore

PLM

- **Shielded system**
- Max working temp : +200°C
- **Material, finish**
Galvanised steel body,
Hard ferrite magnetic core



INCREASED STOCK

DISCOUNTS

Qty	1+	6+	20+	40+	60+
Disc.	List	-15%	-20%	-30%	On request

Part number	ØD	ØD1	ØD2	H	Attraction force (N)	Weight (g)	Stock*	Price each 1 to 5
PLM16-4/F	16 ^{±0,15}	3,3	7	4,5	14	4	✓	4,20 €
PLM20-6/F	20 ^{±0,15}	4,2	9	6,0	27	9	✓	4,42 €
PLM25-7/F	25 ^{±0,15}	5,5	11	7,0	36	17	✓	4,70 €
PLM32-7/F	32 ^{±0,20}	5,5	11	7,0	72	27	✓	5,11 €
PLM40-8/F	40 ^{±0,20}	5,5	11	8,0	90	52	✓	6,69 €

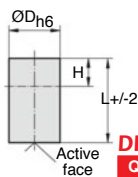
Dimensions in mm

Cylindrical holding magnets



PLM AINiCo, calibrated external diameter

- Cylindrical gripping magnet
- Shielded system
- Fixed used a press, shrink fitting or adhesive
- Dimension "H" can be reduced without affecting adhesive force
- Max working temp : 450°C
- **Material, finish**
Galvanised steel body,
Magnetic core AINiCo



DISCOUNTS

Qty	1+	6+	20+	40+	60+
Disc.	List	-15%	-20%	-30%	On request

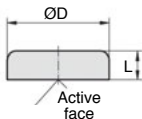
Part number	ØD	L	H	Attraction force (N)	Weight (g)	Stock*	Price each. 1 to 5
PLM6-10/C	6	10	2	1,5	2	✓	5,30 €
PLM8-12/C	8	12	3	3,5	4	✓	5,76 €
PLM10-16/C	10	16	6	7,0	9	✓	6,16 €
PLM13-18/C	13	18	7	10,0	17	-	6,97 €
PLM16-20/C	16	20	5	18,0	29	-	8,84 €
PLM20-25/C	20	25	6	42,0	57	-	11,86 €
PLM25-30/C	25	30	5	96,0	110	-	20,87 €
PLM32-35/C	32	35	3	180,0	200	-	34,90 €
PLM40-45/C	40	45	5	240,0	420	-	78,33 €
PLM50-50/C	50	50	2	420,0	720	-	152,52 €

Flat gripping magnet

PLM

Hard ferrite core

- Flat magnet without a threaded core
- Shielded system
- These holding magnets can be force fitted or glued into positioning holes
- Max working temp : +200°C
- **Material, finish** :
Galvanised steel body,
Hard ferrite magnetic core



DISCOUNTS

Qty	1+	6+	20+	40+	60+
Disc.	List	-15%	-20%	-30%	On request

Part number	ØD	L	Attraction force (N)	Weight (g)	Stock*	Price each. 1 to 5
PLM10-4/P	10 ^{±0,15}	4,5	4	2,0	✓	2,33 €
PLM13-4/P	13 ^{±0,15}	4,5	10	3,0	✓	2,62 €
PLM16-4/P	16 ^{±0,15}	4,5	18	4,5	-	3,10 €
PLM20-6/P	20 ^{±0,15}	6,0	30	10,0	✓	3,76 €
PLM25-7/P	25 ^{±0,15}	7,0	40	19,0	✓	4,12 €
PLM32-7/P	32 ^{±0,20}	7,0	80	30,0	✓	4,46 €
PLM40-8/P	40 ^{±0,20}	8,0	125	55,0	-	6,04 €
PLM50-10/P	50 ^{±0,20}	10,0	220	100,0	-	7,61 €
PLM63-14/P	63 ^{±0,20}	14,0	350	230,0	✓	13,36 €

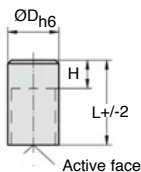
Dimensions in mm

Cylindrical magnet

SmCo

PLM

- **Smooth finish, shielded system**
- Do not press fit directly into an iron support as a magnetic short circuit will reduce the adhesive force
- Suitable for use in spot welding machines.
- Dimension "H" can be reduced with no loss of adhesive force
- Max working temp : +200°C
- **Material, finish**
Galvanised steel body,
Magnetic core SmCo



DISCOUNTS

Qty	1+	6+	20+	40+	60+
Disc.	List	-15%	-20%	-30%	On request

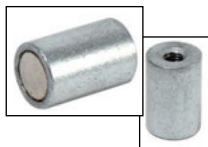
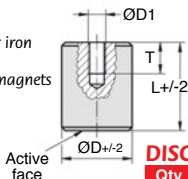
Part number	ØD	L	H	Attraction force (N)	Distance to iron wall/mm	Weight (g)	Stock*	Price each 1 to 5
PLM6-20/SC	6	20	10,0	8	1,5	4,5	✓	6,44 €
PLM8-20/SC	8	20	10,0	22	1,5	8,0	✓	8,11 €
PLM10-20/SC	10	20	8,0	40	2,0	12,0	✓	9,94 €
PLM13-20/SC	13	20	6,0	60	2,5	20,0	-	13,18 €
PLM16-20/SC	16	20	2,0	125	3,0	30,0	-	17,95 €
PLM20-25/SC	20	25	5,0	250	4,0	60,0	-	29,36 €
PLM25-35/SC	25	35	7,0	400	5,0	134,0	-	66,14 €
PLM32-40/SC	32	40	4,5	600	6,0	251,0	-	120,64 €

Threaded cylindrical magnet

NdFeB

PLM

- **Shielded system**
- Suitable for mounting in steel or iron supports
- Can also be used as blind-hole magnets
- Max working temp : +80°C
- **Material, finish**
Galvanised steel body,
Magnetic core NdFeB



DISCOUNTS

Qty	1+	6+	20+	40+	60+
Disc.	List	-15%	-20%	-30%	On request

Part number	ØD	ØD ₁	L	T	Attraction force (N)	Weight (g)	Stock*	Price each 1 to 5
PLM8-12/N	8	M3	12	5	12	7	✓	7,49 €
PLM10-16/N	10	M4	16	7	24	8	✓	8,59 €
PLM13-18/N	13	M4	18	7	60	18	✓	9,82 €
PLM16-20/N	16	M4	20	7	90	30	✓	10,42 €
PLM20-25/N	20	M5	25	9	135	60	-	18,02 €
PLM25-30/N	25	M6	30	9	190	110	-	38,44 €
PLM35-40/N	35	M8	40	13	300	290	-	66,50 €

Dimensions in mm

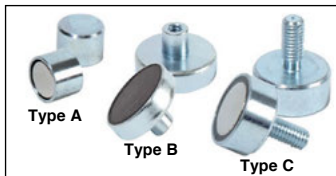
Flat magnet



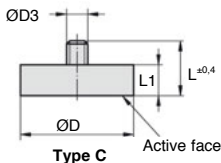
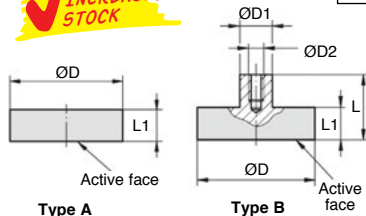
PLA

NdFeB

- **Shielded system**
- NdFeB magnets offer 10-20% more attraction force than SmCo magnets
- Max working temp : +80°C
- **Material, finish**
Galvanised steel body,
Magnetic core NeFeB



INCREASED STOCK



DISCOUNTS

Qty	1+	6+	20+	40+	60+
Disc.	List	-15%	-20%	-30%	On request

Part number	Forme	ØD	ØD1	ØD2	ØD3	L	L1	Attraction force		Price each
								(N)	Weight (g)	
PLA6-4/A	A	6 ^{+0,15}	-	-	-	4,5	4,5	5	1,0	3,24 €
PLA8-4/A	A	8 ^{+0,15}	-	-	-	4,5	4,5	13	1,5	3,36 €
PLA10-4/A	A	10 ^{+0,15}	-	-	-	4,5	4,5	25	2,5	3,92 €
PLA13-4/A	A	13 ^{+0,15}	-	-	-	4,5	4,5	60	4,5	4,05 €
PLA16-4/A	A	16 ^{+0,15}	-	-	-	4,5	4,5	95	6,5	4,85 €
PLA20-6/A	A	20 ^{+0,15}	-	-	-	6,0	6,0	140	15,0	7,30 €
PLA25-7/A	A	25 ^{+0,15}	-	-	-	7,0	7,0	200	22,0	10,95 €
PLA32-7/A	A	32 ^{+0,20}	-	-	-	7,0	7,0	350	40,0	17,17 €
PLA6-4/B	B	6 ^{+0,15}	6	M3	-	11,5	4,5	5	1,5	4,05 €
PLA8-4/B	B	8 ^{+0,15}	6	M3	-	11,5	4,5	13	2,0	4,20 €
PLA10-4/B	B	10 ^{+0,15}	6	M3	-	11,5	4,5	25	3,0	4,81 €
PLA13-4/B	B	13 ^{+0,15}	6	M3	-	11,5	4,5	60	5,0	5,02 €
PLA16-4/B	B	16 ^{+0,15}	6	M4	-	11,5	4,5	95	7,5	5,87 €
PLA20-6/B	B	20 ^{+0,15}	8	M4	-	13,0	6,0	140	16,0	9,98 €
PLA25-7/B	B	25 ^{+0,15}	8	M4	-	14,0	7,0	200	25,0	14,82 €
PLA32-7/B	B	32 ^{+0,20}	10	M5	-	15,5	7,0	350	48,0	20,02 €
PLA10-4/C	C	10 ^{+0,15}	-	-	M3	11,5	4,5	25	3,0	4,58 €
PLA13-4/C	C	13 ^{+0,15}	-	-	M5	12,5	4,5	60	5,0	5,02 €
PLA16-4/C	C	16 ^{+0,15}	-	-	M6	12,5	4,5	95	8,0	5,91 €
PLA20-6/C	C	20 ^{+0,15}	-	-	M6	16,0	6,0	140	16,0	10,01 €
PLA25-7/C	C	25 ^{+0,15}	-	-	M6	17,0	7,0	200	25,0	14,82 €
PLA32-7/C	C	32 ^{+0,20}	-	-	M6	17,0	7,0	350	48,0	20,38 €

Dimensions in mm

- Manually fastened using a hook
- Split pin supplied
- Material :
Black rubber, Shore 65/70

Advantage

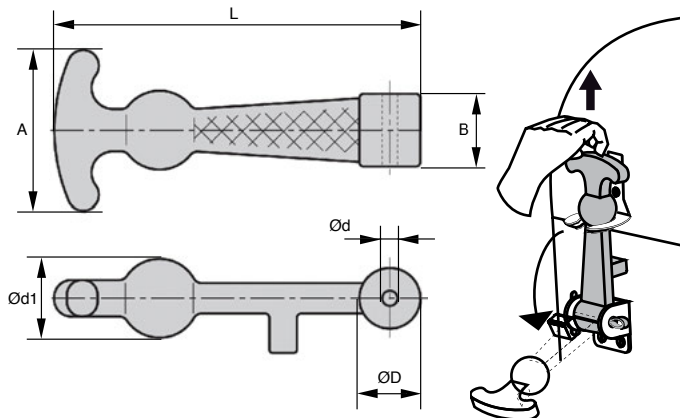
- Very easy to use

Accessories

- See ACM-AZ-32 and ACM-BZ-32 hooks and ACM-BZ-23 bracket

Info.

- Not sold individually, please contact us for details



DISCOUNTS

Qty	1+	51+	101+	250+
Disc.	List	-10%	-15%	On request

Part number	L	A	B	ØD	Ød1	Ød	Stock*	Price each 1 to 50
ACM-TRI-120	120	54	25	19	25	4	✓	3,49 €

*Depending on availability - Dimensions in mm

Mounting bracket for bonnet fastener Stock

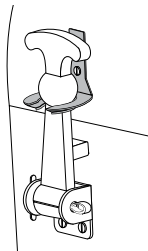
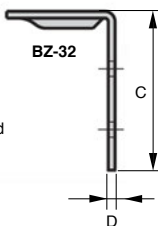
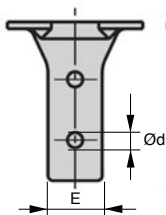
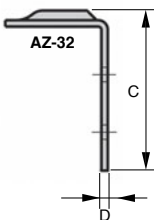
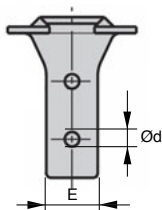
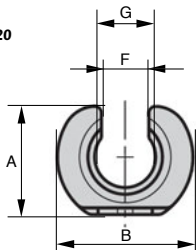
ACM-AZ ACM-BZ

Easy fastening

- Material : Plated steel
- Used to mount the ACM-TRI-120 bonnet fastener

Info.

- Not sold individually, please contact us for details



DISCOUNTS

Qty	1+	51+	101+	250+
Disc.	List	-10%	-15%	On request

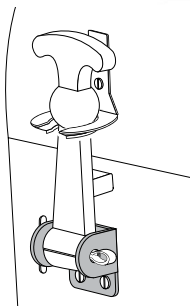
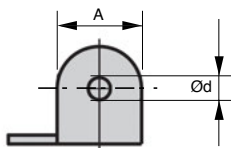
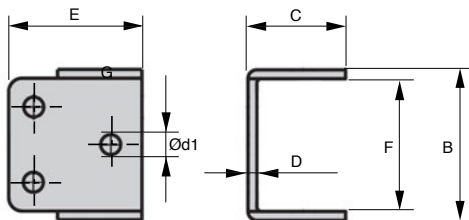
Part number	A	B	C	D	E	Ød	F	G	Stock*	Price each 1 to 50
ACM-AZ-32	32	40	50	2	16	4	15	18	✓	1,93 €
ACM-BZ-32	32	38	44	2	16	4	15	18	✓	1,93 €

*Depending on availability - Dimensions in mm

- Material : Plated steel
- Used to mount the ACM-TRI-120 bonnet fastener

Info.

- Not sold individually, please contact us for details



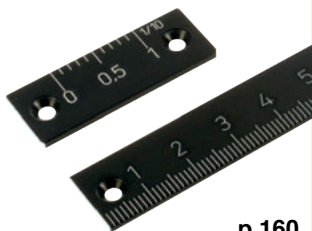
DISCOUNTS

Qty	1+	51+	101+	250+
Disc.	List	-10%	-15%	On request

Part number	A	B	C	D	E	F	Ød	Ød1	Stock*	Price each 1 to 50
ACM-DZ-23	19	34	22	2	30	30	5	4	✓	2,11 €

*Depending on availability - Dimensions in mm

ALUMINIUM RULER



p.160

DIGITAL POSITION INDICATOR



p.162

DIGITAL POSITION INDICATOR



p.166

INDICATORS p.160 - 177

DIGITAL POSITION INDICATOR



p.170

MULTIFUNCTION DISPLAY



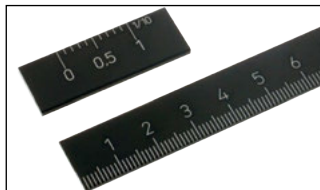
p.172

Aluminium ruler

REGA

Self adhesive

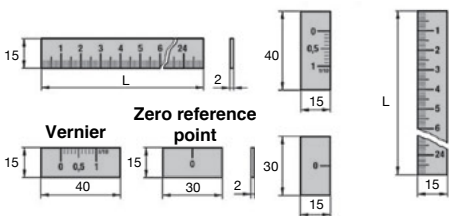
- **Rigid aluminium ruler, self adhesive**
- Section: 15 x 2 mm
- Easy glare-free reading due to black anodised finish and clear markings
- Deep laser etched graduations
- Material:
Black anodised aluminium



Info

Options (subject to minimum quantities)

- Alternative lengths
- Alternative graduations and position of zero



Self adhesive - horizontal orientation

Self adhesive - vertical orientation

DISCOUNTS

Qty	1+	25+	50+
Disc.	List	-10%	On request

Part number	Orientation	Zero point	Division	Marking	L (mm)	Price each 1 to 24
Horizontal ruler - self adhesive						
REGA1-250HD	horizontal	left	1mm	bottom	250	19,86 €
REGA1-500HD	horizontal	left	1mm	bottom	500	27,49 €
REGA1-750HD	horizontal	left	1mm	bottom	750	42,39 €
REGA1-1000HD	horizontal	left	1mm	bottom	1000	68,03 €
Vertical ruler - self adhesive						
REGA1-250VB	vertical	top	1mm	left	250	19,86 €
REGA1-500VB	vertical	top	1mm	left	500	27,49 €
REGA1-750VB	vertical	top	1mm	left	750	42,39 €
REGA1-1000VB	vertical	top	1mm	left	1000	68,03 €
Vernier - self adhesive						
REGA-VER-HD	horizontal	left	-	top	-	11,27 €
REGA-VER-VB	vertical	top	-	right	-	11,27 €
Zero reference point - self adhesive						
REGA-PZ-H	horizontal	-	-	-	-	8,10 €
REGA-PZ-V	vertical	-	-	-	-	8,10 €

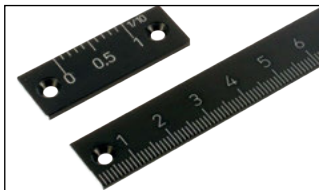
Dimensions in mm

Aluminium ruler

With screw-holes

REGP

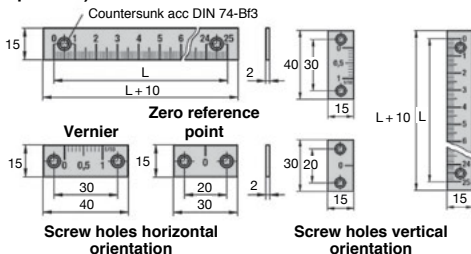
- Rigid aluminium ruler, with pre-drilled screw holes
- Section: 15 x 2 mm
- Easy glare-free reading due to black anodised finish and clear markings
- Deep laser etched graduations
- Material:
Black anodised aluminium



Info

Options (subject to minimum quantities)

- Alternative lengths
- Alternative graduations and position of zero



DISCOUNTS

Qty	1+	25+	50+
Disc.	List	-10%	On request

Part number	Orientation	Zero point	Division	Marking	L (mm)	Price each 1 to 24
Horizontal ruler with screw holes						
REGP1-250HD	horizontal	left	1mm	bottom	250	22,49 €
REGP1-500HD	horizontal	left	1mm	bottom	500	31,52 €
REGP1-750HD	horizontal	left	1mm	bottom	750	47,61 €
REGP1-1000HD	horizontal	left	1mm	bottom	1000	74,58 €
Vertical ruler with screw holes						
REGP1-250VB	vertical	top	1mm	left	250	22,49 €
REGP1-500VB	vertical	top	1mm	left	500	31,52 €
REGP1-750VB	vertical	top	1mm	left	750	47,61 €
REGP1-1000VB	vertical	top	1mm	left	1000	74,58 €
Vernier with screw holes						
REGP-VER-HD	horizontal	left	-	top	-	14,38 €
REGP-VER-VB	vertical	top	-	right	-	14,38 €
Zero reference point with screw holes						
REGP-PZ-H	horizontal	-	-	-	-	10,98 €
REGP-PZ-V	vertical	-	-	-	-	10,98 €

Dimensions in mm

Digital position indicator

New

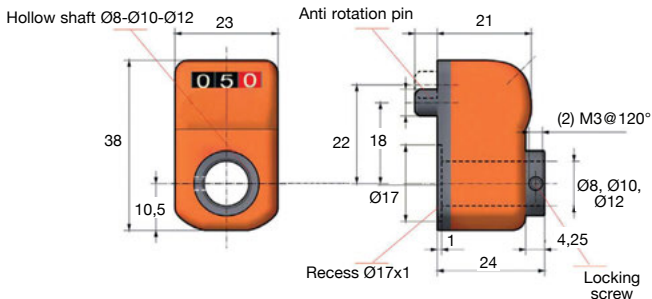
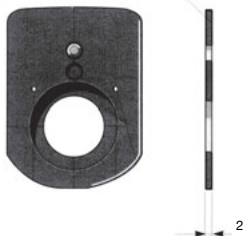
OP2

3 digit display

- 3 digit display (red digit displays tenths), displays up to 999
- Shaft driven position indicator
- 3 digit display to display and control a linear movement (or an angle) that is driven by a rotating control shaft.
- Non-flammable shock-proof technopolymer housing
- Ingress protection: IP64
- Max temperature: 80 °C
- Height of digits: 6 mm with magnifying lens
- Bore for shaft 30H7, other diameters will require reducing sleeve
- Offset of anti rotation pin: 18 mm
- Internal and external metal parts are stainless steel



Dust seal



Mounting

- Insert the indicator over the shaft ensuring that the anti-rotation pin is inserted into the 6 mm hole drilled previously. Set the display to its initial reading (zero) and tighten the locking screw

Bore diameter

- Bores of 8, 10 and 12 mm are available.
- For an 8 or 10 mm bore, replace 12R in the Par N° with 8R or 10R



Display



View A



SX

DX



View B

DISCOUNTS

Qty	1+	5+	10+	15+	25+
Disc.	List	-6%	-12%	-20%	On request

Part number	View	Pitch (mm)	Display after 1 revolution (mm)	Max speed (rpm)	Counting direction	Price each 1 to 4
OP2-A10-DX-12R	A	1	01 0	800	clockwise	94,09 €
OP2-A20-DX-12R	A	2	02 0	350	clockwise	94,09 €
OP2-A30-DX-12R	A	3	03 0	250	clockwise	94,09 €
OP2-A40-DX-12R	A	4	04 0	200	clockwise	94,09 €
OP2-A50-DX-12R	A	5	05 0	150	clockwise	94,09 €
OP2-B10-DX-12R	B	1	01 0	800	clockwise	94,09 €
OP2-B20-DX-12R	B	2	02 0	350	clockwise	94,09 €
OP2-B30-DX-12R	B	3	03 0	250	clockwise	94,09 €
OP2-B40-DX-12R	B	4	04 0	200	clockwise	94,09 €
OP2-B50-DX-12R	B	5	05 0	150	clockwise	94,09 €
OP2-A10-SX-12R	A	1	01 0	800	anti-clockwise	94,09 €
OP2-A20-SX-12R	A	2	02 0	350	anti-clockwise	94,09 €
OP2-A30-SX-12R	A	3	03 0	250	anti-clockwise	94,09 €
OP2-A40-SX-12R	A	4	04 0	200	anti-clockwise	94,09 €
OP2-A50-SX-12R	A	5	05 0	150	anti-clockwise	94,09 €
OP2-B10-SX-12R	B	1	01 0	800	anti-clockwise	94,09 €
OP2-B20-SX-12R	B	2	02 0	350	anti-clockwise	94,09 €
OP2-B30-SX-12R	B	3	03 0	250	anti-clockwise	94,09 €
OP2-B40-SX-12R	B	4	04 0	200	anti-clockwise	94,09 €
OP2-B50-SX-12R	B	5	05 0	150	anti-clockwise	94,09 €

Dimensions in mm

Digital position indicator

Size XS Stock

OP3DX
OP3SX

4 digit display

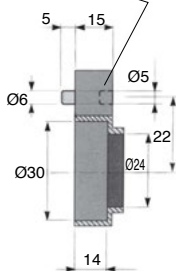
- 4 digit display (9999) with red digits for tenths/hundredths
- Shaft driven position indicator
- Displays linear or angular movement by use of mechanism driven by a rotating shaft
- Nonflammable polycarbonate case Protection IP64
- Max. temperature 80°C
- Colour: orange
- Height of digits: 5mm
- Standard bore for shaft 14H7, smaller bores will require use of reducing sleeve



Gasket supplied



Clamp spacer
OP3-BE



Options

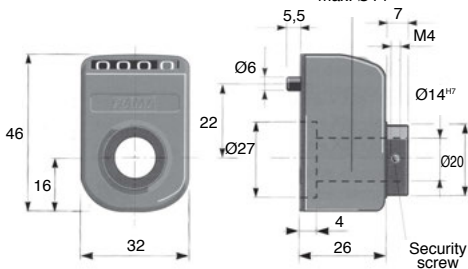
- Version with stainless steel parts available
- Torque pin $\text{Ø}6\text{mm}$

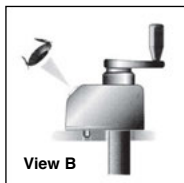
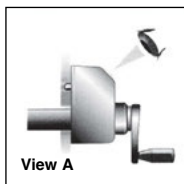
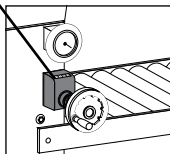
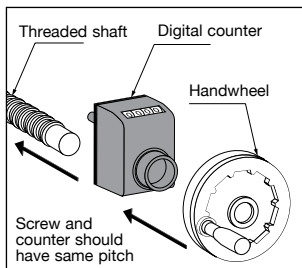
Assembly

- Insert the indicator on to the shaft ensuring that the torque pin is inserted into the 5mm hole that should have been provided. Reset the display to zero and secure the fixing screw.

2

Shaft hole
max. $\text{Ø}14$





DISCOUNTS

Qty	1+	5+	10+	15+	25+
Disc.	List	-6%	-12%	-20%	On request

Part number	View	Pitch (mm)	Display after one turn	(mm) Max. speed	(rpm) Counting direction	Stock*	Price each 1 to 4
OP3-A10-DX	A	1	001 0	300	clockwise	✓	65,36 €
OP3-A20-DX	A	2	002 0	300	clockwise	✓	70,37 €
OP3-A40-DX	A	4	004 0	250	clockwise	✓	70,37 €
OP3-A50-DX	A	5	005 0	200	clockwise	✓	70,37 €
OP3-A100-DX	A	10	010 0	150	clockwise	✓	70,37 €
OP3-B10-DX	B	1	001 0	300	clockwise	✓	70,37 €
OP3-B20-DX	B	2	002 0	300	clockwise	✓	70,37 €
OP3-B40-DX	B	4	004 0	250	clockwise	✓	70,37 €
OP3-B50-DX	B	5	005 0	200	clockwise	-	70,37 €
OP3-B100-DX	B	10	010 0	150	clockwise	-	70,37 €
OP3-A10-SX	A	1	001 0	300	anticlockwise	✓	70,37 €
OP3-A20-SX	A	2	002 0	300	anticlockwise	-	70,37 €
OP3-A40-SX	A	4	004 0	250	anticlockwise	✓	70,37 €
OP3-A50-SX	A	5	005 0	200	anticlockwise	-	70,37 €
OP3-A100-SX	A	10	010 0	150	anticlockwise	✓	70,37 €
OP3-B10-SX	B	1	001 0	300	anticlockwise	-	70,37 €
OP3-B20-SX	B	2	002 0	300	anticlockwise	-	70,37 €
OP3-B40-SX	B	4	004 0	250	anticlockwise	-	70,37 €
OP3-B50-SX	B	5	005 0	200	anticlockwise	-	70,37 €
OP3-B100-SX	B	10	010 0	150	anticlockwise	-	70,37 €

*Depending on availability - Dimensions in mm

Digital position indicator

Stock

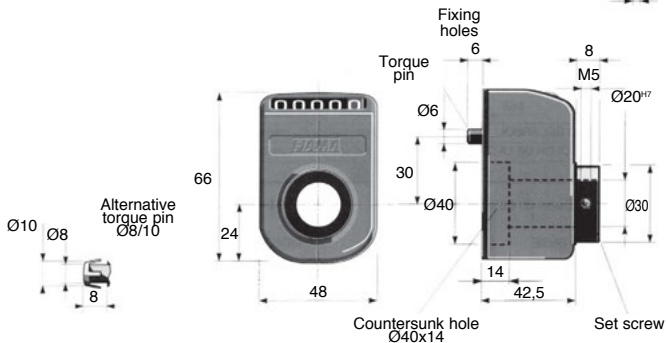
OP6DX OP6SX

5 digit display

- 5 digit display (99999) with red digits for tenths/hundredths
- Shaft driven position indicator
- Displays linear or angular movement by use of mechanism driven by a rotating shaft
- Nonflammable polycarbonate case Protection IP64
- Max. temperature 80°C
- Colour: orange
- Height of digits: 6mm.
- Standard bore for shaft 20H7, smaller bores will require use of reducing sleeve



Gasket supplied

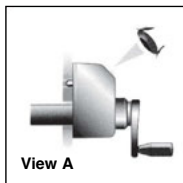


Options

- Version with stainless steel parts available

Assembly

- Insert the indicator on to the shaft ensuring that the torque pin is inserted into the 6mm hole that should have been drilled previously. Reset the display to zero and secure the fixing screw.



DISCOUNTS

Qty	1+	5+	10+	15+	25+
Disc.	List	-6%	-12%	-20%	On request

Part number	View	Pitch (mm)	Display after one turn (mm)	Max. speed (rpm)	Counting direction	Stock*	Price each 1 to 4
OP6-A10-DX	A	1	001 0	300	clockwise	✓	67,71 €
OP6-A20-DX	A	2	002 0	300	clockwise	✓	72,91 €
OP6-A40-DX	A	4	004 0	200	clockwise	✓	72,91 €
OP6-A50-DX	A	5	005 0	200	clockwise	✓	72,91 €
OP6-A100-DX	A	10	010 0	150	clockwise	✓	72,91 €
OP6-B10-DX	B	1	001 0	300	clockwise	✓	72,91 €
OP6-B20-DX	B	2	002 0	300	clockwise	✓	72,91 €
OP6-B40-DX	B	4	004 0	200	clockwise	✓	72,91 €
OP6-B50-DX	B	5	005 0	200	clockwise	✓	72,91 €
OP6-B100-DX	B	10	010 0	150	clockwise	✓	72,91 €
OP6-A10-SX	A	1	001 0	300	anticlockwise	✓	72,91 €
OP6-A20-SX	A	2	002 0	300	anticlockwise	-	72,91 €
OP6-A40-SX	A	4	004 0	200	anticlockwise	✓	72,91 €
OP6-A50-SX	A	5	005 0	200	anticlockwise	✓	72,91 €
OP6-A100-SX	A	10	010 0	150	anticlockwise	-	72,91 €
OP6-B10-SX	B	1	001 0	300	anticlockwise	-	72,91 €
OP6-B20-SX	B	2	002 0	300	anticlockwise	-	72,91 €
OP6-B40-SX	B	4	004 0	200	anticlockwise	-	72,91 €
OP6-B50-SX	B	5	005 0	200	anticlockwise	-	72,91 €
OP6-B100-SX	B	10	010 0	150	anticlockwise	-	72,91 €

*Depending on availability - Dimensions in mm

Reducing sleeve for OP indicators

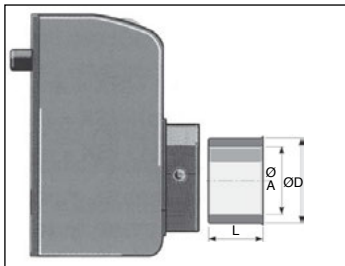


OP
OPF

Nylon

Assembly

- Reducing sleeve for use with digital position indicators
- Use a split reducing sleeve when using a OP-FL locking clamp
- Material: Nylon



DISCOUNTS

Qty	1+	5+	10+	15+	25+
Disc.	List	-6%	-12%	-20%	On request

Part number	Bore ØA	ØD	L	Stock*	Price each 1 to 4
For indicator OP3					
OP3-14-06	6	14	12	✓	5,99 €
OP3-14-08	8	14	12	✓	3,86 €
OP3-14-10	8	14	12	✓	3,86 €
OP3-14-12	12	14	12	✓	3,86 €
For indicator OP6					
OP6-20-10	10	20	12	-	7,48 €
OP6-20-12	12	20	12	✓	7,48 €
OP6-20-14	14	20	12	✓	4,32 €
OP6-20-16	16	20	12	✓	4,32 €
OP6-20-17	17	20	12	-	4,32 €
OP6-20-18	18	20	12	-	4,32 €
For indicator OP9					
OP9-30-20	20	30	16	-	On request
OP9-30-25	25	30	16	-	4,80 €

*Depending on availability- Dimensions in mm

Clamping plate and manoeuvring knob OP_{FL} OP_{PM}

Clamping plate

- Placed on the back of the indicator.
- Allows shaft to be blocked in desired position
- Can be secured in positions **A** or **B**.
- Materials: Zirtel® and zamak

Manoeuvring knob

- The knob attaches directly to the indicator shaft
- Allows manual operation of the position indicator
- An adhesive sticker attached to the knob indicates the direction in which to turn to increase or decrease the displayed value
- Material: anodised black aluminium



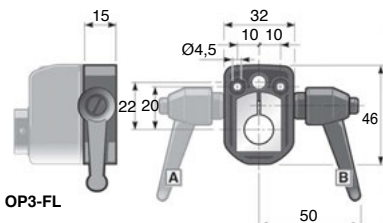
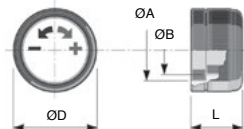
**OP-PM
manual
control knob**



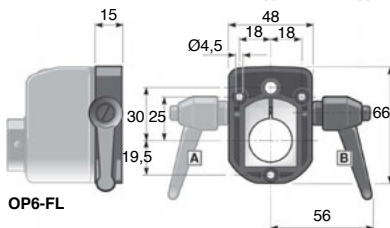
**OP-FL
Clamping plate**



**Assembly
OP and OP-PM**



OP3-FL



OP6-FL

DISCOUNTS

Qty	1+	5+	10+	15+	25+
Disc.	List	-6%	-12%	-20%	On request

Part number	ØD	ØA	ØB	L	Stock*	Price each 1 to 4
Clamping plate						
OP3-FL	-	-	-	15,0	✓	68,26 €
OP6-FL	-	-	-	15,0	✓	68,26 €
Manual control knob						
OP3-PM	31,8	20	16	17,5	✓	27,32 €
OP6-PM	44,0	30	26	27,5	✓	32,45 €

*Depending on availability- Dimensions in mm

Digital position indicator

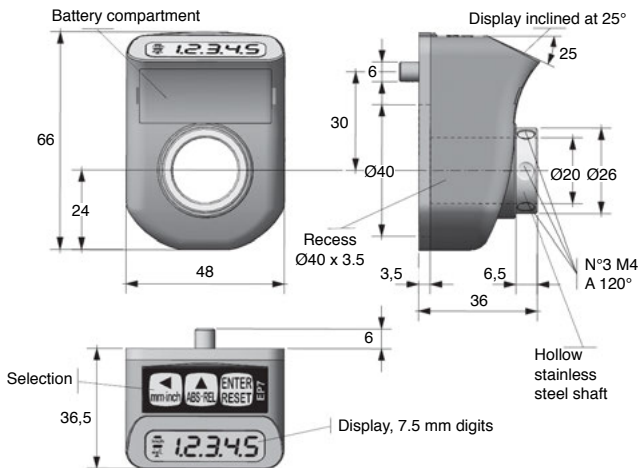
EP7

5 digit display

- A position transducer and display in same enclosure
- For measuring small linear or angular displacements
- Easy mounting
- Easy to programme using 3 pushbuttons
- Max temperature: 80 °C
- Solid inflammable shockproof housing

Application

- Packaging machines or those used for wood treatment or aluminium and sheet metal processing



- **Power supply:** ½AA battery
- Battery life: 4 years (continuous use)
- Max speed: 400 rpm (continuous), 1,000 rpm (for short periods)
- Display range: -99999 to +999999
- Display: 7.5 mm LCD
- Keypad: 3 keys for programming and function selection
- Functions available:
 - Reset/preset
 - Absolute/relative reference mm/inch conversion
 - Display in degrees
 - 3 different start points when using different tools
 - Compensation for tool wear
- Working temperature range: 0 to 50 °C
- Working humidity range: 35 to 85 %RH
- Ingress protection: IP54
- EMC Compatibility; Complies to 2004/108/CE



View A



View B

Also available in orange

DISCOUNTS

Qty	1+	5+
Disc.	List	On request

Part number	View	Resolution (pulses/rev)	Shaft diameter	Enclosure colour	Weight (kg)	Price each
EP7-F20-A-G	A	4000	20	black	0,11	290,14 €
EP7-F20-A-R	A	4000	20	orange	0,11	290,14 €
EP7-F20-B-G	B	4000	20	black	0,11	290,14 €
EP7-F20-B-R	B	4000	20	orange	0,11	290,14 €

Dimensions in mm

F7 Displays position or distance

- Used to display either linear or angular displacement, the F7 is a position indicator which is available with either an internal or external sensor and is used with the P25 magnetic band or the AM magnetic ring.
- The measurement direction, position of the decimal point, unit of measure (inches or mm), absolute/relative measurement can be all be selected using a keypad. There is also a reset/preset feature.
- A corrective coefficient of between 0.0001 and 99999 can also be applied to the displayed value.
- The electronics are housed in a robust enclosure made from self extinguishing plastic.
- Two versions are available:
 - F7-E which has an external sensor connected by a fixed cable
 - F7-I which has an integrated sensor
- The indicator can either be mounted using the 2 threaded holes on the back of the enclosure or the optional SM support bracket, SF mounting flange bracket or SN swivel support.
- The indicator is powered from a single 3.6V ½AA battery which should last 4 years. A low battery icon will be displayed when the battery requires replacing which can be done without losing the displayed values or current configuration.



F7-E-A with rear support (F7-SF), magnetic band (F7-P25/10-500) and band support (F7-SB-500)

NEW!

Applications

- Wood working machinery, printing machines



F7-I-A with mounting flange (F7-SF), magnetic band (F7-P25/10-500) and band end-caps (F7-TB)



F7-E-A with magnetic ring F7-AM

- Magnetic strip

- The sensor contains magnetoresistive bridges which read information from the magnetic band which is transmitted to an electronic conversion circuit.
- The P25 magnetic band, which contains a 2.5mm magnetic pole, comprises of

A: A flexible magnetised plasto-ferrite band

B: A metallic strip to provide protection against dirt and any risk of mechanical friction, this is recommended and should be installed by the customer

C: A factory assembled corrosion resistant metal strip to be fixed in place on the machine or in the modular support

- Other lengths available, please ask for details

End-cap

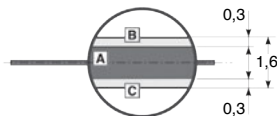
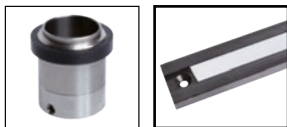
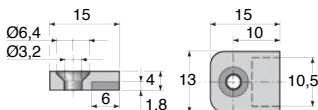
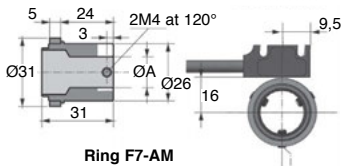
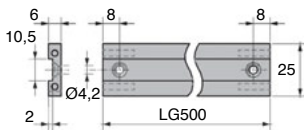
- For an aesthetic finish

Butt jointed modular support

- Material: anodised aluminium

Magnetic ring-shaped sensor

- For measuring the angular displacement (in degrees) of an Ø14 or Ø20 shaft
- Only for use with the F7-E version of the indicator (external sensor)

**Magnetic band F7-P25/10-500****Band end-cap (2 pieces)****Ring F7-AM****Modular support F7-SB-500****DISCOUNTS**

Qty	1+	3+
Disc	List	On request

Part number	Type	Length (mm)	Shaft diameter ØA	Price each 1 to 2
F7-P25/10-500	Magnetic band	500	-	60,29 €
F7-TB	End-cap	-	-	6,67 €
F7-SB-500	Modular support	500	-	78,16 €
F7-AM14	Magnetic ring	-	14	53,59 €
F7-AM20	Magnetic ring	-	20	53,59 €

Dimensions in mm

Multifunction display

New

F7-I

With internal sensor

- **Indicator with integrated sensor**
- Resolution: 0.1mm
- Max speed: 2.5m/s
- Display range: -99999 to 99999
- Display: LCD, character height 7.5mm
- Max distance between sensor and band: 1mm
- 3 button tactile keypad
- Sensor IP rating: IP57
- Indicator IP protection: IP54
- Working temperature: 0 to 50°C
- Relative humidity: 35-85%
- EMC protection: 2004/108/EC
- Power supply: ½AA 3.6V battery ((Lithium-thionyl chloride)
- Battery life: Approx 4 years
- Material:
 - Sensor: Black anodised aluminium
 - Display housing: Plastic

NEW!



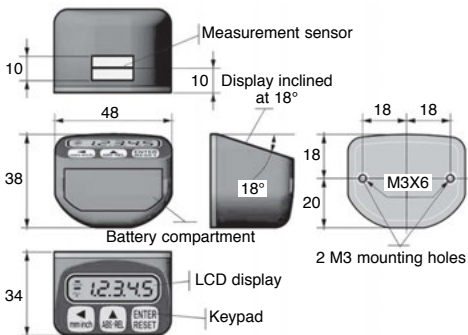
View A



View B

Parameters

- Reset/preset, absolute/incremental, mm/inch/degrees, 3 origin points



DISCOUNTS

Qty	1+	3+
Disc	List	On request

Part number	View	Price each 1 to 2
F7-I-A	A	325,12 €
F7-I-B	B	325,12 €

Dimensions in mm

- **Indicator with an external sensor**
- Resolution: 0.1mm
- Max speed: 2.5m/s
- Display range: -99999 to 99999
- Display: LCD, character height 7.5mm
- Max distance between sensor and band: 1mm
- 3 button tactile keypad
- Sensor IP rating: IP57
- Indicator IP protection: IP54
- Working temperature: 0 to 50°C
- Relative humidity: 35-85%
- EMC protection: 2004/108/EC
- Power supply: ½AA 3.6B battery (Lithium-thionyl chloride)
- Battery life: Approx 4 years
- Material:

Sensor: Black anodised aluminium

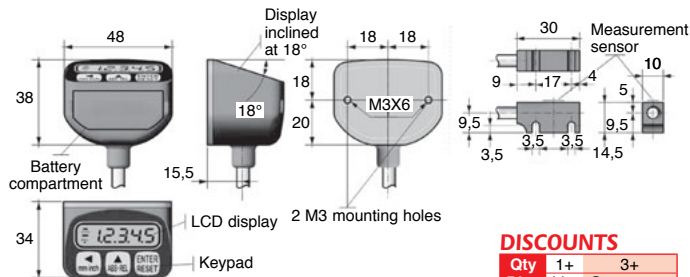
Display housing: Plastic

NEW!



Parameters

- Reset/preset, absolute/incremental, mm/inch/degrees, 3 origin points



DISCOUNTS

Qty	1+	3+
Disc	List	On request

Part number	View	Length of sensor (mm)	Price each 1 to 2
F7-E-A-500	A	500	378,94 €
F7-E-A-1000	A	1000	378,94 €
F7-E-A-3000	A	3000	401,27 €
F7-E-A-5000	A	5000	423,60 €
F7-E-B-500	B	500	378,94 €
F7-E-B-1000	B	1000	378,94 €
F7-E-B-3000	B	3000	401,27 €
F7-E-B-5000	B	5000	423,60 €

Dimensions in mm

Multifunction display

New

F7SF
F7SM

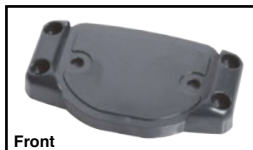
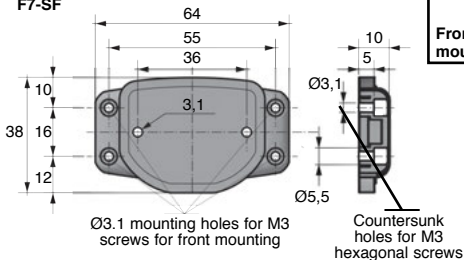
Mounting bracket

- Mounting bracket for either front or right angled mounting

- Material:

Brilliant grey polycarbonate

F7-SF

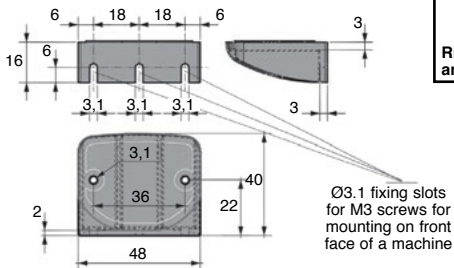


Front mounting



NEW!

F7-SM



Right angled



DISCOUNTS

Qty	1+	3+
Disc	List	On request

Part number	Type	Price each 1 to 2
F7-SF	Mounting bracket for front mounting	26,80 €
F7-SM	Right angled mounting bracket	26,80 €

Dimensions in mm

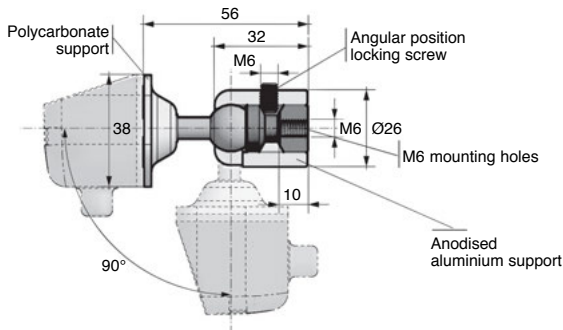
New

Multifunction display

Articulated support

F7SN

- Adjustable support bracket allowing view from any position
- Material:
Brilliant grey polycarbonate
Anodised aluminium base

NEW!**DISCOUNTS**

Qty	1+	3+
Disc	List	On request

Part number

F7-SN

Type

Articulated support

Price each
1 to 2

71,46 €

Dimensions in mm

EXTENSION SPRING



p.193

DIE SPRING



p.206

DYNAMIC WASHER



p.214

SPRINGS

p.180 - 233

GAS SPRING



p.222

STRAIGHT CLEVIS



p.227

CD Stainless steel piano wire

- Materials:

Piano wire conforming to DIN 17224 No 1.4310 BS 2056 EN58A
Commercial stainless steel
annealed 302

- Wrapping: right hand

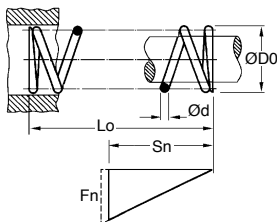
- Ends:

Wire $\leq 0.8\text{mm}$ squared, not ground
Wire $> 0.8\text{mm}$ squared and ground

- Loads: Load values indicated are based on a life of 50,000 cycles at 50% of max. load

- Tolerances: All sizes and strengths in accordance with DIN 2095 (Grade 2)

250+ pieces, contact us



Info.

- Please contact us for custom made springs for your application. (Minimum order quantities may apply)

DISCOUNTS

Qty	1+	5+	20+	50+	125+	250+
Disc.	List	-10%	-20%	-25%	-50%	On request

Part number	Wire Ød	External Ø D0	N° active coils	Free length Lo	Rate C N/mm	Max. deflection Sn (mm)	Max. load Fn (N)	Stock*	Price each 1 to 4
CD2110	0,50	3,00	3,50	4,40	9,94	0,90	8,93	✓	6,20 €
CD2111	0,50	3,00	5,50	6,10	6,37	1,40	8,93	✓	6,20 €
CD2112	0,50	3,00	8,50	8,70	4,12	2,20	8,93	✓	6,20 €
CD2113	0,50	3,00	12,50	12,00	2,81	3,00	8,93	✓	6,20 €
CD2114	0,50	3,00	18,50	17,50	1,90	4,70	8,93	✓	6,20 €
CD2115	0,50	3,70	3,50	5,50	4,78	1,80	8,59	-	6,20 €
CD2116	0,50	3,70	5,50	7,90	3,03	2,80	8,59	✓	6,20 €
CD2117	0,50	3,70	8,50	11,50	1,96	4,40	8,59	✓	6,20 €
CD2118	0,50	3,70	12,50	16,00	1,34	6,20	8,59	✓	6,20 €
CD2119	0,50	3,70	18,50	23,50	0,90	9,50	8,59	✓	6,20 €
CD2120	0,50	4,50	3,50	7,00	2,43	3,30	8,00	✓	6,20 €
CD2121	0,50	4,50	5,50	10,00	1,55	4,90	8,00	✓	6,20 €
CD2122	0,50	4,50	8,50	15,00	1,00	7,90	8,00	✓	6,20 €
CD2123	0,50	4,50	12,50	21,50	0,68	11,70	8,00	✓	6,20 €
CD2124	0,50	4,50	18,50	31,00	0,46	17,00	8,00	✓	6,20 €
CD2125	0,50	5,50	3,50	9,40	1,25	5,50	6,91	✓	6,20 €
CD2126	0,50	5,50	5,50	14,00	0,80	8,60	6,91	✓	6,20 €
CD2127	0,50	5,50	8,50	20,50	0,52	12,90	6,91	✓	6,20 €
CD2128	0,50	5,50	12,50	30,00	0,35	19,40	6,91	✓	6,20 €
CD2129	0,50	5,50	18,50	44,50	0,23	29,40	6,91	✓	6,20 €

*Depending on availability - Dimensions in mm

Part number	Wire Ød	External Ø D0	N° active coils	Free length Lo	Rate C N/mm	Max. deflection Sn (mm)	Max. load Fn (N)	Stock*	Price each 1 to 4
CD2130	0,50	6,80	3,50	13,50	0,63	9,20	5,64	✓	6,20 €
CD2131	0,50	6,80	5,50	20,00	0,40	14,00	5,64	✓	6,20 €
CD2132	0,50	6,80	8,50	30,00	0,26	21,30	5,64	✓	6,20 €
CD2133	0,50	6,80	12,50	44,00	0,18	31,80	5,64	✓	6,20 €
CD2134	0,50	6,80	18,50	65,00	0,12	47,60	5,64	✓	6,20 €
CD2135	0,63	3,83	3,50	5,50	12,04	1,50	18,00	-	6,20 €
CD2136	0,63	3,83	5,50	7,80	7,64	2,40	18,00	✓	6,20 €
CD2137	0,63	3,83	8,50	11,00	4,96	3,50	18,00	✓	6,20 €
CD2138	0,63	3,83	12,50	15,50	3,38	5,20	18,00	✓	6,20 €
CD2139	0,63	3,83	18,50	22,50	2,28	7,80	18,00	-	6,20 €
CD2140	0,63	4,63	3,50	6,70	6,15	2,40	14,80	✓	6,20 €
CD2141	0,63	4,63	5,50	9,60	3,91	3,80	14,80	✓	6,20 €
CD2142	0,63	4,63	8,50	14,00	2,53	5,80	14,80	✓	6,20 €
CD2143	0,63	4,63	12,50	20,00	1,72	8,70	14,80	✓	6,20 €
CD2144	0,63	4,63	18,50	29,00	1,16	12,80	14,80	✓	6,20 €
CD2145	0,63	5,63	3,50	8,50	3,17	4,20	13,30	✓	6,20 €
CD2146	0,63	5,63	5,50	12,50	2,02	6,70	13,30	✓	6,20 €
CD2147	0,63	5,63	8,50	18,50	1,30	10,30	13,30	✓	6,20 €
CD2148	0,63	5,63	12,50	26,00	0,88	14,70	13,30	✓	6,20 €
CD2149	0,63	5,63	18,50	38,50	0,60	22,30	13,30	✓	6,20 €
CD2150	0,63	6,93	3,50	11,50	1,57	6,90	10,70	✓	6,20 €
CD2151	0,63	6,93	5,50	17,00	1,00	10,80	10,70	✓	6,20 €
CD2152	0,63	6,93	8,50	25,50	0,65	16,60	10,70	✓	6,20 €
CD2153	0,63	6,93	12,50	36,50	0,44	24,20	10,70	✓	6,20 €
CD2154	0,63	6,93	18,50	54,00	0,29	36,30	10,70	✓	6,20 €
CD2155	0,63	8,63	3,50	16,00	0,76	10,90	8,60	✓	6,20 €
CD2156	0,63	8,63	5,50	24,50	0,49	17,40	8,60	✓	6,20 €
CD2157	0,63	8,63	8,50	37,00	0,32	26,80	8,60	✓	6,20 €
CD2158	0,63	8,63	12,50	55,00	0,21	40,70	8,60	✓	6,20 €
CD2159	0,63	8,63	18,50	80,50	0,15	59,90	8,60	✓	6,20 €
CD2160	0,80	4,80	3,50	6,90	15,92	1,70	27,40	✓	6,20 €
CD2161	0,80	4,80	5,50	9,70	10,20	2,70	27,40	✓	6,20 €
CD2162	0,80	4,80	8,50	14,00	6,59	4,20	27,40	✓	6,20 €
CD2163	0,80	4,80	12,50	19,50	4,48	6,00	27,40	✓	6,20 €
CD2164	0,80	4,80	18,50	28,00	3,02	8,90	27,40	✓	6,20 €
CD2165	0,80	5,80	3,50	8,30	8,19	2,70	22,30	✓	6,20 €
CD2166	0,80	5,80	5,50	12,00	5,21	4,30	22,30	✓	6,20 €
CD2167	0,80	5,80	8,50	17,50	3,37	6,60	22,30	✓	6,20 €
CD2168	0,80	5,80	12,50	24,50	2,29	9,40	22,30	✓	6,20 €
CD2169	0,80	5,80	18,50	36,00	1,55	14,50	22,30	✓	6,20 €
CD2170	0,80	7,10	3,50	10,50	4,10	4,90	20,60	✓	6,20 €
CD2171	0,80	7,10	5,50	15,50	2,60	7,80	20,60	✓	6,20 €
CD2172	0,80	7,10	8,50	23,00	1,68	12,10	20,60	✓	6,20 €
CD2173	0,80	7,10	12,50	33,00	1,14	17,90	20,60	✓	6,20 €
CD2174	0,80	7,10	18,50	48,00	0,77	26,50	20,60	✓	6,20 €

*Depending on availability - Dimensions in mm

CD Stainless steel piano wire

- Materials:

Piano wire conforming to DIN 17224 No

1.4310 BS 2056 EN58A

Commercial stainless steel annealed 302

- Wrapping: right hand

- Ends:

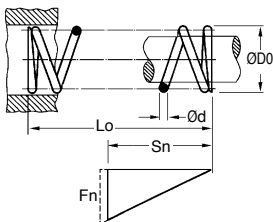
Wire $\leq 0.8\text{mm}$ squared, not ground

Wire $> 0.8\text{mm}$ squared and ground

- Loads: Load values indicated are based on a life of 50,000 cycles at 50% of max. load

- Tolerances: All sizes and strengths in accordance with DIN 2095 (Grade 2)

250+ pieces, contact us



Info.

- Please contact us for custom made springs for your application. (Minimum order quantities may apply)

DISCOUNTS

Qty	1+	5+	20+	50+	125+	250+
Disc.	List	-10%	-20%	-25%	-50%	On request

Part number	Wire Ød	External Ø D0	N° active coils	Free length Lo	Rate C N/mm	Max. deflection Sn (mm)	Max. load Fn (N)	Stock*	Price each 1 to 4
CD2175	0,80	8,80	3,50	14,50	1,99	8,40	16,70	✓	6,20 €
CD2176	0,80	8,80	5,50	21,50	1,27	13,10	16,70	✓	6,20 €
CD2177	0,80	8,80	8,50	32,00	0,82	20,00	16,70	✓	6,20 €
CD2178	0,80	8,80	12,50	47,00	0,56	30,30	16,70	✓	6,20 €
CD2179	0,80	8,80	18,50	68,00	0,38	44,20	16,70	✓	6,20 €
CD2180	0,80	10,80	3,50	20,00	1,03	13,10	13,20	✓	6,20 €
CD2181	0,80	10,80	5,50	30,00	0,65	20,20	13,20	✓	6,20 €
CD2182	0,80	10,80	8,50	45,50	0,42	31,20	13,20	✓	6,20 €
CD2183	0,80	10,80	12,50	66,00	0,28	46,10	13,20	✓	6,20 €
CD2184	0,80	10,80	18,50	96,50	0,20	68,00	13,20	-	6,20 €
CD2185	1,00	6,00	3,50	8,50	20,00	1,90	38,00	-	8,19 €
CD2186	1,00	6,00	5,50	12,00	12,72	3,00	38,00	✓	8,19 €
CD2187	1,00	6,00	8,50	17,00	8,22	4,40	38,00	✓	8,19 €
CD2188	1,00	6,00	12,50	24,00	5,59	6,60	38,00	✓	8,19 €
CD2189	1,00	6,00	18,50	34,50	3,78	9,90	38,00	✓	8,19 €
CD2190	1,00	7,30	3,50	10,00	9,94	2,70	29,00	✓	8,19 €
CD2191	1,00	7,30	5,50	14,50	6,35	4,40	29,00	✓	8,19 €
CD2192	1,00	7,30	8,50	21,50	4,11	7,20	29,00	✓	8,19 €
CD2193	1,00	7,30	12,50	30,50	2,80	10,60	29,00	✓	8,19 €
CD2194	1,00	7,30	18,50	43,50	1,89	15,20	29,00	✓	8,19 €

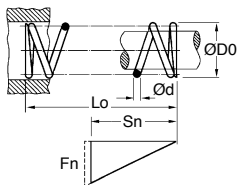
*Depending on availability - Dimensions in mm

Part number	Wire Ød	External Ø D0	N° active coils	Free length Lo	Rate C N/mm	Max. deflection Sn (mm)	Max. load Fn (N)	Stock*	Price each 1 to 4
CD2195	1,00	9,00	3,50	13,00	4,88	5,70	28,00	✓	8,19 €
CD2196	1,00	9,00	5,50	19,00	3,10	8,90	28,00	✓	8,19 €
CD2197	1,00	9,00	8,50	28,50	2,00	14,20	28,00	✓	8,19 €
CD2198	1,00	9,00	12,50	40,50	1,37	20,60	28,00	✓	8,19 €
CD2199	1,00	9,00	18,50	59,00	0,93	30,70	28,00	✓	8,19 €
CD2200	1,00	11,00	3,50	17,50	2,49	9,50	23,00	✓	8,19 €
CD2201	1,00	11,00	5,50	26,00	1,59	14,80	23,00	✓	8,19 €
CD2202	1,00	11,00	8,50	39,00	1,03	23,00	23,00	✓	8,19 €
CD2203	1,00	11,00	12,50	56,00	0,70	33,60	23,00	✓	8,19 €
CD2204	1,00	11,00	18,50	81,50	0,47	49,50	23,00	✓	8,19 €
CD2205	1,00	13,50	3,50	24,00	1,28	14,60	19,00	✓	8,19 €
CD2206	1,00	13,50	5,50	36,50	0,82	23,10	19,00	✓	8,19 €
CD2207	1,00	13,50	8,50	55,50	0,52	36,10	19,00	✓	8,19 €
CD2208	1,00	13,50	12,50	80,50	0,35	53,10	19,00	✓	8,19 €
CD2209	1,00	13,50	18,50	115,00	0,24	75,60	19,00	✓	8,19 €
CD2210	1,25	7,55	3,50	12,00	24,93	4,80	114,00	✓	8,74 €
CD2211	1,25	7,55	5,50	17,00	15,49	7,20	114,00	✓	8,74 €
CD2212	1,25	7,55	8,50	25,00	10,10	11,20	114,00	✓	8,74 €
CD2213	1,25	7,55	12,50	35,50	6,95	16,30	114,00	✓	8,74 €
CD2214	1,25	7,55	18,50	51,50	4,63	24,20	114,00	✓	8,74 €
CD2215	1,25	9,25	3,50	15,00	12,30	7,60	90,00	✓	8,74 €
CD2216	1,25	9,25	5,50	22,00	7,66	11,50	90,00	✓	8,74 €
CD2217	1,25	9,25	8,50	33,00	5,01	18,10	90,00	✓	8,74 €
CD2218	1,25	9,25	12,50	47,50	3,40	26,50	90,00	✓	8,74 €
CD2219	1,25	9,25	18,50	69,00	2,31	39,00	90,00	✓	8,74 €
CD2220	1,25	11,25	3,50	20,00	6,09	12,30	73,00	✓	8,74 €
CD2221	1,25	11,25	5,50	29,50	3,87	18,70	73,00	✓	8,74 €
CD2222	1,25	11,25	8,50	44,50	2,51	29,30	73,00	✓	8,74 €
CD2223	1,25	11,25	12,50	64,00	1,71	42,90	73,00	✓	8,74 €
CD2224	1,25	11,25	18,50	93,50	1,15	63,50	73,00	✓	8,74 €
CD2225	1,25	13,75	3,50	27,00	3,12	18,80	59,00	✓	8,74 €
CD2226	1,25	13,75	5,50	41,50	1,98	29,90	59,00	✓	8,74 €
CD2227	1,25	13,75	8,50	62,50	1,28	46,00	59,00	✓	8,74 €
CD2228	1,25	13,75	12,50	90,50	0,88	67,40	59,00	✓	8,74 €
CD2229	1,25	13,75	18,50	130,00	0,59	97,10	59,00	✓	8,74 €
CD2230	1,25	17,25	3,50	40,50	1,49	31,40	46,00	✓	8,74 €
CD2231	1,25	17,25	5,50	62,00	0,94	49,10	46,00	✓	8,74 €
CD2232	1,25	17,25	8,50	94,00	0,62	75,50	46,00	✓	8,74 €
CD2233	1,25	17,25	12,50	140,00	0,41	114,00	46,00	✓	8,74 €
CD2234	1,25	17,25	18,50	205,00	0,27	168,00	46,00	✓	8,74 €
CD2235	1,60	9,60	3,50	14,50	32,00	5,50	182,00	✓	8,74 €
CD2236	1,60	9,60	5,50	21,50	20,38	8,90	182,00	✓	8,74 €
CD2237	1,60	9,60	8,50	31,50	13,23	13,60	182,00	✓	8,74 €
CD2238	1,60	9,60	12,50	45,00	8,93	20,20	182,00	✓	8,74 €
CD2239	1,60	9,60	18,50	65,50	6,06	30,30	182,00	✓	8,74 €

*Depending on availability - Dimensions in mm

CD Stainless steel piano wire

- **Materials:** Piano wire conforming to DIN 17224 No 1.4310 BS 2056 EN58A
Commercial stainless steel annealed 302
- **Wrapping:** right hand
- **Ends:**
Wire $\leq 0.8\text{mm}$ squared, not ground
Wire $> 0.8\text{mm}$ squared and ground
- **Loads:** Load values indicated are based on a life of 50,000 cycles at 50% of max. load
- **Tolerances:** All sizes and strengths in accordance with DIN 2095 (Grade 2)
- **Custom designs:** Please contact us for custom made springs for your application. (Minimum order quantities may apply)



DISCOUNTS

Qty	1+	5+	20+	50+	125+	250+
Disc.	List	-10%	-20%	-25%	-50%	On request

Part number	Wire Ød	External ØD	N° active coils	Free length Lo	Rate C N/mm	Max. deflection Sn (mm)	Max. load Fn (N)	Stock*	Price each 1 to 4
CD2240	1,60	11,60	3,50	18,50	16,42	9,10	146,00	✓	8,74 €
CD2241	1,60	11,60	5,50	27,00	10,44	13,80	146,00	✓	8,74 €
CD2242	1,60	11,60	8,50	40,50	6,76	21,60	146,00	✓	8,74 €
CD2243	1,60	11,60	12,50	58,50	4,58	32,00	146,00	-	8,74 €
CD2244	1,60	11,60	18,50	85,00	3,10	47,10	146,00	✓	8,74 €
CD2245	1,60	14,10	3,50	24,00	8,38	14,00	116,00	✓	8,74 €
CD2246	1,60	14,10	5,50	36,00	5,35	21,90	116,00	✓	8,74 €
CD2247	1,60	14,10	8,50	53,50	3,47	33,40	116,00	✓	8,74 €
CD2248	1,60	14,10	12,50	78,00	2,34	50,00	116,00	✓	8,74 €
CD2249	1,60	14,10	18,50	115,00	1,58	75,10	116,00	✓	8,74 €
CD2250	1,60	17,60	3,50	34,00	3,99	23,00	91,00	✓	8,74 €
CD2251	1,60	17,60	5,50	51,50	2,53	36,00	91,00	✓	8,74 €
CD2252	1,60	17,60	8,50	77,50	1,65	55,30	91,00	✓	8,74 €
CD2253	1,60	17,60	12,50	110,00	1,12	78,80	91,00	✓	8,74 €
CD2254	1,60	17,60	18,50	165,00	0,76	120,00	91,00	✓	8,74 €
CD2255	1,60	21,60	3,50	48,00	2,04	35,60	73,00	✓	8,74 €
CD2256	1,60	21,60	5,50	73,50	1,31	55,90	73,00	✓	8,74 €
CD2257	1,60	21,60	8,50	110,00	0,85	84,50	73,00	✓	8,74 €
CD2258	1,60	21,60	12,50	165,00	0,58	129,00	73,00	✓	14,66 €
CD2259	1,60	21,60	18,50	240,00	0,39	188,00	73,00	✓	14,66 €
CD2260	2,00	12,00	3,50	18,00	40,00	6,80	273,00	✓	10,11 €
CD2261	2,00	12,00	5,50	26,50	25,52	10,90	273,00	✓	10,11 €
CD2262	2,00	12,00	8,50	38,50	16,51	16,50	273,00	✓	10,11 €
CD2263	2,00	12,00	12,50	55,00	11,20	24,40	273,00	✓	10,11 €
CD2264	2,00	12,00	18,50	79,50	7,67	36,10	273,00	✓	10,11 €
CD2265	2,00	14,50	3,50	22,50	20,55	10,80	218,00	✓	10,11 €
CD2266	2,00	14,50	5,50	33,00	13,06	16,60	218,00	✓	10,11 €
CD2267	2,00	14,50	8,50	49,50	8,43	26,00	218,00	✓	10,11 €
CD2268	2,00	14,50	12,50	71,00	5,75	38,00	218,00	✓	11,15 €
CD2269	2,00	14,50	18,50	105,00	3,88	57,80	218,00	✓	11,15 €

*Depending on availability - Dimensions in mm

- Material:

Piano springs: Stainless steel conforming to DIN17224 CrNiAl 17.7

- Right hand wound

- Ends:

Wire $\leq 0.8\text{mm}$ squared, not ground

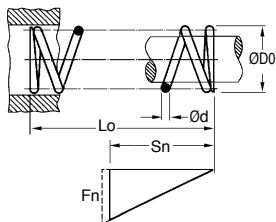
Wire $> 0.8\text{mm}$, squared and ground

- Operating temperature : 60°C max

- These springs are recommended for static or medium dynamic loads

- Tolerances: All the dimensions and load values given conform to DIN2095 (Grade 2)

75+ pieces, contact us



Info.

- These springs have no preset load

- Free length L_0 will reduce slightly after first use

- For custom made springs, please contact us (Minimum quantity may apply)

DISCOUNTS

Qty	1+	5+	20+	50+	75+
Disc.	List	-5%	-10%	-15%	On request

Part number	Wire Ød	External Ø D0	N° active coils	Free length L_0	Rate C N/mm	Max. deflection S_n (mm)	Max. load F_n (N)	Price each 1 to 4
CD2270	2,00	18,00	3,5	30,00	9,77	17,50	170,00	8,79 €
CD2271	2,00	18,00	5,5	45,00	6,22	27,30	170,00	8,79 €
CD2272	2,00	18,00	8,5	68,00	4,03	42,50	170,00	8,79 €
CD2273	2,00	18,00	12,5	98,00	2,74	62,10	170,00	9,06 €
CD2274	2,00	18,00	18,5	145,00	1,86	93,60	170,00	9,61 €
CD2275	2,00	22,00	3,5	41,00	5,01	27,40	137,00	8,79 €
CD2276	2,00	22,00	5,5	62,00	3,19	42,80	137,00	8,79 €
CD2277	2,00	22,00	8,5	94,00	2,05	66,40	137,00	9,06 €
CD2278	2,00	22,00	12,5	135,00	1,40	96,20	137,00	9,61 €
CD2279	2,00	22,00	18,5	200,00	0,95	144,00	137,00	9,61 €
CD2280	2,00	27,00	3,5	58,00	2,56	43,00	110,00	8,79 €
CD2281	2,00	27,00	5,5	88,50	1,63	67,10	110,00	9,06 €
CD2282	2,00	27,00	8,5	135,00	1,06	104,00	110,00	9,61 €
CD2283	2,00	27,00	12,5	195,00	0,71	151,00	110,00	9,61 €
CD2284	2,00	27,00	18,5	290,00	0,49	227,00	110,00	10,19 €
CD2285	2,20	11,00	3,5	16,20	85,89	3,50	292,00	9,61 €
CD2286	2,20	11,00	5,5	23,00	54,58	5,30	292,00	9,61 €
CD2287	2,20	11,00	9,5	36,50	31,67	9,10	292,00	9,61 €
CD2288	2,20	11,00	15,5	56,80	19,38	15,10	292,00	9,61 €

Dimensions in mm

Compression spring **DIN 2095**



CD

Stainless steel piano wire

- Material :

Piano springs: Stainless steel
conforming to DIN17224
CrNiAl 17.7

- Right hand wound

- Ends:

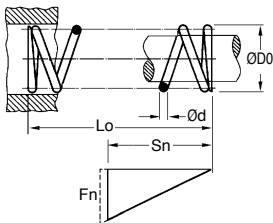
Wire $\leq 0.8\text{mm}$ squared, not ground
Wire $> 0.8\text{mm}$, squared and
ground

- Operating temperature : 60°C max

- These springs are recommended for
static or medium dynamic loads

- Tolerances: All the dimensions and
load values given conform to
DIN2095 (Grade 2)

**75+ pieces,
contact us**



Info.

- These springs have no preset load

- Free length L_0 will reduce slightly after
first use

- For custom made springs, please contact
us (Minimum quantity may apply)

DISCOUNTS

Qty	1+	5+	20+	50+	75+
Disc.	List	-5%	-10%	-15%	On request

Part number	Wire Ød	External Ø D0	N° active coils	Free length Lo	Rate C N/mm	Max. deflection Sn (mm)	Max. load Fn (N)	Price each 1 to 4
CD2289	2,20	15,00	3,50	20,00	27,88	7,60	222,00	9,61 €
CD2290	2,20	15,00	5,50	30,20	17,77	12,50	222,00	9,61 €
CD2291	2,20	15,00	9,50	48,90	10,27	21,60	222,00	9,61 €
CD2292	2,20	24,00	3,50	39,20	5,64	25,00	142,00	9,61 €
CD2293	2,20	24,00	5,50	59,10	3,60	39,50	142,00	9,61 €
CD2294	2,50	15,00	3,50	22,00	50,12	8,00	402,00	9,88 €
CD2295	2,50	15,00	5,50	32,00	31,93	12,50	402,00	9,88 €
CD2296	2,50	15,00	8,50	47,50	20,64	19,70	402,00	9,88 €
CD2297	2,50	15,00	12,50	67,50	13,98	28,80	402,00	9,88 €
CD2298	2,50	15,00	18,50	98,00	9,43	42,90	402,00	9,88 €
CD2299	2,50	18,50	3,50	27,50	23,83	12,90	313,00	9,88 €
CD2300	2,50	18,50	5,50	41,00	15,16	20,50	313,00	9,88 €
CD2301	2,50	18,50	8,50	61,00	9,85	31,70	313,00	9,88 €
CD2302	2,50	18,50	12,50	88,00	6,68	46,90	313,00	9,88 €
CD2303	2,50	18,50	18,50	130,00	4,51	71,10	313,00	10,19 €
CD2304	2,50	22,50	3,50	36,00	12,21	20,50	251,00	9,88 €
CD2305	2,50	22,50	5,50	54,00	7,77	32,10	251,00	9,88 €
CD2306	2,50	22,50	8,50	81,50	5,02	50,00	251,00	9,88 €
CD2307	2,50	22,50	12,50	120,00	3,42	75,70	251,00	10,19 €
CD2308	2,50	22,50	18,50	175,00	2,31	111,00	251,00	10,19 €

*Depending on availability - Dimensions in mm

Part number	Wire Ød	External Ø D0	N° active coils	Free length Lo	Rate C N/mm	Max. deflection Sn (mm)	Max. load Fn (N)	Price each 1 to 4
CD2309	2,50	27,50	3,5	49,00	6,26	32,20	200,00	9,88 €
CD2310	2,50	27,50	5,5	74,50	3,99	50,50	200,00	9,88 €
CD2311	2,50	27,50	8,5	115,00	2,58	80,20	200,00	9,88 €
CD2312	2,50	27,50	12,5	165,00	1,75	116,00	200,00	10,19 €
CD2313	2,50	27,50	18,5	240,00	1,19	169,00	200,00	10,19 €
CD2314	2,50	34,50	3,5	71,50	2,99	52,20	156,00	10,19 €
CD2315	2,50	34,50	5,5	110,00	1,91	82,10	156,00	10,19 €
CD2316	2,50	34,50	8,5	170,00	1,23	129,00	156,00	10,19 €
CD2317	2,50	34,50	12,5	245,00	0,83	87,00	156,00	10,19 €
CD2318	2,50	34,50	18,5	360,00	0,57	276,00	156,00	10,54 €
CD2319	2,80	14,00	3,5	20,50	109,50	4,10	446,00	10,19 €
CD2320	2,80	14,00	5,5	29,00	66,48	6,70	446,00	10,19 €
CD2321	2,80	14,00	9,5	45,90	40,27	11,10	446,00	10,19 €
CD2322	2,80	14,00	15,5	71,40	24,68	18,00	446,00	10,19 €
CD2323	2,80	20,00	3,5	27,20	30,16	11,00	326,00	10,19 €
CD2324	2,80	20,00	5,5	39,50	19,20	17,00	326,00	10,19 €
CD2325	2,80	20,00	9,5	64,20	11,11	29,00	326,00	10,19 €
CD2326	2,80	30,00	3,5	47,00	7,63	29,00	222,00	10,19 €
CD2327	2,80	30,00	5,5	70,70	4,85	45,00	222,00	10,19 €
CD2328	3,20	19,20	3,5	27,50	63,84	9,70	620,00	10,19 €
CD2329	3,20	19,20	5,5	40,00	40,69	15,10	620,00	10,19 €
CD2330	3,20	19,20	8,5	59,00	26,36	23,60	620,00	10,19 €
CD2331	3,20	19,20	12,5	83,50	17,86	34,50	620,00	10,19 €
CD2332	3,20	19,20	18,5	120,00	12,13	50,60	620,00	10,19 €
CD2333	3,20	23,20	3,5	33,50	32,77	15,00	496,00	10,19 €
CD2334	3,20	23,20	5,5	49,50	20,80	23,60	496,00	10,19 €
CD2335	3,20	23,20	8,5	74,00	13,48	36,90	496,00	10,19 €
CD2336	3,20	23,20	12,5	105,00	9,18	53,40	496,00	10,19 €
CD2337	3,20	23,20	18,5	155,00	6,19	81,80	496,00	10,19 €
CD2338	3,20	28,20	3,5	42,50	16,68	23,40	396,00	10,19 €
CD2339	3,20	28,20	5,5	63,50	10,62	37,20	396,00	10,19 €
CD2340	3,20	28,20	8,5	94,50	6,89	57,40	396,00	10,19 €
CD2341	3,20	28,20	12,5	135,00	4,68	83,40	396,00	10,19 €
CD2342	3,20	28,20	18,5	200,00	3,16	127,00	396,00	10,54 €
CD2343	3,20	35,20	3,5	58,50	8,00	38,70	310,00	10,19 €
CD2344	3,20	35,20	5,5	88,50	5,08	61,10	310,00	10,19 €
CD2345	3,20	35,20	8,5	135,00	3,28	96,20	310,00	10,54 €
CD2346	3,20	35,20	12,5	190,00	2,24	136,00	310,00	10,54 €
CD2347	3,20	35,20	18,5	280,00	1,51	203,00	310,00	10,54 €
CD2348	3,20	43,20	3,5	82,00	4,09	60,80	247,00	10,19 €
CD2349	3,20	43,20	5,5	125,00	2,60	95,30	247,00	10,19 €
CD2350	3,20	43,20	8,5	190,00	1,68	148,00	247,00	10,19 €
CD2351	3,20	43,20	12,5	275,00	1,14	216,00	247,00	10,54 €
CD2352	3,20	43,20	18,5	405,00	0,77	321,00	247,00	10,54 €

*Depending on availability - Dimensions in mm

Compression spring **DIN 2095**



CD

Stainless steel piano wire

- Material :

Piano springs: Stainless steel
conforming to DIN17224
CrNiAl 17.7

- Right hand wound

- Ends:

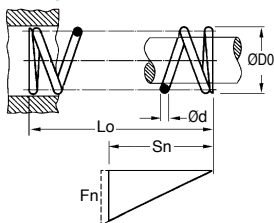
Wire $\leq 0.8\text{mm}$ squared, not ground
Wire $> 0.8\text{mm}$, squared and
ground

- Operating temperature : 60°C max

- These springs are recommended for
static or medium dynamic loads

- Tolerances: All the dimensions and
load values given conform to
DIN2095 (Grade 2)

**75+ pieces,
contact us**



Info.

- These springs have no preset load

- Free length L_0 will reduce slightly after
first use

- For custom made springs, please contact
us (Minimum quantity may apply)

DISCOUNTS

Qty	1+	5+	20+	50+	75+
Disc.	List	-5%	-10%	-15%	On request

Part number	Wire Ød	External Ø D0	N° active coils	Free length Lo	Rate C N/mm	Max. deflection Sn (mm)	Max. load Fn (N)	Price each 1 to 4
CD2353	4,00	24,00	3,50	33,50	79,94	11,30	918,00	10,19 €
CD2354	4,00	24,00	5,50	49,00	50,87	18,00	918,00	10,19 €
CD2355	4,00	24,00	8,50	72,00	32,93	27,80	918,00	10,19 €
CD2356	4,00	24,00	12,50	105,00	22,41	43,30	918,00	10,19 €
CD2357	4,00	24,00	18,50	150,00	15,07	62,30	918,00	10,54 €
CD2358	4,00	29,00	3,50	41,00	40,93	18,10	732,00	17,33 €
CD2359	4,00	29,00	5,50	60,50	26,02	28,30	732,00	17,33 €
CD2360	4,00	29,00	8,50	89,50	16,84	43,50	732,00	17,33 €
CD2361	4,00	29,00	12,50	130,00	1,46	65,50	732,00	17,33 €
CD2362	4,00	29,00	18,50	185,00	7,75	92,90	732,00	17,33 €
CD2363	4,00	36,00	3,50	53,50	19,54	29,50	572,00	17,33 €
CD2364	4,00	36,00	5,50	79,50	12,39	46,20	572,00	17,33 €
CD2365	4,00	36,00	8,50	120,00	8,03	72,80	572,00	17,33 €
CD2366	4,00	36,00	12,50	170,00	5,45	104,00	572,00	17,33 €
CD2367	4,00	36,00	18,50	250,00	3,69	156,00	572,00	17,33 €
CD2368	4,00	44,00	3,50	71,00	10,02	45,80	458,00	17,33 €
CD2369	4,00	44,00	5,50	105,00	6,36	69,90	458,00	17,33 €
CD2370	4,00	44,00	8,50	160,00	4,11	110,00	458,00	18,04 €
CD2371	4,00	44,00	12,50	235,00	2,80	165,00	458,00	19,54 €
CD2372	4,00	44,00	18,50	340,00	1,89	240,00	458,00	19,54 €

Dimensions in mm

Part number	Wire Ø d	External Ø D0	N° active coils	Free length Lo	Rate C N/mm	Max. deflection Sn (mm)	Max. load Fn (N)	Price each 1 to 4
CD2373	4,00	44,00	18,50	340,00	1,89	240,00	458,00	17,33 €
CD2374	4,00	54,00	3,50	99,00	5,11	71,60	367,00	17,33 €
CD2375	4,00	54,00	5,50	150,00	3,26	111,00	367,00	18,04 €
CD2376	4,00	54,00	8,50	230,00	2,10	175,00	367,00	19,54 €
CD2377	4,00	54,00	12,50	335,00	1,43	257,00	367,00	19,54 €
CD2378	4,00	54,00	18,50	490,00	0,97	379,00	367,00	17,33 €
CD2379	5,00	30,00	3,50	41,00	100,23	13,40	1348,00	17,33 €
CD2380	5,00	30,00	5,50	60,00	63,59	21,50	1348,00	18,31 €
CD2381	5,00	30,00	8,50	87,50	41,11	32,60	1348,00	18,31 €
CD2382	5,00	30,00	12,50	125,00	27,99	48,30	1348,00	18,51 €
CD2383	5,00	30,00	18,50	180,00	18,87	71,00	1348,00	17,33 €
CD2384	5,00	37,00	3,50	51,00	47,59	22,30	1053,00	18,31 €
CD2385	5,00	37,00	5,50	75,00	30,31	34,80	1053,00	18,31 €
CD2386	5,00	37,00	8,50	110,00	19,63	52,50	1053,00	18,51 €
CD2387	5,00	37,00	12,50	160,00	13,30	79,50	1053,00	19,54 €
CD2388	5,00	37,00	18,50	230,00	9,01	115,00	1053,00	17,33 €
CD2389	5,00	45,00	3,50	64,00	24,34	34,40	843,00	17,33 €
CD2390	5,00	45,00	5,50	95,50	15,49	54,40	843,00	18,51 €
CD2391	5,00	45,00	8,50	140,00	10,02	81,60	843,00	18,51 €
CD2392	5,00	45,00	12,50	205,00	6,82	124,00	843,00	20,37 €
CD2393	5,00	45,00	18,50	300,00	4,60	184,00	843,00	17,33 €
CD2394	5,00	55,00	3,50	85,00	12,46	54,10	674,00	17,33 €
CD2395	5,00	55,00	5,50	130,00	7,94	86,80	674,00	18,51 €
CD2396	5,00	55,00	8,50	195,00	5,14	133,00	674,00	18,51 €
CD2397	5,00	55,00	12,50	280,00	3,50	194,00	674,00	20,37 €
CD2398	5,00	55,00	18,50	410,00	2,36	287,00	674,00	17,33 €
CD2399	5,00	68,00	3,50	120,00	6,24	87,70	535,00	18,51 €
CD2400	5,00	68,00	5,50	180,00	3,98	135,00	535,00	20,37 €
CD2401	5,00	68,00	8,50	275,00	2,57	210,00	535,00	21,01 €
CD2402	5,00	68,00	12,50	395,00	1,74	304,00	535,00	23,56 €
CD2403	5,00	68,00	18,50	585,00	1,18	455,00	535,00	18,31 €
CD2404	6,30	38,30	3,50	50,00	120,40	15,00	1990,00	18,31 €
CD2405	6,30	38,30	5,50	75,00	76,50	26,00	1990,00	20,37 €
CD2406	6,30	38,30	8,50	110,00	49,60	41,00	1990,00	21,01 €
CD2407	6,30	38,30	12,50	155,00	32,70	58,00	1990,00	22,90 €
CD2408	6,30	38,30	18,50	225,00	22,80	88,00	1990,00	18,31 €
CD2409	6,30	46,30	3,50	60,00	61,60	24,00	1590,00	18,51 €
CD2410	6,30	46,30	5,50	90,00	39,20	40,00	1590,00	19,54 €
CD2411	6,30	46,30	8,50	135,00	25,30	63,00	1590,00	19,54 €
CD2412	6,30	46,30	12,50	195,00	17,30	95,00	1590,00	23,56 €
CD2413	6,30	46,30	18,50	280,00	11,60	137,00	1590,00	18,31 €
CD2414	6,30	56,30	3,50	80,00	31,50	42,00	1270,00	21,01 €
CD2415	6,30	56,30	5,50	115,00	20,00	62,00	1270,00	21,58 €
CD2416	6,30	56,30	8,50	175,00	13,00	100,00	1270,00	23,56 €
CD2417	6,30	56,30	12,50	250,00	8,90	145,00	1270,00	25,98 €

Dimensions in mm

Compression spring **DIN 2095**



CD

Stainless steel piano wire

- Material :

Piano springs: Stainless steel
conforming to DIN17224
CrNiAl 17.7

- Right hand wound

- Ends:

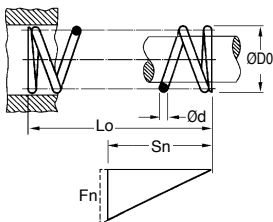
Wire $\leq 0.8\text{mm}$ squared, not ground
Wire $> 0.8\text{mm}$, squared and
ground

- Operating temperature : 60°C max

- These springs are recommended for
static or medium dynamic loads

- Tolerances: All the dimensions and
load values given conform to
DIN2095 (Grade 2)

**75+ pieces,
contact us**



Info.

- These springs have no preset load

- Free length L_0 will reduce slightly
after first use

- For custom made springs, please contact
us (Minimum quantity may apply)

DISCOUNTS

Qty	1+	5+	20+	50+	75+
Disc.	List	-5%	-10%	-15%	On request

Part number	Wire Ød	External ØD	N° active coils	Free length Lo	Rate C N/mm	Max. deflection Sn (mm)	Max. load Fn (N)	Price each 1 to 4
CD2418	6,30	56,30	18,50	365,00	5,90	215,00	1270,00	21,01 €
CD2419	6,30	69,30	3,5	105,00	15,70	65,00	1010,00	21,58 €
CD2420	6,30	69,30	5,5	155,00	10,50	99,00	1010,00	23,56 €
CD2421	6,30	69,30	8,5	253,00	6,50	155,00	1010,00	26,85 €
CD2422	6,30	69,30	12,5	340,00	4,40	227,00	1010,00	30,67 €
CD2423	6,30	69,30	18,5	500,00	3,00	339,00	1010,00	21,58 €
CD2424	6,30	86,30	3,5	145,00	7,70	103,00	800,00	23,56 €
CD2425	6,30	86,30	5,5	220,00	4,90	160,00	800,00	28,04 €
CD2426	6,30	86,30	8,5	335,00	3,20	260,00	800,00	30,67 €
CD2427	6,30	86,30	12,5	490,00	2,20	370,00	800,00	37,36 €
CD2428	6,30	86,30	18,5	720,00	1,50	548,00	800,00	16,64 €
CD2429	8,00	48,00	3,5	65,00	159,00	21,00	3030,00	16,64 €
CD2430	8,00	48,00	5,5	90,00	102,20	29,00	3030,00	21,01 €
CD2431	8,00	48,00	8,5	135,00	66,10	48,00	3030,00	22,90 €
CD2432	8,00	48,00	12,5	190,00	44,70	68,00	3030,00	26,85 €
CD2433	8,00	48,00	18,5	275,00	30,10	101,00	3030,00	18,31 €
CD2434	8,00	58,00	3,5	75,00	81,90	30,00	2425,00	21,01 €
CD2435	8,00	58,00	5,5	110,00	52,20	46,00	2425,00	22,90 €
CD2436	8,00	58,00	8,5	160,00	33,70	70,00	2425,00	23,56 €
CD2437	8,00	58,00	12,5	230,00	22,90	103,00	2425,00	24,12 €

Dimensions in mm



Part number	Wire Ød	External Ø D0	N° active coils	Free length Lo	Rate C N/mm	Max. deflection Sn (mm)	Max. load Fn (N)	Price each 1 to 4
CD2438	8,00	71,00	3,50	95,00	41,00	48,00	1920,00	23,56 €
CD2439	8,00	71,00	5,50	140,00	26,00	74,00	1920,00	25,98 €
CD2440	8,00	71,00	8,50	205,00	16,80	112,00	1920,00	28,81 €
CD2441	8,00	71,00	12,50	300,00	11,40	169,00	1920,00	33,00 €
CD2442	8,00	71,00	18,50	435,00	8,00	248,00	1920,00	63,65 €
CD2443	8,00	88,00	3,50	125,00	19,90	76,00	1515,00	25,98 €
CD2444	8,00	88,00	5,50	180,00	12,70	111,00	1515,00	28,81 €
CD2445	8,00	88,00	8,50	285,00	8,30	186,00	1515,00	33,00 €
CD2446	8,00	88,00	12,50	410,00	5,60	271,00	1515,00	41,59 €
CD2447	8,00	88,00	18,50	600,00	3,80	401,00	1515,00	90,76 €
CD2448	8,00	108,00	3,50	170,00	10,20	118,00	1210,00	28,04 €
CD2449	8,00	108,00	5,50	260,00	6,50	187,00	1210,00	30,67 €
CD2450	8,00	108,00	8,50	390,00	4,20	286,00	1210,00	34,55 €
CD2451	8,00	108,00	12,50	570,00	2,80	423,00	1210,00	129,23 €
CD2452	8,00	108,00	18,50	835,00	2,00	625,00	1210,00	137,44 €
CD2453	10,00	60,00	3,50	75,00	200,00	20,00	4470,00	21,58 €
CD2454	10,00	60,00	5,50	110,00	127,00	34,00	4470,00	24,12 €
CD2455	10,00	60,00	8,50	165,00	82,20	56,00	4470,00	28,04 €
CD2456	10,00	60,00	12,50	230,00	55,90	78,00	4470,00	30,67 €
CD2457	10,00	60,00	18,50	335,00	37,80	118,00	4470,00	34,55 €
CD2458	10,00	73,00	3,50	96,00	99,60	39,00	3540,00	28,04 €
CD2459	10,00	73,00	5,50	135,00	63,60	56,00	3540,00	28,81 €
CD2460	10,00	73,00	8,50	200,00	41,10	88,00	3540,00	37,36 €
CD2461	10,00	73,00	12,50	285,00	28,00	120,00	3540,00	71,55 €
CD2462	10,00	73,00	18,50	410,00	18,90	185,00	3540,00	106,56 €
CD2463	10,00	90,00	3,50	115,00	49,00	56,00	2790,00	30,67 €
CD2464	10,00	90,00	5,50	175,00	30,90	92,00	2790,00	34,55 €
CD2465	10,00	90,00	8,50	255,00	20,10	136,00	2790,00	71,55 €
CD2466	10,00	90,00	12,50	370,00	13,70	203,00	2790,00	90,76 €
CD2467	10,00	90,00	18,50	540,00	9,30	302,00	2790,00	129,23 €
CD2468	10,00	110,00	3,50	150,00	24,90	87,00	2230,00	30,70 €
CD2469	10,00	110,00	5,50	230,00	16,30	141,00	2230,00	41,59 €
CD2470	10,00	110,00	8,50	345,00	10,30	217,00	2230,00	83,89 €
CD2471	10,00	110,00	12,50	500,00	7,00	320,00	2230,00	106,56 €
CD2472	10,00	110,00	18,50	730,00	4,70	472,00	2230,00	137,44 €
CD2473	10,00	135,00	3,50	205,00	12,80	138,00	1790,00	37,36 €
CD2474	10,00	135,00	5,50	315,00	8,20	220,00	1790,00	71,55 €
CD2475	10,00	135,00	8,50	475,00	5,20	338,00	1790,00	106,56 €
CD2476	10,00	135,00	12,50	690,00	3,60	497,00	1790,00	129,23 €
CD2477	10,00	135,00	18,50	1015,00	2,40	738,00	1790,00	137,44 €

Dimensions in mm

Compression springs in metre lengths **Sta** **Ste** **Stock**

D19 D29

Steel or stainless steel

- Spring to be cut to desired length

- Length each: 1000mm

- Materials:

Steel piano wire

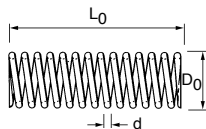
In accordance with DIN 17223

Class C. No 1,1200

Stainless steel in accordance with

DIN 17224 No 1,4310

(Stainless steel 302 AMS)



DISCOUNTS

Qty	1+	6+	20+	40+	60+	100+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	Outside Ø D ₀	Wire Ø d	Free length L ₀	Stock*		Price each 1 to 5	
				Steel	Stainless	Steel	Stainless
D19000	D29000	2,40	0,40	1000	✓	✓	15,39 € 18,35 €
D19010	D29010	3,60	0,40	1000	-	✓	15,39 € 18,35 €
D19020	D29020	3,70	0,50	1000	✓	✓	15,39 € 18,35 €
D19030	D29030	4,50	0,50	1000	✓	✓	15,39 € 18,35 €
D19040	D29040	4,63	0,63	1000	✓	✓	15,39 € 18,35 €
D19050	D29050	5,63	0,63	1000	✓	✓	15,39 € 18,35 €
D19060	D29060	5,80	0,80	1000	✓	✓	16,05 € 18,35 €
D19070	D29070	7,10	0,80	1000	✓	✓	16,05 € 18,35 €
D19080	D29080	7,30	1,00	1000	✓	✓	16,05 € 19,76 €
D19090	D29090	9,00	1,00	1000	✓	✓	16,05 € 19,76 €
D19100	D29100	9,25	1,25	1000	✓	✓	16,05 € 20,65 €
D19110	D29110	11,25	1,25	1000	✓	✓	16,05 € 20,65 €
D19120	D29120	11,60	1,60	1000	✓	✓	17,22 € 22,89 €
D19130	D29130	14,10	1,60	1000	✓	✓	17,22 € 22,89 €
D19140	D29140	14,50	2,00	1000	✓	✓	18,34 € 24,77 €
D19150	D29150	18,00	2,00	1000	✓	✓	18,34 € 24,77 €
D19160	D29160	15,00	2,20	1000	-	-	19,76 € 29,27 €
D19170	D29170	24,00	2,20	1000	✓	-	19,76 € 29,27 €
D19180	D29180	18,50	2,50	1000	✓	✓	20,65 € 33,31 €
D19190	D29190	22,50	2,50	1000	✓	✓	20,65 € 33,31 €
D19200	D29200	20,00	2,80	1000	✓	-	22,89 € 38,76 €
D19210	D29210	30,00	2,80	1000	✓	✓	22,89 € 38,76 €
D19220	D29220	28,20	3,20	1000	✓	✓	24,77 € 45,83 €
D19230	D29230	35,20	3,20	1000	✓	✓	24,77 € 45,83 €

*Depending on availability - Dimensions in mm

SteSta Stock Extension spring in metre lengths

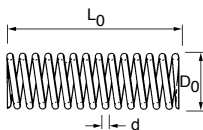
Steel or stainless steel

T39
T49

- Spring to be cut to desired length
- Length each: 1000mm
- Materials:
 - Steel piano wire conforming to DIN 17223 Class C No 1.1200
 - Stainless steel piano wire conforming to DIN 17224 No 1.4310 (Stainless steel 302 AMS)



steel or stainless steel



DISCOUNTS

Qty	1+	6+	20+	40+	60+	100+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	Ø	Outside	Wire Ø	Free length	Stock*		Price each 1 to 5	
					Steel	S/steel	Steel	S/steel
T39000	T49000	2,40	0,40	1000	✓	✓	20,65 €	24,77 €
T39010	T49010	3,40	0,40	1000	-	✓	20,65 €	24,77 €
T39020	T49020	3,50	0,50	1000	✓	✓	24,77 €	29,27 €
T39030	T49030	5,50	0,50	1000	✓	✓	24,77 €	29,27 €
T39040	T49040	4,53	0,63	1000	✓	✓	27,84 €	31,63 €
T39050	T49050	7,03	0,63	1000	✓	✓	27,84 €	31,63 €
T39060	T49060	5,50	0,80	1000	✓	✓	29,27 €	37,56 €
T39070	T49070	9,00	0,80	1000	✓	✓	29,27 €	37,56 €
T39080	T49080	7,00	1,00	1000	✓	✓	31,63 €	38,76 €
T39090	T49090	11,00	1,00	1000	✓	✓	31,63 €	38,76 €
T39100	T49100	8,55	1,25	1000	✓	-	35,39 €	47,16 €
T39110	T49110	13,05	1,25	1000	✓	-	35,39 €	47,16 €
T39120	T49120	11,00	1,60	1000	✓	-	37,56 €	51,89 €
T39130	T49130	17,00	1,60	1000	✓	✓	37,56 €	51,89 €
T39140	T49140	14,00	2,00	1000	✓	-	38,76 €	125,42 €
T39150	T49150	22,00	2,00	1000	✓	-	38,76 €	125,42 €
T39160	T49160	15,00	2,20	1000	✓	-	43,19 €	81,34 €
T39170	T49170	24,00	2,20	1000	✓	-	43,19 €	81,34 €
T39180	T49180	18,00	2,50	1000	✓	✓	45,83 €	95,74 €
T39190	T49190	28,00	2,50	1000	-	-	45,83 €	95,74 €
T39200	T49200	20,00	2,80	1000	✓	-	49,38 €	112,59 €
T39210	T49210	30,00	2,80	1000	✓	-	49,38 €	112,59 €
T39220	T49220	22,00	3,20	1000	-	-	51,89 €	186,43 €
T39230	T49230	36,00	3,20	1000	✓	-	51,89 €	186,43 €

*Depending on availability - Dimensions in mm

- Materials:

Stainless piano wire conforming to DIN 17224

No 1.4310 BS 2056 EN58A.

Annealed commercial stainless steel (302 AMS)

- Ends: German loops closed. End position may vary

- Tolerances: All sizes and strengths in accordance with DIN 2097 (Grade 2). Initial tension is given as an indication and is subject to change.

**250+ required?
Contact us.**

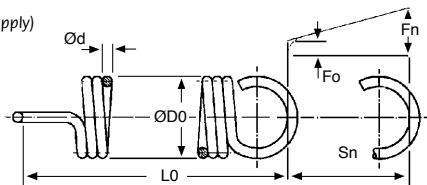


Info.

- Springs should not be stretched greater than the maximum deflection value or permanent damage may result

- Please contact us for custom made springs for your application.

(Minimum order quantities may apply)



DISCOUNTS

Qty	1+	5+	20+	50+	125+	250+
Disc.	List	-10%	-20%	-25%	-50%	On request

Part number	Wire Ød	External Ø D0	Free length L0	Rate C N/mm	Max. deflection (mm)	Max. load (N)	Stock*	Price each 1 to 4
ET4080	0,50	2,50	7,90	6,85	1,70	14,00	✓	8,98 €
ET4081	0,50	2,50	10,90	4,28	2,70	14,00	-	8,98 €
ET4082	0,50	2,50	15,40	2,74	4,30	14,00	-	8,98 €
ET4083	0,50	3,50	9,50	2,02	4,30	10,00	✓	8,98 €
ET4084	0,50	3,50	12,50	1,26	6,90	10,00	✓	8,98 €
ET4085	0,50	3,50	17,00	0,81	10,80	10,00	-	8,98 €
ET4086	0,50	3,50	24,50	0,51	17,30	10,00	✓	8,98 €
ET4087	0,50	3,50	290,00	0,04	210,00	10,00	✓	8,98 €
ET4088	0,50	5,50	12,70	0,44	13,10	7,00	✓	8,98 €
ET4089	0,50	5,50	15,70	0,27	20,90	7,00	✓	9,85 €
ET4090	0,50	5,50	20,20	0,18	32,70	7,00	✓	8,98 €
ET4091	0,50	5,50	27,70	0,11	52,30	7,00	✓	8,98 €
ET4092	0,50	5,50	37,70	0,08	78,40	7,00	✓	8,98 €

*Depending on availability - Dimensions in mm

Part number	Wire Ød	External Ø D0	Free length L0	Rate C N/mm	Max. deflection (mm)	Max. load (N)	Stock*	Price each 1 to 4
ET4093	0,55	2,80	8,80	7,03	2,00	16,00	-	10,45 €
ET4094	0,55	2,80	12,10	4,39	3,20	16,00	-	10,45 €
ET4095	0,55	2,80	17,00	2,81	5,00	16,00	-	10,45 €
ET4096	0,55	3,50	9,90	3,12	3,70	13,00	-	10,45 €
ET4097	0,55	3,50	13,20	1,95	5,90	13,00	-	10,45 €
ET4098	0,55	3,50	18,10	1,25	9,20	13,00	-	10,45 €
ET4099	0,55	3,50	26,40	0,77	14,70	13,00	✓	10,45 €
ET4100	0,55	6,00	13,90	0,50	14,10	8,00	✓	10,45 €
ET4101	0,55	6,00	17,20	0,31	22,50	8,00	✓	10,45 €
ET4102	0,55	6,00	22,10	0,20	35,10	8,00	✓	10,45 €
ET4103	0,55	6,00	30,40	0,13	56,20	8,00	✓	10,45 €
ET4104	0,55	6,00	41,40	0,09	84,30	8,00	✓	10,45 €
ET4105	0,63	3,00	9,70	10,39	1,90	22,00	-	10,45 €
ET4106	0,63	3,00	13,50	6,45	3,00	22,00	-	10,45 €
ET4107	0,63	3,00	19,20	4,13	4,60	22,00	-	10,45 €
ET4108	0,63	4,50	12,10	2,38	5,70	15,00	✓	10,45 €
ET4109	0,63	4,50	15,90	1,49	9,00	15,00	✓	10,45 €
ET4110	0,63	4,50	21,60	0,95	14,11	15,00	✓	10,45 €
ET4111	0,63	4,50	31,00	0,60	22,60	15,00	✓	10,45 €
ET4112	0,63	7,00	16,10	0,53	16,60	10,00	✓	10,45 €
ET4113	0,63	7,00	19,90	0,33	26,60	10,00	✓	10,45 €
ET4114	0,63	7,00	25,60	0,21	41,60	10,00	✓	10,45 €
ET4115	0,63	7,00	35,00	0,14	66,50	10,00	✓	10,45 €
ET4116	0,63	7,00	47,60	0,09	99,70	10,00	✓	10,45 €
ET4117	0,70	3,50	11,10	9,53	2,40	26,00	-	10,45 €
ET4118	0,70	3,50	15,30	5,97	3,80	26,00	-	10,45 €
ET4119	0,70	3,50	21,60	3,81	5,90	26,00	-	10,45 €
ET4120	0,70	5,00	13,50	2,64	6,30	19,00	-	10,45 €
ET4121	0,70	5,00	17,70	1,65	10,00	19,00	✓	10,45 €
ET4122	0,70	5,00	24,00	1,06	15,60	19,00	-	10,45 €
ET4123	0,70	5,00	34,50	0,66	25,00	19,00	✓	10,45 €
ET4124	0,70	7,50	17,50	0,67	16,90	13,00	✓	10,45 €
ET4125	0,70	7,50	21,70	0,42	27,00	13,00	✓	10,45 €
ET4126	0,70	7,50	28,00	0,27	42,20	13,00	✓	10,45 €
ET4127	0,70	7,50	38,50	0,17	67,50	13,00	✓	10,45 €
ET4128	0,70	7,50	52,50	0,11	101,00	13,00	✓	10,45 €
ET4129	0,80	4,00	12,60	10,91	2,70	34,00	✓	10,45 €
ET4130	0,80	4,00	17,40	6,87	4,30	34,00	-	10,45 €
ET4131	0,80	4,00	24,60	4,38	6,70	34,00	-	10,45 €
ET4132	0,80	5,50	15,00	3,44	6,40	26,00	-	10,45 €
ET4133	0,80	5,50	19,80	2,15	10,20	26,00	✓	10,45 €
ET4134	0,80	5,50	27,00	1,37	16,00	26,00	✓	10,45 €
ET4135	0,80	5,50	39,00	0,86	25,60	26,00	✓	10,45 €
ET4136	0,80	5,50	290,00	0,09	225,00	26,00	✓	18,76 €

*Depending on availability - Dimensions in mm

ET Stainless steel piano wire

- Materials:

Stainless piano wire conforming to DIN 17224 No 1.4310 BS 2056 EN58A.

Annealed commercial stainless steel (302 AMS)

- Ends: German loops closed. End position may vary

- Tolerances: All sizes and strengths in accordance with DIN 2097 (Grade 2).

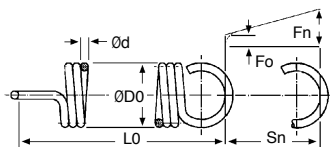
Initial tension is given as an indication and is subject to change.



Info.

- Springs should not be stretched greater than the maximum deflection value or permanent damage may result

- Please contact us for custom made springs for your application. (Minimum order quantities may apply)



**250+ required?
Contact us.**

DISCOUNTS

Qty	1+	5+	20+	50+	125+	250+
Disc.	List	-10%	-20%	-25%	-50%	On request

Part number	Wire Ød	External Ø D0	Free length L0	Rate C N/mm	Max. deflection (mm)	Max. load (N)	Stock*	Price each 1 to 4
ET4137	0,80	9,00	20,60	0,65	21,40	16,00	✓	10,45 €
ET4138	0,80	9,00	25,40	0,40	34,30	16,00	✓	10,45 €
ET4139	0,80	9,00	32,60	0,26	53,50	16,00	✓	10,45 €
ET4140	0,80	9,00	44,60	0,16	85,60	16,00	✓	10,45 €
ET4141	0,80	9,00	60,60	0,11	128,00	16,00	✓	10,45 €
ET4142	0,90	4,50	14,20	12,28	3,00	42,00	✓	10,45 €
ET4143	0,90	4,50	19,60	7,70	4,70	42,00	-	10,45 €
ET4144	0,90	4,50	27,70	4,92	7,40	42,00	-	10,45 €
ET4145	0,90	6,30	17,10	3,63	7,40	31,00	-	10,45 €
ET4146	0,90	6,30	22,50	2,28	11,90	31,00	✓	10,45 €
ET4147	0,90	6,30	30,60	1,46	18,60	31,00	✓	10,45 €
ET4148	0,90	6,30	44,10	0,91	29,70	31,00	✓	10,45 €
ET4149	0,90	10,00	23,00	0,76	23,10	20,00	✓	10,45 €
ET4150	0,90	10,00	28,40	0,47	36,90	20,00	✓	10,45 €
ET4151	0,90	10,00	36,50	0,30	57,60	20,00	✓	10,45 €
ET4152	0,90	10,00	50,00	0,20	92,20	20,00	✓	10,45 €
ET4153	0,90	10,00	68,00	0,13	138,00	20,00	✓	10,45 €
ET4154	1,00	5,00	15,80	13,66	3,30	51,00	-	10,45 €
ET4155	1,00	5,00	21,80	8,50	5,20	51,00	✓	10,45 €
ET4156	1,00	5,00	30,80	5,47	8,10	51,00	✓	10,45 €
ET4157	1,00	7,00	19,00	4,05	8,20	38,00	✓	10,45 €
ET4158	1,00	7,00	25,00	2,53	13,10	38,00	✓	10,45 €
ET4159	1,00	7,00	34,00	1,57	20,40	38,00	✓	10,45 €

*Depending on availability - Dimensions in mm

Materials:

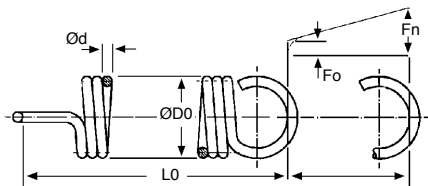
Piano springs: Stainless steel conforming to
DIN17224
CrNiAl 17.7

- Right hand wound
- Ends: Closed German loops conforming to DIN 2097. Position of the hooks may vary.
- Tolerances: All the dimensions and load values given conform to DIN2095 (Grade 2)
- Initial tension $F_0 = \text{Max load} \times 0.08$
- These springs are recommended for static or medium dynamic loads

**75+ required?
Contact us.**

**Info.**

- Springs should not be stretched greater than the maximum deflection value or permanent damage may result.
- For custom made springs, please contact us (Minimum quantity may apply)

**DISCOUNTS**

Qty	1+	5+	20+	50+	75+
Disc.	List	-5%	-10%	-15%	On request

Part number	Wire Ød	External Ø D0	Free length L0	Rate C N/mm	Max. deflection (mm)	Max. load (N)	Price each 1 to 4
ET4160	1,00	7,00	49,00	1,01	32,70	38,00	7,81 €
ET4161	1,00	7,00	290,00	0,16	220,00	38,00	9,88 €
ET4162	1,00	11,00	25,40	0,88	24,80	25,00	7,81 €
ET4163	1,00	11,00	31,40	0,55	39,60	25,00	7,81 €
ET4164	1,00	11,00	40,40	0,35	61,90	25,00	7,81 €
ET4165	1,00	11,00	55,40	0,22	99,00	25,00	7,81 €
ET4166	1,00	11,00	75,40	0,15	149,00	25,00	7,81 €
ET4167	1,10	5,50	17,40	15,03	3,50	61,00	7,81 €
ET4168	1,10	5,50	24,00	9,45	5,70	61,00	7,81 €
ET4169	1,10	5,50	33,90	6,01	8,80	61,00	7,81 €
ET4170	1,10	7,50	20,60	4,89	8,30	47,00	7,81 €
ET4171	1,10	7,50	27,20	3,05	13,30	47,00	7,81 €
ET4172	1,10	7,50	37,10	1,96	20,80	47,00	7,81 €
ET4173	1,10	7,50	53,60	1,22	33,20	47,00	7,81 €

*Depending on availability - Dimensions in mm

ET Stainless steel piano wire

- Materials:

Piano springs: Stainless steel conforming to DIN17224
CrNiAl 17.7

- Right hand wound

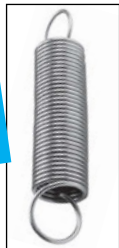
- Ends: Closed German loops conforming to DIN 2097. Position of the hooks may vary.

- Tolerances: All the dimensions and load values given conform to DIN2095 (Grade 2)

- Initial tension $F_0 = \text{Max load} \times 0.08$

- These springs are recommended for static or medium dynamic loads

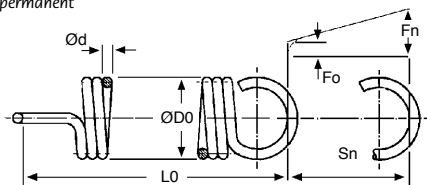
**75+ required?
Contact us.**



Info.

- Springs should not be stretched greater than the maximum deflection value or permanent damage may result.

- For custom made springs, please contact us
(Minimum quantity may apply)



DISCOUNTS

Qty	1+	5+	20+	50+	75+
Disc.	List	-5%	-10%	-15%	On request

Part number	Free Wire Ød	Rate Ø D0	Max. length L0	Max. C N/mm	deflection (mm)	load (N)	Price each 1 to 4
ET4174	1,10	12,00	27,80	0,99	26,40	30,00	7,81 €
ET4175	1,10	12,00	34,40	0,62	42,30	30,00	7,81 €
ET4176	1,10	12,00	44,30	0,40	66,10	30,00	7,81 €
ET4177	1,10	12,00	60,80	0,24	106,00	30,00	7,81 €
ET4178	1,10	12,00	82,80	0,17	159,00	30,00	7,81 €
ET4179	1,20	6,00	19,00	16,40	3,80	72,00	7,81 €
ET4180	1,20	6,00	26,20	10,31	6,10	72,00	7,81 €
ET4181	1,20	6,00	37,00	6,55	9,50	72,00	7,81 €
ET4182	1,20	8,50	23,00	4,66	9,90	53,00	8,57 €
ET4183	1,20	8,50	30,20	2,91	15,80	53,00	8,57 €
ET4184	1,20	8,50	41,00	1,86	24,60	53,00	8,57 €
ET4185	1,20	8,50	59,00	1,16	39,60	53,00	8,57 €
ET4186	1,20	8,50	290,00	0,21	225,00	53,00	9,61 €

Dimensions in mm

Part number	Free Wire Ød	Rate Ø D0	Max. length L0	Max. C N/mm	deflection (mm)	load (N)	Price each 1 to 4
ET4187	1,20	13,00	30,20	1,10	27,90	36,00	8,57 €
ET4188	1,20	13,00	37,40	0,69	44,70	36,00	8,57 €
ET4189	1,20	13,00	48,20	0,44	69,80	36,00	8,57 €
ET4190	1,20	13,00	66,20	0,27	112,00	36,00	8,57 €
ET4191	1,20	13,00	90,20	0,18	168,00	36,00	8,57 €
ET4192	1,40	7,00	22,10	19,15	4,40	95,00	8,57 €
ET4193	1,40	7,00	30,50	11,94	7,00	95,00	8,57 €
ET4194	1,40	7,00	43,10	7,65	10,90	95,00	8,57 €
ET4195	1,40	10,00	26,90	5,27	11,60	70,00	8,57 €
ET4196	1,40	10,00	35,30	3,29	18,50	70,00	8,57 €
ET4197	1,40	10,00	47,90	2,11	28,90	70,00	8,57 €
ET4198	1,40	10,00	68,90	1,32	46,20	70,00	8,57 €
ET4199	1,40	10,00	290,00	0,27	220,00	70,00	9,88 €
ET4200	1,40	15,00	34,90	1,33	31,20	48,00	8,57 €
ET4201	1,40	15,00	43,30	0,83	50,00	48,00	8,57 €
ET4202	1,40	15,00	55,90	0,53	78,10	48,00	8,57 €
ET4203	1,40	15,00	76,90	0,33	125,00	48,00	8,57 €
ET4204	1,40	15,00	105,00	0,22	187,00	48,00	9,06 €
ET4205	1,60	8,00	25,30	21,82	4,90	122,00	8,57 €
ET4206	1,60	8,00	34,90	13,66	7,80	122,00	8,57 €
ET4207	1,60	8,00	49,30	8,76	12,20	122,00	8,57 €
ET4208	1,60	11,00	30,10	6,91	11,70	93,00	8,57 €
ET4209	1,60	11,00	39,70	4,31	18,70	93,00	8,57 €
ET4210	1,60	11,00	54,10	2,77	29,30	93,00	8,57 €
ET4211	1,60	11,00	78,10	1,73	46,80	93,00	8,57 €
ET4212	1,60	17,00	39,70	1,56	34,30	63,00	8,57 €
ET4213	1,60	17,00	49,30	0,98	54,80	63,00	8,57 €
ET4214	1,60	17,00	63,70	0,63	85,60	63,00	8,57 €
ET4215	1,60	17,00	87,70	0,40	137,00	63,00	8,57 €
ET4216	1,60	17,00	120,00	0,26	205,00	63,00	9,06 €
ET4217	1,80	9,00	28,40	24,56	5,40	152,00	8,57 €
ET4218	1,80	9,00	39,20	15,29	8,60	152,00	8,57 €
ET4219	1,80	9,00	55,40	9,88	13,40	152,00	8,57 €
ET4220	1,80	12,00	33,20	8,67	11,90	119,00	8,57 €
ET4221	1,80	12,00	44,00	5,39	19,00	119,00	8,57 €
ET4222	1,80	12,00	60,20	3,45	29,70	119,00	8,57 €
ET4223	1,80	12,00	87,20	2,16	47,60	119,00	8,57 €
ET4224	1,80	12,00	290,00	0,58	175,00	119,00	9,45 €
ET4225	1,80	20,00	46,00	1,53	41,90	73,00	8,57 €
ET4226	1,80	20,00	56,80	0,95	67,00	73,00	8,57 €
ET4227	1,80	20,00	73,00	0,61	105,00	73,00	8,79 €
ET4228	1,80	20,00	100,00	0,38	167,00	73,00	9,06 €
ET4229	1,80	20,00	136,00	0,25	251,00	73,00	9,06 €

Dimensions in mm

- Materials:

Piano springs: Stainless steel conforming to DIN17224
CrNiAl 17.7

- Right hand wound

- Ends: Closed German loops conforming to DIN 2097. Position of the hooks may vary.

- Tolerances: All the dimensions and load values given conform to DIN2095 (Grade 2)

- Initial tension $F_0 = \text{Max load} \times 0.08$

- These springs are recommended for static or medium dynamic loads

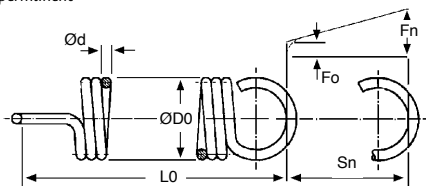
**75+ required?
Contact us.**



Info.

- Springs should not be stretched greater than the maximum deflection value or permanent damage may result.

- For custom made springs, please contact us
(Minimum quantity may apply)



DISCOUNTS

Qty	1+	5+	20+	50+	75+
Disc.	List	-5%	-10%	-15%	On request

Part number	Free Wire Ød	Rate Ø D0	Max. length L0	Max. C N/mm	deflection (mm)	load (N)	Price each 1 to 4
ET4230	2,00	10,00	31,60	27,31	5,90	185,00	9,45 €
ET4231	2,00	10,00	43,60	17,09	9,40	185,00	9,45 €
ET4232	2,00	10,00	61,60	10,99	14,70	185,00	9,45 €
ET4233	2,00	14,00	38,00	8,09	14,70	138,00	9,45 €
ET4234	2,00	14,00	50,00	5,05	23,60	138,00	9,45 €
ET4235	2,00	14,00	68,00	3,24	36,90	138,00	9,45 €
ET4236	2,00	14,00	98,00	2,02	59,00	138,00	9,45 €
ET4237	2,00	22,00	50,80	1,74	44,70	90,00	9,61 €
ET4238	2,00	22,00	62,80	1,09	71,50	90,00	9,61 €
ET4239	2,00	22,00	80,80	0,70	112,00	90,00	9,61 €
ET4240	2,00	22,00	111,00	0,44	179,00	90,00	9,61 €
ET4241	2,00	22,00	151,00	0,29	268,00	90,00	9,88 €

Dimensions in mm

Part number	Free Wire Ød	Rate Ø D0	Max. length L0	Max. C N/mm	deflection (mm)	load (N)	Price each 1 to 4
ET4242	2,20	11,00	34,80	30,06	6,30	220,00	9,61 €
ET4243	2,20	11,00	48,00	18,81	10,10	220,00	9,61 €
ET4244	2,20	11,00	67,80	12,02	15,80	220,00	9,61 €
ET4245	2,20	15,00	41,20	9,79	14,80	168,00	9,61 €
ET4246	2,20	15,00	54,40	6,10	23,70	168,00	9,61 €
ET4247	2,20	15,00	74,20	3,91	37,00	168,00	9,61 €
ET4248	2,20	15,00	107,00	2,44	59,20	168,00	9,61 €
ET4249	2,20	24,00	55,60	1,98	47,10	108,00	9,61 €
ET4250	2,20	24,00	68,80	1,24	75,30	108,00	9,61 €
ET4251	2,20	24,00	88,60	0,79	118,00	108,00	9,61 €
ET4252	2,20	24,00	122,00	0,50	188,00	108,00	9,61 €
ET4253	2,20	24,00	166,00	0,33	282,00	108,00	10,19 €
ET4254	2,50	13,00	40,30	29,46	7,80	270,00	9,61 €
ET4255	2,50	13,00	55,30	18,47	12,50	270,00	9,61 €
ET4256	2,50	13,00	77,80	11,77	19,60	270,00	9,61 €
ET4257	2,50	18,00	48,30	9,19	18,90	200,00	9,61 €
ET4258	2,50	18,00	63,30	5,73	30,30	200,00	9,61 €
ET4259	2,50	18,00	85,80	3,67	47,30	200,00	9,61 €
ET4260	2,50	18,00	123,00	2,29	75,70	200,00	9,61 €
ET4261	2,50	28,00	64,30	2,05	55,60	133,00	9,61 €
ET4262	2,50	28,00	79,30	1,29	88,90	133,00	9,61 €
ET4263	2,50	28,00	102,00	0,82	139,00	133,00	9,61 €
ET4264	2,50	28,00	139,00	0,52	222,00	133,00	9,88 €
ET4265	2,50	28,00	189,00	0,34	333,00	133,00	10,19 €
ET4266	2,80	14,00	44,20	38,31	7,70	340,00	9,61 €
ET4267	2,80	14,00	61,00	23,96	12,20	340,00	9,61 €
ET4268	2,80	14,00	86,20	15,37	19,10	340,00	9,61 €
ET4269	2,80	20,00	53,80	10,56	20,30	250,00	9,61 €
ET4270	2,80	20,00	70,60	6,60	32,40	250,00	9,61 €
ET4271	2,80	20,00	95,80	4,22	50,60	250,00	9,61 €
ET4272	2,80	20,00	138,00	2,64	81,00	250,00	9,61 €
ET4273	2,80	30,00	69,80	2,67	54,70	170,00	9,61 €
ET4274	2,80	30,00	86,60	1,67	87,60	170,00	9,61 €
ET4275	2,80	30,00	112,00	1,07	137,00	170,00	9,61 €
ET4276	2,80	30,00	154,00	0,67	219,00	170,00	10,19 €
ET4277	2,80	30,00	210,00	0,45	328,00	170,00	10,70 €
ET4278	3,20	16,00	50,60	43,72	8,50	435,00	9,61 €
ET4279	3,20	16,00	69,80	27,31	13,60	435,00	9,61 €
ET4280	3,20	16,00	98,60	17,52	21,30	435,00	9,61 €
ET4281	3,20	22,00	60,20	13,83	20,50	330,00	9,88 €
ET4282	3,20	22,00	79,40	8,59	32,70	330,00	9,88 €
ET4283	3,20	22,00	108,00	5,57	51,10	330,00	9,88 €
ET4284	3,20	22,00	156,00	3,45	81,80	330,00	10,19 €

Dimensions in mm

Extension springs **DIN 2097**



ET Stainless steel piano wire

- Materials:

Piano springs: Stainless steel conforming to DIN17224
CrNiAl 17.7

- Right hand wound

- Ends: Closed German loops conforming to DIN 2097. Position of the hooks may vary.

- Tolerances: All the dimensions and load values given conform to DIN2095 (Grade 2)

- Initial tension $F_0 = \text{Max load} \times 0.08$

- These springs are recommended for static or medium dynamic loads

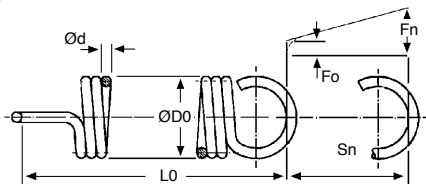
**75+ required?
Contact us.**



Info.

- Springs should not be stretched greater than the maximum deflection value or permanent damage may result.

- For custom made springs, please contact us
(Minimum quantity may apply)



DISCOUNTS

Qty	1+	5+	20+	50+	75+
Disc.	List	-5%	-10%	-15%	On request

Part number	Free Wire Ød	Rate Ø D0	Max. length L0	Max. C N/mm	deflection (mm)	load (N)	Price each 1 to 4
ET4285	3,20	36,00	82,60	2,59	68,40	205,00	9,88 €
ET4286	3,20	36,00	102,00	1,62	109,00	205,00	9,88 €
ET4287	3,20	36,00	131,00	1,04	171,00	205,00	10,19 €
ET4288	3,20	36,00	179,00	0,65	274,00	205,00	10,54 €
ET4289	3,20	36,00	243,00	0,43	410,00	205,00	15,14 €
ET4290	3,60	18,00	56,90	49,13	9,40	540,00	17,33 €
ET4291	3,60	18,00	78,50	30,75	15,00	540,00	17,33 €
ET4292	3,60	18,00	111,00	19,67	23,40	540,00	17,33 €
ET4293	3,60	25,00	68,10	15,03	23,00	405,00	17,33 €
ET4294	3,60	25,00	89,70	9,36	36,80	405,00	17,33 €
ET4295	3,60	25,00	122,00	6,00	57,60	405,00	17,33 €
ET4296	3,60	25,00	176,00	3,75	92,10	405,00	18,04 €

Dimensions in mm

Part number	Free Wire Ød	Rate Ø D0	Max. length L0	Max. C N/mm	deflection (mm)	load (N)	Price each 1 to 4
ET4297	3,60	40,00	92,10	3,04	72,90	260,00	17,33 €
ET4298	3,60	40,00	114,00	1,91	117,00	260,00	17,33 €
ET4299	3,60	40,00	146,00	1,22	182,00	260,00	18,04 €
ET4300	3,60	40,00	200,00	0,76	292,00	260,00	18,04 €
ET4301	3,60	40,00	272,00	0,51	437,00	260,00	18,51 €
ET4302	4,00	20,00	63,20	54,63	10,10	650,00	18,04 €
ET4303	4,00	20,00	87,20	34,10	16,20	650,00	18,04 €
ET4304	4,00	20,00	123,00	21,82	25,30	650,00	18,04 €
ET4305	4,00	28,00	76,00	16,15	25,40	480,00	18,04 €
ET4306	4,00	28,00	100,00	10,13	40,70	480,00	18,04 €
ET4307	4,00	28,00	136,00	6,48	63,60	480,00	18,31 €
ET4308	4,00	28,00	196,00	4,05	102,00	480,00	18,51 €
ET4309	4,00	45,00	103,00	3,25	81,20	310,00	18,51 €
ET4310	4,00	45,00	127,00	2,03	130,00	310,00	18,51 €
ET4311	4,00	45,00	163,00	1,30	203,00	310,00	19,54 €
ET4312	4,00	45,00	223,00	0,81	325,00	310,00	22,90 €
ET4313	4,00	45,00	303,00	0,54	487,00	310,00	28,04 €
ET4314	4,50	22,00	70,30	66,91	10,40	810,00	18,51 €
ET4315	4,50	22,00	97,30	41,83	16,60	810,00	19,54 €
ET4316	4,50	22,00	138,00	26,80	25,90	810,00	19,54 €
ET4317	4,50	32,00	86,30	17,26	29,00	580,00	19,54 €
ET4318	4,50	32,00	113,00	10,82	46,40	580,00	19,54 €
ET4319	4,50	32,00	154,00	6,90	72,60	580,00	20,37 €
ET4320	4,50	32,00	221,00	4,30	116,00	580,00	21,01 €
ET4321	4,50	50,00	115,00	3,80	86,40	380,00	19,54 €
ET4322	4,50	50,00	142,00	2,38	138,00	380,00	20,37 €
ET4323	4,50	50,00	183,00	1,53	216,00	380,00	21,01 €
ET4324	4,50	50,00	250,00	0,95	346,00	380,00	22,90 €
ET4325	4,50	50,00	340,00	0,64	518,00	380,00	24,12 €
ET4326	5,00	25,00	79,00	68,28	11,90	940,00	19,54 €
ET4327	5,00	25,00	109,00	42,69	19,00	940,00	19,54 €
ET4328	5,00	25,00	154,00	27,31	29,70	940,00	18,51 €
ET4329	5,00	36,00	96,60	18,38	32,20	685,00	19,54 €
ET4330	5,00	36,00	127,00	11,42	51,50	685,00	18,51 €
ET4331	5,00	36,00	172,00	7,33	80,40	685,00	18,51 €
ET4332	5,00	36,00	247,00	4,59	129,00	685,00	22,90 €
ET4333	5,00	55,00	127,00	4,37	90,60	460,00	20,37 €
ET4334	5,00	55,00	157,00	2,73	145,00	460,00	21,01 €
ET4335	5,00	55,00	202,00	1,75	226,00	460,00	22,90 €
ET4336	5,00	55,00	277,00	1,10	362,00	460,00	24,12 €
ET4337	5,00	55,00	377,00	0,72	544,00	460,00	25,98 €

Dimensions in mm

- Material:
Stainless steel 302 AMS 5688
- Standard springs are right hand wound

Options

- For left hand wound springs, replace R in the part number with L
- Custom made springs

Info.

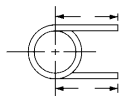
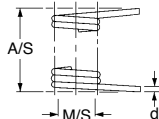
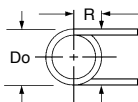
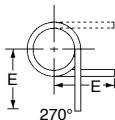
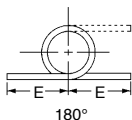
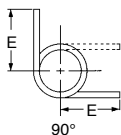
- *A/S = Spring width



TO-L: Left hand wound spring (Option)



TO-R: Right hand wound spring (Standard)



DISCOUNTS

Qty	1+	6+	20+	40+	60+	100+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	Wire Ød	Outside Ø Do	Torque (N/mm) T	Loaded position R	M/S recom- mended pin ø	Leg Length E (mm)	A/S Min. axle length (mm) ¹	Fleet angle	Stock*	Price each 1 to 5
T0120-900-55R	0,30	2,36	5,31	4,75	1,40	9,52	1,17	90°	✓	3,54 €
T0121-800-67R	0,30	2,77	5,31	4,75	1,70	9,52	2,18	180°	✓	3,54 €
T0122-700-62R	0,30	2,59	5,31	4,75	1,57	9,52	3,53	270°	-	3,59 €
T0121-801-09R	0,30	4,22	5,31	6,35	2,77	12,70	1,50	180°	✓	3,59 €
T0122-701-09R	0,30	4,32	5,31	6,35	2,77	12,70	2,18	270°	✓	3,59 €
T0123-601-09R	0,30	4,42	5,31	6,35	2,77	12,70	2,81	360°	✓	3,59 €
T0170-900-93R	0,43	4,06	13,22	6,35	2,36	12,70	2,06	90°	✓	3,59 €
T0171-800-93R	0,43	4,37	13,22	6,35	2,36	12,70	3,23	180°	✓	3,59 €
T0172-700-93R	0,43	4,06	13,22	6,35	2,36	12,70	4,88	270°	-	3,59 €
T0171-801-56R	0,43	6,32	13,22	9,52	3,96	19,05	2,39	180°	✓	6,12 €
T0172-701-56R	0,43	6,58	13,22	9,52	3,96	19,05	3,13	270°	✓	6,12 €
T0173-601-40R	0,43	5,97	13,22	9,52	3,56	19,05	4,32	360°	✓	6,12 €
T0200-901-09R	0,51	4,85	21,10	9,52	2,77	19,05	2,41	90°	✓	3,59 €
T0201-801-09R	0,51	4,55	21,10	9,52	2,77	19,05	4,32	180°	✓	3,59 €
T0202-700-93R	0,51	4,45	21,10	9,52	2,36	19,05	6,22	270°	-	3,59 €
T0201-801-40R	0,51	6,15	21,10	12,70	3,56	25,40	3,30	180°	✓	6,12 €
T0202-701-72R	0,51	6,81	21,10	12,70	4,37	25,40	4,19	270°	-	6,12 €
T0203-601-56R	0,51	6,45	21,10	12,70	3,96	25,40	6,35	360°	-	6,12 €
T0250-901-40R	0,64	5,97	42,40	9,52	3,56	19,05	2,44	90°	✓	3,59 €
T0251-801-40R	0,64	5,69	42,40	9,52	3,56	19,05	5,23	180°	✓	3,59 €
T0252-701-40R	0,64	5,56	42,40	9,52	3,56	19,05	8,03	270°	✓	3,59 €
T0251-802-03R	0,64	7,72	42,40	12,70	5,16	25,40	3,84	180°	✓	6,12 €
T0252-702-18R	0,64	8,64	42,40	12,70	5,54	25,40	5,23	270°	✓	6,12 €
T0253-602-18R	0,64	8,23	42,40	12,70	5,54	25,40	7,32	360°	✓	6,12 €
T0320-901-72R	0,81	7,32	92,70	12,70	4,34	25,40	3,86	90°	✓	6,12 €
T0321-801-56R	0,81	6,86	92,70	12,70	3,96	25,40	6,91	180°	✓	6,12 €
T0322-701-56R	0,81	6,71	92,70	12,70	3,96	25,40	9,70	270°	-	6,12 €
T0321-802-18R	0,81	9,30	92,70	12,70	5,54	25,40	5,28	180°	✓	7,21 €
T0322-702-18R	0,81	8,99	92,70	12,70	5,54	25,40	7,52	270°	✓	7,21 €
T0323-602-34R	0,81	9,70	92,70	12,70	5,95	25,40	8,94	360°	✓	7,21 €
T0350-901-87R	0,89	8,00	113,00	15,88	4,75	31,75	3,43	90°	✓	6,12 €
T0351-801-87R	0,89	7,70	113,00	15,88	4,75	31,75	7,37	180°	✓	6,12 €
T0352-701-87R	0,89	7,90	113,00	15,88	4,75	31,75	11,23	270°	✓	6,12 €
T0351-802-81R	0,89	11,43	113,00	15,88	7,14	31,75	5,38	180°	✓	7,21 €
T0352-702-81R	0,89	11,05	113,00	15,88	7,14	31,75	8,33	270°	✓	7,15 €
T0353-603-12R	0,89	11,96	113,00	15,88	7,92	31,75	10,29	360°	✓	7,21 €

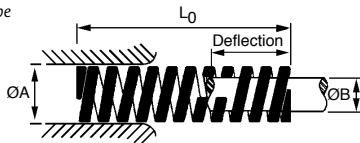
*Depending on availability - Dimensions in mm

Die spring ISO 10243



R Green: light duty

- ISO green standard (ISO 10243)
- Extra-rigid spring
- For light loads
- Trapezoidal wire
- Ends squared and ground
- Withstands shocks
- Endures jolts
- Easy to compress to solid height
- Material: chromium-vanadium-coated steel



Advantages

- The trapezoidal wire permits optimum deflection whilst protecting against the risk of damage caused by overloading the spring.
- Hardness sufficient to allow heavy loads to be withstood.
- Heat resistance up to 230°C.
- Uniform spring performance.
- Uniform stiffness ratio
- Greater load accuracy for a given height.
- Reliable performance.
- Reduced risk of breakage.

Option

- Other sizes



DISCOUNTS

Qty	1+	6+	20+	40+	60+	100+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	Hole ØA (mm)	Rod ØB (mm)	Free length Lo (mm)	Load at 1 mm deflection (N)	Load deflection								Price each 1 to 5
					Optimum life (25% free length Lo)		Long life (30% free length Lo)		Max. working (35% free length Lo)		Max. deflection		
					Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	
R203104	10,0	5,0	25	10,0	62,5	6,3	75,0	7,5	87,5	8,8	103,0	10,3	2,24 €
R203106	10,0	5,0	38	6,8	64,6	9,5	77,5	11,4	90,4	13,3	106,1	15,6	2,49 €
R203108	10,0	5,0	51	5,0	63,8	12,8	76,5	15,3	89,3	17,9	104,5	20,9	2,65 €
R203112	10,0	5,0	76	3,2	60,8	19,0	73,0	22,8	85,1	26,6	99,8	31,2	3,35 €
R203204	12,5	6,3	25	17,9	111,9	6,3	134,3	7,5	156,6	8,8	184,4	10,3	2,57 €
R203206	12,5	6,3	38	13,6	129,2	9,5	155,0	11,4	180,9	13,3	212,2	15,6	3,05 €
R203208	12,5	6,3	51	11,4	145,4	12,8	174,4	15,3	203,5	17,9	238,3	20,9	3,53 €
R203212	12,5	6,3	76	7,1	134,9	19,0	161,9	22,8	188,9	26,6	221,5	31,2	4,59 €
R203248	12,5	6,3	305	1,4	106,8	76,3	128,1	91,5	149,5	106,8	175,0	125,0	13,36 €
R203304	16,0	8,0	25	23,4	146,8	6,3	175,5	7,5	204,8	8,8	241,0	10,3	3,05 €
R203306	16,0	8,0	38	19,3	183,4	9,5	220,0	11,4	256,7	13,3	301,1	15,6	3,53 €
R203308	16,0	8,0	51	15,7	200,2	12,8	240,2	15,3	280,2	17,9	328,1	20,9	4,03 €
R203312	16,0	8,0	76	10,0	190,0	19,0	228,0	22,8	266,0	26,6	312,0	31,2	5,11 €
R203316	16,0	8,0	102	7,8	198,9	25,5	238,7	30,6	278,5	35,7	326,0	41,8	5,93 €
R203404	20,0	10,0	25	55,8	348,8	6,3	418,5	7,5	488,3	8,8	569,2	10,2	4,48 €
R203406	20,0	10,0	38	33,3	316,4	9,5	379,6	11,4	442,9	13,3	499,5	15,0	3,75 €

Dimensions in mm

Part number	Hole ØA (mm)	Rod ØB (mm)	Free length Lo (mm)	Load at 1 mm deflection (N)	Load deflection								Price each 1 to 5
					Optimum life (25% free length Lo)		Long life (30% free length Lo)		Max. working (35% free length Lo)		Max. deflection		
					Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	
R203408	20,0	10,0	51	24,5	312,4	12,8	374,9	15,3	437,3	17,9	490,0	20,0	4,36 €
R203412	20,0	10,0	76	16,0	304,0	19,0	364,8	22,8	425,6	26,6	480,0	30,0	5,61 €
R203416	20,0	10,0	102	12,0	306,0	25,5	367,2	30,6	428,4	35,7	492,0	41,0	7,02 €
R203420	20,0	10,0	127	9,5	301,6	31,8	362,0	38,1	422,3	44,5	484,5	51,0	8,34 €
R203424	20,0	10,0	152	7,5	285,0	38,0	342,0	45,6	399,0	53,2	457,5	61,0	9,02 €
R203448	20,0	10,0	305	4,0	305,0	76,3	366,0	91,5	427,0	106,8	488,0	122,0	28,16 €
R203504	25,0	12,5	25	100,0	625,0	6,3	750,0	7,5	875,0	8,8	1020,0	10,2	3,63 €
R203505	25,0	12,5	32	80,3	642,4	8,0	770,9	9,6	899,4	11,2	1003,8	12,5	4,27 €
R203506	25,0	12,5	38	62,0	589,0	9,5	706,8	11,4	824,6	13,3	930,0	15,0	4,89 €
R203507	25,0	12,5	44	52,9	581,9	11,0	698,3	13,2	814,7	15,4	952,2	18,0	5,45 €
R203508	25,0	12,5	51	44,0	561,0	12,8	673,2	15,3	785,4	17,9	880,0	20,0	6,06 €
R203510	25,0	12,5	64	35,2	563,2	16,0	675,8	19,2	788,5	22,4	880,0	25,0	6,87 €
R203512	25,0	12,5	76	28,0	532,0	19,0	638,4	22,8	744,8	26,6	840,0	30,0	7,76 €
R203514	25,0	12,5	89	24,0	534,0	22,3	640,8	26,7	747,6	31,2	840,0	35,0	8,98 €
R203516	25,0	12,5	102	21,1	538,1	25,5	645,7	30,6	753,3	35,7	865,1	41,0	10,28 €
R203518	25,0	12,5	115	18,7	537,6	28,8	645,2	34,5	752,7	40,3	860,2	46,0	11,33 €
R203520	25,0	12,5	127	16,7	530,2	31,8	636,3	38,1	742,3	44,5	851,7	51,0	12,38 €
R203522	25,0	12,5	139	15,3	531,7	34,8	638,0	41,7	744,3	48,7	856,8	56,0	14,09 €
R203524	25,0	12,5	152	14,0	532,0	38,0	638,4	45,6	744,8	53,2	854,0	61,0	14,36 €
R203528	25,0	12,5	178	12,5	556,3	44,5	667,5	53,4	778,8	62,3	887,5	71,0	16,23 €
R203532	25,0	12,5	203	10,4	527,8	50,8	633,4	60,9	738,9	71,1	842,4	81,0	18,15 €
R203548	25,0	12,5	305	7,0	533,8	76,3	640,5	91,5	747,3	106,8	854,0	122,0	38,25 €
R203606	32,0	16,0	38	94,0	893,0	9,5	1071,6	11,4	1250,2	13,3	1410,0	15,0	6,34 €
R203607	32,0	16,0	44	79,5	874,5	11,0	1049,4	13,2	1224,3	15,4	1431,0	18,0	6,87 €
R203608	32,0	16,0	51	67,0	854,3	12,8	1025,1	15,3	1196,0	17,9	1340,0	20,0	7,48 €
R203610	32,0	16,0	64	53,0	848,0	16,0	1017,6	19,2	1187,2	22,4	1325,0	25,0	8,58 €
R203612	32,0	16,0	76	44,0	836,0	19,0	1003,2	22,8	1170,4	26,6	1320,0	30,0	9,66 €
R203616	32,0	16,0	102	32,0	816,0	25,5	979,2	30,6	1142,4	35,7	1312,0	41,0	12,38 €
R203620	32,0	16,0	127	25,0	793,8	31,8	952,5	38,1	1111,3	44,5	1275,0	51,0	16,23 €
R203624	32,0	16,0	152	21,5	817,0	38,0	980,4	45,6	1143,8	53,2	1311,5	61,0	18,91 €
R203632	32,0	16,0	203	15,8	801,9	50,8	962,2	60,9	1122,6	71,1	1279,8	81,0	24,20 €
R203648	32,0	16,0	305	10,3	785,4	76,3	942,5	91,5	1099,5	106,8	1256,6	122,0	40,69 €
R203708	40,0	20,0	51	92,0	1173,0	12,8	1407,6	15,3	1642,2	17,9	1840,0	20,0	9,19 €
R203712	40,0	20,0	76	63,0	1197,0	19,0	1436,4	22,8	1675,8	26,6	1890,0	30,0	12,70 €
R203716	40,0	20,0	102	43,0	1096,5	25,5	1315,8	30,6	1535,1	35,7	1763,0	41,0	17,65 €
R203720	40,0	20,0	127	37,0	1174,8	31,8	1409,7	38,1	1644,7	44,5	1887,0	51,0	22,63 €
R203724	40,0	20,0	152	28,0	1064,0	38,0	1276,8	45,6	1489,6	53,2	1708,0	61,0	26,04 €
R203732	40,0	20,0	203	22,7	1152,0	50,8	1382,4	60,9	1612,8	71,1	1838,7	81,0	32,71 €
R203748	40,0	20,0	305	14,8	1128,5	76,3	1354,2	91,5	1579,9	106,8	1805,6	122,0	50,21 €
R203810	50,0	25,0	64	156,0	2496,0	16,0	2995,2	19,2	3494,4	22,4	3900,0	25,0	17,91 €
R203814	50,0	25,0	89	109,0	2425,3	22,3	2910,3	26,7	3395,4	31,2	3815,0	35,0	23,60 €
R203818	50,0	25,0	115	81,0	2328,8	28,8	2794,5	34,5	3260,3	40,3	3726,0	46,0	29,66 €
R203822	50,0	25,0	139	66,5	2310,9	34,8	2773,1	41,7	3235,2	48,7	3724,0	56,0	35,14 €
R203828	50,0	25,0	178	52,0	2314,0	44,5	2776,8	53,4	3239,6	62,3	3692,0	71,0	41,83 €
R203840	50,0	25,0	254	35,0	2222,5	63,5	2667,0	76,2	3111,5	88,9	3570,0	102,0	60,51 €
R203912	63,0	38,0	76	189,0	3591,0	19,0	4309,2	22,8	5027,4	26,6	5670,0	30,0	40,15 €
R203916	63,0	38,0	102	131,0	3340,5	25,5	4008,6	30,6	4676,7	35,7	5371,0	41,0	56,43 €
R203920	63,0	38,0	127	103,0	3270,3	31,8	3924,3	38,1	4578,4	44,5	5253,0	51,0	63,39 €
R203928	63,0	38,0	178	71,5	3181,8	44,5	3818,1	53,4	4454,5	62,3	5076,5	71,0	80,11 €
R203940	63,0	38,0	254	47,0	2984,5	63,5	3581,4	76,2	4178,3	88,9	4794,0	102,0	117,27 €

Dimensions in mm

Die spring ISO 10243



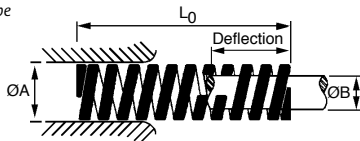
R **Blue: medium duty**

- ISO blue standard (ISO 10243)
- Extra-rigid spring
- For medium loads
- Trapezoidal wire
- Ends squared and ground
- Withstands shocks
- Endures jolts
- Easy to compress to solid height
- Material: chromium-vanadium-coated steel



Advantages

- The trapezoidal wire permits optimum deflection whilst protecting against the risk of damage caused by overloading the spring.
- Hardness sufficient to allow heavy loads to be withstood.
- Heat resistance up to 230°C.
- Uniform spring performance.
- Uniform stiffness ratio
- Greater load accuracy for a given height.
- Reliable performance.
- Reduced risk of breakage.



Option

- Other sizes



DISCOUNTS

Qty	1+	6+	20+	40+	60+	100+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	Hole ØA (mm)	Rod ØB (mm)	Free length Lo (mm)	Load at 1 mm deflection (N)	Load deflection								Price each 1 to 5
					Optimum life (25% free length Lo)		Long life (30% free length Lo)		Max. working (35% free length Lo)		Max. deflection		
					Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	
R204104	10,0	5,0	25	16,0	80,0	5,0	100,0	6,3	120,0	7,5	152,0	9,5	2,33 €
R204106	10,0	5,0	38	11,9	90,4	7,6	113,1	9,5	135,7	11,4	171,4	14,4	2,82 €
R204108	10,0	5,0	51	8,9	90,8	10,2	113,5	12,8	136,2	15,3	172,7	19,4	3,32 €
R204112	10,0	5,0	76	5,3	80,6	15,2	100,7	19,0	120,8	22,8	153,2	28,9	4,01 €
R204204	12,5	6,3	25	30,0	150,0	5,0	187,5	6,3	225,0	7,5	285,0	9,5	2,82 €
R204206	12,5	6,3	38	21,4	162,6	7,6	203,3	9,5	244,0	11,4	308,2	14,4	3,35 €
R204208	12,5	6,3	51	15,5	158,1	10,2	197,6	12,8	237,2	15,3	300,7	19,4	3,75 €
R204212	12,5	6,3	76	10,2	155,0	15,2	193,8	19,0	232,6	22,8	294,8	28,9	5,00 €
R204248	12,5	6,3	305	2,1	128,1	61,0	160,1	76,3	192,2	91,5	243,6	116,0	18,62 €
R204304	16,0	8,0	25	49,4	247,0	5,0	308,8	6,3	370,5	7,5	469,3	9,5	3,53 €
R204306	16,0	8,0	38	33,9	257,6	7,6	322,1	9,5	386,5	11,4	488,2	14,4	4,03 €
R204308	16,0	8,0	51	26,4	269,3	10,2	336,6	12,8	403,9	15,3	512,2	19,4	4,48 €
R204312	16,0	8,0	76	17,8	270,6	15,2	338,2	19,0	405,8	22,8	514,4	28,9	5,61 €
R204316	16,0	8,0	102	13,5	275,4	20,4	344,3	25,5	413,1	30,6	523,8	38,8	6,69 €
R204404	20,0	10,0	25	98,0	490,0	5,0	612,5	6,3	735,0	7,5	921,2	9,4	3,63 €
R204406	20,0	10,0	38	56,0	425,6	7,6	532,0	9,5	638,4	11,4	784,0	14,0	4,41 €

Dimensions in mm

Part number	Hole ØA (mm)	Rod ØB (mm)	Free length Lo (mm)	Load at 1 mm deflection (N)	Load deflection								Price each 1 to 5
					Optimum life (25% free length Lo)		Long life (30% free length Lo)		Max. working (35% free length Lo)		Max. deflection		
					Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	
R204408	20,0	10,0	51	41,7	425,3	10,2	531,7	12,8	638,0	15,3	792,3	19,0	5,11 €
R204412	20,0	10,0	76	25,1	381,5	15,2	476,9	19,0	572,3	22,8	702,8	28,0	6,34 €
R204416	20,0	10,0	102	19,8	403,9	20,4	504,9	25,5	605,9	30,6	752,4	38,0	7,76 €
R204420	20,0	10,0	127	16,6	421,6	25,4	527,1	31,8	632,5	38,1	796,8	48,0	9,55 €
R204424	20,0	10,0	152	13,2	401,3	30,4	501,6	38,0	601,9	45,6	752,4	57,0	11,33 €
R204504	25,0	12,5	25	147,0	735,0	5,0	918,8	6,3	1102,5	7,5	1381,8	9,4	4,01 €
R204506	25,0	12,5	38	93,0	706,8	7,6	883,5	9,5	1060,2	11,4	1302,0	14,0	5,20 €
R204507	25,0	12,5	44	80,8	711,0	8,8	888,8	11,0	1066,6	13,2	1333,2	16,5	5,80 €
R204508	25,0	12,5	51	68,6	699,7	10,2	874,7	12,8	1049,6	15,3	1303,4	19,0	6,40 €
R204510	25,0	12,5	64	53,0	678,4	12,8	848,0	16,0	1017,6	19,2	1272,0	24,0	7,18 €
R204512	25,0	12,5	76	43,2	656,6	15,2	820,8	19,0	985,0	22,8	1209,6	28,0	8,07 €
R204514	25,0	12,5	89	38,2	680,0	17,8	850,0	22,3	1019,9	26,7	1260,6	33,0	9,55 €
R204516	25,0	12,5	102	33,0	673,2	20,4	841,5	25,5	1009,8	30,6	1254,0	38,0	10,73 €
R204518	25,0	12,5	115	28,0	644,0	23,0	805,0	28,8	966,0	34,5	1204,0	43,0	12,11 €
R204520	25,0	12,5	127	25,9	657,9	25,4	822,3	31,8	986,8	38,1	1243,2	48,0	13,12 €
R204522	25,0	12,5	139	23,2	645,0	27,8	806,2	34,8	967,4	41,7	1206,4	52,0	14,15 €
R204524	25,0	12,5	152	20,8	632,3	30,4	790,4	38,0	948,5	45,6	1185,6	57,0	15,05 €
R204528	25,0	12,5	178	17,8	633,7	35,6	792,1	44,5	950,5	53,4	1192,6	67,0	16,96 €
R204532	25,0	12,5	203	15,8	641,5	40,6	801,9	50,8	962,2	60,9	1200,8	76,0	18,91 €
R204548	25,0	12,5	305	10,2	622,2	61,0	777,8	76,3	933,3	91,5	1162,8	114,0	41,83 €
R204606	32,0	16,0	38	185,0	1406,0	7,6	1757,5	9,5	2109,0	11,4	2590,0	14,0	7,02 €
R204607	32,0	16,0	44	158,0	1390,4	8,8	1738,0	11,0	2085,6	13,2	2607,0	16,5	7,76 €
R204608	32,0	16,0	51	134,0	1366,8	10,2	1708,5	12,8	2050,2	15,3	2546,0	19,0	8,49 €
R204610	32,0	16,0	64	99,0	1267,2	12,8	1584,0	16,0	1900,8	19,2	2376,0	24,0	9,55 €
R204612	32,0	16,0	76	80,5	1223,6	15,2	1529,5	19,0	1835,4	22,8	2254,0	28,0	10,65 €
R204616	32,0	16,0	102	58,8	1199,5	20,4	1499,4	25,5	1799,3	30,6	2234,4	38,0	13,62 €
R204620	32,0	16,0	127	44,8	1137,9	25,4	1422,4	31,8	1706,9	38,1	2150,4	48,0	18,15 €
R204624	32,0	16,0	152	37,8	1149,1	30,4	1436,4	38,0	1723,7	45,6	2154,6	57,0	20,77 €
R204632	32,0	16,0	203	28,9	1173,3	40,6	1466,7	50,8	1760,0	60,9	2196,4	76,0	26,04 €
R204648	32,0	16,0	305	18,3	1116,3	61,0	1395,4	76,3	1674,5	91,5	2086,2	114,0	47,80 €
R204708	40,0	20,0	51	181,6	1852,3	10,2	2315,4	12,8	2778,5	15,3	3450,4	19,0	9,99 €
R204712	40,0	20,0	76	108,0	1641,6	15,2	2052,0	19,0	2462,4	22,8	3024,0	28,0	13,36 €
R204716	40,0	20,0	102	81,0	1652,4	20,4	2065,5	25,5	2478,6	30,6	3078,0	38,0	18,91 €
R204720	40,0	20,0	127	62,7	1592,6	25,4	1990,7	31,8	2388,9	38,1	3009,6	48,0	24,20 €
R204724	40,0	20,0	152	51,6	1568,6	30,4	1960,8	38,0	2353,0	45,6	2941,2	57,0	27,48 €
R204732	40,0	20,0	203	36,7	1490,0	40,6	1862,5	50,8	2235,0	60,9	2789,2	76,0	34,16 €
R204748	40,0	20,0	305	24,6	1500,6	61,0	1875,8	76,3	2250,9	91,5	2804,4	114,0	57,43 €
R204810	50,0	25,0	64	209,0	2675,2	12,8	3344,0	16,0	4012,8	19,2	5016,0	24,0	19,59 €
R204814	50,0	25,0	89	140,0	2492,0	17,8	3115,0	22,3	3738,0	26,7	4620,0	33,0	25,82 €
R204818	50,0	25,0	115	106,0	2438,0	23,0	3047,5	28,8	3657,0	34,5	4558,0	43,0	32,57 €
R204822	50,0	25,0	139	87,0	2418,6	27,8	3023,3	34,8	3627,9	41,7	4524,0	52,0	38,98 €
R204828	50,0	25,0	178	69,5	2474,2	35,6	3092,8	44,5	3711,3	53,4	4656,5	67,0	47,10 €
R204836	50,0	25,0	229	50,9	2331,2	45,8	2914,0	57,3	3496,8	68,7	4377,4	86,0	70,86 €
R204848	50,0	25,0	305	38,6	2354,6	61,0	2943,3	76,3	3531,9	91,5	4400,4	114,0	100,54 €
R204912	63,0	38,0	76	312,0	4742,4	15,2	5928,0	19,0	7113,6	22,8	8736,0	28,0	47,35 €
R204916	63,0	38,0	102	221,0	4508,4	20,4	5635,5	25,5	6762,6	30,6	8398,0	38,0	55,19 €
R204920	63,0	38,0	127	168,0	4267,2	25,4	5334,0	31,8	6400,8	38,1	8064,0	48,0	64,56 €
R204928	63,0	38,0	178	114,0	4058,4	35,6	5073,0	44,4	6087,6	53,4	7638,0	67,0	87,31 €
R204936	63,0	38,0	229	89,2	4085,4	45,8	5106,7	57,3	6128,0	68,7	7671,2	86,0	110,05 €
R204948	63,0	38,0	305	64,7	3946,7	61,0	4933,4	76,3	5920,1	91,5	7375,8	114,0	153,11 €

Dimensions in mm

Die spring ISO 10243



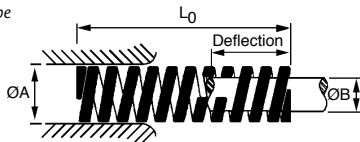
R Red: **heavy duty**

- ISO red standard (ISO 10243)
- Extra-rigid spring
- For heavy loads
- Trapezoidal wire
- Ends squared and ground
- Withstands shocks
- Endures jolts
- Easy to compress to solid height
- Material: chromium-vanadium-coated steel



Advantages

- The trapezoidal wire permits optimum deflection whilst protecting against the risk of damage caused by overloading the spring.
- Hardness sufficient to allow heavy loads to be withstood.
- Heat resistance up to 230°C.
- Uniform spring performance.
- Uniform stiffness ratio
- Greater load accuracy for a given height.
- Reliable performance.
- Reduced risk of breakage.



Option

- Other sizes



DISCOUNTS

Qty	1+	6+	20+	40+	60+	100+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	Hole ØA (mm)	Rod ØB (mm)	Free length Lo (mm)	Load at 1 mm deflection (N)	Load deflection								Price each 1 to 5
					Optimum life (25% free length Lo)		Long life (30% free length Lo)		Max. working (35% free length Lo)		Max. deflection		
					Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	
R205104	10,0	5,0	25	22,1	82,9	3,8	110,5	5,0	138,1	6,3	165,8	7,5	2,57 €
R205106	10,0	5,0	38	17,1	97,5	5,7	130,0	7,6	162,5	9,5	194,9	11,4	3,05 €
R205108	10,0	5,0	51	12,8	97,9	7,7	130,6	10,2	163,2	12,8	195,8	15,3	3,53 €
R205112	10,0	5,0	76	7,5	85,5	11,4	114,0	15,2	142,5	19,0	171,0	22,8	4,72 €
R205204	12,5	6,3	25	42,1	157,9	3,8	210,5	5,0	263,1	6,3	315,8	7,5	3,35 €
R205206	12,5	6,3	38	29,3	167,0	5,7	222,7	7,6	278,4	9,5	334,0	11,4	3,75 €
R205208	12,5	6,3	51	19,6	149,9	7,7	199,9	10,2	249,9	12,8	299,9	15,3	4,27 €
R205212	12,5	6,3	76	13,2	150,5	11,4	200,6	15,2	250,8	19,0	301,0	22,8	5,45 €
R205248	12,5	6,3	305	2,8	128,1	45,8	170,8	61,0	213,5	76,3	256,2	91,5	26,72 €
R205304	16,0	8,0	25	75,7	283,9	3,8	378,5	5,0	473,1	6,3	567,8	7,5	3,53 €
R205306	16,0	8,0	38	48,5	276,5	5,7	368,6	7,6	460,8	9,5	552,9	11,4	4,48 €
R205308	16,0	8,0	51	37,1	283,8	7,7	378,4	10,2	473,0	12,8	567,6	15,3	5,00 €
R205312	16,0	8,0	76	25,7	293,0	11,4	390,6	15,2	488,3	19,0	586,0	22,8	6,18 €
R205316	16,0	8,0	102	19,3	295,3	15,3	393,7	20,4	492,2	25,5	590,6	30,6	7,41 €
R205404	20,0	10,0	25	216,0	810,0	3,8	1080,0	5,0	1350,0	6,3	1620,0	7,5	4,27 €
R205406	20,0	10,0	38	129,0	735,3	5,7	980,4	7,6	1225,5	9,5	1419,0	11,0	5,24 €

Dimensions in mm

Part number	Hole ØA (mm)	Rod ØB (mm)	Free length Lo (mm)	Load at 1 mm deflection (N)	Load deflection								Price each 1 to 5
					Optimum life (25% free length Lo)		Long life (30% free length Lo)		Max. working (35% free length Lo)		Max. deflection		
					Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	
R205408	20,0	10,0	51	94,0	719,1	7,7	958,8	10,2	1198,5	12,8	1410,0	15,0	6,18 €
R205410	20,0	10,0	64	72,1	692,2	9,6	922,9	12,8	1153,6	16,0	1369,9	19,0	6,87 €
R205412	20,0	10,0	76	59,7	680,6	11,4	907,4	15,2	1134,3	19,0	1373,1	23,0	7,51 €
R205414	20,0	10,0	89	50,5	674,2	13,4	898,9	17,8	1123,6	22,3	1363,5	27,0	8,78 €
R205416	20,0	10,0	102	44,2	676,3	15,3	901,7	20,4	1127,1	25,5	1370,2	31,0	9,78 €
R205418	20,0	10,0	115	38,4	662,4	17,3	883,2	23,0	1104,0	28,8	1344,0	35,0	10,94 €
R205420	20,0	10,0	127	34,1	649,6	19,1	866,1	25,4	1082,7	31,8	1295,8	38,0	12,11 €
R205422	20,0	10,0	139	31,0	646,4	20,9	861,8	27,8	1077,3	34,8	1302,0	42,0	13,12 €
R205424	20,0	10,0	152	28,2	643,0	22,8	857,3	30,4	1071,6	38,0	1297,2	46,0	13,83 €
R205448	20,0	10,0	305	15,0	686,3	45,8	915,0	61,0	1143,8	76,3	1365,0	91,0	37,08 €
R205504	25,0	12,5	25	375,0	1406,3	3,8	1875,0	5,0	2343,8	6,3	2812,5	7,5	4,89 €
R205505	25,0	12,5	32	297,0	1425,6	4,8	1900,8	6,4	2376,0	8,0	2851,2	9,6	5,70 €
R205506	25,0	12,5	38	219,0	1248,3	5,7	1664,4	7,6	2080,5	9,5	2409,0	11,0	6,40 €
R205507	25,0	12,5	44	187,0	1234,2	6,6	1645,6	8,8	2057,0	11,0	2431,0	13,0	7,11 €
R205508	25,0	12,5	51	156,0	1193,4	7,7	1591,2	10,2	1989,0	12,8	2340,0	15,0	7,85 €
R205510	25,0	12,5	64	123,0	1180,8	9,6	1574,4	12,8	1968,0	16,0	2337,0	19,0	8,58 €
R205512	25,0	12,5	76	99,0	1128,6	11,4	1504,8	15,2	1881,0	19,0	2277,0	23,0	9,55 €
R205514	25,0	12,5	89	84,0	1121,4	13,4	1495,2	17,8	1869,0	22,3	2268,0	27,0	10,51 €
R205516	25,0	12,5	102	73,0	1116,9	15,3	1489,2	20,4	1861,5	25,5	2263,0	31,0	11,70 €
R205518	25,0	12,5	115	65,0	1121,3	17,3	1495,0	23,0	1868,8	28,8	2275,0	35,0	13,36 €
R205520	25,0	12,5	127	57,7	1099,2	19,1	1465,6	25,4	1832,0	31,8	2192,6	38,0	15,05 €
R205522	25,0	12,5	139	52,7	1098,8	20,9	1465,1	27,8	1831,3	34,8	2213,4	42,0	16,51 €
R205524	25,0	12,5	152	47,8	1089,8	22,8	1453,1	30,4	1816,4	38,0	2198,8	46,0	17,91 €
R205528	25,0	12,5	178	41,0	1094,7	26,7	1459,6	35,6	1824,5	44,5	2173,0	53,0	20,54 €
R205532	25,0	12,5	203	35,8	1090,1	30,5	1453,5	40,6	1816,9	50,8	2183,8	61,0	23,60 €
R205548	25,0	12,5	305	22,9	1047,7	45,8	1396,9	61,0	1746,1	76,3	2083,9	91,0	45,43 €
R205606	32,0	16,0	38	388,0	2211,6	5,7	2948,8	7,6	3686,0	9,5	4268,0	11,0	8,58 €
R205607	32,0	16,0	44	324,0	2138,4	6,6	2851,2	8,8	3564,0	11,0	4212,0	13,0	9,27 €
R205608	32,0	16,0	51	272,0	2080,8	7,7	2774,4	10,2	3468,0	12,8	4080,0	15,0	9,99 €
R205610	32,0	16,0	64	212,0	2035,2	9,6	2713,6	12,8	3392,0	16,0	4028,0	19,0	11,42 €
R205612	32,0	16,0	76	172,0	1960,8	11,4	2614,4	15,2	3268,0	19,0	3956,0	23,0	13,12 €
R205614	32,0	16,0	89	141,0	1882,4	13,4	2509,8	17,8	3137,3	22,3	3807,0	27,0	15,05 €
R205618	32,0	16,0	115	107,0	1845,8	17,3	2461,0	23,0	3076,3	28,8	3745,0	35,0	19,32 €
R205622	32,0	16,0	139	86,0	1793,1	20,9	2390,8	27,8	2988,5	34,8	3612,0	42,0	23,60 €
R205628	32,0	16,0	178	67,2	1794,2	26,7	2392,3	35,6	2990,4	44,5	3561,6	53,0	29,16 €
R205640	32,0	16,0	254	46,4	1767,8	38,1	2357,1	50,8	2946,4	63,5	3526,4	76,0	36,83 €
R205708	40,0	20,0	51	350,0	2677,5	7,7	3570,0	10,2	4462,5	12,8	5250,0	15,0	12,11 €
R205712	40,0	20,0	76	219,0	2496,6	11,4	3328,8	15,2	4161,0	19,0	5037,0	23,0	16,96 €
R205716	40,0	20,0	102	163,0	2493,9	15,3	3325,2	20,4	4156,5	25,5	5053,0	31,0	23,44 €
R205720	40,0	20,0	127	128,0	2438,4	19,1	3251,2	25,4	4064,0	31,8	4864,0	38,0	30,34 €
R205724	40,0	20,0	152	105,0	2394,0	22,8	3192,0	30,4	3990,0	38,0	4830,0	46,0	34,16 €
R205732	40,0	20,0	203	77,0	2344,7	30,5	3126,2	40,6	3907,8	50,8	4697,0	61,0	41,36 €
R205748	40,0	25,0	305	51,0	2333,3	45,8	3111,0	61,0	3888,8	76,3	4641,0	91,0	67,00 €
R205810	50,0	25,0	64	413,0	3964,8	9,6	5286,4	12,8	6608,0	16,0	7847,0	19,0	24,20 €
R205814	50,0	25,0	89	288,0	3844,8	13,4	5126,4	17,8	6408,0	22,3	7776,0	27,0	31,77 €
R205818	50,0	25,0	115	215,0	3708,8	17,3	4945,0	23,0	6181,3	28,8	7525,0	35,0	39,94 €
R205822	50,0	25,0	139	168,0	3502,8	20,9	4670,4	27,8	5838,0	34,8	7056,0	42,0	49,03 €
R205828	50,0	25,0	178	134,0	3577,8	26,7	4770,4	35,6	5963,0	44,5	7102,0	53,0	57,61 €
R205840	50,0	25,0	254	89,0	3390,9	38,1	4521,2	50,8	5651,5	63,5	6764,0	76,0	85,63 €
R205848	50,0	25,0	305	73,0	3339,8	45,8	4453,0	61,0	5566,3	76,3	6643,0	91,0	112,47 €

Dimensions in mm

Die spring ISO 10243



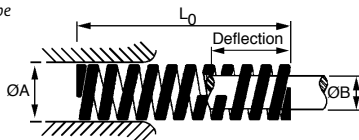
R Yellow: **extra-heavy duty**

- ISO yellow standard (ISO 10243)
- Extra-rigid spring
- For extra-heavy loads
- Trapezoidal wire
- Ends squared and ground
- Withstands shocks
- Endures jolts
- Easy to compress to solid height
- Material: chromium-vanadium-coated steel



Advantages

- The trapezoidal wire permits optimum deflection whilst protecting against the risk of damage caused by overloading the spring.
- Hardness sufficient to allow heavy loads to be withstood.
- Heat resistance up to 230°C.
- Uniform spring performance.
- Uniform stiffness ratio
- Greater load accuracy for a given height.
- Reliable performance.
- Reduced risk of breakage.



Option

- Other sizes



DISCOUNTS

Qty	1+	6+	20+	40+	60+	100+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	Hole ØA (mm)	Rod ØB (mm)	Free length Lo (mm)	Load at 1 mm deflection (N)	Load deflection								Price each 1 to 5
					Optimum life (25% free length Lo)		Long life (30% free length Lo)		Max. working (35% free length Lo)		Max. deflection		
					Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	
R206104	10,0	5,0	25,0	36,8	138,0	3,8	156,4	4,3	184,0	5,0	228,2	6,2	3,05 €
R206106	10,0	5,0	38,0	23,7	135,1	5,7	153,1	6,5	180,1	7,6	225,2	9,5	3,75 €
R206108	10,0	5,0	51,0	16,5	126,2	7,7	143,1	8,7	168,3	10,2	214,5	13,0	4,48 €
R206112	10,0	5,0	76,0	10,9	124,3	11,4	140,8	12,9	165,7	15,2	207,1	19,0	5,61 €
R206204	12,5	6,3	25,0	58,5	219,4	3,8	248,6	4,3	292,5	5,0	362,7	6,2	3,75 €
R206206	12,5	6,3	38,0	36,0	205,2	5,7	232,6	6,5	273,6	7,6	342,0	9,5	4,48 €
R206208	12,5	6,3	51,0	26,2	200,4	7,7	227,2	8,7	267,2	10,2	340,6	13,0	5,20 €
R206212	12,5	6,3	76,0	17,1	194,9	11,4	220,9	12,9	259,9	15,2	324,9	19,0	6,40 €
R206248	12,5	6,3	305,0	4,3	196,7	45,8	223,0	51,9	262,3	61,0	326,8	76,0	29,66 €
R206305	16,0	8,0	32,0	89,0	427,2	4,8	484,2	5,4	569,6	6,4	712,0	8,0	4,89 €
R206307	16,0	8,0	44,0	60,9	401,9	6,6	455,5	7,5	535,9	8,8	669,9	11,0	5,61 €
R206310	16,0	8,0	64,0	41,2	395,5	9,6	448,3	10,9	527,4	12,8	659,2	16,0	6,69 €
R206314	16,0	8,0	89,0	29,5	393,8	13,4	446,3	15,1	525,1	17,8	649,0	22,0	7,41 €
R206348	16,0	8,0	305,0	8,4	384,3	45,8	435,5	51,9	512,4	61,0	638,4	76,0	31,04 €
R206404	20,0	10,0	25,0	293,0	1098,8	3,8	1245,3	4,3	1465,0	5,0	1816,6	6,2	5,45 €
R206405	20,0	10,0	32,0	224,0	1075,2	4,8	1218,6	5,4	1433,6	6,4	1792,0	8,0	5,93 €

Dimensions in mm

Part number	Hole ØA (mm)	Rod ØB (mm)	Free length Lo (mm)	Load at 1 mm deflection (N)	Load deflection								Price each 1 to 5
					Optimum life (25% free length Lo)		Long life (30% free length Lo)		Max. working (35% free length Lo)		Max. deflection		
					Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	Load (N)	Deflection (mm)	
R206406	20,0	10,0	38,0	177,0	1008,9	5,7	1143,4	6,5	1345,2	7,6	1681,5	9,5	6,40 €
R206407	20,0	10,0	44,0	149,0	983,4	6,6	1114,5	7,5	1311,2	8,8	1639,0	11,0	6,87 €
R206408	20,0	10,0	51,0	128,0	979,2	7,7	1109,8	8,7	1305,6	10,2	1664,0	13,0	7,41 €
R206410	20,0	10,0	64,0	99,0	950,4	9,6	1077,1	10,9	1267,2	12,8	1584,0	16,0	8,11 €
R206412	20,0	10,0	76,0	81,7	931,4	11,4	1055,6	12,9	1241,8	15,2	1552,3	19,0	8,58 €
R206414	20,0	10,0	89,0	69,5	927,8	13,4	1051,5	15,1	1237,1	17,8	1529,0	22,0	9,99 €
R206416	20,0	10,0	102,0	60,6	927,2	15,3	1050,8	17,3	1236,2	20,4	1575,6	26,0	10,94 €
R206418	20,0	10,0	115,0	53,0	914,3	17,3	1036,2	19,6	1219,0	23,0	1537,0	29,0	12,11 €
R206420	20,0	10,0	127,0	47,5	904,9	19,1	1025,5	21,6	1206,5	25,4	1520,0	32,0	13,36 €
R206422	20,0	10,0	139,0	43,0	896,9	20,9	1016,1	23,6	1195,4	27,8	1505,0	35,0	14,56 €
R206424	20,0	10,0	152,0	39,0	889,2	22,8	1007,8	25,8	1185,6	30,4	1482,0	38,0	16,01 €
R206448	20,0	10,0	305,0	21,2	969,9	45,8	1099,2	51,9	1293,2	61,0	1611,2	76,0	43,27 €
R206505	25,0	12,5	32,0	374,4	1797,1	4,8	2036,7	5,4	2396,2	6,4	2995,2	8,0	6,69 €
R206506	25,0	12,5	38,0	346,0	1972,2	5,7	2235,2	6,5	2629,6	7,6	3287,0	9,5	7,41 €
R206507	25,0	12,5	44,0	244,0	1610,4	6,6	1825,1	7,5	2147,2	8,8	2684,0	11,0	8,11 €
R206508	25,0	12,5	51,0	207,5	1587,4	7,7	1799,0	8,7	2116,5	10,2	2697,5	13,0	8,78 €
R206510	25,0	12,5	64,0	161,0	1545,6	9,6	1751,7	10,9	2060,8	12,8	2576,0	16,0	9,78 €
R206512	25,0	12,5	76,0	130,8	1491,1	11,4	1689,9	12,9	1988,2	15,2	2485,2	19,0	10,73 €
R206514	25,0	12,5	89,0	110,5	1475,2	13,4	1671,9	15,1	1966,9	17,8	2431,0	22,0	12,11 €
R206516	25,0	12,5	102,0	96,3	1473,4	15,3	1669,8	17,3	1964,5	20,4	2503,8	26,0	13,36 €
R206518	25,0	12,5	115,0	85,7	1478,3	17,3	1675,4	19,6	1971,1	23,0	2485,3	29,0	14,83 €
R206520	25,0	12,5	127,0	76,3	1453,5	19,1	1647,3	21,6	1938,0	25,4	2441,6	32,0	16,23 €
R206524	25,0	12,5	152,0	63,5	1447,8	22,8	1640,8	25,8	1930,4	30,4	2413,0	38,0	25,22 €
R206528	25,0	12,5	178,0	53,9	1439,1	26,7	1631,0	30,3	1918,8	35,6	2371,6	44,0	21,51 €
R206532	25,0	12,5	203,0	47,0	1431,2	30,5	1622,0	34,5	1908,2	40,6	2397,0	51,0	24,20 €
R206548	25,0	12,5	305,0	30,9	1413,7	45,8	1602,2	51,9	1884,9	61,0	2348,4	76,0	49,03 €
R206606	32,0	16,0	38,0	528,2	3010,7	5,7	3412,2	6,5	4014,3	7,6	5017,9	9,5	9,99 €
R206607	32,0	16,0	44,0	424,4	2801,0	6,6	3174,5	7,5	3734,7	8,8	4668,4	11,0	10,73 €
R206608	32,0	16,0	51,0	353,0	2700,5	7,7	3060,5	8,7	3600,6	10,2	4589,0	13,0	11,70 €
R206610	32,0	16,0	64,0	269,2	2584,3	9,6	2928,9	10,9	3445,8	12,8	4307,2	16,0	13,12 €
R206612	32,0	16,0	76,0	218,5	2490,9	11,4	2823,0	12,9	3321,2	15,2	4151,9	19,0	15,05 €
R206614	32,0	16,0	89,0	180,3	2407,0	13,4	2727,9	15,1	3209,3	17,8	3966,6	22,0	17,22 €
R206616	32,0	16,0	102,0	155,0	2371,5	15,3	2687,7	17,3	3162,0	20,4	4030,0	26,0	18,91 €
R206618	32,0	16,0	115,0	140,0	2415,0	17,3	2737,0	19,6	3220,0	23,0	4060,0	29,0	21,51 €
R206620	32,0	16,0	127,0	124,0	2362,2	19,1	2677,2	21,6	3149,6	25,4	3968,0	32,0	23,89 €
R206624	32,0	16,0	152,0	102,0	2325,6	22,8	2635,7	25,8	3100,8	30,4	3876,0	38,0	28,43 €
R206628	32,0	16,0	178,0	88,2	2354,9	26,7	2668,9	30,3	3139,9	35,6	3880,8	44,0	32,71 €
R206632	32,0	16,0	203,0	76,0	2314,2	30,5	2622,8	34,5	3085,6	40,6	3876,0	51,0	37,08 €
R206640	32,0	16,0	254,0	60,8	2316,5	38,1	2625,3	43,2	3088,6	50,8	3891,2	64,0	41,57 €
R206708	40,0	20,0	51,0	628,0	4804,2	7,7	5444,8	8,7	6405,6	10,2	8164,0	13,0	14,09 €
R206712	40,0	20,0	76,0	379,0	4320,6	11,4	4986,7	12,9	5760,8	15,2	7201,0	19,0	19,81 €
R206716	40,0	20,0	102,0	281,0	4299,3	15,3	4872,5	17,3	5732,4	20,4	7306,0	26,0	27,20 €
R206720	40,0	20,0	127,0	221,0	4210,1	19,1	4771,4	21,6	5613,4	25,4	7072,0	32,0	35,84 €
R206732	40,0	20,0	203,0	132,0	4019,4	30,5	4555,3	34,5	5359,2	40,6	6732,0	51,0	47,80 €
R206748	40,0	20,0	305,0	87,8	4016,9	45,8	4552,4	51,9	5355,8	61,0	6672,8	76,0	78,92 €
R206810	50,0	25,0	64,0	709,0	6806,4	9,6	7713,9	10,9	9075,2	12,8	11344,0	16,0	28,68 €
R206814	50,0	25,0	89,0	475,0	6541,3	13,4	7186,8	15,1	8455,0	17,8	10450,0	22,0	38,25 €
R206818	50,0	25,0	115,0	352,0	6072,0	17,3	6881,6	19,6	8096,0	23,0	10208,0	29,0	47,80 €
R206824	50,0	25,0	152,0	239,0	5449,2	22,8	6175,8	25,8	7265,6	30,4	9082,0	38,0	63,39 €
R206840	50,0	25,0	254,0	153,0	5829,3	38,1	6606,5	43,2	7772,4	50,8	9792,0	64,0	102,92 €

Dimensions in mm

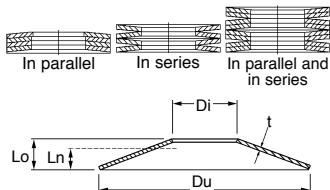
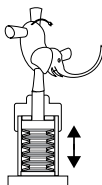
- Lock washer
- Belleville (spring) washer conforming to DIN 2093
- Sold in packs (see table for quantity per pack)

Advantages

- Exerts large forces
- Usable under severe conditions

Info.

- When compressed, internal D_i reduces while outside diameter D_u increases
- Dynamic washers can be assembled into columns of multiple washers in different configurations to obtain the performance required, e.g. a longer stroke than a single washer would give or a higher force for a shorter stroke.



DISCOUNTS

N° batches	1+	6+	10+
Discount.	List	-10%	On request

Part number	Outside diameter D_u	Internal diameter D_i	Thickness t	Free length L_o	Loaded length L_n	Load in F_n (N)	Qty per pack	Stock*	Price per pack
RBS8214/L	8,00	3,20	0,30	0,55	0,36	106	200	✓	25,17 €
RBS8215/L	8,00	3,20	0,40	0,60	0,45	185	200	-	25,17 €
RBS8216/L	8,00	4,20	0,30	0,55	0,36	118	200	✓	25,17 €
RBS8217/L	8,00	4,20	0,40	0,60	0,45	206	200	-	25,17 €
RBS8227/L	10,00	3,20	0,30	0,65	0,39	100	200	✓	29,37 €
RBS8228/L	10,00	3,20	0,40	0,70	0,47	181	200	✓	29,37 €
RBS8229/L	10,00	3,20	0,50	0,75	0,56	282	200	-	29,37 €
RBS8230/L	10,00	4,20	0,40	0,50	0,47	191	200	-	29,37 €
RBS8231/L	10,00	4,20	0,50	0,75	0,56	296	200	-	29,37 €
RBS8232/L	10,00	4,20	0,60	0,85	0,66	490	200	-	29,37 €
RBS8233/L	10,00	5,20	0,40	0,70	0,53	209	200	✓	29,37 €
RBS8234/L	10,00	5,20	0,50	0,75	0,56	326	200	✓	29,37 €
RBS8239/L	12,00	4,20	0,40	0,80	0,50	181	200	✓	29,37 €
RBS8240/L	12,00	4,20	0,50	0,85	0,59	288	200	-	29,37 €
RBS8242/L	12,00	5,20	0,50	0,90	0,60	349	200	-	29,37 €
RBS8243/L	12,00	5,20	0,60	0,95	0,69	581	200	✓	29,37 €
RBS8244/L	12,50	6,20	0,50	0,85	0,59	331	200	✓	29,37 €
RBS8247/L	12,50	6,20	0,70	1,00	0,77	659	200	✓	37,78 €
RBS8256/L	14,00	7,20	0,50	0,90	0,60	279	200	✓	37,78 €
RBS8257/L	14,00	7,20	0,80	1,10	0,87	796	200	-	37,78 €

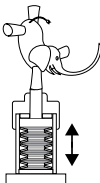
*Depending on availability - Dimensions in mm



Part number	Outside diameter Du	Internal diameter Di	Thickness t	Free length Lo	Loaded length Ln	Load in Ln (N) Fn	Qty per pack	Stock*	Price per pack
RBS8259/L	15,00	5,20	0,40	0,95	0,54	178	200	✓	37,78 €
RBS8260/L	15,00	5,20	0,50	1,00	0,62	279	200	✓	37,78 €
RBS8261/L	15,00	5,20	0,60	1,05	0,71	407	200	-	37,78 €
RBS8262/L	15,00	5,20	0,70	1,10	0,80	563	200	-	37,78 €
RBS8263/L	15,00	6,20	0,50	1,00	0,62	292	200	-	37,78 €
RBS8264/L	15,00	6,20	0,60	1,05	0,71	424	200	✓	37,78 €
RBS8265/L	15,00	6,20	0,70	1,10	0,80	583	200	✓	37,78 €
RBS8266/L	15,00	8,20	0,70	1,10	0,80	666	200	-	37,78 €
RBS8267/L	15,00	8,20	0,80	1,20	0,90	1005	200	✓	41,99 €
RBS8272/L	16,00	8,20	0,60	1,05	0,71	410	200	✓	37,78 €
RBS8273/L	16,00	8,20	0,90	1,25	0,99	1010	200	✓	41,99 €
RBS8275/L	18,00	6,20	0,40	1,00	0,55	141	200	✓	37,78 €
RBS8276/L	18,00	6,20	0,50	1,10	0,65	245	200	-	37,78 €
RBS8277/L	18,00	6,20	0,60	1,20	0,75	400	200	-	41,99 €
RBS8278/L	18,00	6,20	0,70	1,25	0,84	561	200	-	41,99 €
RBS8279/L	18,00	6,20	0,80	1,30	0,92	735	200	✓	41,99 €
RBS8280/L	18,00	8,20	0,70	1,25	0,84	601	200	✓	41,99 €
RBS8281/L	18,00	8,20	1,00	1,30	0,92	781	200	✓	46,18 €
RBS8282/L	18,00	9,20	0,70	1,20	0,82	566	200	-	41,99 €
RBS8283/L	18,00	9,20	1,00	1,40	1,10	1255	200	-	46,18 €
RBS8291/L	20,00	8,20	0,60	1,30	0,77	413	200	✓	41,99 €
RBS8292/L	20,00	8,20	0,70	1,35	0,86	577	200	✓	41,99 €
RBS8293/L	20,00	8,20	0,80	1,40	0,95	760	200	-	46,18 €
RBS8295/L	20,00	10,20	0,80	1,35	0,94	748	200	✓	46,18 €
RBS8296/L	20,00	10,20	0,90	1,45	1,04	1064	200	✓	46,18 €
RBS8297/L	20,00	10,20	1,00	1,55	1,14	1422	200	✓	50,38 €
RBS8298/L	20,00	10,20	1,10	1,55	1,21	1520	200	✓	50,38 €
RBS8301/L	22,50	11,20	0,80	1,45	0,96	707	200	-	46,18 €
RBS8302/L	22,50	11,20	1,25	1,75	1,37	1932	200	-	67,18 €
RBS8303/L	23,00	8,20	0,70	1,50	0,90	549	200	-	46,18 €
RBS8304/L	23,00	8,20	0,80	1,55	0,99	730	200	-	46,18 €
RBS8305/L	23,00	8,20	0,90	1,70	1,10	1079	200	✓	50,38 €
RBS8309/L	23,00	10,20	0,90	1,65	1,09	1059	200	-	50,38 €
RBS8310/L	23,00	10,20	1,00	1,70	1,17	1314	200	✓	58,79 €
RBS8311/L	23,00	12,20	1,25	1,85	1,40	2334	200	-	67,18 €
RBS8313/L	25,00	12,20	0,90	1,60	1,07	862	200	✓	54,59 €
RBS8314/L	25,00	12,20	1,50	2,05	1,64	2922	200	✓	78,77 €
RBS8321/L	28,00	10,20	0,80	1,75	1,04	672	200	✓	58,79 €
RBS8322/L	28,00	10,20	1,00	2,00	1,25	1285	200	-	62,99 €
RBS8324/L	28,00	12,20	1,00	1,95	1,24	1265	200	✓	62,99 €
RBS8325/L	28,00	12,20	1,25	2,10	1,46	2079	200	✓	79,79 €
RBS8326/L	28,00	12,20	1,50	2,25	1,69	3079	200	-	84,00 €
RBS8327/L	28,00	14,20	1,00	1,80	1,20	1108	200	✓	62,99 €
RBS8328/L	28,00	14,20	1,25	2,10	1,46	2236	200	✓	79,79 €
RBS8329/L	28,00	14,20	1,50	2,15	1,66	2844	200	-	84,00 €

*Depending on availability - Dimensions in mm

- Lock washer
- Belleville (spring) washer conforming to DIN 2093
- Sold in packs (see table for quantity per pack)

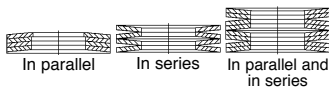
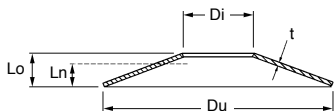


Advantages

- Exerts large forces
- Usable under severe conditions

Info.

- When compressed, internal diameter D_i reduces while outside diameter D_u increases
- Dynamic washers can be assembled into columns of multiple washers in different configurations to obtain the performance required, e.g. a longer stroke than a single washer would give or a higher force for a shorter stroke.



DISCOUNTS

N° batches	1+	6+	10+
Discount.	List	-10%	On request

Part number	Outside diameter D_u	Internal diameter D_i	Thickness t	Free length L_o	Loaded length L_n	Load in L_n (N) F_n	Qty per pack	Stock*	Price per pack
RBS8334/L	31,50	16,30	1,25	2,15	1,47	1912	100	✓	44,06 €
RBS8335/L	31,50	16,30	1,75	2,45	1,92	3874	100	✓	50,38 €
RBS8345/L	34,00	14,30	1,25	2,40	1,54	2010	100	-	48,26 €
RBS8346/L	34,00	14,30	1,50	2,55	1,76	2991	100	✓	54,59 €
RBS8347/L	34,00	16,30	1,50	2,55	1,76	3187	100	-	54,59 €
RBS8348/L	34,00	16,30	2,00	2,85	2,41	5776	100	-	60,89 €
RBS8352/L	35,50	18,30	1,25	2,25	1,50	1716	100	-	48,26 €
RBS8353/L	35,50	18,30	2,00	2,80	2,20	5256	100	-	65,08 €
RBS8364/L	40,00	16,30	1,50	2,80	1,82	2775	100	-	73,50 €
RBS8365/L	40,00	16,30	2,00	3,10	2,27	5247	100	-	77,70 €
RBS8366/L	40,00	18,30	2,00	3,15	2,29	5688	100	-	77,70 €
RBS8367/L	40,00	20,40	1,50	2,65	1,79	2648	100	✓	73,50 €
RBS8368/L	40,00	20,40	2,00	3,10	2,27	5766	100	✓	77,70 €
RBS8369/L	40,00	20,40	2,25	3,15	2,47	6551	100	-	86,10 €
RBS8370/L	40,00	20,40	2,50	3,45	2,74	9512	100	-	94,53 €

*Depending on availability - Dimensions in mm

DISCOUNTS

N° batches	1+	6+	10+
Discount.	List	-10%	On request

Part number	Outside diameter Du	Internal diameter Di	Thickness t	Free length Lo	Loaded length Ln	Load in Ln (N) Fn	Qty per pack	Stock*	Price per pack
RBS8373/L	45,00	22,40	1,75	3,05	2,07	3677	100	-	100,80 €
RBS8374/L	45,00	22,40	2,50	3,50	2,75	7796	100	-	111,32 €
RBS8376/L	50,00	18,40	1,50	3,30	1,95	2628	100	-	100,80 €
RBS8378/L	50,00	18,40	2,50	3,85	2,90	7355	100	-	140,73 €
RBS8380/L	50,00	20,40	2,00	3,50	2,37	4746	100	-	119,72 €
RBS8381/L	50,00	20,40	2,50	3,85	2,84	7992	100	-	140,73 €
RBS8382/L	50,00	22,40	2,00	3,60	2,40	5256	100	-	119,72 €
RBS8383/L	50,00	22,40	2,50	3,90	2,85	8482	100	-	140,73 €
RBS8384/L	50,00	25,40	2,00	3,40	2,35	4805	100	-	119,72 €
RBS8385/L	50,00	25,40	2,50	3,90	2,85	9169	100	-	140,73 €
RBS8386/L	50,00	25,40	3,00	4,10	3,27	12101	100	-	163,84 €
RBS8393/L	56,00	28,50	2,00	3,60	2,40	4511	50	✓	71,40 €
RBS8394/L	56,00	28,50	3,00	4,30	3,32	11523	50	-	98,69 €
RBS8400/L	60,00	25,50	2,50	4,40	3,00	8267	50	-	92,41 €
RBS8401/L	60,00	25,50	3,00	4,65	3,41	11866	50	-	109,20 €
RBS8402/L	60,00	30,50	3,00	4,70	3,40	13386	50	-	109,20 €
RBS8403/L	60,00	30,50	3,50	5,00	3,87	18319	50	✓	121,83 €
RBS8404/L	63,00	31,00	2,50	4,25	2,95	7257	50	-	98,69 €
RBS8405/L	63,00	31,00	3,50	4,90	3,85	15200	50	-	131,28 €
RBS8411/L	70,00	25,50	2,00	4,50	2,60	4491	1	-	2,43 €
RBS8412/L	70,00	30,50	2,50	4,90	3,10	8090	1	-	2,60 €
RBS8413/L	70,00	30,50	3,00	5,10	3,50	11474	1	-	2,99 €
RBS8414/L	70,00	35,50	3,00	5,10	3,50	12454	1	-	2,99 €
RBS8415/L	70,00	35,50	4,00	5,80	4,45	24173	1	-	4,34 €
RBS8416/L	70,00	40,50	5,00	6,40	5,35	40600	1	-	5,52 €
RBS8417/L	71,00	36,00	2,50	4,50	3,00	6796	1	-	2,71 €
RBS8418/L	71,00	36,00	4,00	5,60	4,40	20790	1	-	4,43 €
RBS8423/L	80,00	31,00	4,00	6,10	4,50	19613	1	-	5,45 €
RBS8424/L	80,00	36,00	3,00	5,70	3,07	12013	1	-	3,71 €
RBS8425/L	80,00	41,00	3,00	5,30	3,60	10640	1	-	3,71 €
RBS8426/L	80,00	41,00	4,00	6,20	4,55	23104	1	-	5,45 €
RBS8427/L	80,00	41,00	5,00	6,70	5,40	34029	1	-	6,67 €
RBS8428/L	90,00	46,00	3,50	6,00	4,10	14416	1	-	5,17 €
RBS8429/L	90,00	46,00	5,00	7,00	5,50	31774	1	-	7,97 €
RBS8431/L	100,00	41,00	4,00	7,20	4,80	20398	1	-	7,90 €
RBS8432/L	100,00	41,00	5,00	7,75	5,70	32754	1	-	9,88 €
RBS8433/L	100,00	51,00	3,50	6,30	4,20	13219	1	-	6,23 €
RBS8434/L	100,00	51,00	4,00	7,00	4,75	20790	1	-	7,90 €
RBS8435/L	100,00	51,00	5,00	7,80	5,70	36677	1	-	9,88 €
RBS8436/L	100,00	51,00	6,00	8,20	6,55	48543	1	-	12,70 €

*Depending on availability - Dimensions in mm

Custom-made extension springs

Level ton completed

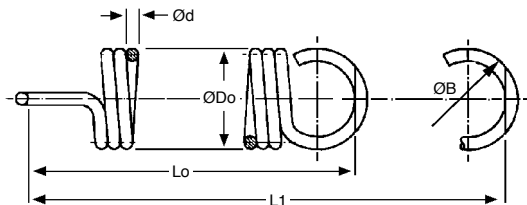
If you would like a quotation for custom made springs, please enlarge this form by 200% (to A4 size), fill in as much information as possible and return it by fax to our technical team:

+33(0)4 37 490 055 or by mail: cial2@hpceurope.com

Compagny: _____ Address: _____

Contact: _____ Account number: _____

Telephone: _____ Fax: _____



A minimum order quantity will apply

Material			
Ød		Loop diameter ØB	
ØDo		Loop orientation	<input type="checkbox"/> 0° <input type="checkbox"/> 90°
Free length L0			
Loaded length L1			
Load (N)			
Quantity			

Custom-made extension springs

Level ton completed

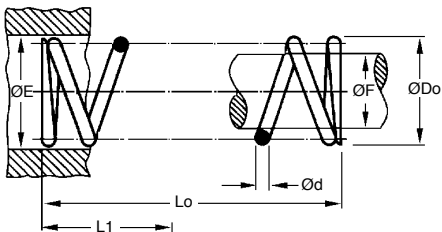
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Compagny: _____ Address: _____

Contact: _____ Account number: _____

Telephone: _____ Fax: _____



A minimum order quantity will apply

Material		Number of coils	
Ød		Pitch	
ØD0		Housing diameter ØE	
Free length L0		Axle diameter ØF	
Loaded length L1		Squared and ground ends	<input type="checkbox"/> yes <input type="checkbox"/> no
Load (N)			

Quantity	
----------	--

Custom-made extension springs

Level ton completed

If you would like a quotation for custom made springs, please enlarge this form by 200% (to A4 size), fill in as much information as possible and return it by fax to our technical team:

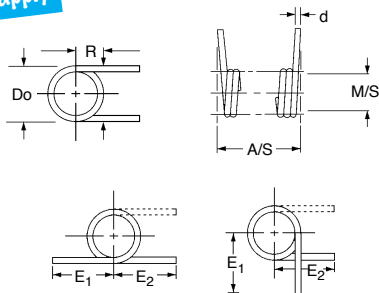
+33(0)4 37 490 055 or by mail: cial2@hpceurope.com

Compagny: _____ Address: _____

Contact: _____ Account number: _____

Telephone: _____ Fax: _____

A minimum order quantity will apply

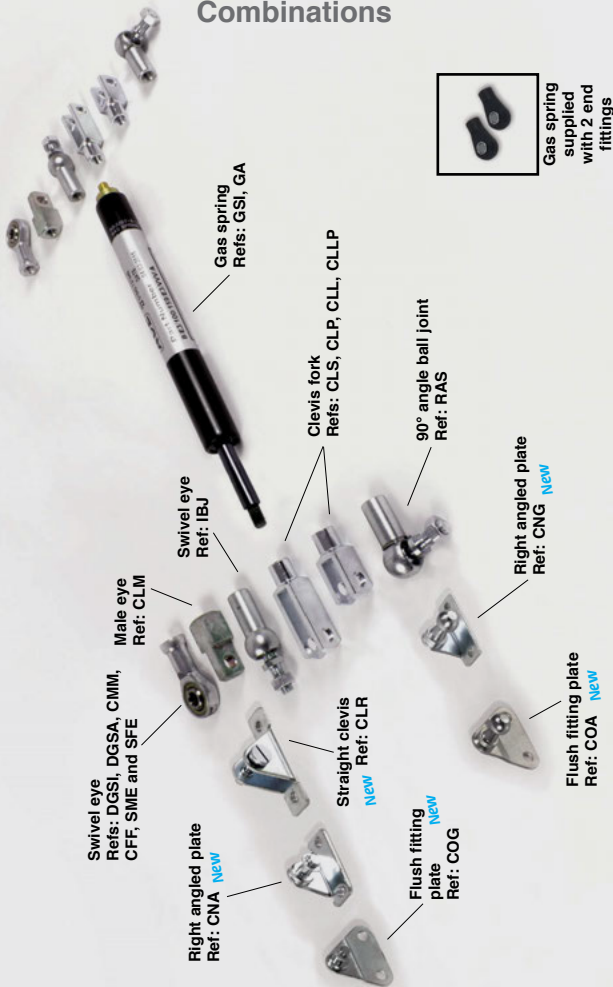


Material	
Ød	
ØD0	
Position R	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D
Load (N)	

Quantity	
----------	--

Gas spring accessories

Combinations



- Stainless steel gas spring

- Materials:

Body/rod: stainless steel

Rod-end: stainless steel

- Works in compression (push) mode

- Refilling fluid: nitrogen oil

- Working temperature: -20°C to 80°C

- Operating Fluids: Nitrogen gas and oil

Size 6: approx 10mm

Size 10: approx 20mm

- Filling tolerance: -20N to +40N

Important: Spring must be mounted with piston pointing down

Option

- Preset forces available to order (for orders of 5 or more):

Size 6: 10N to 400N

Size 10: 80N to 1300N

Uses

- Facilitates opening and closing of a bonnet or boot



DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List	-10%	-15%	On request

Part number	Stroke	L	ØD1	ØD2	ØN	A	P	E	Force (N)	Price each 1 to 2
Size 6										
GSI-15-060-50	060	149	15	6	6,1	10	16	6	050	243,36 €
GSI-15-100-80	100	229	15	6	6,1	10	16	6	080	256,02 €
GSI-15-150-100	150	329	15	6	6,1	10	16	6	100	277,71 €
Size 10										
GSI-22-50-80	050	164	22	10	8,1	14	20	10	080	298,89 €
GSI-22-100-100	100	264	22	10	8,1	14	20	10	100	314,75 €
GSI-22-150-200	150	364	22	10	8,1	14	20	10	200	332,29 €
GSI-22-200-300	200	464	22	10	8,1	14	20	10	300	351,29 €
GSI-22-250-400	250	564	22	10	8,1	14	20	10	400	362,24 €

Dimensions in mm

- Stainless steel gas spring

- Materials:

Body/rod: stainless steel

Rod-end: stainless steel

- Works in compression (push) mode

- Refilling fluid: nitrogen oil

- Working temperature: -20°C to 80°C

- Operating Fluids: Nitrogen gas and oil

Size 6: approx 10mm

Size 10: approx 20mm

- Filling tolerance: -20N to +40N



Important: Spring must be mounted with piston pointing down



Adjustment

- Springs are pre-filled to reach the stated force. Gas should be released using the valve to achieve the force required

- NOTE once the gas has been released, spring cannot be refilled.



Regulation: implementation with reticule adjusting screw

Uses

- Facilitates opening and closing of a bonnet or boot



DISCOUNTS

Qty	1+	3+	6+	10+
Disc. List	-10%	-15%	On request	

Part number	Stroke	L	ØD1	ØD2	ØN	A	P	E	Force (N)	Price each 1 to 2
Size 6										
GSI-15-060-400A	060	149	15	6	6,1	10	16	6	400	243,36 €
GSI-15-100-400A	100	229	15	6	6,1	10	16	6	400	256,02 €
GSI-15-150-400A	150	329	15	6	6,1	10	16	6	400	277,71 €
Size 10										
GSI-22-050-1000A	050	164	22	10	8,1	14	20	10	1000	298,89 €
GSI-22-100-1000A	100	264	22	10	8,1	14	20	10	1000	314,75 €
GSI-22-150-1000A	150	364	22	10	8,1	14	20	10	1000	332,29 €
GSI-22-200-1000A	200	464	22	10	8,1	14	20	10	1000	351,29 €
GSI-22-250-1000A	250	564	22	10	8,1	14	20	10	1000	362,22 €

Reticule adjusting screw

GSI-15-U5	For gas spring GSI-15	17,73 €
GSI-22-U8	For gas spring GSI-22	17,73 €

Dimensions in mm

Gas spring



GA6 GA8

Fixed force, 50 to 400N

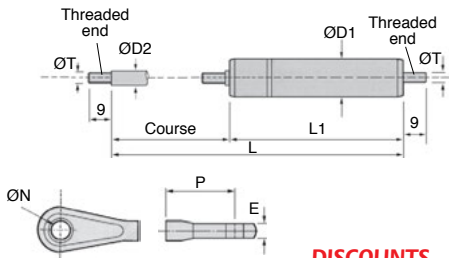
- Gas spring
- Works in compression (push) mode
- Operating fluid: Gas (Nitrogen) and oil
- Materials:
 - Rod: Chrome-plated steel
 - Body: Steel
 - Rod end: Nylon
- Spring must be mounted with piston pointing down
- Size 6: from 50N to 400N
- Size 8: from 100N to 540N



Supplied with nylon end

Uses

- Opening of bonnets or boots
- Saves effort



DISCOUNTS

Qty	1+	6+	10+	15+	20+
Disc.	List	-10%	-15%	-20%	On request

Part number	Stroke (mm)	L (mm)	L1 (mm)	ØD1 (mm)	ØD2 (mm)	ØT (mm)	ØN (mm)	P (mm)	E (mm)	Oil zone length (mm)	Force (N)	Stock*	Price each 1 to 5
Size 6													
GA6060050	60	160	100	15	6	M5	6	17	8	20	50	✓	115,52 €
GA6100080	100	240	140	15	6	M5	6	17	8	20	80	✓	116,20 €
GA6150100	150	340	190	15	6	M5	6	17	8	20	100	✓	116,20 €
GA6200200	200	440	240	15	6	M5	6	17	8	20	200	-	119,06 €
Size 8													
GA8100100	100	264	164	18	8	M6	8	21	10	30	100	✓	126,43 €
GA8150200	150	364	214	18	8	M6	8	21	10	30	200	✓	128,31 €
GA8200300	200	464	264	18	8	M6	8	21	10	30	300	✓	130,55 €
GA8250400	250	564	314	18	8	M6	8	21	10	30	400	✓	132,48 €

*Depending on availability - Dimensions in mm

Force adjustable up to 650N

GA6A
GA8A

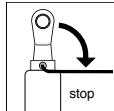
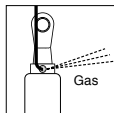
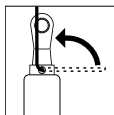
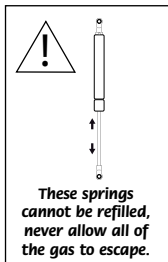
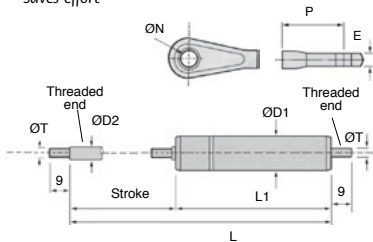
- **Gas spring**
- **Works in compression (push) mode**
- Operating fluid: Gas (Nitrogen) and oil
- Materials:
 - Rod: Chrome-plated steel
 - Body: Steel
 - Rod end: Nylon
- Size 6: from 50N to 400N
- Size 8: from 100N to 540N
- Spring must be mounted with piston pointing down
- Adjustment: Gas should be released using the valve to achieve the force required.



Supplied with nylon end

Uses

- Opening of bonnets or boots
- Saves effort



DISCOUNTS

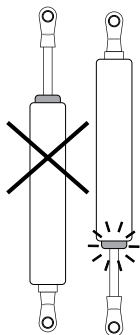
Qty.	1+	6+	10+	15+	20+
Disc.	List	-10%	-15%	-20%	On request

Part number	Stroke (mm)	L (mm)	L1 (mm)	ØD1 (mm)	ØD2 (mm)	ØT (mm)	ØN (mm)	P (mm)	E (mm)	Oil zone length (mm)	Force (N)	Stock*	Price each 1 to 5
Size 6													
GA6060A	60	160	95	15	6	M5	6	17	8	20	50-400	✓	115,52 €
GA6100A	100	240	135	15	6	M5	6	17	8	20	80-400	✓	116,20 €
GA6150A	150	340	185	15	6	M5	6	17	8	20	100-400	✓	116,20 €
GA6200A	200	440	235	15	6	M5	6	17	8	20	200-400	✓	119,06 €
Size 8													
GA8100A	100	264	159	18	8	M6	8	21	10	30	100-650	✓	126,43 €
GA8150A	150	364	209	18	8	M6	8	21	10	30	100-650	✓	128,31 €
GA8200A	200	464	259	18	8	M6	8	21	10	30	100-650	✓	130,55 €
GA8250A	250	564	309	18	8	M6	8	21	10	30	100-650	✓	132,48 €

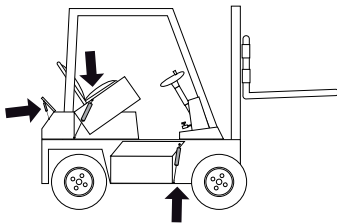
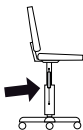
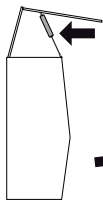
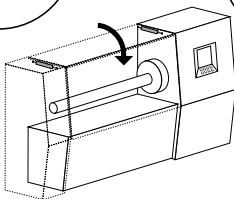
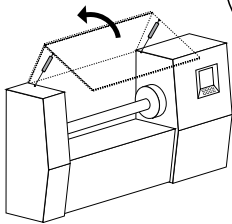
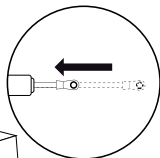
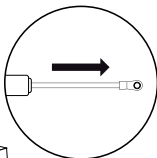
*Depending on availability - Dimensions in mm

Gas spring

Instruction leaflet



Must be used with
rod pointing down



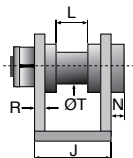
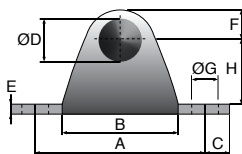
For use with a male clevis

CLR
CLRss

- For fixing a gas spring
- Materials:
 - Steel
 - 316L stainless steel

Advantages

- Allows gas springs to be mounted using a mounting plate and a CLM male clevis

**NEW!****DISCOUNTS**

Qty	1+	6+	10+	15+	20+
Disc.	List	-10%	-15%	-20%	On request

Part number	A	B	C	E	F	ØG	H	J	ØD	ØT	N	L	R	Max load (N)	Price each 1 to 5
Steel															
CLR-6	51	36	9,5	2,5	9	6,5	20	18	13	6	4,0	6,5	2,5	500	15,46 €
CLR-8	51	36	9,5	2,5	9	6,5	20	18	13	8	4,0	13	2,5	1800	15,46 €
Stainless steel															
CLR-6/SS	51	36	9,5	2,5	9	6,5	20	18	13	6	4,0	6,5	2,5	500	110,64 €
CLR-8/SS	51	36	9,5	2,5	9	6,5	20	18	13	8	4,0	13	2,5	1800	101,71 €

Dimensions in mm

Right angled mounting plate

SteStaNew

For ball joint or clevis

CNA
CNG

- For fixing a gas spring

- Materials:

Steel

316L stainless steel

Advantages

- Allows gas springs to be mounted by combining mounting plates

with a RAS/IBJ ball joint or a

CLS / CLL clevis

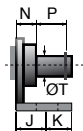
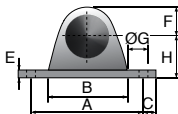
steel or
stainless steel



CNA

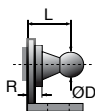
CNG

NEW!



CNA

Use with a clevis



CNG

Use with a ball joint

DISCOUNTS

Qty	1+	6+	10+	15+	20+
Disc.	List	-10%	-15%	-20%	On request

Use with a clevis

Part number	Steel	S/steel	A	B	C	E	F	ØG	H	J	K	ØT	N	P	Max load (N)	Price each 1 to 5	Steel	S/steel
CNA-4	-	-	19	16	3	1,5	4	3,4	10	5,75	4,25	4	3,5	4,5	180	13,30 €	-	-
CNA-6	CNA-6/SS	-	40	34	5	2	10	5,3	16	10	10	6	6,0	7	400	15,46 €	44,92 €	44,92 €
CNA-8	CNA-8/SS	-	40	34	5	2	10	5,3	16	10	10	8	7,0	11	1800	15,46 €	44,92 €	44,92 €

Use with a ball joint

Part number	Steel	S/steel	A	B	C	E	F	ØG	H	J	K	ØD	L	R	Max load (N)	Price each 1 to 5	Steel	S/steel
CNG-3,5	-	-	19	16	3	1,5	4	3,4	10	5,75	4,25	8	12,5	4,5	180	13,30 €	-	-
CNG-5	CNG-5/SS	-	40	34	5	2	10	5,3	16	10	10	8	13	5	400	15,46 €	44,92 €	44,92 €
CNG-8	CNG-8/SS	-	40	34	5	2	10	5,3	16	10	10	13	14,5	5	1800	15,46 €	44,92 €	44,92 €

Dimensions in mm

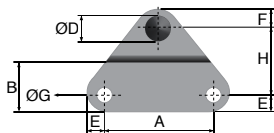
For ball joint or clevis

COA
COG

- For fixing a gas spring
- Materials:
Steel
316L stainless steel

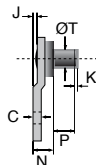
Advantages

- Allows gas struts to be mounted by combining a mounting plate with a RAS/IBJ ball joint or a CLM clevis

NEW!

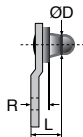
COA

COG



COA

Use with a clevis



COG

Use with a ball joint

DISCOUNTS

Qty	1+	6+	10+	15+	20+
Disc.	List	-10%	-15%	-20%	On request

Use with a clevis

Part number													Max	Price each 1 to 5		
Steel	S/steel	A	B	C	E	F	ØG	H	J	K	ØT	N	P	load (N)	Steel	S/steel
COA-4	-	18	13	1,5	5	5	4,3	16	1	2	4	4,5	4,5	180	15,23 €	-
COA-6	COA-6/SS	18	13	1,5	5	5	4,3	15,6	1	2,5	6	6,5	6,5	180	15,46 €	11,73 €
COA-8	COA-8/SS	55	23	3	7	10	5,3	30	2	5	8	10,0	11	1200	15,46 €	11,81 €

Use with a ball joint

Part number													Max	Price each 1 to 5	
Steel	S/steel	A	B	C	E	F	ØG	H	J	ØD	L	R	load (N)	Steel	S/steel
COG-3,5	-	18	13	1,5	5	5	4,3	16	1	8	13,5	5,5	180	14,75 €	-
COG-5	COG-5/SS	18	13	1,5	5	5	4,3	15,6	1	8	13,5	5,5	180	15,46 €	11,73 €
COG-8	COG-8/SS	55	23	3	7	10	5,3	30	2	13	17,5	8	1200	15,46 €	11,73 €

Dimensions in mm

Clevis components, short version

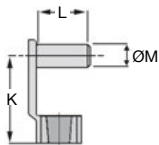
CLS CLP

Steel

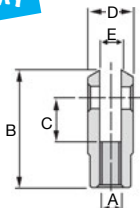
- Clevis of linkage
- Material: Medium hard steel 9S Mn Pb28, R= 500 N/mm²
- Conforms to DIN 71752
- **Not sold individually, please contact us for details**



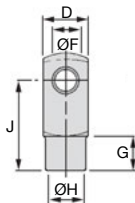
Quick assembly



CLP Clip



CLS Clevis



DISCOUNTS

Qty	1+	6+	20+	50+	100+	250+
Disc.	List	-10%	-20%	-30%	-40%	On request

Clevis

Part number	A	B	C	D	E (B13)	ØF (H9)	G	ØH	J	Static load Co (daN)	Stock*	Price each 1 to 5
											✓	€
CLS-4	M4 x 0,70	21	8	8	4	4	6,00	8	16	320	✓	2,09 €
CLS-5	M5 x 0,80	26	10	10	5	5	7,50	9	20	500	✓	1,64 €
CLS-6	M6 x 1,00	31	12	12	6	6	9,00	10	24	720	✓	1,45 €
CLS-8	M8 x 1,25	42	16	16	8	8	12,00	14	32	1280	✓	1,84 €
CLS-10	M10 x 1,50	52	20	20	10	10	15,00	18	40	2000	✓	2,65 €
CLS-12	M12 x 1,75	62	24	24	12	12	18,00	20	48	2880	✓	4,93 €
CLS-16	M16 x 2,00	83	32	32	16	16	24,00	26	64	5120	✓	10,11 €
CLS-10C	M10 x 1,25	52	20	20	10	10	15,00	18	40	-	✓	2,80 €
CLS-12C	M12 x 1,25	62	24	24	12	12	18,00	20	48	-	✓	4,93 €
CLS-16C	M6 x 1,50	83	32	32	16	16	24,00	26	64	-	✓	10,17 €

Spring clip

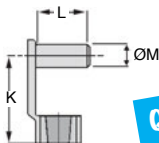
Part number	K	L	ØM	Stock*	Price each 1 to 5
				✓	€
CLP-4	15	9	4	✓	0,67 €
CLP-5	19	12	5	✓	0,72 €
CLP-6	23	14	6	✓	0,72 €
CLP-8	31	19	8	✓	0,67 €
CLP-10	39	23	10	✓	0,78 €
CLP-12	47	28	12	✓	1,30 €
CLP-16	62	36	16	✓	2,22 €

*Depending on availability - Dimensions in mm

Steel

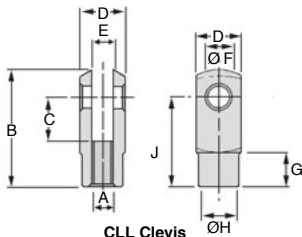
CLL CLLP

- Material: Medium hard steel 9S Mn Pb28, R= 500 N/mm²
- Conforms to DIN 71752
- **Not sold individually, please contact us for details**



CLLP Clip

Quick assembly



CLL Clevis



Clevis

DISCOUNTS

Qty	1+	6+	20+	50+	100+	250+
Disc.	List	-10%	-20%	-30%	-40%	On request

Part number	A	B	C	D	E (B13)	ØF (H9)	G	ØH	J	Static load Co (daN)	Stock*	Price each 1 to 5
CLL-5	M5 x 0,80	36	20	10	5	5	7,50	9	30	500	✓	1,68 €
CLL-6	M6 x 1,00	43	24	12	6	6	9,00	10	36	720	✓	1,80 €
CLL-8	M8 x 1,25	58	32	16	8	8	12,00	14	48	1280	✓	2,60 €
CLL-10	M10 x 1,5	72	40	20	10	10	15,00	18	60	2000	✓	4,34 €
CLL-12	M12 x 1,75	86	48	24	12	12	18,00	20	72	2880	✓	7,01 €

Spring clip

Part number	K	L	ØM	Stock*	Price each 1 to 5
CLLP-5	29	12	5	✓	0,72 €
CLLP-6	35	14	6	✓	0,72 €
CLLP-8	47	19	8	✓	0,78 €
CLLP-10	59	23	10	✓	0,88 €
CLLP-12	71	28	12	✓	1,48 €

*Depending on availability - Dimensions in mm

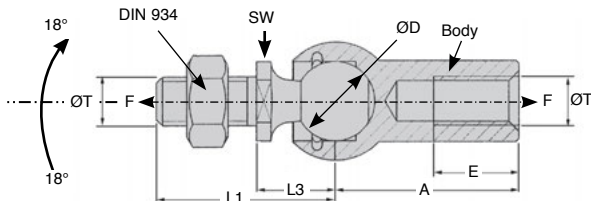
180° ball and socket joints



IBJ

Steel/steel contact

- In line ball and socket joint similar to DIN71802
- Body conforms to DIN 71805
- Shank conforms to DIN71803
- Material: zinc plated steel



DISCOUNTS

Qty	1+	6+	20+	40+	60+
Disc.	List	-15%	-20%	-30%	On request

Part number	ØD	ØT	A	L1	L3	E	SW	Axial load F (N)	Weight (kg)	Stock*	Price each 1 to 5
IBJ-5	8	M5	22	19,2	9	10,2	7	30	0,015	✓	4,91 €
IBJ-6	10	M6	25	23,5	11	11,5	8	40	0,025	✓	6,28 €
IBJ-8	13	M8	30	29,5	13	14,0	11	60	0,053	✓	6,65 €
IBJ-10	16	M10	35	36,0	16	15,5	13	80	0,104	✓	9,21 €
IBJ-14x1.5	19	M14x1,5	45	48,0	20	21,5	16	100	0,221	✓	23,48 €

*Depending on availability - ** On price list 2010 - Dimensions in mm

Steel/steel or stainless steel/stainless steel contact **RAS RASs**

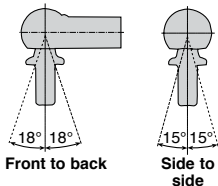
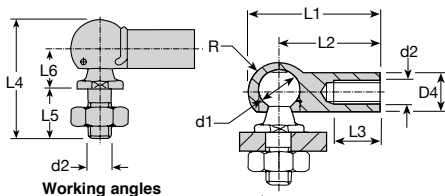
- **Conforms to DIN 71802**
- Working angle: Lateral $\pm 15^\circ$
Front to back $\pm 18^\circ$
- Materials:
passivated galvanised steel
stainless steel 303
- Retained in housing by a fastener
- For the left hand threaded version, only the female part has a left hand thread

steel or stainless steel



Advantages

- Wear resistant



Sizes	Fixing A/F	Max. radial and axial static force. kp
M5	7	30
M6	8	70
M8	11	150
M10	13	200
M12	13	200

DISCOUNTS

Qty	1+	6+	20+	40+	60+
Disc.	List	-15%	-20%	-30%	On request

Part number	Steel	S. steel	d1	d2	D4	L1	L2	L3	L4	L5	L6	R	Stock* S. Steel	Steel	Price each 1 to 5	Steel	Stainless steel	
Right hand thread																		
RAS5	RAS5/SS	8	M5	8	28,5	22,0	10,2	25,0	10,2	9,0	6,4	✓	✓	✓	4,79 €	7,05 €	-	-
RAS6	RAS6/SS	10	M6	10	32,5	25,0	11,5	30,0	12,5	11,0	7,5	✓	✓	✓	4,97 €	7,22 €	-	-
RAS8	RAS8/SS	13	M8	13	39,5	30,0	14,0	38,0	16,5	13,0	9,7	✓	✓	✓	6,06 €	9,21 €	-	-
RAS10	RAS10/SS	16	M10	16	47,0	35,0	15,5	47,5	20,0	16,0	12,0	✓	✓	✓	8,17 €	16,30 €	-	-
RAS12	RAS12/SS	16	M12	16	47,0	35,0	15,0	47,5	20,0	16,0	12,0	✓	✓	✓	11,51 €	19,10 €	-	-
Left hand thread																		
RAS5L	-	8	M5	8	28,5	22,0	10,5	25,0	10,2	9,0	6,4	✓	-	-	5,54 €	-	-	-
RAS6L	-	10	M6	10	32,5	25,0	11,5	30,0	12,5	11,0	7,5	✓	-	-	5,59 €	-	-	-
RAS8L	-	13	M8	13	39,5	30,0	14,0	38,0	16,5	13,0	9,7	✓	-	-	6,70 €	-	-	-
RAS10L	-	16	M10	16	47,0	35,0	15,5	47,5	20,0	16,0	12,0	✓	-	-	8,82 €	-	-	-
RAS12L	-	16	M12	16	47,0	35,0	15,0	47,5	20,0	16,0	12,0	✓	-	-	13,66 €	-	-	-

*Depending on availability - ** On price list 2010 - Dimensions in mm

**BI-DIRECTIONAL
ROTARY DAMPER**



p.236

**ADJUSTABLE
SHOCK-ABSORBER**



p.244

**DIABOLO SHAPED
ELASTO MOUNT**

*stainless
steel*



p.249

**CYLINDRICAL
ELASTO MOUNT**



p.256

VIBRATIONS
p.236 - 269

**CONICAL
ELASTO BUFFER**



p.266

**FLEXIBLE
BUSH BUFFER**

NEW



p.268

Bi-directional rotary damper



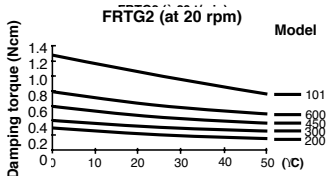
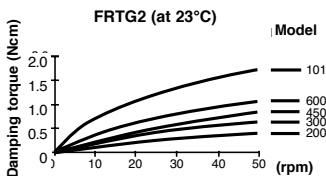
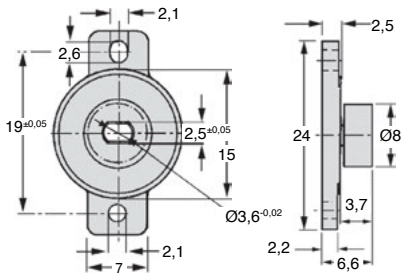
FRTG Damping torque from 0.2 to 1.0 Ncm

- Supplied with a spur gear
- Working temperature from 0°C to +50°C
- Max. speed 50 rpm
- Damping torque varies depending on the speed of rotation and the temperature: see table below
- Data given based on life of 50,000 cycles
- Materials:

Casing: polycarbonate

Gear: polyacetal

Fluid: silicone



DISCOUNTS

Qty	1+	6+	20+	40+
Disc. List	-15%	-20%	On request	

Part number	No of teeth	Module	PCD (mm)	Damping torque (Ncm)	Stock*	Price each 1 to 5
FRTG2200G1	14	0,5	7	0,20 ^{±0,07}	✓	9,81 €
FRTG2300G1	14	0,5	7	0,30 ^{±0,08}	-	9,81 €
FRTG2450G1	14	0,5	7	0,45 ^{±0,10}	✓	9,81 €
FRTG2600G1	14	0,5	7	0,60 ^{±0,12}	-	9,81 €
FRTG2101G1	14	0,5	7	1,00 ^{±0,20}	✓	9,81 €

*Depending on availability - Dimensions in mm

Damping torque from 2 to 3 Ncm

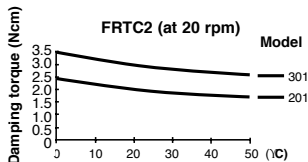
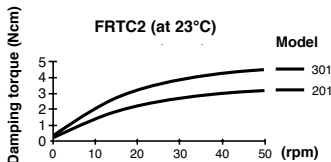
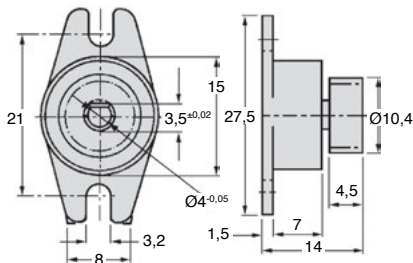
FRTC FRNC

- Supplied with a spur gear
- Working temperature from 0°C to +50°C
- Max. speed 50 rpm
- Damping torque varies depending on the speed of rotation and the temperature: see table below
- Data given based on life of 50,000 cycles
- Materials:

Casing: polycarbonate

Gear: polyacetal

Fluid: silicone



DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

Part number	No of teeth	Module	PCD (mm)	Damping torque (Ncm)	Stock*	Price each 1 to 5
Bidirectional						
FRTC2201G1	11	0,8	8,8	2 ^{+0,6}	-	22,72 €
FRTC2301G1	11	0,8	8,8	3 ^{+0,8}	✓	22,72 €
Unidirectional (clockwise)						
FRNC2R201G1	11	0,8	8,8	2 ^{+0,6}	✓	27,01 €
Unidirectional (anticlockwise)						
FRNC2L201G1	11	0,8	8,8	2 ^{+0,6}	✓	27,01 €

*Depending on availability - Dimensions in mm

Rotary damper



FRTD
FRND

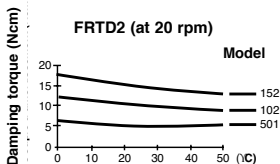
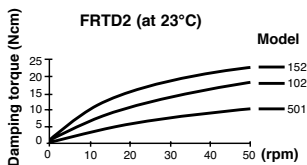
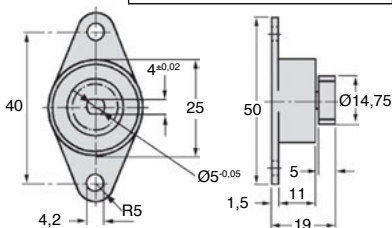
Damping torque from 5 to 15 Ncm

- Supplied with a spur gear
- Working temperature from 0°C to +50°C
- Max. speed 50 rpm
- Damping torque varies depending on the speed of rotation and the temperature: see table below
- Data given based on life of 50,000 cycles
- Materials:

Casing: polycarbonate

Gear: polyacetal

Fluid: silicone



DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

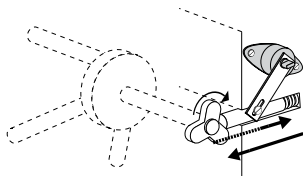
Part number	No of teeth	Module	PCD (mm)	Damping torque (Ncm)	Stock*	Price each 1 to 5
Bidirectional						
FRTD2501G1	12	1	12	5 ^{s1}	-	77,27 €
FRTD2102G1	12	1	12	10 ^{s2}	-	77,27 €
FRTD2152G1	12	1	12	15 ^{s3}	✓	77,27 €
Unidirectional (clockwise)						
FRND2R501G1	12	1	12	5 ^{s1}	-	88,19 €
FRND2R102G1	12	1	12	10 ^{s2}	-	88,19 €
FRND2R152G1	12	1	12	15 ^{s3}	✓	88,19 €
Unidirectional (anticlockwise)						
FRND2L501G1	12	1	12	5 ^{s1}	-	88,19 €
FRND2L102G1	12	1	12	10 ^{s2}	-	88,19 €
FRND2L152G1	12	1	12	15 ^{s3}	✓	88,19 €

*Depending on availability - Dimensions in mm

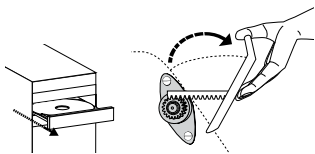
Rotary damper

Technical information

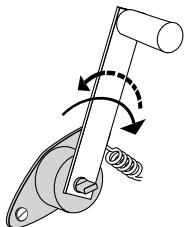
Typical applications



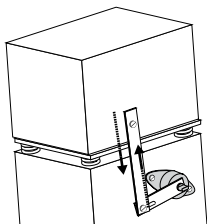
Rigging screw damper



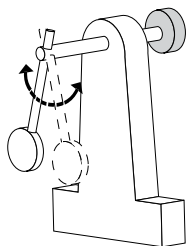
Drawer damper



Lever damping



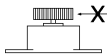
Vibration damping



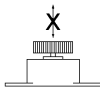
Pendulum damper

Mountings to avoid

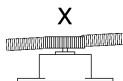
Rotary dampers are only intended for use in controlling rotary or lateral movements. They should not be used for any of the applications shown below.



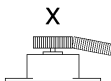
Side load



Axial load



Angular misalignment



Shock absorber

Formulae and examples of calculation

A shock absorber decelerates linearly. Roughly 90% of shock absorber applications can be modelled if the following 4 factors are known:

1. Mass to slow down m (kg)
2. Impact velocity v_D (m/s)
3. Propelling force F (N)
4. Shocks per hour C (hr)

Symbols used in the formulae:

W_1	Kinetic energy	(Nm)
W_2	Propelling energy	(Nm)
W_3	Total energy per cycle (W_1+W_2)	(Nm)
W_4	Total energy per hour (W_3C)	(Nm/hr)
me	Effective weight	(kgme)
m	Mass to slow down	(kg)
v	Velocity or moving mass	(m/s)
v_D	Impact velocity of shock absorber	(m/s)
ω	Angular velocity	(rad/s)
F	Propelling force	(N)
C	Number of shocks per hour	(/hr)
P	Motor power	(kW)
ST	Setting coefficient (normally 2.5)	1 à 2.5

M	Propelling torque	(Nm)
I	Moment of inertia	(kgm ²)
g	Gravity = 9.81	(m/s ²)
h	Drop height exc. shock abs. stroke	(m)
s	Shock absorber stroke	(m)
Q	Reactive force	(N)
μ	Friction coefficient	
t	Braking time	(sec)
a	Side load inclination	(m/sec ²)
α	Radius of inclination	(°)
β	Angle of inclination	(°)
L	Radius of mass	(m)
R	Dist. pivot/installation pt. of damp.	(m)
r	Dist. pivot/force application pt.	(m)

1. Mass without propelling force

Formulae :

$$W_1 = m \cdot v^2 \cdot 0,5$$

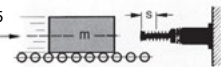
$$W_2 = 0$$

$$W_3 = W_1 + W_2$$

$$W_4 = W_3 \cdot C$$

$$v_D = v$$

$$me = m$$



2. Mass with propelling force

Formulae :

$$W_1 = m \cdot v^2 \cdot 0,5$$

$$W_2 = F \cdot s$$

$$W_3 = W_1 + W_2$$

$$W_4 = W_3 \cdot C$$

$$v_D = v$$

$$me = \frac{2 \cdot W_3}{v_D^2}$$



2.1 Mass moving upwards

$$W_2 = (F - m \cdot g) \cdot s$$

2.2 Mass moving downwards

$$W_2 = (F + m \cdot g) \cdot s$$

3. Mass pulled by a motor

Formulae :

$$W_1 = m \cdot v^2 \cdot 0,5$$

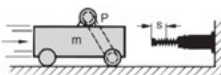
$$W_2 = \frac{1000 \cdot P \cdot ST \cdot s}{v}$$

$$W_3 = W_1 + W_2$$

$$W_4 = W_3 \cdot C$$

$$v_D = v$$

$$me = \frac{2 \cdot W_3}{v_D^2}$$



4. Mass on motorised rollers

Formulae :

$$W_1 = m \cdot v^2 \cdot 0,5$$

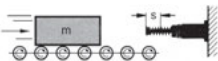
$$W_2 = m \cdot \mu \cdot g \cdot s$$

$$W_3 = W_1 + W_2$$

$$W_4 = W_3 \cdot C$$

$$v_D = v$$

$$me = \frac{2 \cdot W_3}{v_D^2}$$



5. Swinging mass with propelling force

Formulae :

$$W_1 = m \cdot v^2 \cdot 0,5$$

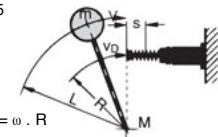
$$W_2 = \frac{M \cdot s}{R}$$

$$W_3 = W_1 + W_2$$

$$W_4 = W_3 \cdot C$$

$$v_D = \frac{v \cdot L}{R} = \omega \cdot R$$

$$me = \frac{2 \cdot W_3}{v_D^2}$$



* v or v_D is the impact velocity of the mass.

In the case of an accelerated movement (for

example when the mass is displaced by a

pneumatic cylinder), the impact velocity can

be 1.5 to 2 times greater than the average velocity.

Shock absorber

Formulae and examples of calculation

6. Free falling mass

Formulae :

$$W_1 = m \cdot g \cdot h$$

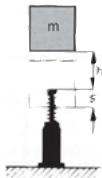
$$W_2 = m \cdot g \cdot s$$

$$W_3 = W_1 + W_2$$

$$W_4 = W_3 \cdot C$$

$$v_D = \sqrt{2 \cdot g \cdot h}$$

$$m_e = \frac{2 \cdot W_3}{v_D^2}$$



6.1 Mass rolling or sliding on an inclined plane

Formulae :

$$W_1 = m \cdot g \cdot h = m \cdot v_D^2 \cdot 0,5$$

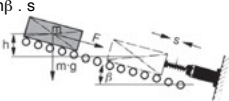
$$W_2 = m \cdot g \cdot \sin \beta \cdot s$$

$$W_3 = W_1 + W_2$$

$$W_4 = W_3 \cdot C$$

$$v_D = \sqrt{2 \cdot g \cdot h}$$

$$m_e = \frac{2 \cdot W_3}{v_D^2}$$



6.1a Mass with upwards propelling force

$$W_2 = (F - m \cdot g \cdot \sin \beta) \cdot s$$

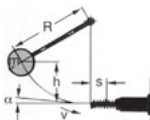
6.1b Mass with downwards propelling force

$$W_3 = (F + m \cdot g \cdot \sin \beta) \cdot s$$

6.2 Mass free falling about a pivot point

Formulae: Follow calculation for example 6.1. Verify the radial load.

$$\tan \alpha = \frac{R}{s}$$



7. Rotary index table with propelling torque

Formulae :

$$W_1 = m \cdot v^2 \cdot 0,25$$

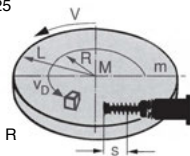
$$W_2 = \frac{M \cdot s}{L}$$

$$W_3 = W_1 + W_2$$

$$W_4 = W_3 \cdot C$$

$$v_D = \frac{v \cdot R}{L} = \omega \cdot R$$

$$m_e = \frac{2 \cdot W_3}{v_D^2}$$



NOTE: mass evenly spread

8. Rotating mass with propelling torque

Formulae :

$$W_1 = m \cdot v^2 \cdot 0,18 \quad \text{NOTE: mass evenly spread}$$

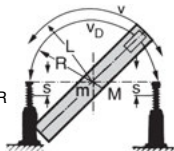
$$W_2 = \frac{M \cdot s}{R}$$

$$W_3 = W_1 + W_2$$

$$W_4 = W_3 \cdot C$$

$$v_D = \frac{v \cdot R}{L} = \omega \cdot R$$

$$m_e = \frac{2 \cdot W_3}{v_D^2}$$



9. Rotating mass with propelling force

Formulae :

$$W_1 = m \cdot v_D^2 \cdot 0,18 \quad \text{NOTE: mass evenly spread}$$

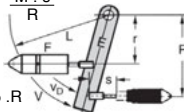
$$W_2 = \frac{F \cdot r \cdot s}{R} = \frac{M \cdot s}{R}$$

$$W_3 = W_1 + W_2$$

$$W_4 = W_3 \cdot C$$

$$v_D = \frac{v \cdot R}{L} = \omega \cdot R$$

$$m_e = \frac{2 \cdot W_3}{v_D^2}$$



10. Mass in controlled descent without propelling force

Formulae :

$$W_1 = m \cdot v^2 \cdot 0,5$$

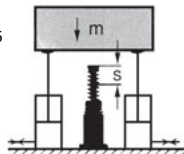
$$W_2 = m \cdot g \cdot s$$

$$W_3 = W_1 + W_2$$

$$W_4 = W_3 \cdot C$$

$$v_D = v$$

$$m_e = \frac{2 \cdot W_3}{v_D^2}$$



These formulae will give you approximate values to assist in the selection of a shock absorber but a safety margin should always be applied. (Precise values can only be calculated if actual parameters are known).

Reactive force Q(N)

$$Q = \frac{1,2 \cdot W_3}{s}$$

Braking time (s)

$$t = \frac{2,6 \cdot s}{v_D}$$

Deceleration (m/s²)

$$a = \frac{0,6 \cdot v_D^2}{s}$$



- MC25 and MC75: integrated stroke end stop and noise reducing buffer
- MC150: mechanical stop required about 1mm before the shock-absorber stroke-end.
- Working temperature 0 to +65°C
- Materials:

Body: blackened steel
 Rod: stainless steel
 Buffer: steel with elastomer insert (MC25 and MC75 only)

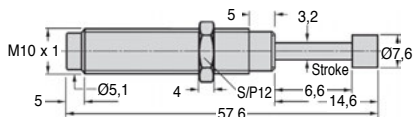


Accessories

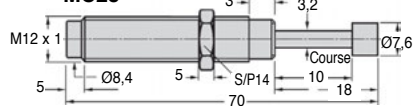
- See stroke end stop and universal universal flange

Info.

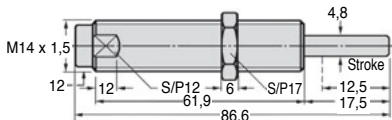
- MC150: to avoid damaging the EPDM membrane **do not turn the rod**
- For better heat dissipation, do not paint shock-absorbers



MC25



MC75



MC150M

DISCOUNTS

Qty	1+	6+	10+	15+
Disc.	List -10%	-15%	On request	On request

Part number	Effective Weight (kgme)		Max capacity (Nm)		Return spring force (N)	Rod reset time (S)	Max. side load angle	Price each 1 to 5
	Min	Max	Per cycle W3	Per hour W4				
MC25-ML	0,7	2,2	2,8	22600	3-6	0,3	2°	81,85 €
MC25-M	1,8	5,4	2,8	22600	3-6	0,3	2°	69,00 €
MC25-MH	4,6	13,6	2,8	22600	3-6	0,3	2°	69,00 €
MC75-M1	0,3	1,1	9,0	28200	4-9	0,3	2°	110,65 €
MC75-M2	0,9	4,8	9,0	28200	4-9	0,3	2°	110,65 €
MC75-M3	2,7	36,2	9,0	28200	4-9	0,3	2°	110,65 €
MC150-M	0,9	10,0	20,0	34000	3-8	0,4	4°	146,57 €
MC150-MH	8,6	86,0	20,0	34000	3-8	0,4	4°	146,57 €
MC150-MH2	70,0	200,0	20,0	34000	3-8	0,4	4°	146,57 €

*Depending on availability - Dimensions in mm



RMSA

Can be adjusted
in-situ to suit application

- Standard part with locknut and knob

- Materials:

Body: blackened steel

Rod: stainless steel

- Adjustment. The adjustment ring is calibrated from 0 to 9. The adjustment knob is secured by a set screw which must be slackened with a 1.5mm Allen key before carrying out adjustment (do not remove completely). After installing the shock absorber, cycle the machine a few times and alter the adjustment so that optimum deceleration is achieved. For hard impact at start of stroke turn ring towards 9, for harder impact at the end of the stroke, turn towards 0. Retighten the set screw.

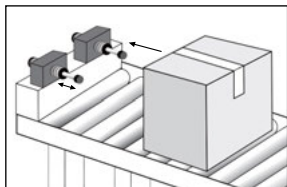
- Max. impact velocity 3,6m/s

- Working temperature -12° to +90°C

- Stroke end stop and anti-noise

buffer fully integrated

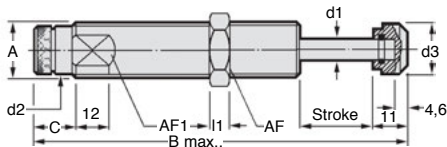
- Max. angle of incidence: 2°
(except RMSA-900 : 1°)



Typical application

Uses

- Upon impact of the load the piston moves back causing an immediate build up of internal pressure. Oil is then allowed to pass through the metering orifices bringing the load smoothly to rest. Fast reset is assured by an anti-return valve and spring incorporated in the piston.



DISCOUNTS

Qty	1+	6+	10+	15+
Disc.	List	-10%	-15%	On request

Accessories

- Universal flange **STC...**

- Stroke end stop **MF...**

Part number	Stroke (mm)	Effective weight (kgme)		Return spring force		Rod reset (S)	Weight (kg)	Price each 1 to 5		
		Min (kg)	Max (kg)	Min. (N)	Max. (N)					
RMSA-500	19,00	M20 x1,5	118	13,5	4,8	17,0	17,0	8	23	18
RMSA-600	25,40	M25 x1,5	143	16,5	6,3	22,4	23,0	10	30	23
RMSA-900	40,00	M25 x1,5	189	16,5	6,3	22,4	23,0	10	30	23

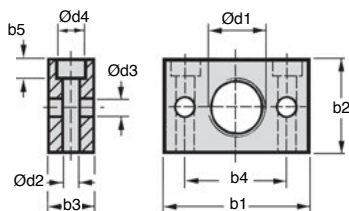
Part number	Max. energy capacity (Nm)		Effective weight (kgme)		Return spring force		Rod reset (S)	Weight (kg)	Price each 1 to 5	
	per cycle W3	per hour W4	Min (kg)	Max (kg)	Min. (N)	Max. (N)				
RMSA-500	25	45 000	2,30	226	5	10	0,10	0,13	✓	156,87 €
RMSA-600	68	68 000	9,00	1 360	10	30	0,20	0,31	✓	216,36 €
RMSA-900	100	90 000	14,00	2 040	10	35	0,40	0,40	-	300,94 €

*Depending on availability - Dimensions in mm

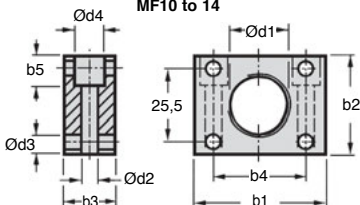
- Universal flange for shock-absorber



Typical application



MF10 to 14



MF20 to 25

DISCOUNTS

Qty	1+	6+	10+	15+
Disc.	List	-10%	-15%	On request

Part number	Ød1	Ød2	Ød3	Ød4	b1	b2	b3	b4	b5	For shock-absorber		Price each
										Stock*	1 to 5	
MF-10	M10x1	4,5	4,5	8	38	25	12	25	5	MC25	✓	43,91 €
MF-12	M12x1	4,5	4,5	8	38	25	12	25	5	MC75	✓	43,91 €
MF-14	M14x1,5	4,5	4,5	8	45	29	16	35	5	MC150	-	47,23 €
MF-20	M20x1,5	5,5	5,5	10	47	35	16	35	10	RMSA500	-	58,71 €
MF-25	M25x1,5	5,5	5,5	10	47	35	16	35	10	RMSA600-900	-	58,69 €

*Depending on availability - Dimensions in mm

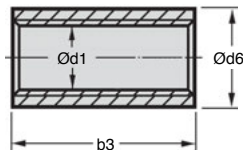
Shock absorber - stop collar



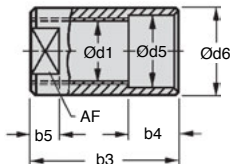
STC

Mounting accessory

- **Stop collar for shock absorber**
- **Warning:** for certain shock absorbers, the use of this stop collar is essential



STC10 to 12



STC14 to 25



Typical application

DISCOUNTS

Qty	1+	6+	10+	15+
Disc.	List	-10%	-15%	On request

Part number	Ød1	Ød5	Ød6	$b3$	$b4$	$b5$	AF	For shock-absorber	Stock*	Price each 1 to 5
STC10	M10x1	-	14,3	20	-	-	-	MC25	✓	12,39 €
STC12	M12x1	-	16,0	20	-	-	-	MC75	✓	12,39 €
STC14	M14x1,5	14,5	18,0	19	12	6	13	MC150	-	13,47 €
STC20	M20x1,5	20,5	25,0	25	12	8	22	RMSA500	-	20,05 €
STC25	M25x1,5	25,5	32,0	45	16	10	27	RMSA600-900	✓	28,47 €

*Depending on availability - Dimensions in mm

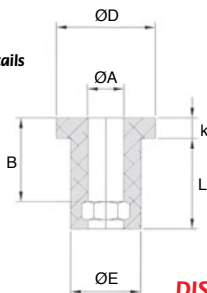
- Flanged neoprene elastomer bushing containing a machined nut

Advantages

- Cost effective elimination of vibration and resonance
- Isolation of noise and resonance
- Oil, fats, and ozone-resistant
- Simple and tool free installation
- Assembly in: Compression - shearing
Compression/shearing

Info.

- C*: compression
- S*: shearing
- **Not sold individually, please contact us for details**



Assembly 1



Assembly 2

DISCOUNTS

Qty	1+	13+	29+	41+	60+
Disc.	List	-10%	-15%	-20%	On request

Part number	Hole diameter (mm)	Plate thickness (mm)	Tightening torque (N)		Static load (kg)		
			Ass.1	Ass.2	Ass.1 C*	Ass.2 C*	Ass.2 S*
ECF3	7,2-7,5	0,6-2,5	0,4-0,5	0,3-0,4	1,0	5	2,5
ECF4	9,3-9,6	0,8-3,3	0,4-0,6	0,4-0,5	1,0	7	3,5
ECF5	10,2-10,5	0,8-4,3	0,6-1,0	0,5-0,6	1,5	10	5,0
ECF6	12,7-13,0	1,5-5,0	2,3-3,5	0,7-0,9	3,0	14	7,0
ECF8	16,5-16,8	1,5-6,5	3,0-4,0	1,6-1,8	5,0	28	14,0

Part number	Thread	ØD	ØE	ØA	L	k	B	Stock*	Price each 1 to 12
ECF3	M3	9	7,2	3,4	9,0	2,5	8,0	✓	0,91 €
ECF4	M4	12	9,3	4,4	11,5	3,0	10,5	✓	0,99 €
ECF5	M5	15	10,2	5,4	14,5	3,5	13,0	✓	1,16 €
ECF6	M6	18	12,7	6,4	17,0	4,0	15,0	✓	1,23 €
ECF8	M8	24	16,5	8,4	22,0	5,0	19,5	✓	1,88 €

*Depending on availability - Dimensions in mm

Diabolo-shaped elasto mount

Ste Stock

AT-ZY

Male / male mounting

- Radial elasticity greater than axial elasticity
- Cylinder worked under compression or shearing
- Materials:
 - core: Steel plates
 - cylinder: Rubber
- Hardness: NK 55-60 shore A
- Working temp: -40°C to +70°C

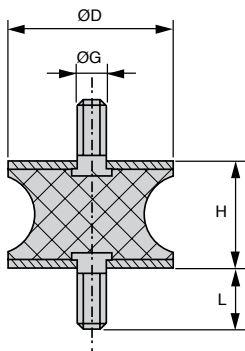


Uses

- Dampens sound and vibrations



High flexibility



DISCOUNTS

Qty	1+	6+	20+	40+	100+	200+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	ØG	ØD	H	L	Stock*	Price each 1 to 5
AT-ZY4-10-10	M4	10	10	10	✓	1,85 €
AT-ZY6-20-15	M6	20	15	18	✓	3,71 €
AT-ZY6-20-30	M6	20	30	12	✓	3,71 €
AT-ZY6-25-20	M6	25	20	12	✓	3,99 €
AT-ZY8-30-20	M8	30	20	20	✓	5,45 €
AT-ZY8-40-30	M8	40	30	20	✓	7,30 €
AT-ZY8-40-48	M8	40	48	23	✓	10,98 €
AT-ZY10-40-28	M10	40	28	20	-	8,08 €
AT-ZY10-46-25	M10	46	25	20	-	11,77 €
AT-ZY10-50-30	M10	50	30	33	✓	13,45 €
AT-ZY12-75-40	M12	75	40	37	-	20,20 €
AT-ZY16-100-55	M16	100	55	45	-	66,95 €

*Depending on availability - Dimensions in mm

Sta Diabolo shaped stainless steel elasto mount

Male / male mounting

AT-ZYss

- Radial elasticity greater than axial elasticity
- Cylinder works under both compression and shear
- Materials :
 - Core : Stainless steel (A2)
 - Cylinder : Rubber
- Hardness NK55-60 Shore A
- Working temp: - 40°C to +70°C

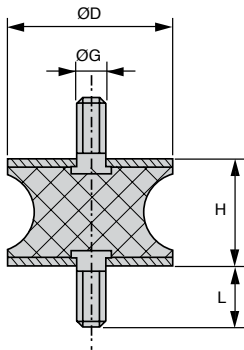
Uses

- Dampens sound and vibrations

stainless steel



High flexibility



DISCOUNTS

Qty	1+	6+	20+	40+	100+
Disc.	List	-10%	-15%	-20%	On request

Part number	ØG	ØD	H	L	Stock*	Price each 1 to 5
AT-ZY4-10-10/SS	M4	10	10	10	✓	3,62 €
AT-ZY6-20-15/SS	M6	20	15	18	✓	5,42 €
AT-ZY6-20-30/SS	M6	20	30	12	✓	6,04 €
AT-ZY6-25-20/SS	M6	25	20	12	✓	6,04 €
AT-ZY8-30-20/SS	M8	30	20	20	✓	9,26 €
AT-ZY8-40-30/SS	M8	40	30	20	✓	16,36 €
AT-ZY8-40-48/SS	M8	40	48	23	✓	16,97 €
AT-ZY10-40-28/SS	M10	40	28	20	✓	16,36 €
AT-ZY10-46-25/SS	M10	46	25	20	-	19,40 €
AT-ZY10-50-30/SS	M10	50	30	33	✓	19,40 €

*Depending on availability - Dimensions in mm

Diabolo-shaped elasto mount

Ste Stock

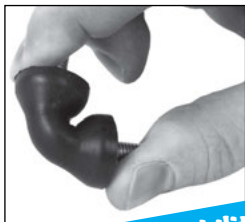
CT-ZY

Female / female mounting

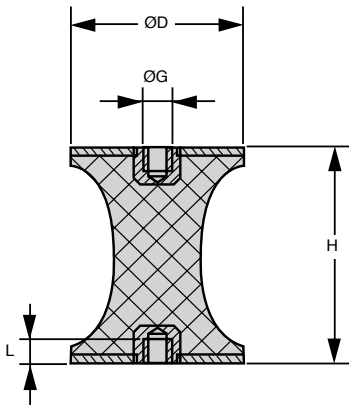
- Radial elasticity greater than axial elasticity
- Cylinder worked under compression or shearing
- Materials:
 - core: Steel plates
 - cylinder: Rubber
- Hardness: NK 55-60 shore A
- Working temp: -40°C to +70°C

Uses

- Dampens sound and vibrations



High flexibility



DISCOUNTS

Qty	1+	6+	20+	40+	100+	200+
Disc. List	-10%	-15%	-20%	-25%	On request	

Part number	ØG	ØD	H	L	Stock*	Price each 1 to 5
CT-ZY4-10-10	M4	10	10	4	✓	1,85 €
CT-ZY8-30-20	M8	30	20	8	✓	5,45 €
CT-ZY8-40-48	M8	40	48	8	✓	10,98 €
CT-ZY10-50-30	M10	50	30	10	-	19,25 €

*Depending on availability - Dimensions in mm

Sta Diabolo shaped stainless steel elasto mount

Female / female mounting

CT-ZYss

- Radial elasticity greater than axial elasticity
- Cylinder works under both compression and shear
- Materials :
 - Core: Stainless steel (A2)
 - Cylinder: Rubber
- Hardness NK55-60 Shore A
- Working temp: -40°C to +70°C

Uses

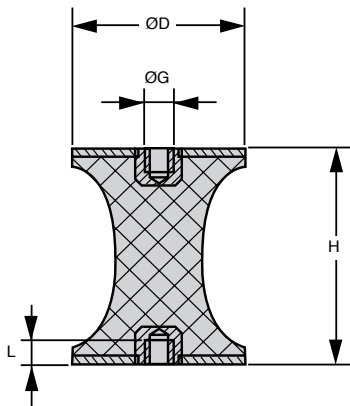
- Dampens sound and vibrations



stainless steel



High flexibility



DISCOUNTS

Qty	1+	6+	20+	40+	100+
Disc.	List	-10%	-15%	-20%	On request

Part number	ØG	ØD	H	L	Stock*	Price each 1 to 5
CT-ZY4-10-10/SS	M4	10	10	4	✓	3,61 €
CT-ZY8-30-20/SS	M8	30	20	8	✓	8,17 €
CT-ZY8-40-48/SS	M8	40	48	8	✓	16,93 €
CT-ZY10-50-30/SS	M10	50	30	10	-	26,63 €

*Depending on availability - Dimensions in mm

- Radial elasticity greater than axial elasticity
- Cylinder worked under compression or shearing
- Materials
 - core: Steel plates
 - cylinder: Rubber
- Hardness: NK 55-60 shore A
- Working temp: -40°C to +70°C

Uses

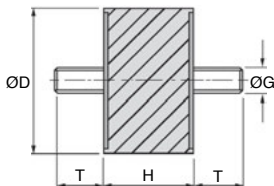
- Dampens sound and vibrations

Options

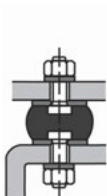
- Stainless steel version available on request

Info.

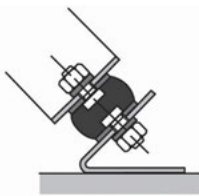
- Not sold individually, please contact us for details
- Values for loads and rigidity are given as a guide only



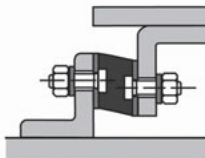
From size M3 upwards



Compression



Compression
Shearing



Shearing

DISCOUNTS **A**

Qty	1+	6+	20+	40+	100+	200+
Disc.	List	-10%	-15%	-20%	-25%	On request

DISCOUNTS **B**

Qty	1+	6+	10+	15+	20+	50+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	ØG	ØD	H	T	Compression		Shearing		Stock*	Price each 1 to 5
					stiffness (N/mm)	Max. load(N)	stiffness (N/mm)	Max. load(N)		
A-ZY3-8-8	M3	8	8	6	-	-	-	-	✓	A 2,00 €
A-ZY4-10-10	M4	10	10	10	44	43	9	15	✓	A 1,85 €
A-ZY4-15-7	M4	15	7	10	174	95	29	35	✓	A 1,68 €
A-ZY4-15-8	M4	15	8	10	160	95	27	35	✓	A 1,68 €
A-ZY4-15-10	M4	15	10	10	124	95	24	35	✓	A 1,85 €
A-ZY4-15-15	M4	15	15	12	61	95	13	35	✓	A 1,97 €
A-ZY4-15-20	M4	15	20	13	-	-	-	-	✓	A 2,20 €
A-ZY5-15-15	M5	15	15	8	61	95	24	35	✓	A 1,97 €
A-ZY6-20-8	M6	20	8	18	307	170	36	60	✓	A 2,20 €
A-ZY6-20-10	M6	20	10	18	-	-	-	-	✓	A 2,29 €
A-ZY6-20-15	M6	20	15	18	130	170	24	60	✓	A 2,29 €
A-ZY6-20-20	M6	20	20	18	-	-	-	-	✓	A 2,29 €
A-ZY6-20-25	M6	20	25	18	85	170	17	60	✓	A 2,47 €
A-ZY6-25-10	M6	25	10	18	750	280	74	95	✓	A 2,47 €
A-ZY6-25-15	M6	25	15	18	-	-	-	-	✓	A 2,64 €
A-ZY6-25-20	M6	25	20	18	-	-	-	-	✓	A 3,00 €
A-ZY6-25-25	M6	25	25	18	-	-	-	-	✓	A 3,17 €
A-ZY8-30-15	M8	30	15	20	525	400	58	140	✓	A 3,61 €
A-ZY8-30-20	M8	30	20	20	204	400	40	140	✓	A 3,78 €
A-ZY8-30-25	M8	30	25	20	-	-	-	-	✓	A 4,21 €
A-ZY8-30-30	M8	30	30	20	108	400	25	140	✓	A 4,22 €
A-ZY8-30-40	M8	30	40	20	-	-	-	-	✓	A 5,12 €
A-ZY8-40-25	M8	40	25	23	-	-	-	-	✓	A 5,20 €
A-ZY8-40-30	M8	40	30	23	213	650	43	250	✓	A 5,36 €
A-ZY10-40-25	M10	40	25	28	-	-	-	-	✓	A 5,20 €
A-ZY10-40-30	M10	40	30	28	-	-	-	-	✓	A 6,33 €
A-ZY10-50-20	M10	50	20	28	857	1000	110	400	✓	A 7,49 €
A-ZY10-50-30	M10	50	30	28	375	1000	66	400	✓	A 8,53 €
A-ZY10-50-40	M10	50	40	28	260	1000	53	400	✓	A 8,72 €
A-ZY10-50-45	M10	50	45	28	215	1000	43	400	-	A 8,90 €
A-ZY10-50-50	M10	50	50	28	-	-	-	-	✓	A 9,49 €
A-ZY10-60-40	M10	60	40	28	-	-	-	-	✓	A 12,83 €
A-ZY10-70-45	M10	70	45	28	-	-	-	-	✓	A 19,26 €
A-ZY12-60-40	M12	60	40	33	-	-	-	-	✓	B 8,50 €
A-ZY12-75-25	M12	75	25	37	2710	2300	211	850	✓	B 10,00 €
A-ZY12-75-40	M12	75	40	37	734	2300	117	850	✓	B 11,03 €
A-ZY12-75-50	M12	75	50	37	506	2300	91	850	✓	B 12,86 €
A-ZY12-75-55	M12	75	55	37	417	2300	78	850	✓	B 13,39 €
A-ZY16-100-40	M16	100	40	41	1970	4200	257	1600	-	B 20,07 €
A-ZY16-100-55	M16	100	55	41	892	4200	145	1600	-	B 22,35 €
A-ZY16-100-75	M16	100	75	41	-	-	-	-	-	B 30,16 €

*Depending on availability - Dimensions in mm

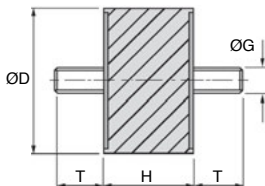
- Radial elasticity greater than axial elasticity.
- Cylinder worked under compression or shearing
- Materials:
 - Core: Steel plates
 - Cylinder: Rubber
- Hardness: NK 55-60 shore A
- Working temp: -40°C to +70°C

Uses

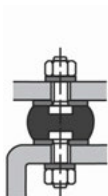
- Dampens sound and vibrations

Info.

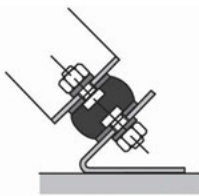
- Not sold individually, please contact us for details
- Values for loads and rigidity are given as a guide only



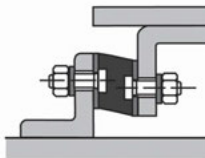
From size M3 upwards



Compression



Compression
Shearing



Shearing

DISCOUNTS **A**

Qty	1+	6+	20+	40+	100+
Disc.	List	-10%	-15%	-20%	On request

DISCOUNTS **B**

Qty	1+	6+	10+	15+	20+	50+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	ØG	ØD	H	T	Compression		Shearing		Stock*	Price each 1 to 5
					stiffness (N/mm)	Max. load (N)	stiffness (N/mm)	Max. load (N)		
A-ZY3-8-8/SS	M3	8	8	6	-	-	-	-	✓	A 3,07 €
A-ZY4-10-10/SS	M4	10	10	10	44	43	9	15	✓	A 3,07 €
A-ZY4-15-7/SS	M4	15	7	10	174	95	29	35	✓	A 2,54 €
A-ZY4-15-8/SS	M4	15	8	10	160	95	27	35	✓	A 2,75 €
A-ZY4-15-10/SS	M4	15	10	10	124	95	24	35	✓	A 2,85 €
A-ZY4-15-15/SS	M4	15	15	12	61	95	13	35	✓	A 2,85 €
A-ZY4-15-20/SS	M4	15	20	13	-	-	-	-	✓	A 3,27 €
A-ZY5-15-15/SS	M5	15	15	8	61	95	24	35	✓	A 2,77 €
A-ZY6-20-8/SS	M6	20	8	18	307	170	36	60	✓	A 3,15 €
A-ZY6-20-10/SS	M6	20	10	18	-	-	-	-	✓	A 3,25 €
A-ZY6-20-15/SS	M6	20	15	18	130	170	24	60	✓	A 3,30 €
A-ZY6-20-20/SS	M6	20	20	18	-	-	-	-	✓	A 3,78 €
A-ZY6-20-25/SS	M6	20	25	18	85	170	17	60	✓	A 3,78 €
A-ZY6-25-10/SS	M6	25	10	18	750	280	74	95	✓	A 3,46 €
A-ZY6-25-15/SS	M6	25	15	18	-	-	-	-	✓	A 3,70 €
A-ZY6-25-20/SS	M6	25	20	18	-	-	-	-	✓	A 4,31 €
A-ZY6-25-25/SS	M6	25	25	18	-	-	-	-	✓	A 4,76 €
A-ZY8-30-15/SS	M8	30	15	20	525	400	58	140	✓	A 5,65 €
A-ZY8-30-20/SS	M8	30	20	20	204	400	40	140	✓	A 5,85 €
A-ZY8-30-25/SS	M8	30	25	20	-	-	-	-	✓	A 6,32 €
A-ZY8-30-30/SS	M8	30	30	20	108	400	25	140	✓	A 6,32 €
A-ZY8-30-40/SS	M8	30	40	20	-	-	-	-	✓	A 7,76 €
A-ZY8-40-25/SS	M8	40	25	23	-	-	-	-	✓	A 8,47 €
A-ZY8-40-30/SS	M8	40	30	23	213	650	43	250	✓	A 7,62 €
A-ZY10-40-25/SS	M10	40	25	28	-	-	-	-	✓	A 7,26 €
A-ZY10-40-30/SS	M10	40	30	28	-	-	-	-	✓	A 8,70 €
A-ZY10-50-20/SS	M10	50	20	28	857	1000	110	400	✓	A 10,45 €
A-ZY10-50-30/SS	M10	50	30	28	375	1000	66	400	✓	A 12,63 €
A-ZY10-50-40/SS	M10	50	40	28	260	1000	53	400	✓	A 15,40 €
A-ZY10-50-45/SS	M10	50	45	28	215	1000	43	400	✓	A 12,73 €
A-ZY10-50-50/SS	M10	50	50	28	-	-	-	-	✓	A 16,70 €
A-ZY10-60-40/SS	M10	60	40	28	-	-	-	-	✓	A 19,40 €
A-ZY10-70-45/SS	M10	70	45	28	-	-	-	-	✓	A 26,69 €
A-ZY12-60-40/SS	M12	60	40	33	-	-	-	-	✓	B 17,16 €
A-ZY12-75-25/SS	M12	75	25	37	2710	2300	211	850	✓	B 20,67 €
A-ZY12-75-40/SS	M12	75	40	37	734	2300	117	850	✓	B 22,75 €
A-ZY12-75-50/SS	M12	75	50	37	506	2300	91	850	✓	B 25,85 €
A-ZY12-75-55/SS	M12	75	55	37	417	2300	78	850	✓	B 27,38 €
A-ZY16-100-40/SS	M16	100	40	41	1970	4200	257	1600	-	B 48,53 €
A-ZY16-100-55/SS	M16	100	55	41	892	4200	145	1600	-	B 53,30 €
A-ZY16-100-75/SS	M16	100	75	41	-	-	-	-	-	B 61,25 €

*Depending on availability - Dimensions in mm

Cylindrical elasto mount

Ste Stock

B-ZY

Male / female mounting

- Radial elasticity greater than axial elasticity
- Cylinder worked under compression or shearing
- Materials
core: Steel plates
cylinder: Rubber
- Hardness: NK 55-60 shore A
- Working temp: -40°C to +70°C

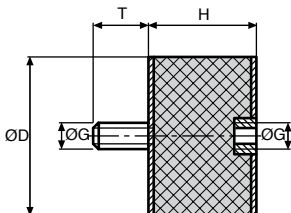
Uses

- Dampens sound and vibrations

Info.

- Not sold individually, please contact us for details
- Values for loads and rigidity are given as a guide only

From
size M3
upwards



DISCOUNTS **A**

Qty	1+	6+	20+	40+	100+	200+
Disc.	List	-10%	-15%	-20%	-25%	On request

DISCOUNTS **B**

Qty	1+	6+	10+	15+	20+	50+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	ØG	ØD	H	T	Compression		Shearing		Stock*	Price each 1 to 5
					stiffness (N/mm)	Max. load (N)	stiffness (N/mm)	Max. load (N)		
B-ZY3-8-8	M3	8	8	6	-	-	-	-	✓	A 4,03 €
B-ZY4-10-10	M4	10	10	10	48	43	10	35	✓	A 2,06 €
B-ZY4-10-15	M4	10	15	10	29	43	5	15	✓	A 2,19 €
B-ZY4-15-15	M4	15	15	10	67	95	15	35	✓	A 2,06 €
B-ZY4-15-20	M4	15	20	10	-	-	-	-	✓	A 2,16 €
B-ZY4-15-30	M4	15	30	15	-	-	-	-	✓	A 2,30 €
B-ZY5-15-15	M5	15	15	8	67	95	15	35	✓	A 2,16 €
B-ZY6-20-15	M6	20	15	18	130	170	24	60	✓	A 2,40 €
B-ZY6-20-20	M6	20	20	18	-	-	-	-	✓	A 2,39 €
B-ZY6-20-25	M6	20	25	18	61	170	11	60	✓	A 2,50 €
B-ZY6-25-15	M6	25	15	18	-	-	-	-	✓	A 2,73 €
B-ZY6-25-20	M6	25	20	18	130	280	30	95	✓	A 3,07 €
B-ZY6-25-25	M6	25	25	18	-	-	-	-	✓	A 3,17 €
B-ZY6-25-30	M6	25	30	18	71	280	19	95	✓	A 3,42 €
B-ZY8-30-15	M8	30	15	20	525	400	58	140	✓	A 3,75 €
B-ZY8-30-20	M8	30	20	20	235	400	42	140	✓	A 3,99 €
B-ZY8-30-25	M8	30	25	20	-	-	-	-	✓	A 4,33 €
B-ZY8-30-30	M8	30	30	20	113	400	28	140	✓	A 4,64 €
B-ZY8-30-40	M8	30	40	20	106	400	13	140	✓	A 5,21 €
B-ZY8-40-25	M8	40	25	23	-	-	-	-	✓	A 5,24 €
B-ZY8-40-30	M8	40	30	23	234	650	49	250	✓	A 5,89 €
B-ZY8-40-40	M8	40	40	23	147	650	23	250	✓	A 6,78 €
B-ZY10-40-30	M10	40	30	28	-	-	-	-	✓	A 6,34 €
B-ZY10-50-20	M10	50	20	28	857	1000	110	400	✓	A 7,68 €
B-ZY10-50-25	M10	50	25	28	-	-	-	-	✓	A 8,92 €
B-ZY10-50-30	M10	50	30	28	395	1000	73	400	✓	A 8,50 €
B-ZY10-50-40	M10	50	40	28	273	1000	58	400	✓	A 8,69 €
B-ZY10-50-45	M10	50	45	28	-	-	-	-	✓	A 8,90 €
B-ZY10-50-50	M10	50	50	28	210	1000	37	400	✓	A 9,51 €
B-ZY10-60-40	M10	60	40	28	-	-	-	-	-	A 12,82 €
B-ZY10-70-45	M10	70	45	28	-	-	-	-	-	A 19,25 €
B-ZY12-60-40	M12	60	40	33	-	-	-	-	✓	B 8,48 €
B-ZY12-75-25	M12	75	25	37	-	-	-	-	✓	B 0,00 €
B-ZY12-75-40	M12	75	40	37	735	2300	118	850	✓	B 0,25 €
B-ZY12-75-50	M12	75	50	37	530	2300	101	850	-	B 12,98 €
B-ZY12-75-55	M12	75	55	37	417	2300	78	850	-	B 13,52 €
B-ZY16-100-40	M16	100	40	41	2160	4200	283	1600	-	B 20,34 €
B-ZY16-100-55	M16	100	55	41	892	4200	145	1600	-	B 23,11 €
B-ZY16-100-60	M16	100	60	41	843	4200	142	1600	-	B 24,27 €
B-ZY16-100-75	M16	100	75	41	-	-	-	-	-	B 30,52 €

*Depending on availability - Dimensions in mm

- Radial elasticity greater than axial elasticity
- Cylinder worked under compression and shearing
- Materials:
 - core: stainless steel A2 plates
 - cylinder: rubber
- **Hardness: NK 55-60 shore A**
- Working temp: -40°C to +70°C

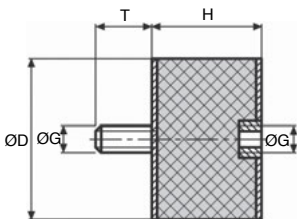
Uses

- Noise and vibration dampening

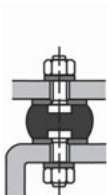
Info.

- Not sold individually, please contact us for details
- Values for loads and rigidity are given as a guide only

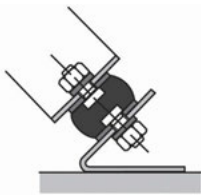
stainless steel



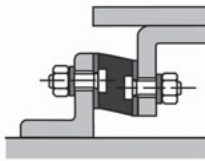
From size M3 upwards



Compression



Compression
Shearing



Shearing

DISCOUNTS **A**

Qty	1+	6+	20+	40+	100+
Disc.	List	-10%	-15%	-20%	On request

DISCOUNTS **B**

Qty	1+	6+	10+	15+	20+	50+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	ØG	ØD	H	T	Compression		Shearing		Stock*	Price each 1 to 5
					stiffness (N/mm)	Max. load (N)	stiffness (N/mm)	Max. load (N)		
B-ZY3-8-8/SS	M3	8	8	6	-	-	-	-	✓	A 5.99 €
B-ZY4-10-10/SS	M4	10	10	10	48	43	10	35	✓	A 3.14 €
B-ZY4-10-15/SS	M4	10	15	10	29	43	5	15	✓	A 3.44 €
B-ZY4-15-15/SS	M4	15	15	10	67	95	15	35	✓	A 3.07 €
B-ZY4-15-20/SS	M4	15	20	10	-	-	-	-	✓	A 3.27 €
B-ZY4-15-30/SS	M4	15	30	15	-	-	-	-	✓	A 3.38 €
B-ZY5-15-15/SS	M5	15	15	8	67	95	15	35	✓	A 3.38 €
B-ZY6-20-15/SS	M6	20	15	18	130	170	24	60	✓	A 3.62 €
B-ZY6-20-20/SS	M6	20	20	18	-	-	-	-	✓	A 3.70 €
B-ZY6-20-25/SS	M6	20	25	18	61	170	11	60	✓	A 3.70 €
B-ZY6-25-15/SS	M6	25	15	18	-	-	-	-	✓	A 4.00 €
B-ZY6-25-20/SS	M6	25	20	18	130	280	30	95	✓	A 4.63 €
B-ZY6-25-25/SS	M6	25	25	18	-	-	-	-	✓	A 5.48 €
B-ZY6-25-30/SS	M6	25	30	18	71	280	19	95	✓	A 4.82 €
B-ZY8-30-15/SS	M8	30	15	20	525	400	58	140	✓	A 5.93 €
B-ZY8-30-20/SS	M8	30	20	20	235	400	42	140	✓	A 5.65 €
B-ZY8-30-25/SS	M8	30	25	20	-	-	-	-	✓	A 6.60 €
B-ZY8-30-30/SS	M8	30	30	20	113	400	28	140	✓	A 6.70 €
B-ZY8-30-40/SS	M8	30	40	20	106	400	13	140	✓	A 7.26 €
B-ZY8-40-25/SS	M8	40	25	23	-	-	-	-	✓	A 7.87 €
B-ZY8-40-30/SS	M8	40	30	23	234	650	49	250	✓	A 8.25 €
B-ZY8-40-40/SS	M8	40	40	23	147	650	23	250	-	A 9.68 €
B-ZY10-40-30/SS	M10	40	30	28	-	-	-	-	✓	A 9.09 €
B-ZY10-50-20/SS	M10	50	20	28	857	1000	110	400	✓	A 12.64 €
B-ZY10-50-25/SS	M10	50	25	28	-	-	-	-	✓	A 12.86 €
B-ZY10-50-30/SS	M10	50	30	28	395	1000	73	400	✓	A 12.63 €
B-ZY10-50-40/SS	M10	50	40	28	273	1000	58	400	✓	A 13.88 €
B-ZY10-50-45/SS	M10	50	45	28	-	-	-	-	✓	A 13.72 €
B-ZY10-50-50/SS	M10	50	50	28	210	1000	37	400	✓	A 15.44 €
B-ZY10-60-40/SS	M10	60	40	28	-	-	-	-	-	A 18.20 €
B-ZY10-70-45/SS	M10	70	45	28	-	-	-	-	-	A 26.69 €
B-ZY12-60-40/SS	M12	60	40	33	-	-	-	-	✓	B 17.16 €
B-ZY12-75-25/SS	M12	75	25	37	-	-	-	-	✓	B 20.67 €
B-ZY12-75-40/SS	M12	75	40	37	735	2300	118	850	✓	B 22.75 €
B-ZY12-75-50/SS	M12	75	50	37	530	2300	101	850	-	B 26.87 €
B-ZY12-75-55/SS	M12	75	55	37	417	2300	78	850	-	B 27.38 €
B-ZY16-100-40/SS	M16	100	40	41	2160	4200	283	1600	-	B 48.53 €
B-ZY16-100-55/SS	M16	100	55	41	892	4200	145	1600	-	B 53.30 €
B-ZY16-100-60/SS	M16	100	60	41	843	4200	142	1600	-	B 54.88 €
B-ZY16-100-75/SS	M16	100	75	41	-	-	-	-	-	B 63.64 €

*Depending on availability - Dimensions in mm

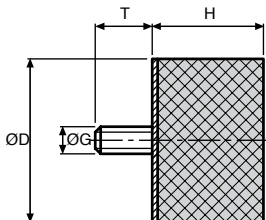
- Large degree of deformation accepted thus absorbing large amounts of energy
- Energy absorbed gradually
- Progressive absorption of energy
- Materials
 - core: Steel plates
 - cylinder: Rubber
- **Hardness: NK 55-60 shore A**
- Working temp: -40°C to +70°C

Uses

- Shock-absorbing stop

Info.

- Not sold individually, please contact us for details
- Values for loads and rigidity are given as a guide only



DISCOUNTS **A**

Qty	1+	6+	20+	40+	100+	200+
Disc.	List	-10%	-15%	-20%	-25%	On request

DISCOUNTS **B**

Qty	1+	6+	10+	15+	20+	50+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	ØG	ØD	H	T	Compression		Stock*	Price each 1 to 5
					stiffness (N/mm)	Max. load (N)		
D-ZY4-10-10	M4	10	10	10	38	43	✓	A 1,16 €
D-ZY4-15-8	M4	15	8	10	122	95	✓	A 1,25 €
D-ZY4-15-10	M4	15	10	10	106	95	✓	A 1,42 €
D-ZY4-15-15	M4	15	15	10	74	95	✓	A 1,58 €
D-ZY6-20-15	M6	20	15	18	138	170	✓	A 1,77 €
D-ZY6-20-20	M6	20	20	18	-	-	✓	A 1,97 €
D-ZY6-20-25	M6	20	25	18	-	-	✓	A 1,97 €
D-ZY6-25-10	M6	25	10	18	-	-	✓	A 1,85 €
D-ZY6-25-15	M6	25	15	18	254	280	✓	A 2,04 €
D-ZY6-25-20	M6	25	20	18	128	280	✓	A 2,29 €
D-ZY6-25-25	M6	25	25	18	-	-	✓	A 2,47 €
D-ZY6-25-30	M6	25	30	18	80	280	✓	A 2,75 €
D-ZY8-30-20	M8	30	20	20	200	400	✓	A 3,07 €
D-ZY8-30-25	M8	30	25	20	-	-	✓	A 3,42 €
D-ZY8-30-30	M8	30	30	20	120	400	✓	A 3,87 €
D-ZY8-30-40	M8	30	40	20	-	-	✓	A 4,48 €
D-ZY8-40-20	M8	40	20	23	-	-	✓	A 4,21 €
D-ZY8-40-30	M8	40	30	23	23	234	✓	A 4,76 €
D-ZY8-40-40	M8	40	40	23	-	-	✓	A 5,00 €
D-ZY10-40-30	M10	40	30	28	-	-	✓	A 4,76 €
D-ZY10-50-20	M10	50	20	28	680	1000	✓	A 6,39 €
D-ZY10-50-30	M10	50	30	28	425	1000	✓	A 6,58 €
D-ZY10-50-40	M10	50	40	28	-	-	✓	A 7,22 €
D-ZY10-50-45	M10	50	45	28	-	-	-	A 7,63 €
D-ZY10-50-50	M10	50	50	28	-	-	✓	A 8,53 €
D-ZY10-60-40	M10	60	40	28	-	-	✓	A 12,58 €
D-ZY10-70-45	M10	70	45	28	-	-	-	A 16,27 €
D-ZY12-60-40	M12	60	40	33	-	-	✓	B 7,35 €
D-ZY12-75-25	M12	75	25	37	2000	2300	✓	B 6,98 €
D-ZY12-75-40	M12	75	40	37	810	2300	✓	B 10,53 €
D-ZY12-75-50	M12	75	50	37	-	-	-	B 10,97 €
D-ZY12-75-55	M12	75	55	37	-	-	✓	B 11,59 €
D-ZY16-100-50	M16	100	50	41	1578	4200	✓	B 19,36 €
D-ZY16-100-55	M16	100	55	41	860	4200	-	B 20,34 €

*Depending on availability - Dimensions in mm

- **Very high deformation allows high levels of energy to be absorbed.**
- Progressive deformation
- Materials:
 - Core: Stainless steel plates (A2)
 - Head: Rubber
- **Hardness: NK 55-60 Shore A**
- Working temp: -40°C to +70°C

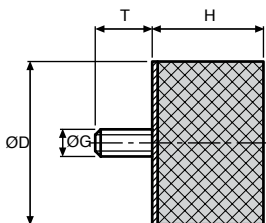
Uses

- Shock absorbing stop

Info.

- **Not sold individually, please contact us for details**
- Load and stiffness figures are given as a guide only

stainless steel



DISCOUNTS

Qty	1+	6+	20+	40+	100+
Disc.	List	-10%	-15%	-20%	On request

Part number	ØG	ØD	H	T	Compression Stiffness (N/mm)	Max load (N)	Stock*	Price each 1 to 5
D-ZY4-10-10/SS	M4	10	10	10	38	43	✓	1,70 €
D-ZY4-15-8/SS	M4	15	8	10	122	95	✓	3,00 €
D-ZY4-15-10/SS	M4	15	10	10	106	95	✓	2,06 €
D-ZY4-15-15/SS	M4	15	15	10	74	95	✓	2,26 €
D-ZY6-20-15/SS	M6	20	15	18	138	170	✓	2,96 €
D-ZY6-20-20/SS	M6	20	20	18	-	-	✓	3,05 €
D-ZY6-20-25/SS	M6	20	25	18	-	-	✓	2,87 €
D-ZY6-25-10/SS	M6	25	10	18	-	-	✓	2,63 €
D-ZY6-25-15/SS	M6	25	15	18	254	280	✓	2,92 €
D-ZY6-25-20/SS	M6	25	20	18	128	280	✓	3,25 €
D-ZY6-25-25/SS	M6	25	25	18	-	-	✓	3,57 €
D-ZY6-25-30/SS	M6	25	30	18	80	280	✓	3,85 €
D-ZY8-30-20/SS	M8	30	20	20	200	400	✓	4,36 €
D-ZY8-30-25/SS	M8	30	25	20	-	-	✓	4,81 €
D-ZY8-30-30/SS	M8	30	30	20	120	400	✓	5,42 €
D-ZY8-30-40/SS	M8	30	40	20	-	-	✓	6,40 €
D-ZY8-40-20/SS	M8	40	20	23	-	-	✓	5,95 €
D-ZY8-40-30/SS	M8	40	30	23	23	234	✓	6,66 €
D-ZY8-40-40/SS	M8	40	40	23	-	-	✓	7,02 €
D-ZY10-40-30/SS	M10	40	30	28	-	-	✓	6,70 €
D-ZY10-50-20/SS	M10	50	20	28	680	1000	✓	9,03 €
D-ZY10-50-30/SS	M10	50	30	28	425	1000	✓	9,22 €
D-ZY10-50-40/SS	M10	50	40	28	-	-	✓	10,11 €
D-ZY10-50-45/SS	M10	50	45	28	-	-	-	10,81 €
D-ZY10-50-50/SS	M10	50	50	28	-	-	✓	11,89 €
D-ZY10-60-40/SS	M10	60	40	28	-	-	-	17,48 €
D-ZY10-70-45/SS	M10	70	45	28	-	-	-	22,57 €
D-ZY12-60-40/SS	M12	60	40	33	-	-	✓	17,48 €
D-ZY12-75-25/SS	M12	75	25	37	2000	2300	✓	16,61 €
D-ZY12-75-40/SS	M12	75	40	37	810	2300	-	24,96 €
D-ZY12-75-50/SS	M12	75	50	37	-	-	-	26,08 €
D-ZY12-75-55/SS	M12	75	55	37	-	-	-	27,31 €
D-ZY16-100-25/SS	M16	100	25	41	-	-	-	40,10 €
D-ZY16-100-50/SS	M16	100	50	41	1578	4200	-	53,22 €
D-ZY16-100-55/SS	M16	100	55	41	860	4200	-	55,10 €

*Depending on availability - Dimensions in mm

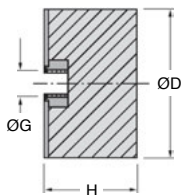
- Large degree of deformation accepted thus absorbing large amounts of energy
- Energy absorbed gradually
- Material:
 - Core: Steel plates
 - Cylinder: Rubber
- Hardness NK 55-60 shore A
- Working temp: -40°C to +70°C

Uses

- Shock absorbing stop

Info.

- Not sold individually, please contact us for details
- Values for loads and rigidity are given as a guide only



DISCOUNTS

Qty	1+	6+	20+	40+	100+	200+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	ØG	ØD	H	Compression		Stock*	Price each 1 to 5
				stiffness (N/mm)	Max. load (N)		
E-ZY4-10-10	M4	10	10	38	43	✓	1,16 €
E-ZY4-10-15	M4	10	15	-	-	✓	1,42 €
E-ZY4-15-15	M4	15	15	74	95	✓	1,49 €
E-ZY6-20-15	M6	20	15	138	170	✓	1,97 €
E-ZY6-20-20	M6	20	20	-	-	✓	2,04 €
E-ZY6-25-10	M6	25	10	-	-	✓	2,20 €
E-ZY6-25-20	M6	25	20	128	280	✓	2,82 €
E-ZY6-25-30	M6	25	30	80	280	✓	2,82 €
E-ZY8-30-15	M8	30	15	-	-	✓	2,73 €
E-ZY8-30-17	M8	30	17	-	-	✓	2,82 €
E-ZY8-30-20	M8	30	20	200	400	✓	3,17 €
E-ZY8-30-30	M8	30	30	120	400	✓	3,87 €
E-ZY8-40-30	M8	40	30	23	234	✓	4,76 €
E-ZY10-50-20	M10	50	20	680	1000	✓	6,03 €
E-ZY10-50-30	M10	50	30	425	1000	✓	6,58 €
E-ZY10-50-40	M10	50	40	-	-	✓	7,23 €
E-ZY10-50-50	M10	50	50	-	-	✓	8,45 €
E-ZY12-75-25	M12	75	25	2000	2300	✓	12,82 €
E-ZY12-75-55	M12	75	55	-	-	✓	19,07 €

*Depending on availability - Dimensions in mm

- Very high deformation allowing high levels of energy to be absorbed
- Progressive deformation
- Materials:
 - Core: Stainless steel plates (A2)
 - Head: Rubber
- **Hardness: NK 55-60 Shore A**
- Working temp: -40°C to +70°C

Uses

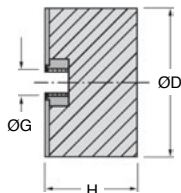
- Shock absorbing stop

Info.

- Not sold individually, please contact us for details
- Load and stiffness figures are given as a guide only



stainless steel



DISCOUNTS

Qty	1+	6+	20+	40+	100+
Disc.	List	-10%	-15%	-20%	On request

Part number	ØG	ØD	H	Compression Stiffness (N/mm)	Max load (N)	Stock*	Price each 1 to 5
E-ZY4-10-10/SS	M4	10	10	38	43	✓	2,54 €
E-ZY4-10-15/SS	M4	10	15	-	-	✓	1,98 €
E-ZY4-15-15/SS	M4	15	15	74	95	✓	2,16 €
E-ZY6-20-15/SS	M6	20	15	138	170	✓	2,87 €
E-ZY6-20-20/SS	M6	20	20	-	-	✓	3,00 €
E-ZY6-25-10/SS	M6	25	10	-	-	✓	3,15 €
E-ZY6-25-20/SS	M6	25	20	128	280	✓	3,38 €
E-ZY6-25-30/SS	M6	25	30	80	280	✓	4,00 €
E-ZY8-30-15/SS	M8	30	15	-	-	✓	4,00 €
E-ZY8-30-17/SS	M8	30	17	-	-	✓	4,00 €
E-ZY8-30-20/SS	M8	30	20	200	400	✓	4,46 €
E-ZY8-30-30/SS	M8	30	30	120	400	✓	5,42 €
E-ZY8-40-30/SS	M8	40	30	23	234	✓	6,66 €
E-ZY10-50-20/SS	M10	50	20	680	1000	✓	8,48 €
E-ZY10-50-30/SS	M10	50	30	425	1000	✓	9,22 €
E-ZY10-50-40/SS	M10	50	40	-	-	✓	10,06 €
E-ZY10-50-50/SS	M10	50	50	-	-	✓	11,89 €
E-ZY12-75-25/SS	M12	75	25	2000	2300	-	18,20 €
E-ZY12-75-55/SS	M12	75	55	-	-	-	26,69 €

*Depending on availability - Dimensions in mm

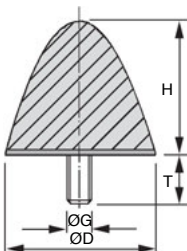
D-PAR D-KON

Male mounting

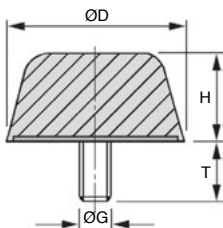
- Large degree of deformation accepted thus absorbing large amounts of energy
- Energy absorbed gradually
- Materials
core: Steel plates cylinder: Rubber
- **Hardness: NK 55-60 shore A**
- Working temp: -40°C to +70°C

Uses

- Shock-absorbing stop



Type D-PAR



Type D-KON



DISCOUNTS **A**

Qty	1+	6+	20+	40+	100+	200+
Disc.	List -10%	-15%	-20%	-25%	On request	

DISCOUNTS **B**

Qty	1+	6+	10+	15+	20+	50+
Disc.	List -10%	-15%	-20%	-25%	On request	

Part number	ØG	T	ØD	H	Stock*	Price each 1 to 5
D-PAR6-20-24	M6	18	20	24	✓	A 2,64 €
D-PAR8-30-36	M8	20	30	36	✓	A 3,42 €
D-PAR8-35-40	M8	20	35	40	✓	A 5,11 €
D-PAR8-50-67	M8	36	50	67	✓	A 10,56 €
D-PAR10-50-58	M10	28	50	58	✓	A 9,30 €
D-PAR12-75-89	M12	37	75	89	✓	B 13,57 €
D-PAR16-115-136	M16	43	115	136	-	B 52,00 €
D-KON6-25-17	M6	18	25	17	-	A 2,47 €
D-KON10-50-18	M10	28	50	18	✓	A 7,00 €
D-KON12-80-30	M12	35	80	30	✓	B 17,47 €
D-KON16-125-45	M16	45	125	45	-	B 29,18 €

*Depending on availability - Dimensions in mm

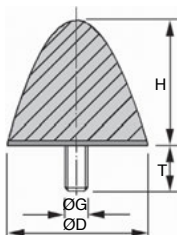
Male mounting

D-PARss D-KONss

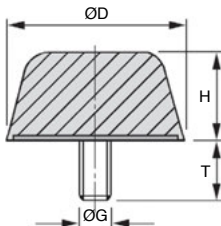
- **Very high deformation** allowing high levels of energy to be absorbed.
- Progressive deformation
- Materials :
 - Core : Stainless steel plates (A2)
 - Head : Rubber
- **Hardness : NK 55-60 Shore A**
- Working temp: -40°C to +70°C

Uses

- Shock-absorbing stop
- D-KON12-80-30/SS square base 80x80mm



Type D-PARss



Type D-KONss

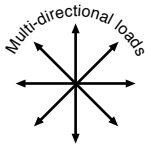
DISCOUNTS

Qty	1+	6+	20+	40+	100+
Disc.	List	-10%	-15%	-20%	On request

Part number	ØG	T	ØD	H	Stock*	Price each 1 to 5
D-PAR6-20-24/SS	M6	18	20	24	✓	3,78 €
D-PAR8-30-36/SS	M8	20	30	36	✓	5,85 €
D-PAR8-35-40/SS	M8	20	35	40	✓	15,84 €
D-PAR8-50-67/SS	M8	36	50	67	✓	16,27 €
D-PAR10-50-58/SS	M10	28	50	58	✓	12,63 €
D-KON6-25-17/SS	M6	18	25	17	✓	3,62 €
D-KON10-50-18/SS	M10	28	50	18	✓	9,09 €
D-KON12-80-30/SS	M12	35	80	30	-	48,56 €
D-KON16-125-45/SS	M16	45	125	45	-	105,56 €

*Depending on availability - Dimensions in mm

- Accepts radial, axial and torque loads
- Maintenance free
- Materials:
Cylindrical body: steel
Insert: rubber NK50-60 Shore

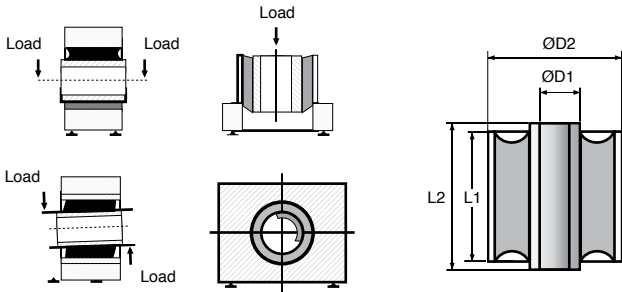


NEW!



Advantages

- A flexible bush is a superior replacement for a mechanical linkage where there is oscillation movement or a pivoting movement of limited amplitude



DISCOUNTS

Qty	1+	6+	10+	15+	20+	50+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	ØD1	ØD2	L1	L2	Price each 1 to 5
ARTE8-16-17	8	16	15	17	9,16 €
ARTE8-16-28	8	16	25	28	10,72 €
ARTE8-20-17	8	20	15	17	9,42 €
ARTE8-22-16	8	22	10	16	10,52 €
ARTE10-18-20	10	18	18	20	11,46 €
ARTE10-20-24	10	20	20	24	21,79 €
ARTE10-22-17	10	22	15	17	9,51 €
ARTE10-22-30	10	22	25	30	10,23 €
ARTE10-24-17	10	24	14	17	11,95 €
ARTE10-25-24	10	25	20	24	12,18 €
ARTE10-27-51	10	27	45	51	12,18 €

Dimensions in mm

NEW!

DISCOUNTS

Qty	1+	6+	10+	15+	20+	50+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	ØD1	ØD2	L1	L2	Price each 1 to 5
ARTE12-22-24	12	22	22	24	10,72 €
ARTE12-24-38	12	24	35	38	13,15 €
ARTE12-25-28	12	25	25	28	12,43 €
ARTE12-26-24	12	26	20	24	10,23 €
ARTE12-26-36	12	26	32	36	12,67 €
ARTE12-27-51	12	27	45	51	17,54 €
ARTE12-27-68	12	27	60	68	19,00 €
ARTE12-30-28	12	30	25	28	15,59 €
ARTE12-30-34	12	30	28	34	15,59 €
ARTE12-30-40	12	30	36	40	18,41 €
ARTE12-30-44	12	30	39	44	18,51 €
ARTE12-36-38	12	36	30	38	21,44 €
ARTE13-30-40	13	30	40	40	18,51 €
ARTE14-30-28	14	30	25	28	17,54 €
ARTE14-30-76	14	30	67	76	19,25 €
ARTE14-34-40	14	34	32	40	21,92 €
ARTE14-46-45	14	46	37	45	30,95 €
ARTE16-32-28	16	32	25	28	23,87 €
ARTE16-32-54	16	32	50	54	23,87 €
ARTE16-35-62	16	35	58	62	26,11 €
ARTE16-40-38	16	40	32	38	23,87 €
ARTE18-34-36	18	34	32	36	20,46 €
ARTE18-34-42	18	34	36	42	20,46 €
ARTE20-44-42	20	44	38	42	25,10 €
ARTE20-45-30	20	45	30	30	21,92 €
ARTE20-45-62	20	45	55	62	33,62 €
ARTE20-45-70	20	45	64	70	36,54 €
ARTE25-40-40	25	40	40	40	30,21 €
ARTE25-45-56	25	45	50	56	33,62 €
ARTE30-60-68	30	60	60	68	36,54 €
ARTE30-65-70	30	65	70	70	42,39 €
ARTE32-56-55	32	56	50	55	47,26 €
ARTE40-75-70	40	75	57	70	74,83 €
ARTE45-75-100	45	75	90	100	94,52 €
ARTE50-70-60	50	70	60	60	70,16 €
ARTE50-80-100	50	80	95	100	97,44 €

Dimensions in mm

**FIXED RUBBER
LEVELLING FOOT**



p.272

**TREADED
ADJUSTABLE FEET**



p.273

**FIXED
LEVELLING
FOOT**



p.274



**ARTICULATED FOOT
WITH SOLID BASE**



p.278

**FIXED LEVELLING
FOOT**



p.283

**STAINLESS STEEL
ARTICULATED FOOT**

stainless
steel



p.286

FEET

p.272 - 293

**FIXED ANTI-VIBRATION
FOOT MOUNT**



p.289

SOLID FOOT MOUNT



p.290

**FLEXIBLE MACHINE
MOUNT**



p.292

Fixed rubber levelling foot



PFC

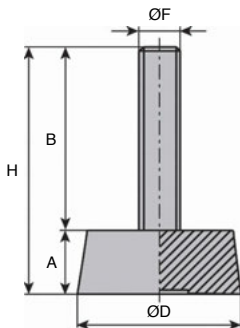
Maximum load 3 150N

- Levelling support for small parts

- Materials:

Rod: steel or stainless steel 304

Base: NBR rubber hardness shore 70



DISCOUNTS

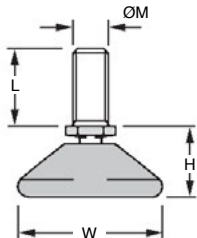
Qty	1+	50+	100+
Disc.	List	-5%	On request

Part number	ØD	ØF	A	H	B	Max. load (N)	Stock*	Price each 1 to 49
Steel								
PFC40-8	40	M8	16	41	25	1800	✓	3,24 €
PFC40-10	40	M10	16	41	25	2250	✓	3,80 €
PFC40-12	40	M12	16	41	25	3150	✓	4,39 €
Stainless steel								
PFC40-8/SS	40	M8	16	41	25	1800	✓	3,80 €
PFC40-10/SS	40	M10	16	41	25	2250	✓	4,11 €
PFC40-12/SS	40	M12	16	41	25	3150	✓	5,60 €

*Depending on availability - Dimensions in mm

- Adjustable feet
- Tilt angle : 25°
- Materials:
Base: polyethylene or polypropylene
Rod: mild steel, bright zinc plated

Simplest solution



Economy range

DISCOUNTS

Qty	1+	6+	20+	40+	60+	100+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	ØM	L	W	H	Max. static load (kg)	Material	Stock*	Price each 1 to 5
TAD5008-25-1	M6	12,5	25	20	50	Polyethylene	✓	1,58 €
TAD5009-25-1	M6	25,0	25	20	50	Polyethylene	✓	1,76 €
TAD5010-25-1	M8	12,5	25	20	50	Polyethylene	✓	1,82 €
TAD5011-25-1	M8	25,0	25	20	50	Polyethylene	✓	1,90 €
TAD5013-25-1	M10	15,0	25	20	50	Polyethylene	✓	1,90 €
TAD5014-25-1	M10	37,5	25	20	50	Polyethylene	-	on request
TAD5015-25-1	M10	50,0	25	20	50	Polyethylene	✓	2,73 €
TAD5019-25-1	M12	50,0	25	20	50	Polyethylene	-	2,25 €
TAD5008-40-1	M6	12,5	40	20	100	Polyethylene	-	2,09 €
TAD5009-40-1	M6	25,0	40	20	100	Polyethylene	-	1,76 €
TAD5010-40-1	M8	12,5	40	20	100	Polyethylene	-	1,43 €
TAD5011-40-1	M8	25,0	40	20	100	Polyethylene	✓	2,21 €
TAD5013-40-1	M10	15,0	40	20	100	Polyethylene	-	1,98 €
TAD5014-40-1	M10	37,5	40	20	100	Polyethylene	✓	1,82 €
TAD5015-40-1	M10	50,0	40	20	100	Polyethylene	✓	2,14 €
TAD5019-40-1	M12	50,0	40	20	100	Polyethylene	✓	2,25 €
TAD5008-55-1	M6	12,5	55	20	100	Polypropylene	-	2,73 €
TAD5009-55-1	M6	25,0	55	20	100	Polypropylene	-	2,93 €
TAD5010-55-1	M8	12,5	55	20	100	Polypropylene	-	2,54 €
TAD5011-55-1	M8	25,0	55	20	100	Polypropylene	✓	2,59 €
TAD5013-55-1	M10	15,0	55	20	250	Polypropylene	-	2,64 €
TAD5014-55-1	M10	37,5	55	20	250	Polypropylene	✓	3,07 €
TAD5015-55-1	M10	50,0	55	20	250	Polypropylene	✓	3,46 €
TAD5019-55-1	M12	50,0	55	20	250	Polypropylene	✓	2,83 €

*Depending on availability - Dimensions in mm

Fixed levelling foot Ø40 and Ø50

SteSta

PR40
PR50

Accepts loads up to 11.000N

- Levelling foot
- Rubber anti-slip sole (NBR 70 Shore)
- Black glass fibre reinforced Polyamide base
- Threaded ball ended rod in plated steel or stainless steel
- Nut not supplied

With non-slip base

Steel or stainless steel shaft

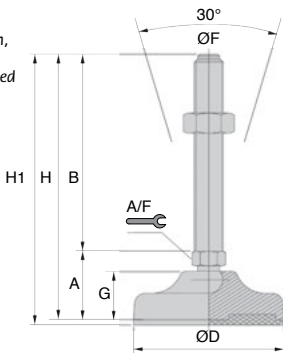


Advantages

- Self aligning on floor due to use of ball ended rod
- Flexible and non-slip sole

Info.

- If subjected to vibration, the static loads shown should be reduced



DISCOUNTS

Qty	1+	50+	100+
Disc.	List	-5%	On request

Part number	ØD	Thread ØF	B	A	A/F	G	H	H1	Static load (N)	Price each
Steel shaft										
PR40-8-50	40	M8	50	27	12	16,5	77	80	10000	✓ 5,41 €
PR40-8-100	40	M8	100	27	12	16,5	127	130	10000	✓ 7,48 €
PR50-10-75	50	M10	75	30	14	20,0	105	108	11000	✓ 7,29 €
PR50-10-125	50	M10	125	30	14	20,0	155	158	11000	✓ 8,70 €
PR50-12-75	50	M12	75	30	14	20,0	105	108	11000	✓ 8,00 €
PR50-12-125	50	M12	125	30	14	20,0	155	158	11000	✓ 8,92 €
Stainless steel shaft										
PR40-8-50/SS	40	M8	50	27	12	16,5	77	80	10000	✓ 10,11 €
PR40-8-100/SS	40	M8	100	27	12	16,5	127	130	10000	✓ 14,41 €
PR50-10-75/SS	50	M10	75	30	14	20,0	105	108	11000	✓ 13,48 €
PR50-10-125/SS	50	M10	125	30	14	20,0	155	158	11000	✓ 16,57 €
PR50-12-75/SS	50	M12	75	30	14	20,0	105	108	11000	✓ 12,40 €
PR50-12-125/SS	50	M12	125	30	14	20,0	155	158	11000	✓ 15,14 €

*Depending on availability- Dimensions in mm

- **Articulated foot**
- Non slip base
- Materials:
 - Base: Black glass reinforced polyamide (Shore hardness 70)
 - Rod: Zinc plated steel or stainless 304 (nut not supplied)
- Supplied without nut

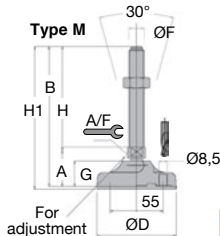
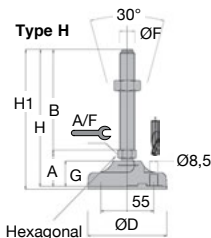
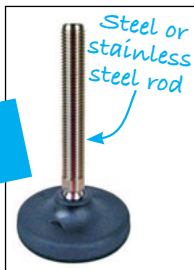
Advantages

- Articulated rod allows auto-alignment with the ground
- Sole material ensures flexibility and grip

Info.

- Values given for static loads will be reduced in case of a vibrating load

With non-slip base



DISCOUNTS

Qty	1+	50+	100+
Disc.	List	-5%	On request

Part number	ØD	Thread	ØF	B	A	A/F	G	H	H1	Static load (N)	Type	Price each
												Stock* 1 to 49
Steel rod												
PR85-12-75	83	M12	75	38	14	27	113	116	15000	H	✓	9,79 €
PR85-12-125	83	M12	125	38	14	27	163	166	15000	H	✓	10,93 €
PR85-16-75	83	M16	75	38	16	27	113	116	20000	H	✓	10,29 €
PR85-16-150	83	M16	150	38	16	27	188	191	20000	H	✓	12,11 €
PR85-16-200	83	M16	200	38	16	27	238	241	20000	H	✓	13,33 €
PR85-20-125	83	M20	125	41	17	27	166	169	20000	M	✓	11,22 €
PR85-20-175	83	M20	175	41	17	27	216	219	20000	M	✓	12,81 €
PR85-20-225	83	M20	225	41	17	27	266	269	20000	M	✓	14,54 €
Stainless steel rod												
PR85-12-75/SS	83	M12	75	38	14	27	113	116	15000	H	✓	16,62 €
PR85-12-125/SS	83	M12	125	38	14	27	163	166	15000	H	✓	19,11 €
PR85-16-75/SS	83	M16	75	41	13	27	116	119	20000	M	✓	16,62 €
PR85-16-150/SS	83	M16	150	41	13	27	191	194	20000	M	✓	20,35 €
PR85-16-200/SS	83	M16	200	41	13	27	241	244	20000	M	✓	22,89 €
PR85-20-125/SS	83	M20	125	41	17	27	166	169	20000	M	✓	23,26 €
PR85-20-175/SS	83	M20	175	41	17	27	216	219	20000	M	✓	27,41 €
PR85-20-225/SS	83	M20	225	41	17	27	266	269	20000	M	✓	33,13 €

*Depending on availability - Dimensions in mm

Articulated foot Ø103



PR105

Maximum load 25.000N

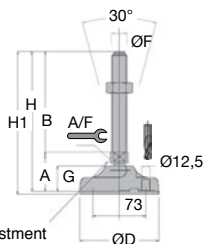
- **Articulated foot**
- Non slip base
- **Materials:**
 - Base: Black glass reinforced polyamide (Shore hardness 70)
 - Rod: Zinc plated steel or stainless 304 (nut not supplied)

Advantages

- Articulated rod allows auto-alignment with the ground
- Sole material ensures flexibility and grip

Info.

- Values given for static loads will be reduced in case of a vibrating load



With non-slip base

DISCOUNTS

Qty	1+	50+	100+
Disc.	List -5%	On request	

Part number	ØD	Thread	ØF	B	A	A/F	G	H	H1	Static load (N)	Price each	
											Stock*	1 to 49
Steel rod												
PR105-16-75	103	M16	75	51	20	32	126	129	25000	✓	16,40 €	
PR105-16-150	103	M16	150	51	20	32	201	204	25000	✓	19,72 €	
PR105-16-225	103	M16	225	51	20	32	276	279	25000	✓	24,29 €	
PR105-20-125	103	M20	125	51	20	32	176	179	25000	✓	16,62 €	
PR105-20-200	103	M20	200	51	20	32	251	254	25000	✓	19,70 €	
PR105-20-250	103	M20	250	51	20	32	301	304	25000	✓	24,29 €	
PR105-24-125	103	M24	125	51	20	32	176	179	25000	✓	16,62 €	
PR105-24-200	103	M24	200	51	20	32	251	254	25000	-	19,70 €	
PR105-24-250	103	M24	250	51	20	32	301	304	25000	✓	24,29 €	
Stainless steel rod												
PR105-16-75/SS	103	M16	75	51	20	32	126	129	25000	✓	29,12 €	
PR105-16-150/SS	103	M16	150	51	20	32	201	204	25000	✓	38,53 €	
PR105-16-225/SS	103	M16	225	51	20	32	276	279	25000	✓	49,57 €	
PR105-20-125/SS	103	M20	125	51	20	32	176	179	25000	✓	33,68 €	
PR105-20-200/SS	103	M20	200	51	20	32	251	254	25000	✓	46,23 €	
PR105-20-250/SS	103	M20	250	51	20	32	301	304	25000	✓	53,69 €	
PR105-24-125/SS	103	M24	125	51	20	32	175	178	25000	-	33,68 €	
PR105-24-200/SS	103	M24	200	51	20	32	250	253	25000	-	46,23 €	
PR105-24-250/SS	103	M24	250	51	20	32	300	303	25000	-	53,69 €	

*Depending on availability - Dimensions in mm

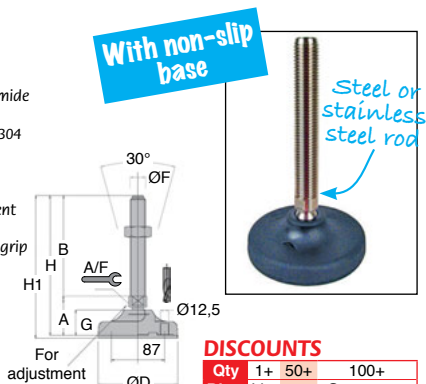
- **Articulated foot**
- Non slip base
- **Materials:**
 - Base: Black glass reinforced polyamide (Shore hardness 70)
 - Rod: Zinc plated steel or stainless 304 (nut not supplied)

Advantages

- Articulated rod allows auto-alignment with the ground
- Sole material ensures flexibility and grip

Info.

- Values given for static loads will be reduced in case of a vibrating load



DISCOUNTS

Qty	1+	50+	100+
Disc.	List	-5%	On request

Part number	ØD	Thread	B	A	A/F	G	H	H1	Static load (N)	Price each
Steel rod										
PR125-16-75	123	M16	75	57	20	37	132	133	35000	✓ 19,07 €
PR125-16-150	123	M16	150	57	20	37	207	208	35000	✓ 22,43 €
PR125-16-225	123	M16	225	57	20	37	282	285	35000	✓ 26,23 €
PR125-20-125	123	M20	125	57	20	37	182	185	35000	✓ 18,97 €
PR125-20-200	123	M20	200	57	20	37	257	260	35000	✓ 22,14 €
PR125-20-250	123	M20	250	57	20	37	307	310	35000	✓ 26,02 €
PR125-24-125	123	M24	125	57	20	37	182	185	35000	✓ 18,97 €
PR125-24-200	123	M24	200	57	20	37	257	260	35000	✓ 22,14 €
PR125-24-250	123	M24	250	57	20	37	307	310	35000	✓ 26,02 €
PR125-30-125	123	M30	125	58	26	37	183	186	35000	✓ 20,37 €
PR125-30-200	123	M30	200	58	26	37	258	261	35000	✓ 24,37 €
PR125-30-250	123	M30	250	58	26	37	308	311	35000	- 27,11 €
Stainless steel rod										
PR125-16-75/SS	123	M16	75	57	20	37	132	135	35000	- 32,88 €
PR125-16-150/SS	123	M16	150	57	20	37	207	210	35000	✓ 42,22 €
PR125-16-225/SS	123	M16	225	57	20	37	282	285	35000	- 53,30 €
PR125-20-125/SS	123	M20	125	57	20	37	182	185	35000	✓ 39,11 €
PR125-20-200/SS	123	M20	200	57	20	37	257	260	35000	✓ 49,97 €
PR125-20-250/SS	123	M20	250	57	20	37	307	310	35000	- 57,44 €
PR125-24-125/SS	123	M24	125	57	20	37	182	185	35000	- 39,11 €
PR125-24-200/SS	123	M24	200	57	20	37	257	260	35000	- 44,58 €
PR125-24-250/SS	123	M24	250	57	20	37	307	310	35000	- 57,44 €
PR125-30-125/SS	123	M30	125	58	26	37	183	186	35000	- 44,38 €
PR125-30-200/SS	123	M30	200	58	26	37	258	261	35000	- 56,66 €
PR125-30-250/SS	123	M30	250	58	26	37	308	311	35000	- 64,55 €

*Depending on availability - Dimensions in mm

Articulated foot with solid base Ø50 **Sta** **Ste**

PTA50 Accepts loads up to 4.000N
PTA50ss

- **Articulated foot**
- Up to +/- 10° from vertical
- **Materials:**

Steel version:

Base: Galvanised sheet steel C40
 Shaft: Galvanised steel (nut not supplied)
 Sole: Vulcanised NBR rubber, hardness 80° Shore

Stainless steel version:

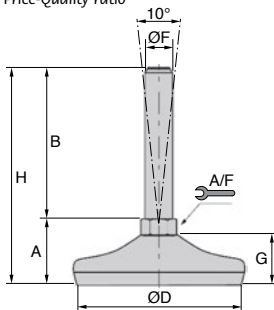
Base: Sheet stainless steel 304
 Shaft: Stainless steel 304 (nut not supplied)
 Sole: Vulcanised NBR rubber, hardness 80° Shore

Stainless steel version, sanded finish



Advantages

- Excellent Price-Quality ratio



DISCOUNTS

Qty	1+	15+	20+	25+	40+
Disc.	List	-5%	-10%	-15%	On request

Part number	ØD	Thread ØF	B	A	A/F	G	H	Load static (N)	Stock*	Price each 1 to 14
Steel foot										
PTA50-10-100	50	M10	100	29	14	19	129	4000	✓	14,72 €
PTA50-12-100	50	M12	100	29	14	19	129	4000	✓	14,72 €
PTA50-12-150	50	M12	150	29	14	19	179	4000	✓	15,87 €
PTA50-16-75	50	M16	75	29	16	19	104	4000	✓	15,09 €
PTA50-16-100	50	M16	100	29	16	19	129	4000	-	16,13 €
PTA50-16-150	50	M16	150	29	16	19	179	4000	-	18,28 €
Stainless steel foot										
PTA50-10-75/SS	50	M10	75	29	14	19	104	4000	✓	15,95 €
PTA50-10-125/SS	50	M10	125	29	14	19	154	4000	✓	18,14 €
PTA50-12-75/SS	50	M12	75	29	14	19	104	4000	✓	15,95 €
PTA50-12-125/SS	50	M12	125	29	14	19	154	4000	✓	18,14 €
PTA50-16-75/SS	50	M16	75	34	13	19	109	4000	✓	18,62 €
PTA50-16-100/SS	50	M16	100	34	13	19	134	4000	-	19,34 €
PTA50-16-150/SS	50	M16	150	34	13	19	184	4000	-	21,27 €

*Depending on availability - Dimensions in mm

SteSta Articulated levelling foot, pressed base Ø80

Accepts loads up to 10.000N

PTA80
PTA80ss

- Articulated foot
- Up to +/- 10° from vertical
- Materials:

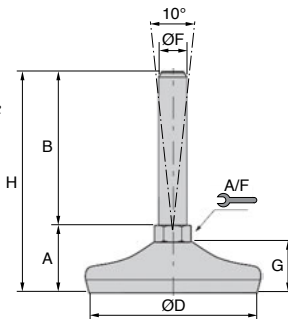
Steel version:

Base: Galvanised sheet steel C40
Shaft: Galvanised steel (nut not supplied)
Sole: Vulcanised NBR rubber, hardness 80° Shore

Stainless steel version:

Base: Stainless steel sheet
304
Shaft: Stainless steel 304
(nut not supplied)
Sole: Vulcanised NBR
rubber, hardness 80° Shore

Stainless
steel version,
sanded finish



Advantages

- Excellent Price-Quality ratio

DISCOUNTS

Qty	1+	15+	20+	25+	40+
Disc. List	-5%	-10%	-15%	On request	

Part number	ØD	Thread ØF	B	A	A/F	G	H	Load static (N)	Stock*	Price each 1 to 14
Steel foot										
PTA80-12-100	80	M12	100	35	14	25	135	10000	✓	20,92 €
PTA80-12-150	80	M12	150	35	14	25	185	10000	-	23,24 €
PTA80-16-100	80	M16	100	35	16	25	135	10000	✓	23,08 €
PTA80-16-150	80	M16	150	35	16	25	185	10000	-	25,53 €
PTA80-20-100	80	M20	100	36	20	25	136	10000	-	24,24 €
PTA80-20-150	80	M20	150	36	20	25	186	10000	-	27,21 €
PTA80-20-200	80	M20	200	36	20	25	236	10000	✓	29,72 €
Stainless steel foot										
PTA80-12-100/SS	80	M12	100	35	14	25	135	10000	✓	31,90 €
PTA80-12-150/SS	80	M12	150	35	14	25	185	10000	-	34,27 €
PTA80-16-100/SS	80	M16	100	35	13	25	135	10000	-	34,27 €
PTA80-16-150/SS	80	M16	150	35	13	25	185	10000	✓	36,64 €
PTA80-20-100/SS	80	M20	100	38	17	25	138	10000	-	38,44 €
PTA80-20-150/SS	80	M20	150	38	17	25	188	10000	✓	41,36 €
PTA80-20-200/SS	80	M20	200	38	17	25	238	10000	✓	45,83 €

*Depending on availability - Dimensions in mm

PTAF80 PAMF80

Accepts loads up to 10.000N

- **Articulated foot**
- Up to +/- 10° from vertical
- With non-slip sole
- Materials:

Steel version:

Base : Galvanised sheet steel C40
Shaft: Galvanised steel (nut not supplied)
Sole: Vulcanised NBR rubber, hardness 80° Shore

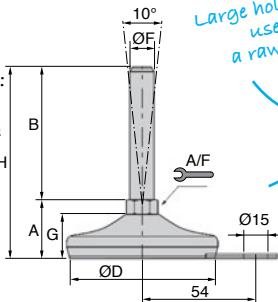
Stainless steel version:

Base: Stainless steel sheet 304
Shaft: Stainless steel 304 (nut not supplied)
Sole: Vulcanised NBR rubber, hardness 80° Shore

Stainless steel version, sanded finish

Large hole allows use of a rawi plug

Large spacing allows use of a hammer drill



Advantages

- Easy to secure due to large distance between shaft and mounting hole
- Excellent Price-Quality ratio

DISCOUNTS

Qty	1+	6+	10+	15+	20+
Disc.	List	-5%	-10%	-15%	On request

Références		Filetage		Charge					Price each		
brillant	sanded finish	ØD	ØF	B	A	A/F	G	H	statique(N)	brillant	1 to 5
Pied acier											
PTAF80-12-100	-	80	M12	100	35	14	25	135	10000	✓	25,03 €
PTAF80-12-150	-	80	M12	150	35	14	25	185	10000	✓	27,12 €
PTAF80-16-100	-	80	M16	100	35	16	25	135	10000	✓	26,84 €
PTAF80-16-150	-	80	M16	150	35	16	25	185	10000	✓	29,47 €
PTAF80-20-100	-	80	M20	100	36	20	25	136	10000	✓	28,25 €
PTAF80-20-150	-	80	M20	150	36	20	25	186	10000	-	30,93 €
PTAF80-20-200	-	80	M20	200	36	20	25	236	10000	-	33,66 €
Pied inox											
PAMF80-12-100	PAMF80-12-100/SB	80	M12	100	35	14	25	135	10000	✓	39,08 €
PAMF80-12-150	PAMF80-12-150/SB	80	M12	150	35	14	25	185	10000	-	41,42 €
PAMF80-16-75	PAMF80-16-75/SB	80	M16	75	35	13	25	110	10000	✓	39,65 €
PAMF80-16-125	PAMF80-16-125/SB	80	M16	125	35	13	25	160	10000	✓	42,63 €
PAMF80-16-175	PAMF80-16-175/SB	80	M16	175	35	13	25	210	10000	✓	45,58 €
PAMF80-20-100	PAMF80-20-100/SB	80	M20	100	38	17	25	138	10000	-	45,58 €
PAMF80-20-150	PAMF80-20-150/SB	80	M20	150	38	17	25	188	10000	✓	48,56 €
PAMF80-20-200	PAMF80-20-200/SB	80	M20	200	38	17	25	238	10000	✓	52,98 €

*Depending on availability - Dimensions in mm

Accepts loads up to 15.000N

PTAF100
PAMF100

- **Articulated foot**
- Up to +/- 10° from vertical
- With non-slip sole
- Materials:

Steel version:

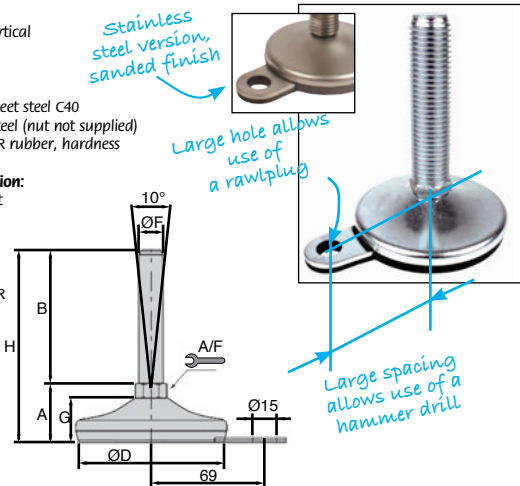
Base: Galvanised sheet steel C40
Shaft: Galvanised steel (nut not supplied)
Sole: Vulcanised NBR rubber, hardness 80° Shore

Stainless steel version:

Base: Stainless sheet steel 304
Rod: Stainless steel plate 304 (nut not supplied)
Sole: Vulcanised NBR rubber, hardness 80° Shore

Advantages

- Easy to install due to large distance between shaft and mounting hole
- Excellent Quality/Price ratio



DISCOUNTS

Qty	1+	6+	10+	15+	20+
Disc. List	-5%	-10%	-15%	On request	

Part number	ØD	Thread ØF	B	A	A/F	G	H	Load static (N)	Stock*	Price each 1 to 5
Steel foot										
PTAF100-16-100	100	M16	100	38	16	28	137,5	15000	✓	31,43 €
PTAF100-16-150	100	M16	150	38	16	28	187,5	15000	✓	33,90 €
PTAF100-16-200	100	M16	200	38	16	28	237,5	15000	-	34,87 €
PTAF100-20-100	100	M20	100	39	20	28	138,5	15000	-	32,67 €
PTAF100-20-150	100	M20	150	39	20	28	188,5	15000	✓	35,63 €
PTAF100-20-200	100	M20	200	39	20	28	238,5	15000	-	38,58 €
PTAF100-24-100	100	M24	100	39	24	28	138,5	15000	-	37,57 €
PTAF100-24-150	100	M24	150	39	24	28	188,5	15000	-	40,74 €
Stainless steel foot										
PAMF100-16-100	100	M16	100	39,5	13	30	139,5	15000	✓	56,85 €
PAMF100-16-150	100	M16	150	39,5	13	30	189,5	15000	✓	58,64 €
PAMF100-16-200	100	M16	200	39,5	13	30	239,5	15000	-	62,77 €
PAMF100-20-100	100	M20	100	43,0	17	30	143,0	15000	✓	60,38 €
PAMF100-20-150	100	M20	150	43,0	17	30	193,0	15000	-	64,00 €
PAMF100-20-200	100	M20	200	43,0	17	30	243,0	15000	-	68,11 €

*Depending on availability - Dimensions in mm

Articulated levelling foot, pressed base Ø100 **Ste** **Sta**

PTA100 PTA100ss

Accepts loads up to 15.000N

- Articulated foot
- Up to +/- 10° from vertical
- Materials:

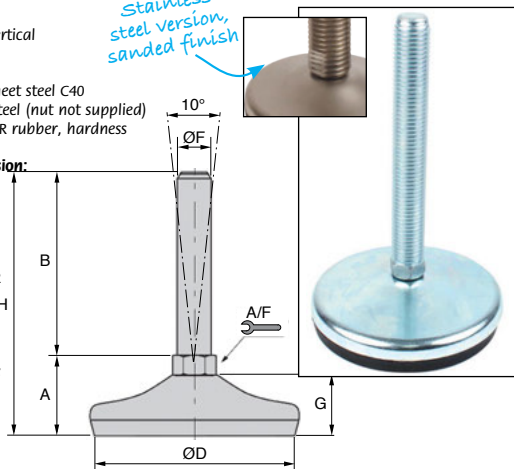
Steel version:

Base: Galvanised sheet steel C40
Shaft: Galvanised steel (nut not supplied)
Sole: Vulcanised NBR rubber, hardness 80° Shore

Stainless steel version:

Base: Stainless steel sheet 304
Shaft: Stainless steel plate 304 (nut not supplied)
Sole: Vulcanised NBR rubber, hardness 80° Shore

Stainless steel version, sanded finish



Advantages

- Excellent Quality/Price ratio

DISCOUNTS

Qty	1+	15+	20+	25+	40+
Disc.	List	-5%	-10%	-15%	On request

Part number	ØD	Thread ØF	B	A	A/F	G	H	Load static (N)	Stock*	Price each 1 to 14
Steel foot										
PTA100-16-100	100	M16	100	38,0	16	28	137,5	15000	✓	25,53 €
PTA100-16-150	100	M16	150	38,0	16	28	187,5	15000	✓	28,05 €
PTA100-16-200	100	M16	200	38,0	16	28	237,5	15000	✓	28,98 €
PTA100-20-100	100	M20	100	39,0	20	28	138,5	15000	✓	26,76 €
PTA100-20-150	100	M20	150	39,0	20	28	188,5	15000	✓	29,72 €
PTA100-20-200	100	M20	200	39,0	20	28	238,5	15000	-	32,67 €
PTA100-24-100	100	M24	100	39,0	24	28	138,5	15000	-	31,63 €
PTA100-24-150	100	M24	150	39,0	24	28	188,5	15000	-	34,69 €
Stainless steel foot										
PTA100-16-100/SS	100	M16	100	39,5	13	30	139,5	15000	✓	49,66 €
PTA100-16-150/SS	100	M16	150	39,5	13	30	189,5	15000	✓	51,42 €
PTA100-16-200/SS	100	M16	200	39,5	13	30	239,5	15000	-	55,56 €
PTA100-20-100/SS	100	M20	100	43,0	17	30	143,0	15000	-	53,21 €
PTA100-20-150/SS	100	M20	150	43,0	17	30	193,0	15000	✓	56,75 €
PTA100-20-200/SS	100	M20	200	43,0	17	30	243,0	15000	-	60,88 €
PTA100-24-100/SS	100	M24	100	44,0	20	30	144,0	15000	-	57,33 €
PTA100-24-150/SS	100	M24	150	44,0	20	30	194,0	15000	-	59,12 €

*Depending on availability - Dimensions in mm

Levelling support**Materials:**

Base and rod: zinc plated or stainless steel 1.4301 (304)

Base: NBR rubber (Shore hardness 80)

- Ø80 and Ø100mm bases available

- Supplied with 2 nuts, 1 flat washer and 1 brake washer

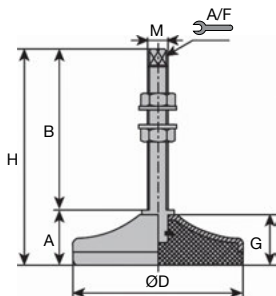
Uses

- Laboratory furniture

- Medical and food industries

Note

- Values for static load given at 50% of rod length. With dynamic or vibrating loads, value will be lower.



stainless steel
version

**DISCOUNTS**

Qty	1+	6+	10+	15+
Disc.	List	-5%	-10%	On request

Part number	ØD	M	B	A	A/F	G	H	Static load (N)	Stock*	Price each 1 to 5
Steel										
PFM80-12-75	80	M12	75	28	8	25	103	4500	✓	30,74 €
PFM80-14-100	80	M14	100	28	9	25	128	4500	-	33,97 €
PFM100-12-75	100	M12	75	31	8	28	106	9000	-	32,99 €
PFM100-14-125	100	M14	125	31	9	28	156	9000	-	34,51 €
PFM100-16-125	100	M16	125	31	10	28	156	9000	✓	35,99 €
PFM120-20-125	120	M20	125	35	13	32	160	11000	-	54,67 €
Stainless steel										
PFM80-12-75/SS	80	M12	75	28	8	25	103	4500	✓	52,98 €
PFM80-14-100/SS	80	M14	100	28	9	25	128	4500	✓	56,48 €
PFM100-12-75/SS	100	M12	75	31	8	28	106	9000	-	60,02 €
PFM100-14-125/SS	100	M14	125	31	9	28	156	9000	-	62,94 €
PFM100-16-125/SS	100	M16	125	31	10	28	156	9000	✓	67,48 €
PFM120-20-125/SS	120	M20	125	35	13	32	160	11000	-	76,71 €

*Depending on availability - Dimensions in mm

Pressed stainless steel articulating foot **Sta**

PAT85ss

Maximum load 12.000N

- **Articulated foot**
- **Swivel: +/- 4° from vertical**
- **Materials:**
 - Base and rod: stainless steel 1.4301 (304)
 - Sole: vulcanised rubber (Shore hardness 80)

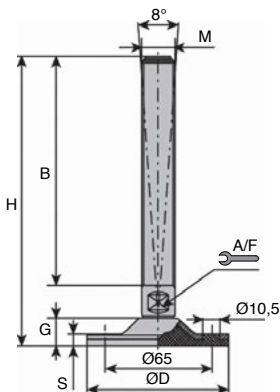
Uses

- Laboratory furniture
- Medical and food industries

Note

- Values for static load given at 50% of rod length. With dynamic or vibrating loads, value will be lower.

stainless steel



DISCOUNTS

Qty	1+	6+	10+	15+
Disc.	List	-5%	-10%	On request

Part number	S	B	ØD	A/F	M	G	H (N)	Static load (N)	Stock*	Price each 1 to 5
PAT85-16-100/SS	7	100	85	13	M16	16	130	12000	✓	47,96 €
PAT85-16-150/SS	7	150	85	13	M16	16	180	12000	-	50,45 €
PAT85-16-175/SS	7	175	85	13	M16	16	205	12000	✓	52,89 €
PAT85-20-100/SS	7	100	85	17	M20	16	130	12000	-	50,45 €
PAT85-20-150/SS	7	150	85	17	M20	16	180	12000	-	52,77 €
PAT85-20-200/SS	7	200	85	17	M20	16	230	12000	-	54,38 €

*Depending on availability - Dimensions in mm

- **Articulated foot**
- **Swivel: +/- 5° from vertical**
- **Materials:**
 Base and rod: stainless steel 1.4301 (304)
 Sole: vulcanised rubber (Shore hardness 90)
- Ø30 and Ø38mm bases available

Uses

- Laboratory furniture
- Medical and food industries

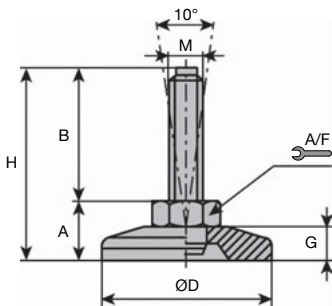
Note

- Values for static load given at 50% of rod length. With dynamic or vibrating loads, value will be lower

Small sizes



solid stainless steel



DISCOUNTS

Qty	1+	50+	100+
Disc.	List	-5%	On request

Part number	A	B	ØD	A/F	M	G	H	Static load (N)	Stock*	Price each 1 to 49
PAM30-8-25/SS	14	25	30	14	M8	8	39	8000	✓	16,48 €
PAM30-8-50/SS	14	50	30	14	M8	8	64	8000	✓	17,24 €
PAM30-10-25/SS	14	25	30	14	M10	8	39	8000	✓	16,48 €
PAM30-10-50/SS	14	50	30	14	M10	8	64	8000	✓	17,24 €
PAM30-10-75/SS	14	75	30	14	M10	8	89	8000	✓	20,42 €
PAM38-8-25/SS	14	25	38	14	M8	8	39	9000	✓	18,52 €
PAM38-8-50/SS	14	50	38	14	M8	8	64	9000	✓	20,33 €
PAM38-10-25/SS	14	25	38	14	M10	8	39	9000	-	18,52 €
PAM38-10-50/SS	14	50	38	14	M10	8	64	9000	✓	20,33 €
PAM38-10-75/SS	14	75	38	14	M10	8	89	9000	✓	21,71 €
PAM38-12-50/SS	14	50	38	14	M12	8	64	9000	✓	20,33 €
PAM38-12-100/SS	14	100	38	14	M12	8	114	9000	✓	23,23 €

*Depending on availability - Dimensions in mm

Stainless steel articulated foot Ø50 **Sta Stock**

PRS50

Maximum load 15.000N

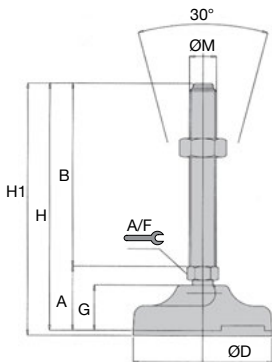
- Solid levelling support
- With non-slip base
- Materials:
 - Base: stainless steel AISI 304
 - Threaded rod: stainless steel AISI 304 (nut not supplied)
 - Sole: NBR rubber (Shore hardness 70)

stainless steel



Advantages

- Articulated rod allows auto-alignment with the ground
- Sole material ensures flexibility and grip



DISCOUNTS

Qty	1+	6+	10+	15+
Disc.	List	-5%	-10%	On request

Part number	ØM	A	B	ØD	A/F	G	H	H1	Max. load (N)	Stock*	Price each 1 to 5
PRS50-10-50	M10	28	50	50	14	16	78	81	15000	✓	37,51 €
PRS50-10-75	M10	28	75	50	14	16	103	106	15000	✓	39,98 €
PRS50-10-100	M10	28	100	50	14	16	128	131	15000	✓	42,31 €
PRS50-10-125	M10	28	125	50	14	16	153	156	15000	✓	44,61 €
PRS50-12-50	M12	28	50	50	14	16	78	81	15000	✓	37,51 €
PRS50-12-75	M12	28	75	50	14	16	103	106	15000	✓	39,98 €
PRS50-12-100	M12	28	100	50	14	16	128	131	15000	✓	42,31 €
PRS50-12-125	M12	28	125	50	14	16	153	156	15000	✓	44,61 €
PRS50-14-50	M14	28	50	50	14	16	78	81	15000	✓	37,51 €
PRS50-14-75	M14	28	75	50	14	16	103	106	15000	✓	39,98 €
PRS50-14-100	M14	28	100	50	14	16	128	131	15000	✓	42,31 €
PRS50-14-125	M14	28	125	50	14	16	153	156	15000	✓	44,61 €

*Depending on availability - Dimensions in mm

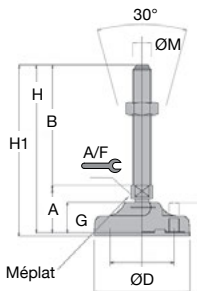
- Levelling foot with solid base
- Non slip base
- Materials:
 - Base: stainless steel AISI 304
 - Threaded rod: stainless steel AISI 304 (nut not supplied)
 - Sole: NBR rubber (Shore hardness 70)

Advantages

- Articulated rod allows auto-alignment with the ground
- Sole material ensures flexibility and grip



stainless steel



DISCOUNTS

Qty	1+	6+	10+	15+
Disc.	List	-5%	-10%	On request

Part number	ØM	A	B	ØD	A/F	G	H	H1	Max. load (N)	Stock*	Price each
											1 to 5
PRS80-16-50	M16	36	50	80	13	19,5	86	89	30000	✓	79,02 €
PRS80-16-75	M16	36	75	80	13	19,5	111	114	30000	-	79,87 €
PRS80-16-100	M16	36	100	80	13	19,5	136	139	30000	✓	80,82 €
PRS80-16-125	M16	36	125	80	13	19,5	159	164	30000	-	81,65 €
PRS80-16-150	M16	36	150	80	13	19,5	186	189	30000	-	82,61 €
PRS80-16-175	M16	36	175	80	13	19,5	211	214	30000	✓	83,46 €
PRS80-16-200	M16	36	200	80	13	19,5	236	239	30000	✓	84,42 €
PRS80-20-75	M20	36	75	80	13	19,5	111	114	30000	-	81,27 €
PRS80-20-100	M20	36	100	80	13	19,5	136	139	30000	-	82,16 €
PRS80-20-125	M20	36	125	80	13	19,5	161	164	30000	-	83,04 €
PRS80-20-150	M20	36	150	80	13	19,5	186	189	30000	-	83,95 €
PRS80-20-175	M20	36	175	80	13	19,5	211	214	30000	✓	84,83 €
PRS80-20-200	M20	36	200	80	13	19,5	236	239	30000	-	85,76 €
PRS80-20-225	M20	36	225	80	13	19,5	261	264	30000	-	86,65 €

*Depending on availability - Dimensions in mm

Stainless steel articulated foot Ø100

PRS100

Maximum load 55.000N

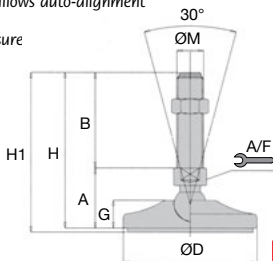
- Levelling foot with solid base
- Non slip base
- Materials:
 - Base: stainless steel AISI 304
 - Threaded rod: stainless steel AISI 304 (nut not supplied)
 - Sole: NBR rubber (Shore hardness 70)

stainless steel



Advantages

- Articulated rod allows auto-alignment with the ground
- Sole material ensure



DISCOUNTS

Qty	1+	6+	10+	15+
Disc.	List	-5%	-10%	On request

Part number	ØM	A	B	ØD	A/F	G	H	H1	Max. load (N)	Price each
										1 to 5
PRS100-16-75	M16	43	75	100	20	20	118	121	35000	103,90 €
PRS100-16-100	M16	43	100	100	20	20	143	146	35000	107,69 €
PRS100-16-125	M16	43	125	100	20	20	168	171	35000	110,61 €
PRS100-16-150	M16	43	150	100	20	20	193	196	35000	113,89 €
PRS100-16-175	M16	43	175	100	20	20	218	221	35000	116,02 €
PRS100-16-200	M16	43	200	100	20	20	243	246	35000	122,25 €
PRS100-20-75	M20	43	75	100	20	20	118	121	45000	103,90 €
PRS100-20-100	M20	43	100	100	20	20	143	146	45000	100,55 €
PRS100-20-125	M20	43	125	100	20	20	168	171	45000	110,61 €
PRS100-20-150	M20	43	150	100	20	20	193	196	45000	113,89 €
PRS100-20-175	M20	43	175	100	20	20	218	221	45000	116,02 €
PRS100-20-200	M20	43	200	100	20	20	243	246	45000	122,25 €
PRS100-20-225	M20	43	225	100	20	20	268	271	45000	125,83 €
PRS100-20-250	M20	43	250	100	20	20	293	296	45000	130,27 €
PRS100-24-75	M24	44	75	100	20	20	119	122	55000	103,90 €
PRS100-24-100	M24	44	100	100	20	20	144	147	55000	107,69 €
PRS100-24-125	M24	44	125	100	20	20	169	172	55000	110,61 €
PRS100-24-150	M24	44	150	100	20	20	199	202	55000	113,89 €
PRS100-24-175	M24	44	175	100	20	20	219	222	55000	116,02 €
PRS100-24-200	M24	44	200	100	20	20	244	247	55000	122,25 €
PRS100-24-225	M24	44	225	100	20	20	269	272	55000	125,83 €
PRS100-24-250	M24	44	250	100	20	20	294	297	55000	130,27 €

Dimensions in mm



Fixed anti-vibration foot mount

For loads up to 35,000 N

PAV

- Adjustable anti-vibration floor mount

- Fine thread for an accurate level

- Materials:

Body: Chromed sheet steel

Thread: Chromed steel

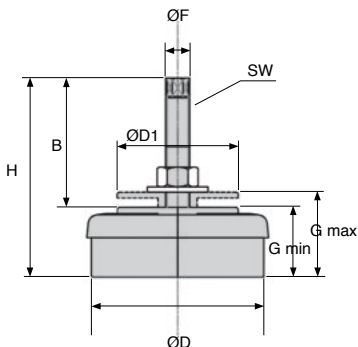
Base: Rubber NBR 80 shore

Applications

- Machine tools, presses,
injection machines, compressors.

Info

- Supplied with 1 nut and 1 washer



DISCOUNTS

Qty	1+	6+	10+	15+
Disc.	List	-5%	-10%	On request

Part number	ØD	ØF	B	ØD1	SW	G	H	Max load		Price each 1 to 5
								Dynamic (N)	Static (N)	
PAV80-M12C	80	M12x1,25	87	60	8	40-50	136	2500	5000	35,71 €
PAV120-M16C	120	M16x1,5	93	80	9	45-58	150	4000	10000	60,19 €
PAV160-M20C	160	M20x1,5	125	100	12	53-65	190	9000	20000	99,48 €
PAV200-M20C	200	M20x1,5	125	130	12	69-82	207	15000	35000	136,72 €

Dimensions in mm

Solid foot mount for heavy loads

PML

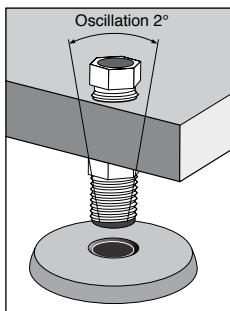
Max load 90,000 N

- Levelling foot mount for very heavy loads
- Solid foot
- Hollow stem
- Fine thread pitch gives accurate levelling
- Oscillation $\pm 2^\circ$
- Materials:
 - Base: steel with yellow coated finish
 - Stem: Chromed steel

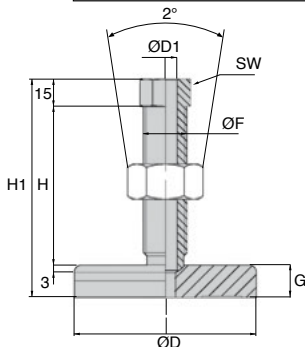


Applications

- Machine tools, assembly machines, automated lines



Typical application



DISCOUNTS

Qty	1+	6+	10+	15+
Disc.	List	-5%	-10%	On request

Part number	ØD	ØD1	SW	ØF	G	H	H1	Static load (N)	Price each 1 to 5
PML100-24C-87	100	13	24	M24x2	18	87	120	60000	24,79 €
PML100-24C-141	100	13	24	M24x2	18	141	174	60000	27,38 €
PML120-35C-100	120	22	41	M35x2	25	100	140	90000	68,74 €
PML120-35C-177	120	22	41	M35x2	25	177	217	90000	72,46 €
PML120-36C-100	120	22	41	M36x2	25	100	140	90000	68,74 €
PML150-35C-100	150	22	41	M35x2	25	100	140	90000	76,37 €
PML150-35C-177	150	22	41	M35x2	25	177	217	90000	80,60 €
PML150-36C-100	150	22	41	M36x2	25	100	140	90000	76,37 €

Dimensions in mm



Support rod for heavy loads

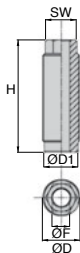
Max load 90,000 N

TCL

- Threaded levelling stem, suitable for heavy loads
- Hollowed stem
- Fine pitch thread allows accurate levelling
- Material:
Chromed steel

Applications

- Machine tools, assembly machines, automated lines



DISCOUNTS

Qty	1+	6+	10+	15+
Disc.	List	-5%	-10%	On request

Part number	ØD	ØD1	SW	ØF	H	Static	Price each
						load (N)	1 to 5
TCL-M30C-110	M30x2	27	24	17	110	70000	18,92 €
TCL-M36C-110	M36x2	33	27	17	110	90000	20,71 €

Dimensions in mm

Adjusting nut

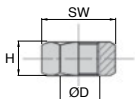
Fine thread

ECL

- Adjusting nut
- Fine thread
- Fine pitch thread allows accurate levelling
- Material:
Chromed steel

Applications

- Machine tools, assembly machines, automated lines



DISCOUNTS

Qty	1+	6+	10+	15+
Disc.	List	-5%	-10%	On request

Part number	ØD	SW	H	Price each
				1 to 5
ECL-M24C	M24x2	36	18	2,16 €
ECL-M27C	M27x2	41	12	4,07 €
ECL-M30C	M30x2	36	11	5,58 €
ECL-M35C	M35x2	55	15	8,92 €
ECL-M36C	M36x2	55	15	8,92 €
ECL-M36C3	M36x3	55	15	8,92 €
ECL-M42C	M42x2	65	20	16,16 €

Dimensions in mm

Flexible machine mount



PMC

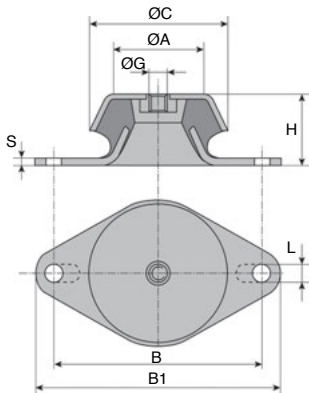
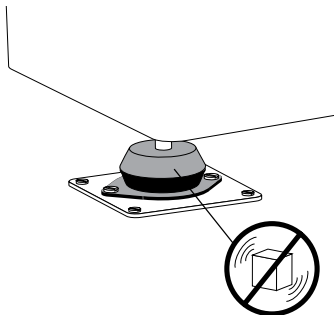
Oval base plate

- With 2 fixing holes
- Maximum loads are given for a permanent, static vertical load
- Materials:
Centre: Natural rubber (60 Shore A)
Support: steel



Uses

- Anti vibration mounting for machines and all types of motors
- Active effective protection for personnel and surroundings from harmful effects of vibrations
- Passive protection of sensitive machines, measuring instruments, equipment and many different types of machines against shocks and vibration.



Anti-vibration

DISCOUNTS

Qty	1+	6+	10+	20+	30+	50+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	ØC	H	ØA	ØG	S	L	B	B1	Max. load (N)	Stock*	Price each 1 to 5
PMC48-M8	48	23	38,0	M8	1,5	6,2	68	81	1900	✓	11,62 €
PMC62-M10	62	30	50,0	M10	3,0	8,2	85	106	3900	✓	16,48 €
PMC92-M12	92	45	73,5	M12	3,0	10,2	110	128	5800	✓	22,42 €
PMC120-M16	120	50	90,0	M16	5,0	16,2	160	190	11500	-	48,52 €
PMC160-M16	160	60	120,0	M16	3,0	16,2	200	235	23000	-	77,29 €

*Depending on availability - Dimensions in mm



Flexible machine mount

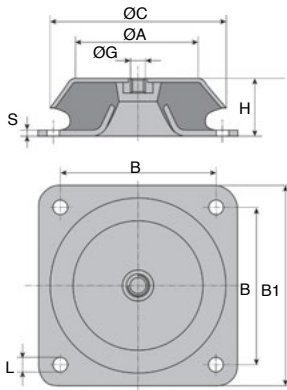
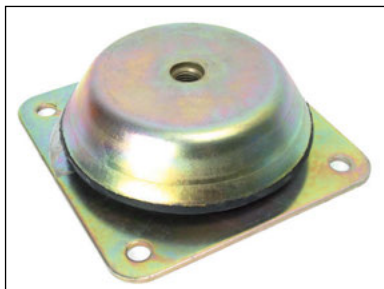
Square base plate

PMC

- **With 4 fixing holes**
- Maximum loads are given for a permanent, static vertical load
- Materials:
Centre: Natural rubber (60 Shore A)
Support: steel

Uses

- Anti vibration mounting for machines and all types of motors
- Active effective protection for personnel and surroundings from harmful effects of vibrations
- Passive protection of sensitive machines, measuring instruments, equipment and many different types of machines against shocks and vibration.



DISCOUNTS

Qty	1+	6+	10+	20+	30+	50+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	$\varnothing C$	H	$\varnothing A$	$\varnothing G$	S	L	B	B1	Max. load (N)	Stock*	Price each 1 to 5
PMC150-M16	150	51,5	110	M16	4,0	12,5	132	168	7800	✓	45,82 €
PMC177-M20	177	63,0	125	M20	4,5	13,0	150	184	16500	-	66,87 €

*Depending on availability - Dimensions in mm

**GALVANISED STEEL
CABLE**



p.296

**STANDARD WIRE
THIMBLE**



p.298

**U-SHAPED CABLE
CLAMP**



*stainless
steel*

p.302

CABLE TERMINALS



*✓ INCREASED
STOCK*

p.304

CARABINER STEEL



*✓ INCREASED
STOCK*

p.310

RIGGING SCREW



p.312

RIGGING SCREW
stainless steel



NEW

p.316

WIRE ROPE FITTING
p.296 - 345

IDENTIFICATION TAG



NEW

p.318

THREADED EYE HOOK



INCREASED STOCK

p.319

QUICK LINK



INCREASED STOCK

p.322

LIFTING RINGS



INCREASED STOCK

p.336

- Steel cable sold by the reel
- Braiding: 1+6 strands of 7 wires up to Ø5mm
- Braiding: 1+6 stands of 19 wires for Ø6mm+

Accessories

- See lifting section of Volume 1- 2009



1+6

Strands of 7 wires



1+6

Stands of 19 wires



DISCOUNTS

Qty	1+	6+	20+	50+
Disc.	List	-10%	-20%	On request

Part number	Ø cable	Construction	Breaking strength (kg)	Length (m)	Weight per reel (kg)	Stock*	Price each 1 to 5
CAB1.5-100/B	1,5	7x7	145	100	0,98	✓	39,36 €
CAB2-15/B	2,0	7x7	258	15	0,28	✓	9,43 €
CAB2-25/B	2,0	7x7	258	25	0,42	-	15,46 €
CAB2-50/B	2,0	7x7	258	50	0,85	✓	24,33 €
CAB2-100/B	2,0	7x7	258	100	1,66	-	40,60 €
CAB2.5-15/B	2,5	7x7	410	15	0,38	-	9,85 €
CAB2.5-50/B	2,5	7x7	410	50	1,35	✓	26,70 €
CAB2.5-100/B	2,5	7x7	410	100	2,52	-	45,49 €
CAB2.5-250/B	2,5	7x7	410	250	6,32	-	105,53 €
CAB3-15/B	3,0	7x7	581	15	0,57	✓	11,81 €
CAB3-25/B	3,0	7x7	581	25	0,93	✓	19,33 €
CAB3-50/B	3,0	7x7	581	50	1,86	-	32,21 €
CAB3-100/B	3,0	7x7	581	100	3,85	✓	55,55 €
CAB4-15/B	4,0	7x7	1030	15	0,99	✓	17,23 €
CAB4-25/B	4,0	7x7	1030	25	1,80	✓	24,63 €
CAB4-50/B	4,0	7x7	1030	50	3,32	-	46,62 €
CAB4-100/B	4,0	7x7	1030	100	6,53	-	85,34 €
CAB5-15/B	5,0	7x7	1620	15	1,53	✓	22,52 €
CAB5-25/B	5,0	7x7	1620	25	2,54	-	35,83 €
CAB5-50/B	5,0	7x7	1620	50	5,43	✓	68,04 €
CAB5-100/B	5,0	7x7	1620	100	10,40	-	127,46 €
CAB6-15/B	6,0	7x19	2140	15	2,26	✓	35,26 €
CAB6-25/B	6,0	7x19	2140	25	3,70	✓	52,79 €
CAB6-50/B	6,0	7x19	2140	50	7,48	-	97,01 €
CAB6-100/B	6,0	7x19	2140	100	14,16	-	179,87 €
CAB7-15/B	7,0	7x19	3450	15	2,98	-	47,52 €
CAB7-25/B	7,0	7x19	3450	25	5,00	-	75,94 €
CAB7-50/B	7,0	7x19	3450	50	10,00	-	141,16 €
CAB8-15/B	8,0	7x19	3810	15	3,88	✓	50,29 €
CAB8-25/B	8,0	7x19	3810	25	6,76	-	78,37 €
CAB8-50/B	8,0	7x19	3810	50	12,96	-	148,73 €
CAB9-50/B	9,0	7x19	4830	50	16,62	-	184,35 €
CAB10-25/B	10,0	7x19	5960	25	10,30	-	119,16 €

*Depending on availability - Dimensions in mm

- Stainless steel (316) cable sold by the reel
- Brarding: 1+6 strands of 7 wires up to $\Delta 6\text{mm}$



stainless steel



1+6
strands of 7 wires

DISCOUNTS

Qty	1+	6+	20+	50+
Disc.	List	-10%	-20%	On request

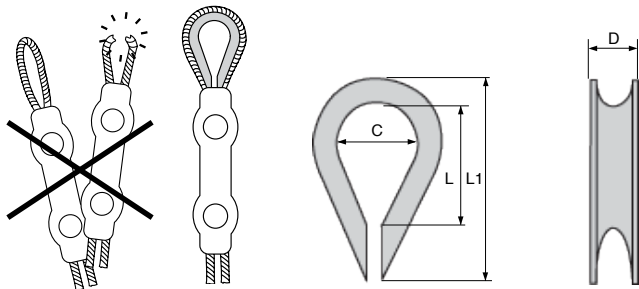
Part number	Ø cable	Construction	Breaking strength (kg)	Length (m)	Weight per reel (kg)	Stock*	Price each 1 to 5
CAB2-15/SS	2,0	7x7	230	15	0,26	✓	35,49 €
CAB2-25/SS	2,0	7x7	230	25	0,44	✓	52,42 €
CAB2-100/SS	2,0	7x7	230	100	1,68	-	175,90 €
CAB3-15/SS	3,0	7x7	517	15	0,58	✓	38,06 €
CAB3-25/SS	3,0	7x7	517	25	0,96	-	57,16 €
CAB3-100/SS	3,0	7x7	517	100	3,67	-	211,42 €
CAB4-15/SS	4,0	7x7	916	15	1,04	✓	60,53 €
CAB4-25/SS	4,0	7x7	916	25	1,72	-	99,28 €
CAB4-100/SS	4,0	7x7	916	100	6,54	-	368,73 €
CAB5-15/SS	5,0	7x7	1445	15	1,62	✓	79,66 €
CAB5-25/SS	5,0	7x7	1445	25	3,00	-	132,24 €
CAB5-100/SS	5,0	7x7	1445	100	10,00	-	500,65 €
CAB6-15/SS	6,0	7x7	2070	15	2,34	✓	119,93 €
CAB6-25/SS	6,0	7x7	2070	25	3,75	-	197,88 €
CAB6-100/SS	6,0	7x7	2070	100	14,45	-	757,76 €

*Depending on availability - Dimensions in mm

- Fitting elements
- Wire thimble for use with CAB steel cable
- Material:
Steel Fe360B, zinc plated

Info.

- Sold by the packet



DISCOUNTS

Qty	1+	30+	60+	90+	120+	150+
Disc.	List	-5%	-10%	-15%	-20%	On request

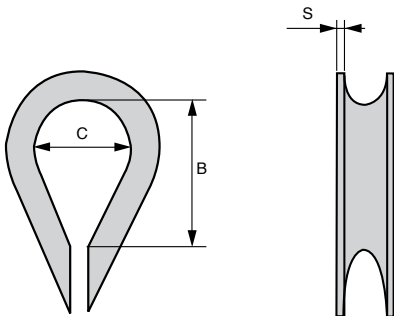
Part number	Cable Ø	C	L	D	L1	Weight (g)	Qty per packet	Stock*	Price each 1 to 29
CCL-3/B	3	10	15	5	24	2,30	20	✓	0,23 €
CCL-4/B	4	12	17,5	6	28	3,00	20	✓	0,27 €
CCL-5/B	5	14	23	7	35	5,00	20	✓	0,27 €
CCL-6/B	6	17	26	8,5	40	8,00	20	✓	0,31 €
CCL-8/B	8	19	32	11,5	49	15,00	20	✓	0,45 €
CCL-10/B	10	22	34	13,5	55	23,00	20	-	0,66 €

*Depending on availability - Dimensions in mm

- Fitting elements
- Wire thimble for use with CAB/SS stainless steel cable
- Materiel:
Stainless steel AISI 316

Info.

- Sold by the packet

**DISCOUNTS**

Qty	1+	30+	60+	90+	120+	150+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	Cable		B	S	Weight (g)	Stock*	Price each 1 to 29
	Ø	C					
CCL-2/SS	2	9	15	1	2,00	✓	0,49 €
CCL-3/SS	3	10	17	1	2,40	✓	0,62 €
CCL-4/SS	4	11	18	1	3,80	✓	0,76 €
CCL-5/SS	5	12	22	1	4,80	✓	1,19 €
CCL-6/SS	6	13	24	1	5,00	✓	1,27 €

*Depending on availability - Dimensions in mm

Flat cable clamp



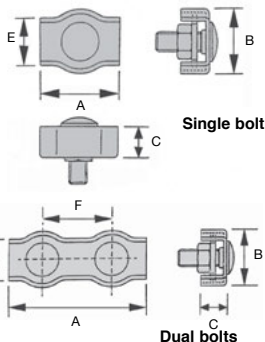
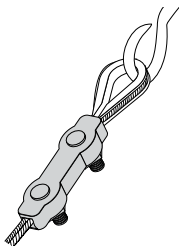
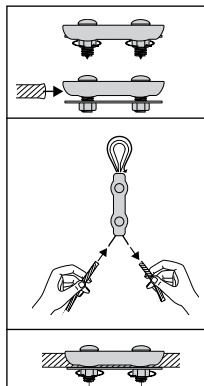
SCA

Suitable for cable Ø2-Ø6mm

- Fitting elements
- Flat cable clamp with single or dual bolts
- Material:
Clamp: Zinc plated steel Fe360B

Info.

- Not sold individually, please contact us for details



DISCOUNTS

Qty	1+	30+	60+	90+	120+	150+
Disc.	List	-5%	-10%	-15%	-20%	On request

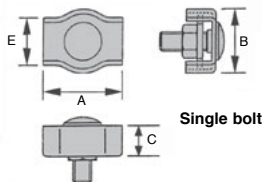
Part number	Ø Cable	A	B	C	E	F	Weight per 100 pieces (kg)	Stock*	Price each 1 to 29
Single bolts									
SCA1-02	2	18	12	5	8	-	0,50	✓	0,42 €
SCA1-03	3	20	14	7	10	-	0,75	✓	0,58 €
SCA1-04	4	22	17	8	12	-	1,15	✓	0,66 €
SCA1-05	5	26	21	9	14	-	2,00	✓	0,80 €
SCA1-06	6	30	25	10	17	-	3,00	✓	0,87 €
Dual bolts									
SCA2-02	2	37	13	5	8	20	1,10	✓	0,72 €
SCA2-03	3	40	15	7	10	21	1,50	✓	0,80 €
SCA2-04	4	43	17	7	13	22	2,50	✓	0,91 €
SCA2-05	5	52	22	9	15	27	4,00	✓	1,44 €
SCA2-06	6	60	26	9	18	33	6,00	✓	1,65 €

*Depending on availability - Dimensions in mm

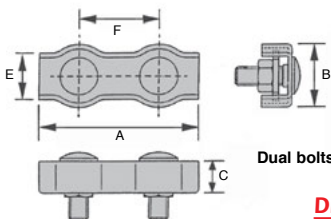
- Fitting elements
- Flat cable clamp with single or dual bolts
- Material:
Clamp: Stainless steel 316 plated steel Fe360B

Info.

- Not sold individually, please contact us for details



Single bolt



Dual bolts

DISCOUNTS

Qty	1+	30+	60+	90+	120+	150+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	Ø Cable	A	B	C	E	F	Weight per 100 pieces (kg)	Stock*	Price each 1 to 29
Single bolts									
SCA1-02/SS	2	15	11	5,0	7	-	0,438	✓	1,19 €
SCA1-03/SS	3	17	14	6,0	9	-	0,520	✓	1,52 €
SCA1-04/SS	4	20	17	7,0	11	-	1,090	✓	1,87 €
SCA1-05/SS	5	25	19	8,5	13	-	1,442	✓	2,52 €
SCA1-06/SS	6	30	24	10,0	16	-	2,630	✓	4,09 €
Dual bolts									
SCA2-02/SS	2	30	11	5,0	7	15	0,926	✓	1,95 €
SCA2-03/SS	3	34	14	6,0	9	17	1,230	✓	2,59 €
SCA2-04/SS	4	40	17	7,0	11	19	2,290	✓	3,53 €
SCA2-05/SS	5	50	19	8,5	13	25	3,090	✓	4,48 €
SCA2-06/SS	6	60	24	10,0	16	30	5,440	✓	6,28 €

*Depending on availability - Dimensions in mm

U-shaped cable clamp



SCE

Suitable for cable Ø5-Ø16mm

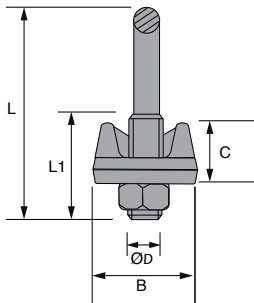
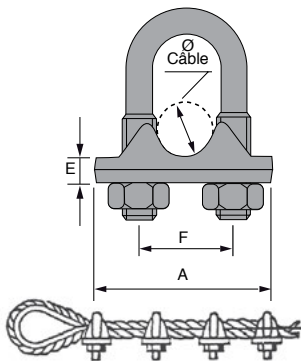
- Hot stamped clamp for steel cable or rope
- Fitting components
- Material:
 - U bolt: zinc plated steel Fe360B
 - Plate: zinc plated steel Fe430B

Assembly

- For cables Ø5 to Ø12, use 4 cable clamps
- For cables Ø12 to Ø16, use 5 cable clamps

Info.

- Not sold individually, please contact us for details



The attached end of the cable should be placed next to the plate, the free end next to the curve of the U

DISCOUNTS

Qty	1+	30+	60+	90+	120+	150+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	Int Ø	Ø	A	B	C	ØD	E	F	L	L1	Weight/ 100 pieces (kg)	Stock*	Price each 1 to 29
SCE1-05	5	5	25	18	9	M5	5	10	27	16	2,40	✓	0,87 €
SCE1-06	6	6	30	19	10	M6	6	14	33	19	3,90	✓	0,91 €
SCE1-08	8	8	33	20	11	M6	7	16	34	19	4,40	✓	1,11 €
SCE1-10	10	10	38	22	12	M8	7	20	44	22	7,50	✓	1,52 €
SCE1-12	12	12	43	25	14	M10	7	23	56	30	12,70	✓	1,99 €
SCE1-14	14	14	46	28	16	M10	9	27	56	30	15,50	✓	2,29 €
SCE1-16	16	16	53	31	18	M10	8	29	65	30	19,50	-	2,90 €

*Depending on availability - Dimensions in mm

- Clamp for steel cable or rope
- Fitting components
- Material:
U bolt + plate: stainless steel

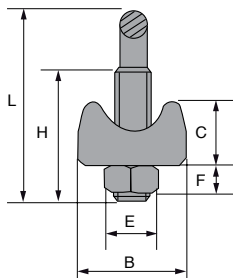
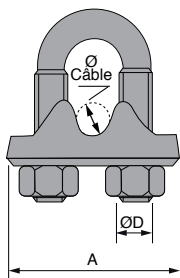
Assembly

- For cables Ø5 to Ø12, use 4 cable clamps
- For cables Ø12 to Ø16, use 5 cable clamps

Info.

- Not sold individually, please contact us for details

stainless steel



The attached end of the cable should be placed next to the plate, the free end next to the curve of the U

DISCOUNTS

Qty	1+	30+	60+	90+	120+	150+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	Ø Cable	A	B	C	ØD	E	F	L	L1	Weight per 100 pieces (kg)	Stock*	Price each
												1 to 29
SCE1-05/SS	5	25	18	9	M5	8	5	15	26	2,40	✓	2,62 €
SCE1-06/SS	6	30	19	10	M6	10	5	20	33	3,80	✓	3,51 €
SCE1-08/SS	8	33	20	10	M6	10	5	23	35	4,50	✓	3,67 €
SCE1-10/SS	10	38	22	12	M8	13	6	24	43	7,50	✓	5,71 €
SCE1-12/SS	12	45	25	16	M10	17	8	30	54	13,08	-	9,84 €
SCE1-14/SS	14	46	27	17	M10	17	8	31	56	16,00	-	11,32 €
SCE1-16/SS	16	52	31	17	M9	17	9	31	65	20,00	-	14,54 €

*Depending on availability - Dimensions in mm

Quick fitting cable terminals

Sta

ERCss
ERLss

Fork and eye versions

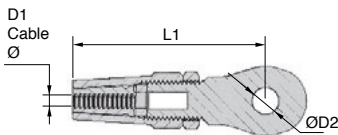
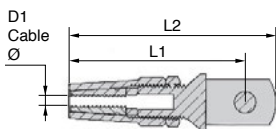
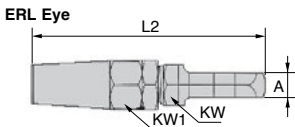
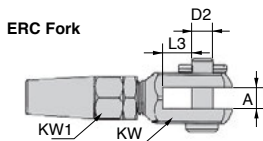
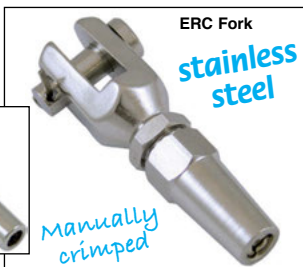
- Cable terminals for wires, manual crimping

- Material: Stainless steel 316

Advantages

- Rapid manual assembly

INCREASED STOCK



DISCOUNTS

Qty	1+	6+	20+	50+
Disc.	List	-10%	-20%	On request

Part number	ØD1	ØD2	A	L1	L2	L3	KW	KW1	Weight (g)	Stock*	Price each 1 to 5
Fork											
ERC3-6/SS	3	6	6,25	49,0	57,0	8,0	12	14	40	✓	26,74 €
ERC4-8/SS	4	8	7,90	60,5	71,4	8,3	14	19	80	✓	31,44 €
ERC5-10/SS	5	10	9,70	69,0	79,0	10,0	16	22	120	✓	37,16 €
ERC6-12/SS	6	12	11,00	81,0	93,0	12,0	19	27	210	✓	46,74 €
ERC8-14/SS	8	14	13,00	106,0	120,0	15,0	24	30	376	✓	64,29 €
Eye											
ERL3-6/SS	3	6	6	48	57	-	10	12	34	✓	28,03 €
ERL4-8/SS	4	8	7	56	69	-	14	14	62	-	31,99 €
ERL5-10/SS	5	10	8	66	82	-	14	16	88	-	37,75 €
ERL6-13/SS	6	13	9	83	100	-	17	19	154	✓	46,08 €
ERL8-14/SS	8	14	10	102	123	-	19	24	278	-	60,73 €

*Depending on availability - Dimensions in mm

Sta Quick fitting threaded cable terminal

Cable terminal with threaded end

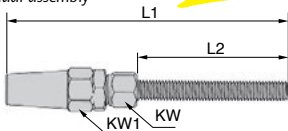
ERFss

- Cable terminals for wires, manual crimping
- Material : Stainless steel 316

Advantages

- Easy manual assembly

INCREASED STOCK



Cable ØD1



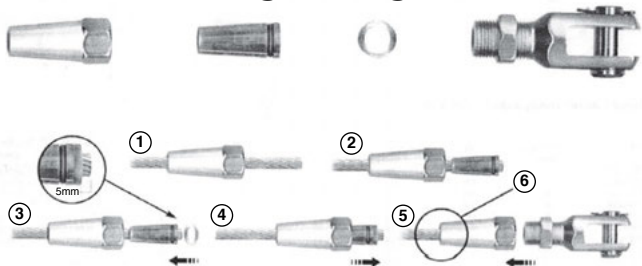
DISCOUNTS

Qty	1+	6+	20+	50+
Disc.	List	-10%	-20%	On request

Part number	ØD1	ØG	L1	L2	KW	KW1	Weight (g)	Stock*	Price each 1 to 5
ERF3-5-41/SS	3	M5	82	41	10	12	32	✓	30,28 €
ERF3-6-47/SS	3	M6	88	47	10	12	36	✓	30,45 €
ERF4-6-47/SS	4	M6	96	47	12	14	54	✓	33,98 €
ERF4-8-56/SS	4	M8	106	56	12	14	62	✓	34,92 €
ERF5-8-56/SS	5	M8	112	56	14	16	84	✓	40,73 €
ERF5-10-62/SS	5	M10	118	62	13	16	96	✓	41,16 €
ERF6-10-62/SS	6	M10	124	62	16	19	136	-	48,77 €
ERF6-12-79/SS	6	M12	144	79	16	19	164	-	54,16 €
ERF8-14-88/SS	8	M14	168	88	19	24	298	-	74,06 €
ERF8-16-99/SS	8	M16	180	99	19	24	338	-	74,93 €

*Depending on availability - Dimensions in mm

Mounting arrangements



Dee shackle with eye bolt



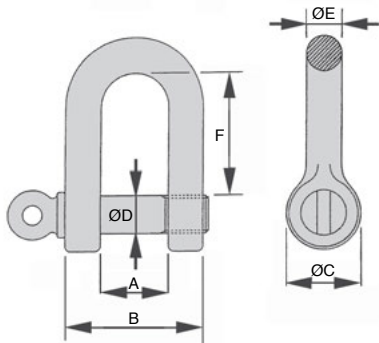
MDR

Pin diameters 5-20mm

- **Lifting shackle**
- Marked with pin diameter and SWL.
Also carries CE mark
- Material:
Shackle: Steel Fe430B zinc treated

Info.

- SWL: SAFE WORKING LOAD.
The Safe Working Load is calculated by dividing the Breaking Strength by a factor of safety of 5.
- **Not sold individually, please contact us for details.**



DISCOUNTS

Qty	1+	20+	40+	60+	80+	100+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	Pin ØD	A	B	ØC	ØE	F	SWL (kg)	Weight (kg)	Stock*	Price each 1 to 19
MDR1-05	5	8	18	13	6	23	100	0,020	✓	1,91 €
MDR1-06	6	12	25	14	6	29	160	0,040	✓	2,28 €
MDR1-08	8	15	32	18	8	37	250	0,070	✓	2,77 €
MDR1-10	10	18	38	22	10	41	400	0,140	✓	3,49 €
MDR1-12	12	26	50	27	12	56	630	0,260	✓	5,50 €
MDR1-14	14	27	56	29	14	57	800	0,370	✓	6,74 €
MDR1-16	16	31	64	35	17	64	1000	0,560	✓	9,01 €
MDR1-18	18	32	70	36	19	65	1300	0,710	✓	12,47 €
MDR1-20	20	38	78	40	20	69	1600	0,940	-	15,73 €

*Depending on availability - Dimensions in mm



Stainless steel Dee shackle with eye bolt

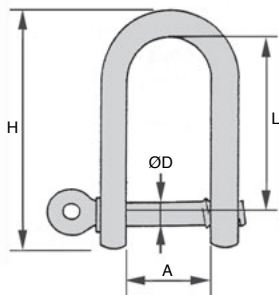
Pin diameters 5-20mm

MDRss

- Lifting shackle
- Marked with pin diameter and SWL
- Material: Stainless steel 316
- No marking on the product

Info.

- SWL: SAFE WORKING LOAD.
The Safe Working Load is calculated by dividing the Breaking Strength by a factor of safety of 3.



DISCOUNTS

Qty	1+	20+	40+	60+	80+	100+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	Pin ØD	A	L	H	SWL (kg)	Weight (kg)	Stock*	Price each 1 to 19
MDR1-05/SS	5	9,5	23,0	33	190	0,015	✓	3,32 €
MDR1-06/SS	6	12,0	24,0	37	360	0,030	✓	3,47 €
MDR1-08/SS	8	16,0	35,0	50	540	0,060	✓	4,13 €
MDR1-10/SS	10	19,3	45,6	65	720	0,125	✓	5,95 €
MDR1-12/SS	12	27,0	48,0	72	1080	0,200	✓	10,60 €
MDR1-14/SS	14	28,0	57,0	83	1260	0,310	✓	15,73 €
MDR1-16/SS	16	32,8	59,0	89	1680	0,510	✓	25,19 €
MDR1-20/SS	19	38,0	88,0	124	2400	0,900	-	49,51 €

*Depending on availability - Dimensions in mm

Bow shackle with eye bolt



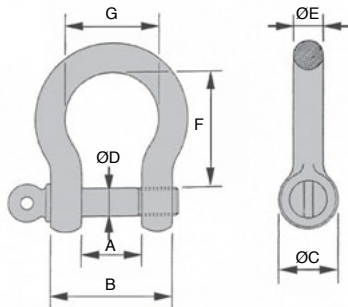
MLY

Pin diameters 5-20mm

- **Lifting shackle**
- Marked with pin diameter and SWL.
- Also carries CE mark
- Material:
Shackle : Steel Fe430B zinc treated

Info.

- SWL: SAFE WORKING LOAD.
The Safe Working Load is calculated by dividing the Breaking Strength by a factor of safety of 5.
- Not sold individually, please contact us for details.



DISCOUNTS

Qty	1+	20+	40+	60+	80+	100+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	Pin ØD	A	B	ØC	ØE	F	G	SWL (kg)	Weight (kg)	Stock*	Price each 1 to 19
MLY1-05	5	8	18	10	5	19	15	100	0,020	✓	2,66 €
MLY1-06	6	12	24	12	6	24	18	160	0,030	✓	2,77 €
MLY1-08	8	15	31	16	8	32	24	250	0,070	✓	3,00 €
MLY1-10	10	18	38	20	10	38	30	400	0,130	✓	4,06 €
MLY1-12	12	22	48	24	12	50	36	630	0,230	✓	7,42 €
MLY1-14	14	24	53	28	15	56	42	800	0,370	✓	8,79 €
MLY1-16	16	27	61	32	17	64	48	1000	0,560	-	10,90 €
MLY1-18	18	36	72	36	18	72	54	1300	0,780	-	16,71 €
MLY1-20	20	37	78	41	20	79	60	1600	1,090	-	17,70 €

*Depending on availability - Dimensions in mm



Stainless steel bow shackle with eye bolt

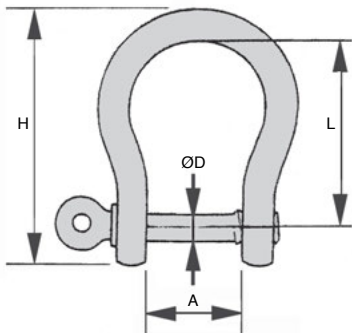
Pin diameters 5-20mm

MLYss

- Lifting shackle
- Marked with pin diameter and SWL
- Material: Stainless steel 316
- No marking on the product

Info.

- SWL: SAFE WORKING LOAD.
The Safe Working Load is calculated by dividing the Breaking Strength by a factor of safety of 5.



DISCOUNTS

Qty	1+	20+	40+	60+	80+	100+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	Pin ØD	A	L	H	SWL (kg)	Weight (kg)	Stock*	Price each 1 to 19
MLY1-05/SS	5	10,0	20,0	30	190	0,015	✓	3,47 €
MLY1-06/SS	6	13,0	26,0	38	360	0,030	✓	3,64 €
MLY1-08/SS	8	17,0	34,0	50	540	0,080	✓	4,60 €
MLY1-10/SS	10	19,0	45,0	65	720	0,130	✓	7,43 €
MLY1-12/SS	12	24,6	54,0	72	1080	0,245	✓	13,43 €
MLY1-14/SS	13	28,0	65,0	91	1260	0,375	✓	18,21 €
MLY1-16/SS	16	33,0	71,0	105	1680	0,450	-	27,10 €
MLY1-20/SS	19	40,0	92,5	133	2400	0,860	-	51,23 €

*Depending on availability - Dimensions in mm

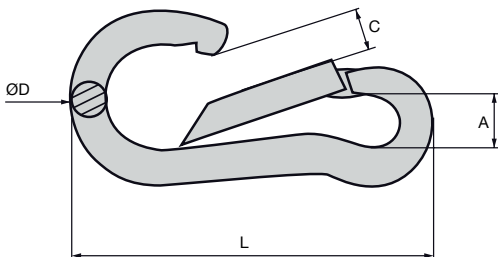
- Type C Carabiner
- White zinc plated steel
- Product carries no certification marking

Application

- The breaking strength is obtained by multiplying the SWL by a factor of safety of 4

Info

- Not suitable for climbing
- Also exists in stainless steel



DISCOUNTS

Qty	1+	20+	40+	60+	80+	100+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	ØD	L	A	C	SWL (kg)	Weight (g)	Stock*	Price each 1 to 19
MAC5-50	5	50	8	7	50	16	✓	1,47 €
MAC6-60	6	60	8	8	90	26	✓	1,66 €
MAC7-70	7	70	11	9	150	44	✓	2,26 €
MAC8-80	8	80	12	10	190	62	✓	2,29 €
MAC9-90	9	90	13	11	230	92	-	2,53 €
MAC10-100	10	100	16	13	310	126	-	3,05 €
MAC11-120	11	120	19	17	340	192	-	3,80 €
MAC12-140	12	140	20	19	380	256	-	5,16 €

Dimensions in mm

Metal diameter 5 to 12mm

MACss

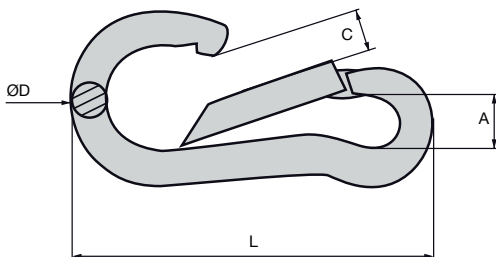
- Type C Carabiner
- Stainless steel 316
- Product carries no certification marking

Application

- The breaking strength is obtained by multiplying the SWL by a factor of safety of 4

Info

- Not suitable for climbing
- Also exists in steel



INCREASED STOCK

DISCOUNTS

Qty	1+	20+	40+	60+	80+	100+
Disc.	List	-5%	-10%	-15%	-20%	On request

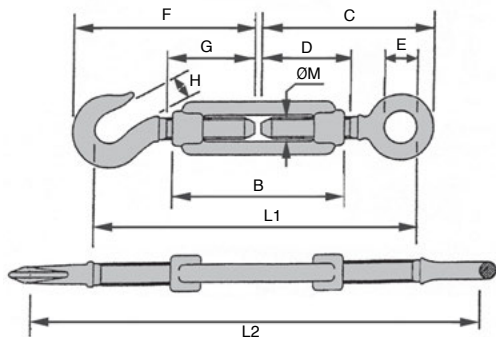
Part number	D	L	A	C	SWL (kg)	Weight (g)	Stock*	Price each 1 to 19
MAC5-50/SS	5	50	8	7	90	16	✓	3,74 €
MAC6-60/SS	6	60	8	8	150	28	✓	4,47 €
MAC7-70/SS	7	70	10	9	180	43	✓	6,28 €
MAC8-80/SS	8	80	12	11	225	66	✓	7,14 €
MAC10-100/SS	10	100	14	14	375	129	✓	10,17 €
MAC11-120/SS	11	120	19	17	390	186	-	13,37 €
MAC12-140/SS	12	140	23	21	410	260	-	18,43 €

Dimensions in mm

- Stamped Rigging screw with eye and hook
- Fitting accessories
- Material: zinc plated steel Fe430B

Info.

- SWL: SAFE WORKING LOAD.
The Safe Working Load is calculated by dividing the breaking load by a factor of safety of 3
- **Not sold individually, please contact us for details**



DISCOUNTS

Qty	1+	20+	40+	60+	80+	100+
Disc.	List	-5%	-10%	-15%	-20%	On request

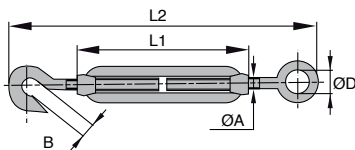
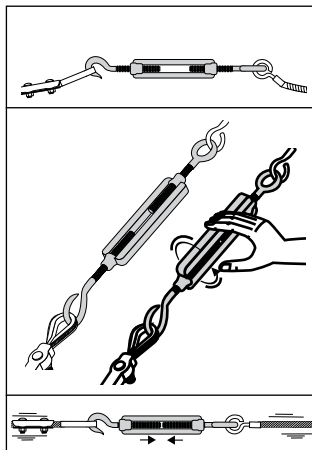
Part number	ØM	B	C	D	E	F	G	H	L1	L2	SLW (kg)	Weight (kg)	Price each
TAC1-05	M5	80	60	40	8	62	40	6	114	176	50	0,055	2,53 €
TAC1-06	M6	80	74	47	10	76	50	8	141	200	75	0,064	2,82 €
TAC1-08	M8	105	79	52	11	88	52	10	156	236	165	0,126	3,61 €
TAC1-10	M10	125	95	61	14	114	60	11	187	276	235	0,214	5,19 €
TAC1-12	M12	140	105	65	17	122	66	16	226	311	320	0,398	7,73 €
TAC1-14	M14	170	128	85	18	147	82	15	254	378	430	0,608	10,72 €
TAC1-16	M16	190	160	97	23	172	105	20	296	466	530	0,845	14,88 €

*Depending on availability - Dimensions in mm

- Rigging screw with eye and hook
- Fitting accessories
- Material: stainless steel 316

Info.

- SWL: SAFE WORKING LOAD.
The Safe Working Load is calculated by dividing the breaking load by a factor of safety of 3



DISCOUNTS

Qty	1+	20+	40+	60+
Disc.	List	-5%	-10%	On request

Part number	ØA	B	ØD	L1	L2	SWL (kg)	Weight (kg)	Stock*	Price each 1 to 19
TAC1-05/SS	M5	9	8,3	71	122-179	180	0,046	✓	8,68 €
TAC1-06/SS	M6	9,5	10,0	90	160-228	360	0,076	✓	10,38 €
TAC1-08/SS	M8	11	12,0	120	210-303	650	0,165	✓	17,95 €
TAC1-10/SS	M10	13	15,8	150	255-376	1000	0,285	✓	22,91 €
TAC1-12/SS	M12	16,8	20,0	200	305-473	1400	0,515	-	35,10 €
TAC1-16/SS	M16	16,3	26,0	245	400-593	2300	1,110	-	71,16 €

*Depending on availability - Dimensions in mm

Rigging screw (hook/hook)

Stock Ste

TCC

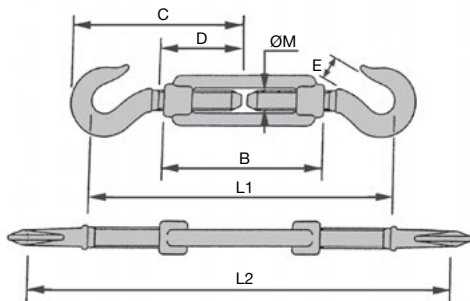
Turnbuckle

- Stamped Rigging screw with two hooks
- Fitting accessories
- Material: zinc plated steel Fe430B



Info.

- SWL: SAFE WORKING LOAD.
The Safe Working Load is calculated by dividing the breaking load by a factor of safety of 3
- ***Not sold individually, please contact us for details



DISCOUNTS

Qty	1+	20+	40+	60+	80+	100+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	ØM	B	C	D	E	L1	L2	SWL (kg)	Weight (kg)	Stock*	Price each**
TCC1-05	M5	80	62	40	6	116	178	50	0,052	✓	2,62 €
TCC1-06	M6	80	76	50	8	143	205	75	0,065	✓	2,89 €
TCC1-08	M8	105	88	52	10	165	245	165	0,136	✓	3,95 €
TCC1-10	M10	125	111	60	12	213	307	235	0,220	✓	5,59 €
TCC1-12	M12	140	130	66	15	252	350	320	0,420	-	7,86 €
TCC1-14	M14	170	147	86	15	277	407	420	0,640	-	11,92 €
TCC1-16	M16	190	172	105	20	298	463	530	0,880	✓	15,83 €

*Depending on availability - Dimensions in mm

Stainless steel rigging screw (hook/hook)

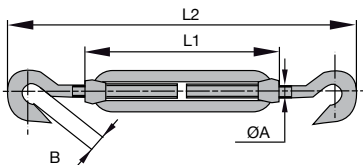
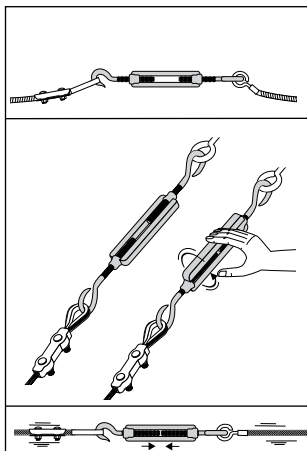
Turnbuckle

TCCss

- Rigging screw with two hooks
- Fitting accessories
- Material:
Clamp : stainless steel 316

Info.

- SWL: SAFE WORKING LOAD.
The Safe Working Load is calculated by dividing the breaking load by a factor of safety of 3



DISCOUNTS

Qty	1+	20+	40+	60+
Disc. List	-	-5%	-10%	On request

Part number	ØA	B	L1	L2	SWL (kg)	Weight (kg)	Stock*	Price each 1 to 19
TCC1-05/SS	M5	9	71	128-184	180	0,045	✓	8,68 €
TCC1-06/SS	M6	10	90	160-228	360	0,075	✓	10,38 €
TCC1-08/SS	M8	9	120	215-309	650	0,165	✓	17,95 €
TCC1-10/SS	M10	12	150	265-380	1000	0,280	-	22,91 €
TCC1-12/SS	M12	15	200	310-480	1400	0,510	-	35,10 €
TCC1-16/SS	M16	16	243	400-594	2300	1,060	-	71,16 €

*Depending on availability - Dimensions in mm

Rigging screw with 2 jaws **stainless steel** **Sta**

RDCss

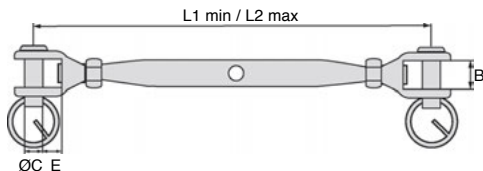
Diameter M5 to M20

Rigging screw with 2 welded jaws

- Material : Stainless steel 316
- Supplied with fitted locking nuts

Application

The breaking strength is obtained by multiplying the CMU by a factor of safety of 4



DISCOUNTS

Qty	1+	6+	20+	50+
Disc.	List	-10%	-20%	On request

Part number	Size	Thread	ØC	B	E	L1	L2	CMU (kg)	Weight (kg)	Stock*	Price each 1 to 5
RDC-5/SS	5	M5	5	6,5	8,0	126	190	150	0,056	✓	16,63 €
RDC-6/SS	6	M6	6	7,5	7,7	136	211	250	0,076	✓	18,49 €
RDC-8/SS	8	M8	8	11,0	9,4	170	255	360	0,154	✓	26,04 €
RDC-10/SS	10	M10	9	12,0	14,0	195	280	500	0,260	✓	33,58 €
RDC-12/SS	12	M12	12	14,0	20,0	260	380	650	0,536	✓	46,36 €
RDC-14/SS	14	M14	12	15,0	22,0	300	430	790	0,720	-	60,45 €
RDC-16/SS	16	M16	16	21,0	24,0	315	455	980	1,086	-	87,09 €
RDC-20/SS	20	M20	20	28,0	38,0	410	560	1300	2,124	-	129,08 €

*Depending on availability - Dimensions in mm

- Rigging screw with 1 welded clevis and 1 manually tightened end

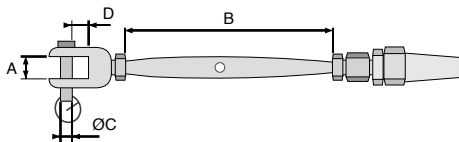
- Material: 316 stainless steel

Advantages

- Quick and easy fixing on the end of a cable
(For mounting method, refer to **ERF/SS** page)



NEW!



DISCOUNTS

Qty	1+	6+	20+	50+
Disc.	List	-10%	-20%	On request

Part number	For cable ØD1	A	B	ØC	D	Weight (g)	Price each 1 to 5
RDER3-5/SS	3	10	80,0	5	8	68	45,44 €
RDER3-6/SS	3	8	92,0	6	8,5	106	50,37 €
RDER4-6/SS	4	8	92,0	6	8,5	124	57,28 €
RDER4-8/SS	4	10	112,0	8	11	202	65,09 €
RDER5-8/SS	5	10	112,0	8	11	224	83,82 €
RDER5-10/SS	5	11,5	120,0	10	12	330	94,06 €
RDER6-10/SS	6	11,5	120,0	10	12	362	98,86 €
RDER6-12/SS	6	14	150,0	12	16	560	143,66 €

Dimensions in mm

Identification tag

New

PLD

Aluminium

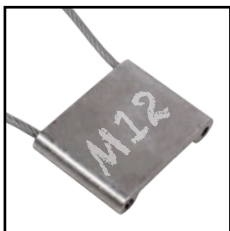
- Identification tag that can be fixed to any piece of apparatus (slings, machines.....)
- Material: natural aluminium

NEW!

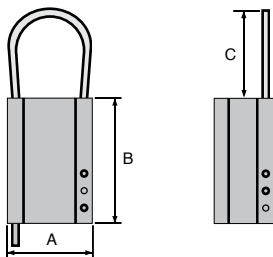


Advantages

- Blank tag that can be engraved/punched with required information (Machine N°, User name, Worksite name, Internal reference...)
- Secured using a punch or pliers to crimp wire.
- Single use



Typical application: Engraved with machine reference



DISCOUNTS

Qty	1+	30+	60+	90+	120+	150+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	A	B	C	Weight (g)	Price each 1 to 29
PLD-1	51	38,0	260	40	7,90 €
PLD-2	51	76,0	222	60	10,69 €

Dimensions in mm

Stalstock Threaded eye hook stainless steel

Diameter M6 to M12

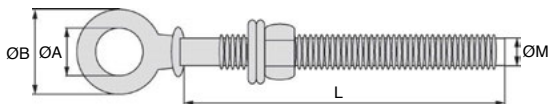
PTBss

Eye bolt

- Material : Stainless steel 316
- Product carries no certification marking

Utilisation

The breaking strength is obtained by multiplying the SWL by a factor of safety of 4



DISCOUNTS

Qty	1+	20+	40+	60+	80+	100+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	ØM	L	ØA	ØB	CMU (kg)	Weight (kg)	Stock*	Price each 1 to 19
PTB6-40/SS	M6	40	12	22	120	0,020	✓	5,03 €
PTB6-60/SS	M6	60	12	22	120	0,030	✓	5,39 €
PTB6-80/SS	M6	80	12	22	120	0,030	✓	5,79 €
PTB8-60/SS	M8	60	14	26	225	0,050	✓	7,03 €
PTB8-80/SS	M8	80	14	26	225	0,055	-	7,70 €
PTB8-100/SS	M8	100	14	26	225	0,060	✓	8,52 €
PTB10-100/SS	M10	100	16	30	375	0,105	✓	13,16 €
PTB12-120/SS	M12	120	16	35	600	0,165	✓	20,71 €

Dimensions in mm

Straight long link chain

Ste

CHN Conforms to NFE26020 and DIN5685C

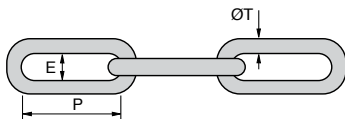
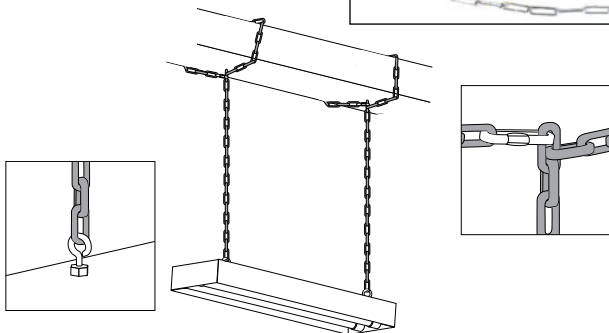
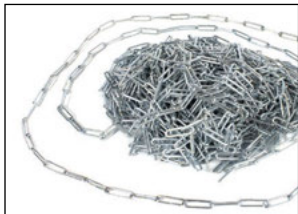
- Galvanised steel chain, supplied by the box

Applications

- Rigging, safety barriers, signage

Info.

- Under no circumstances should this type of chain be used for lifting



DISCOUNTS

Qty	1+	6+	20+	50+
Disc.	List	-10%	-20%	On request

Part number	Core ØT	P	E	Max carrying load (kg)	Length / Box (m)	Weight / Box (kg)	Stock*	Price each 1 à 5
CHN-2/B	2,0	22	4	25	25	1,56	✓	22,94 €
CHN-2.5/B	2,5	24	5	40	25	2,53	-	26,22 €
CHN-3/B	3,0	26	6	60	25	3,70	✓	32,33 €
CHN-3.5/B	3,5	28	7	75	25	5,30	-	41,62 €
CHN-4/B	4,0	32	8	100	25	6,70	✓	47,82 €
CHN-4.5/B	4,5	34	9	125	25	8,90	✓	58,35 €
CHN-5/B	5,0	35	10	155	25	10,00	✓	63,77 €
CHN-6/B	6,0	42	12	230	25	15,70	-	91,84 €
CHN-7/B	7,0	49	14	300	25	21,40	-	125,33 €
CHN-8/B	8,0	52	16	400	10	11,60	-	64,69 €

*Depending on availability - Dimensions in mm

Sta Straight long link stainless steel chain

Conforms to NFE26020 and DIN5685C CHNss

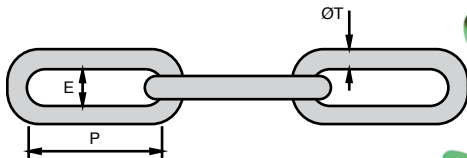
- Stainless steel chain, supplied by the box

Applications

- Rigging, safety barriers, signage

Info.

- Under no circumstances should this type of chain be used for lifting



DISCOUNTS

Qty	1+	6+	20+	50+
Disc.	List	-10%	-20%	On request

Part number	Core ØT	P	E	Max carrying load (kg)	Length / Box (m)	Weight / Box (kg)	Stock*	Price each 1 to 5
CHN-2/SS/B	2,0	22	4	25	25	1,49	✓	74,78 €
CHN-2.5/SS/B	2,5	24	5	40	25	2,54	✓	110,14 €
CHN-3/SS/B	3,0	26	6	60	25	3,74	✓	158,13 €
CHN-4/SS/B	4,0	32	8	100	25	6,83	✓	264,63 €
CHN-5/SS/B	5,0	35	10	155	25	10,64	✓	412,82 €
CHN-6/SS/B	6,0	42	12	230	25	15,62	-	603,74 €
CHN-8/SS/B	8,0	52	16	400	10	11,28	-	412,82 €

*Depending on availability - Dimensions in mm

Low cost quick link



MRAECO

Ring diameter 3.5-16mm

- For linking or closing chains
- White chromed steel
- Low cost range, no SWL specified
- Engraved with ring diameter



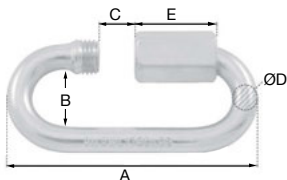
Application

- Nominal load figures are given as an indication only
- Should not be used for lifting (load values not guaranteed)

Info

- Also available in stainless steel

Economy range



INCREASED STOCK

DISCOUNTS

Qty	1+	20+	40+	60+	80+	100+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	ØD	A	B	C	E	Nominal load (kg)	Weight (g)	Stock*	Price each 1 to 19
MRA1-03/ECO	3,5	36,0	10,0	5,0	12,0	100	8	✓	0,48 €
MRA1-04/ECO	4,0	39,5	11,5	6,0	14,0	180	12	✓	0,58 €
MRA1-05/ECO	5,0	49,5	13,0	7,0	17,0	280	22	-	0,64 €
MRA1-06/ECO	6,0	57,0	14,5	8,0	20,0	400	36	✓	0,78 €
MRA1-07/ECO	7,0	66,0	16,0	9,0	22,5	550	52	-	1,03 €
MRA1-08/ECO	8,0	74,0	17,5	10,0	24,0	700	76	✓	1,21 €
MRA1-09/ECO	9,0	80,0	19,0	11,0	27,0	900	110	-	1,66 €
MRA1-10/ECO	10,0	89,0	20,5	12,0	30,0	1100	146	✓	2,20 €
MRA1-12/ECO	12,0	104,5	23,5	14,0	34,0	1500	234	-	3,38 €
MRA1-14/ECO	14,0	121,0	26,5	17,0	39,0	2200	358	-	6,71 €
MRA1-16/ECO	16,0	140,0	29,5	19,0	43,0	2900	520	-	10,89 €

Dimensions in mm

- For linking or closing chains
- Stainless steel 316
- Low cost range, no SWL specified

Application

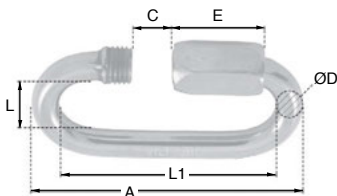
- Nominal load figures are given as an indication only
- Should not be used for lifting (load values not guaranteed)

Info

- Also available in steel



Economy range



INCREASED STOCK

DISCOUNTS

Qty	1+	20+	40+	60+	80+	100+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	ØD	A	L1	L	C	E	Nominal load (kg)	Weight (g)	Stock*	Price each 1 to 19
MRA1-03/SS/ECO	3,5	37,2	30,4	9,7	5,5	12,6	220	8	-	3,32 €
MRA1-04/SS/ECO	4,0	41,0	33,0	11,7	6,3	12,7	280	12	-	3,61 €
MRA1-05/SS/ECO	5,0	51,2	41,0	13,0	7,0	17,0	450	22	✓	4,07 €
MRA1-06/SS/ECO	6,0	59,0	47,0	14,7	8,8	20,0	650	36	✓	4,63 €
MRA1-07/SS/ECO	7,0	67,7	54,0	18,3	9,7	23,7	900	54	-	7,90 €
MRA1-08/SS/ECO	8,0	74,6	59,0	18,3	9,9	25,0	1100	76	✓	9,24 €
MRA1-10/SS/ECO	10,0	89,0	70,0	22,2	12,8	30,0	1800	138	-	15,97 €
MRA1-12/SS/ECO	12,0	105,0	82,0	24,8	14,2	34,0	3500	224	-	25,53 €

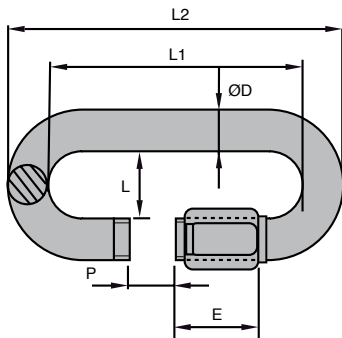
Dimensions in mm

- For joining or closing lengths of chain
- Screw to secure
- Fully tighten to ensure safety CE and SWL markings
- Material:
Link : Steel Fe430B zinc treated
Nut: Steel A-42-Fm



Info.

- SWL: SAFE WORKING LOAD.
The Safe Working Load is calculated by dividing the Breaking Strength by a factor of safety of 5.
- Not sold individually, please contact us for details



DISCOUNTS

Qty	1+	20+	40+	60+	80+	100+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	ØD	L2	L1	L	P	E	SWL (kg)	Weight for 100 pieces (kg)	Stock*	Price each 1 to 19
MRA1-04	4	39,5	31,5	11,5	5,5	12,5	180	1,170	✓	2,42 €
MRA1-05	5	49,5	39,5	13,0	6,5	16,0	280	2,050	✓	2,75 €
MRA1-06	6	57,0	45,0	14,5	7,5	19,0	400	3,450	✓	3,25 €
MRA1-07	7	66,0	52,0	16,0	8,5	21,5	550	5,100	✓	4,07 €
MRA1-08	8	74,0	58,0	17,5	11,0	24,0	700	7,700	✓	4,70 €
MRA1-09	9	80,0	62,0	19,0	11,0	26,0	900	10,250	✓	6,31 €
MRA1-10	10	89,0	69,0	20,5	12,0	29,0	1100	13,700	✓	7,00 €
MRA1-12	12	104,5	80,5	23,5	15,0	33,0	1500	23,200	✓	10,14 €

*Depending on availability - Dimensions in mm

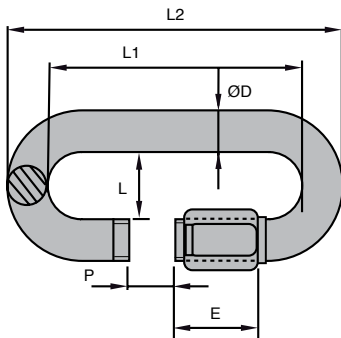
- For joining or closing chains
- Screw to secure
- Fully tighten to ensure safety
- Material:

Stainless steel 316

Ring/nut X2CrNi

Info.

- SWL: SAFE WORKING LOAD.
The Safe Working Load is calculated by dividing the Breaking Strength by a factor of safety of 3.



DISCOUNTS

Qty	1+	20+	40+	60+	80+	100+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	ØD	L2	L1	L	P	E	SWL (kg)	Weight for 100 pieces (kg)	Stock*	Price each 1 to 19
MRA1-04/SS	4	40,0	32,0	11,0	6,0	12,0	280	1,200	✓	8,00 €
MRA1-05/SS	5	48,0	38,0	12,0	7,0	16,0	450	2,100	✓	8,92 €
MRA1-06/SS	6	57,0	45,0	14,0	9,0	19,0	650	3,540	✓	11,38 €
MRA1-07/SS	7	66,0	52,0	16,0	8,0	21,0	900	5,230	-	15,49 €
MRA1-08/SS	8	73,0	57,0	17,0	12,0	24,0	1100	7,900	-	15,49 €
MRA1-09/SS	9	80,0	62,0	19,0	11,0	26,0	1400	10,500	-	23,39 €
MRA1-10/SS	10	89,0	69,0	20,0	13,0	29,0	1800	14,050	-	28,30 €
MRA1-12/SS	12	105,0	81,0	23,0	16,0	34,0	2500	23,200	✓	45,05 €

*Depending on availability - Dimensions in mm

Symmetrical S shaped hook



WSS

Wire diameters from 2 to 8mm

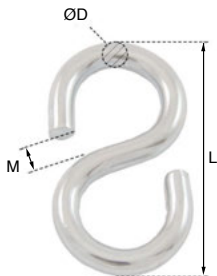
- Low cost range of S shaped hooks
- White galvanized steel

Application

- Not suitable for lifting applications

Info

- Also available in stainless steel



DISCOUNTS

Qty	1+	80+	120+	160+	200+
Disc.	List	-10%	-15%	-20%	On request

Part number	ØD	L	M	Weight (g)	Stock*	Price each 1 to 79
WSS2-30	2,0	30	4,2	2,0	✓	0,04 €
WSS2.5-33	2,5	33	4,0	3,0	✓	0,08 €
WSS3-33	3,0	33	5,0	4,5	✓	0,08 €
WSS4-40	4,0	40	5,0	9,0	-	0,12 €
WSS5-47	5,0	47	5,5	17,0	-	0,20 €
WSS6-61	6,0	61	7,0	31,0	-	0,32 €
WSS7-69	7,0	69	7,3	45,0	-	0,68 €
WSS8-75	8,0	75	10,0	58,5	-	0,82 €

Dimensions in mm

Sta Symmetrical S shaped hook stainless steel

Wire diameters from 2 to 8mm

WSSss

- Low cost range of S shaped hooks
- Manufactured in 304 stainless steel

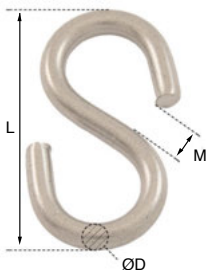
Application

- Not suitable for lifting applications

Info

- Also available in normal steel

stainless steel



INCREASED STOCK

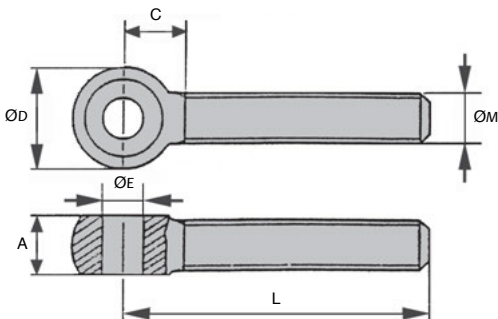
DISCOUNTS

Qty	1+	80+	120+	160+	200+
Disc.	List	-10%	-15%	-20%	On request

Part number	ØD	L	M	Weight (g)	Stock*	Price each 1 to 79
WSS2-30/SS	2,0	30,1	5,6	1,6	✓	0,16 €
WSS2.5-33/SS	2,5	32,9	3,7	2,8	-	0,47 €
WSS3-33/SS	3,0	33,0	3,5	4,0	✓	0,51 €
WSS4-40/SS	4,0	40,0	5,0	9,0	✓	1,10 €
WSS5-49/SS	5,0	48,5	7,0	17,0	✓	1,34 €
WSS6-63/SS	6,0	62,5	7,0	32,0	✓	1,56 €
WSS7-68/SS	7,0	67,8	13,0	45,0	-	2,80 €
WSS8-75/SS	8,0	74,8	13,3	60,0	-	4,15 €

Dimensions in mm

- Eye screw
- Stamped ring, closed
- Conforms to UNI 6058
- ISO thread
- Material: Blackened steel C40



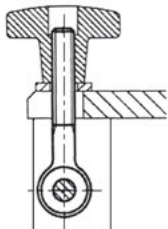
DISCOUNTS

Qty	1+	20+	40+	60+	80+	100+
Disc.	List	-5%	-10%	-15%	-20%	On request

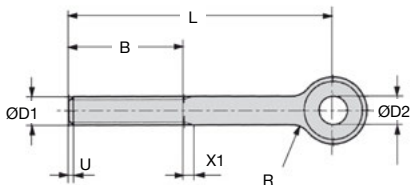
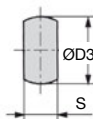
Part number	ØM	L	A	C	ØD	ØE	Weight (kg)	Stock*	Price each 1 to 19
CMA1-06	M6	50	7	8,5	12	5	0,012	✓	6,63 €
CMA1-08	M8	60	9	11,1	16	6	0,025	✓	6,92 €
CMA1-10	M10	80	12	13,8	20	8	0,048	✓	9,54 €
CMA1-12	M12	90	14	16,4	24	10	0,088	✓	11,27 €
CMA1-14	M14	120	16	19,0	28	12	0,153	✓	14,95 €
CMA1-16	M16	140	18	21,0	32	14	0,303	✓	15,32 €
CMA1-18	M18	150	20	24,2	36	16	0,328	-	17,08 €
CMA1-20	M20	160	22	26,2	40	18	0,431	✓	21,20 €

*Depending on availability - Dimensions in mm

- Eye bolt
- Stainless steel
- Conforms to DIN 444 type B



Typical application



U = max 2 threads
X1 conforms to DIN76



DISCOUNTS

Qty	1+	15+	20+	25+	30+	50+
Disc.	List	-5%	-10%	-15%	-20%	On request

Part number	L	ØD1	ØD2	ØD3	B	S	R	Weight (kg)	Stock*	Price each 1 to 14
CMA1-05-50/SS	50	M5	5	12	16	6	2,5	0,011	✓	12,18 €
CMA1-06-50/SS	50	M6	6	14	18	7	4	0,016	✓	9,66 €
CMA1-06-75/SS	75	M6	6	14	18	7	4	0,021	-	10,99 €
CMA1-08-50/SS	50	M8	8	18	22	9	4	0,030	✓	11,07 €
CMA1-08-75/SS	75	M8	8	18	22	9	4	0,040	✓	12,60 €
CMA1-10-75/SS	75	M10	10	20	26	12	4	0,055	✓	12,96 €
CMA1-10-100/SS	100	M10	10	20	26	12	4	0,070	✓	13,53 €
CMA1-12-75/SS	75	M12	12	25	30	14	6	0,085	✓	15,92 €
CMA1-12-100/SS	100	M12	12	25	30	14	6	0,100	✓	17,45 €
CMA1-12-120/SS	120	M12	12	25	30	14	6	0,124	-	18,45 €
CMA1-12-130/SS	130	M12	12	25	36	14	6	0,135	✓	19,05 €
CMA1-16-130/SS	130	M16	16	32	44	17	6	0,244	-	34,22 €

*Depending on availability - Dimensions in mm

Male eye bolt conforms to **DIN580** **Sta** **Ste** **DIN**

ADLM

Steel or stainless steel

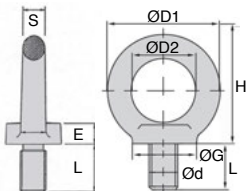
- ISO thread

- Material:

Black stamped steel
Stainless steel 316

Mounting

- For safe and correct assembly: Chamfer the hole into which the bolt will screw or use washers to ensure correct seating.
- Before assembly, clean the threads and corresponding tapped holes
- Screw lifting eye in fully
- The load should be lifted in the direction of the thread, +/- 20° and the pulling force should be along the axial plane of the eye.
- The use of these lifting eyes at an angle greater than 45° is not allowed.
- When the load to be lifted is aluminium, avoid leaving the eyes screwed in for long periods to avoid possible corrosion.



Steel eye bolt



Stainless steel eye bolt

Info.

*SWL: SAFE WORKING LOAD

The Safe Working Load is calculated by dividing the breaking Strength by a factor of safety of 5.

DISCOUNTS

Qty	1+	6+	20+	50+
Disc.	List	-10%	-20%	On request

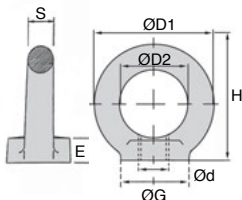
Part number	Ød	L	H	ØD1	ØD2	ØG	E	ØS	CMU (kg)	CMU at 45° (kg)	Weight (kg)	Price each 1 to 5
Steel eye bolt												
ADL-6M	M6	13	36	36	20	20	6	8	90	60	0,060	✓ 2,16 €
ADL-8M	M8	13	38	36	20	21	7	9	140	95	0,060	✓ 2,20 €
ADL-10M	M10	16	46	45	24	26	9	10	230	170	0,110	✓ 2,68 €
ADL-12M	M12	19	56	55	29	30	12	11	340	240	0,170	✓ 3,27 €
ADL-16M	M16	28	65	64	36	35	12	14	700	500	0,290	✓ 5,06 €
ADL-20M	M20	30	74	72	40	40	14	17	1200	830	0,450	✓ 7,54 €
ADL-24M	M24	36	92	89	49	51	18	21	1800	1270	0,880	✓ 12,83 €
ADL-30M	M30	43	111	108	60	65	23	25	3200	2300	1,640	✓ 24,33 €
ADL-36M	M36	54	131	126	68	80	24	29	4600	3300	2,710	- 42,30 €
ADL-42M	M42	61	153	148	79	90	33	35	6300	4500	4,250	- 80,02 €
ADL-48M	M48	68	168	166	90	100	35	38	8600	6100	6,200	- 138,68 €
Stainless steel eye bolt												
ADL-6M/SS	M6	13	-	35	20	20	7	8	180	-	0,050	✓ 7,22 €
ADL-8M/SS	M8	13	-	36	20	20	6	8	300	-	0,060	✓ 7,70 €
ADL-10M/SS	M10	17	-	45	25	25	8	10	500	-	0,115	✓ 12,99 €
ADL-12M/SS	M12	20	-	54	30	30	10	12	800	-	0,190	✓ 18,03 €
ADL-14M/SS	M14	20	-	54	30	30	10	12	1100	-	0,190	✓ 20,74 €
ADL-16M/SS	M16	27	-	63	35	35	12	14	1500	-	0,280	✓ 26,22 F
ADL-20M/SS	M20	30	-	72	40	40	14	16	2400	-	0,450	- 43,74 €
ADL-24M/SS	M24	35	-	90	50	50	17	22	3600	-	0,900	- 84,41 €

*Depending on availability - Dimensions in mm

- ISO thread
- Material:
Black stamped steel
Stainless steel 316

Mounting

- For safe and correct assembly: Chamfer the hole into which the bolt will screw or use washers to ensure correct seating.
- Before assembly, clean the threads and corresponding tapped holes
- Screw lifting eye in fully
- The load should be lifted in the direction of the thread, +/- 20° and the pulling force should be along the axial plane of the eye.
- The use of these lifting eyes at an angle greater than 45° is not allowed.
- When the load to be lifted is aluminium, avoid leaving the eyes screwed in for long periods to avoid possible corrosion.



Steel eye bolt



Stainless steel eye bolt

Info.

*SWL: SAFE WORKING LOAD
The Safe Working Load is calculated by dividing the breaking Strength by a factor of safety of 5.

DISCOUNTS

Qty	1+	6+	20+	50+
Disc.	List	-10%	-20%	On request

Part number	Ød	H	ØD1	ØD2	ØG	E	ØS	CMU (kg)	CMU at 45° (kg)	Weight (kg)	Stock*	Price each 1 to 5
Steel eye bolt												
ADL-6F	M6	36	36	20	22	9	9	90	60	0,060	✓	2,13 €
ADL-8F	M8	36	36	20	21	11	9	140	95	0,060	✓	2,16 €
ADL-10F	M10	45	45	25	26	10	10	230	170	0,100	✓	2,57 €
ADL-12F	M12	52	55	29	31	11	12	340	240	0,160	✓	3,45 €
ADL-16F	M16	62	63	34	34	15	14	700	500	0,240	✓	4,83 €
ADL-20F	M20	71	72	39	40	17	16	1200	830	0,360	✓	7,54 €
ADL-24F	M24	89	90	48	49	22	21	1800	1270	0,715	-	13,37 €
ADL-30F	M30	109	108	60	65	25	24	3200	2300	1,400	-	26,09 €
ADL-36F	M36	137	127	69	81	38	31	4600	3300	2,300	-	45,25 €
ADL-42F	M42	147	144	80	85	35	32	6300	4500	3,500	-	88,71 €
ADL-48F	M48	185	170	88	102	45	41	8600	6100	5,670	-	143,01 €
Stainless steel eye bolt												
ADL-6F/SS	M6	-	35	19	20	9	9	180	-	0,055	✓	6,77 €
ADL-8F/SS	M8	-	36	19	20	10	8	300	-	0,050	✓	7,63 €
ADL-10F/SS	M10	-	45	24	24	11	9	500	-	0,090	✓	12,66 €
ADL-12F/SS	M12	-	53	29	29	13	12	800	-	0,155	✓	17,67 €
ADL-14F/SS	M14	-	54	30	30	11	12	1100	-	0,165	-	20,18 €
ADL-16F/SS	M16	-	63	34	35	15	14	1500	-	0,250	-	21,61 €
ADL-20F/SS	M20	-	72	40	40	15	16	2400	-	0,360	✓	42,73 €
ADL-24F/SS	M24	-	90	50	50	20	20	3600	-	0,720	-	76,30 €

*Depending on availability - Dimensions in mm

Lifting pin



BABA

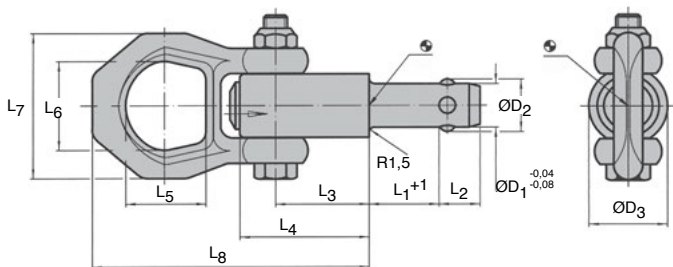
With lifting ring

- **Self locking**
- **Materials:**
 - Pin/shackle: Manganese-phosphate treated steel
 - Press bolt: Aluminium
 - Spring: stainless steel
- Max working temperature: +250°C



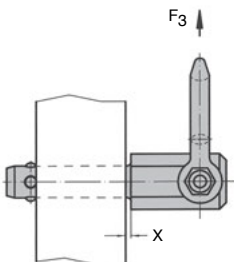
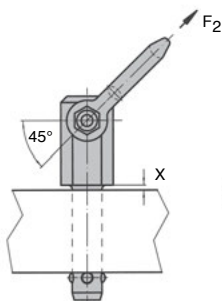
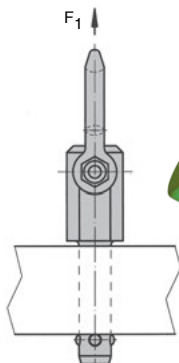
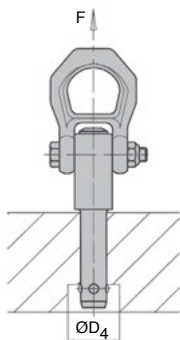
Advantages

- Corrosion resistant
- Quick and simple to use to carry workpieces with a moveable handle and protection against accidental release.
- An H11 toleranced borehole is all that is required, specially tapped holes in pieces to be machined are no longer required



Part number	ØD ₁	L ₁	ØD ₂	ØD ₃	ØD ₄ min.	L ₂	L ₃	L ₄	L ₅	L ₆	L ₇	L ₈	For bore diameter H11
BAB10-15/A	10	15	11,7	21,5	12,2	10,2	25,7	36,0	27	30	49	87,5	10
BAB10-25/A	10	25	11,7	21,5	12,2	10,2	25,7	36,0	27	30	49	87,5	10
BAB10-35/A	10	35	11,7	21,5	12,2	10,2	25,7	36,0	27	30	49	87,5	10
BAB10-50/A	10	50	11,7	21,5	12,2	10,2	25,7	36,0	27	30	49	87,5	10
BAB12-15/A	12	15	14,2	21,5	14,7	11,0	25,7	36,0	27	30	49	87,5	12
BAB12-25/A	12	25	14,2	21,5	14,7	11,0	25,7	36,0	27	30	49	87,5	12
BAB12-35/A	12	35	14,2	21,5	14,7	11,0	25,7	36,0	27	30	49	87,5	12
BAB12-50/A	12	50	14,2	21,5	14,7	11,0	25,7	36,0	27	30	49	87,5	12
BAB16-25/A	16	25	18,6	26,0	19,2	15,1	31,0	44,5	27	30	49	92,8	16
BAB16-50/A	16	50	18,6	26,0	19,2	15,1	31,0	44,5	27	30	49	92,8	16
BAB16-75/A	16	75	18,6	26,0	19,2	15,1	31,0	44,5	27	30	49	92,8	16

Dimensions in mm



DISCOUNTS

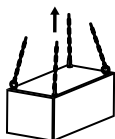
Qty	1+	3+	6+	10+
Disc.	List	-5%	-10%	On request

Part number	X min.	X max.	F ₁ [*] (kN)	F ₂ [*] (kN)	F ₃ [*] (kN)	Weight (g)	Price each 1 to 2
BAB10-15/A	1,5	10	2,7	2,4	2,1	223	127,17 €
BAB10-25/A	1,5	15	2,7	2,4	2,1	230	127,20 €
BAB10-35/A	1,5	25	2,7	2,4	2,1	240	127,17 €
BAB10-50/A	1,5	35	2,7	2,4	2,1	247	127,17 €
BAB12-15/A	1,5	10	3,5	3,2	2,8	231	138,24 €
BAB12-25/A	1,5	20	3,5	3,2	2,8	238	138,24 €
BAB12-35/A	1,5	25	3,5	3,2	2,8	240	138,24 €
BAB12-50/A	1,5	45	3,5	3,2	2,8	262	138,24 €
BAB16-25/A	1,5	20	4,8	4,5	4,1	306	153,16 €
BAB16-50/A	1,5	40	4,8	4,5	4,1	345	153,16 €
BAB16-75/A	1,5	55	4,8	4,5	4,1	384	153,16 €

For a quintuple safety factor - Dimensions in mm

Lifting rings

Technical information

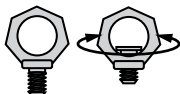
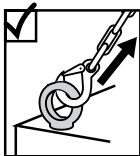
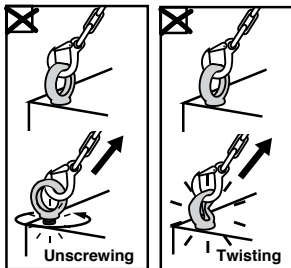
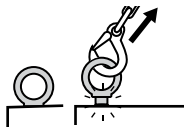


Rings made in house present a high risk of breaking and danger



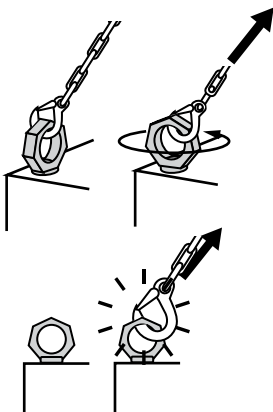
Anneau DIN 580/582

The ring must be fully screwed in and the load lifted from the correct direction or there is a high risk of breakage.



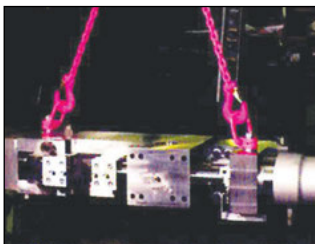
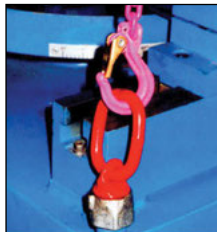
Anneau orientable

Under load conditions, a swivel ring will adjust to the correct orientation and not become unscrewed.



Swivelling lifting ring

Typical application

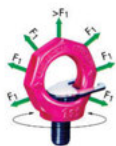


Male swivelling lifting rings

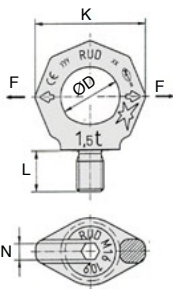
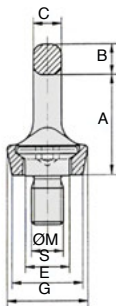
VRSF **RUD**

Swivelling eye ring

- With its distinctive star shape, this ring is clearly distinguishable from standard DIN580 lifting rings
- Colour : Pink epoxy powder coating, vibrant/fluorescent
- Inherent safety, required tightening torque can be achieved by hand, no torque spanner required



4 Suitable for lifting in any direction
Safety coefficient = 4



DISCOUNTS

Qty	1+	5+	10+	15+
Disc.	List	-3%	-6%	On request

Part number	SWL	ØM	A	B	C	ØD	E	G	K	L	N	S	Weight (kg)	Price each 1 to 4
VRS-F-M6	0,10t	M6	27	9	7	20	23	28	37	9	6	13	0,06	54,36 €
VRS-F-M8	0,30t	M8	34	11	8,5	25	25	32	47	12	6	16	0,10	44,92 €
VRS-F-M10	0,40t	M10	34	11	8,5	25	25	32	47	15	6	16	0,10	44,92 €
VRS-F-M12	0,75t	M12	42	13	10	30	30	34	56	18	8	20	0,20	55,44 €
VRS-F-M14	0,75t	M14	42	13	10	30	30	34	56	18	8	20	0,20	63,97 €
VRS-F-M16	1,50t	M16	49	15	14	35	35	40	65	24	10	23,5	0,30	63,97 €
VRS-F-M18	1,50t	M18	49	15	15	35	35	40	65	24	10	23,5	0,30	75,43 €
VRS-F-M20	2,30t	M20	57	17	16	40	42	50	75	30	12	29	0,50	84,62 €
VRS-F-M22	2,30t	M22	57	17	16	40	42	50	75	30	12	29	0,50	96,48 €
VRS-F-M24	3,20t	M24	70	21	19	48	50	60	90	36	14	35	0,90	112,52 €
VRS-F-M27	3,20t	M27	70	21	19	48	48	60	90	36	14	35	0,90	130,70 €
VRS-F-M30	4,50t	M30	86	26	24	60	60	75	112	45	17	44	1,70	176,13 €

Dimensions in mm

Male swivelling lifting rings

- **Marking** : Clear indication of maximum load for the least favourable lifting direction F (not permitted for DIN 580 lifting rings) . Also the SWL in the format supplied (in lbs). Marking on the ring : RUD, model (eg : VRS), CE, H1 traceability code for ring and thread. On the thread : Dimension M, RUD and T code

- Forged from 1.6541 steel, tempered and 100% electromechanically tested for cracks according to EN 1677-1

- Manufactured in Germany, 100% tested

- **Swivelling lifting ring VRS-F**

- For installation by hand, no tools required

- **Safety coefficient 4**

Threaded part > steel 1.0037 (acc EN 10025) or E24-2 (acc NF A 35-501). Countersink of threaded hole = nominal thread diameter. When assembling, check that the thread is fully screwed in as far as its base. The load must be in contact with the full surface of the base. When assembled the VRS ring must be able to rotate through 360°. The bolting surface F must be completely flat.

- Before lifting begins, adjust to the direction of pull.

- Components are patented, European patent EP 654 611

- Captive hexagonal headed screw, 100% tested for cracks. Insert the flat spanner into the hexagonal screw to tighten or loosen the screw by hand. Then remove the spanner.

- When tightening the screw with the spanner or an Allen key, apply a consistent force. Do not use an extension.



Conforms to European Directive 98/37/CE



Comparison

DIN580-M20
type ring



F : 1200kg



F : 6000kg



VRS-F-M80

- **Attention** : DIN 580 style lifting rings must always be fully screwed in and never subjected to bending or transversal loads ! For any lifting operation using 2 or more cables, the lifting ring must be adjusted to the direction of pull. This is only possible with the VRS which can be adjusted to any direction even when completely screwed in.

Attention: Read the instruction notice carefully.

We retain the right to modify technical information when necessary.

Male swivelling lifting rings **stainless steel**

VRSSs  RUD®

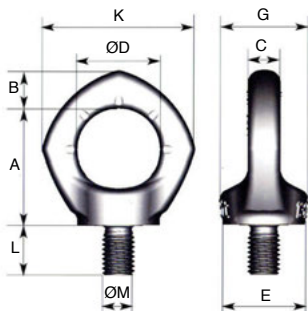
Rotatable lifting ring

- Distinctive pentagonal shape clearly distinguishes it from DIN 580 lifting rings
- Material :
Ring is forged from 1.4462 steel
- Ring and screw are 100% tested for cracks
- Safety Coefficient 4
- Blind holes should be drilled sufficiently deep that the base of the ring touches the surface. Screw in the ring (without using any additional fittings), into the piece to be lifted so that the underside of the hexagonal screw is against the surface of the load.
- When assembling, verify that the base of the internal hexagonal screw is in contact with the surface of the load. In case of shocks or vibrations, especially when the load is carried by a screw not fully tightened, there is a severe risk of the ring becoming unscrewed.
- When fully tightened, the ring must be able to turn through 360°
- Before lifting, adjust the lifting ring to the direction of the applied force



Info

- Special captive hexagonal screw
- Conforms to European Directive 98/37/CE
- The nominal SWL engraved on the ring is valid for pulling in all directions



DISCOUNTS

Qty	1+	5+	10+	15+
Disc.	List	-3%	-6%	On request

Part number	SWL	ØM	A	B	C	ØD	E	G	K	L	SW	Weight (kg)	Price each 1 to 4
VRS-M12/SS	0,6t	M12	42	14	10	30	30	32	56	18	8	0,2	96,76 €
VRS-M16/SS	1,2t	M16	49	16	12	35	35	37	65	24	10	0,3	109,27 €
VRS-M20/SS	1,8t	M20	57	19	16	40	40	43	74	30	12	0,6	134,65 €
VRS-M24/SS	2,6t	M24	69	24	19	48	50	53	92	35	14	1,0	192,63 €

Dimensions in mm

Female swivelling lifting rings

Swivel rings

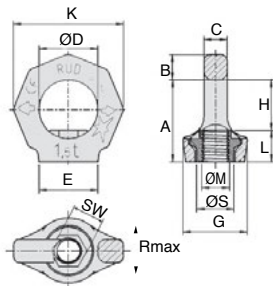
 RUD[®] VRM

- When considering the VRM (Female lifting ring), please also read the information on the VRS.
- Captive nut, 100% tested for cracks
- The male thread must be in contact with 100% of the thread of the nut. During assembly verify that load is in contact with the full surface of the base of the VRM nut.
- The values of load given are only valid when the recommended male thread (category 10.9 minimum) is used.
- When fully screwed in, the ring must be able to rotate through 360°.
- **Attention:** Read the instruction notice carefully.



Info

- Conforms to European Directive 98/37/CE
- The nominal SWL engraved on the ring is valid for pulling in all directions





DISCOUNTS

Qty	1+	5+	10+	15+
Disc.	List	-3%	-6%	On request

Part number	SWL	ØM	A	B	C	ØD	E	G	H	K	L	Rmax	ØS	SW	Weight (kg)	Price each 1 to 4
VRM-M6	0,1t	M6	28	9	7	20	23	28	16	37	11	16	13	9	0,06	67,95 €
VRM-M8	0,3t	M8	34	11	8,5	25	25	28	20	47	14	20	16	12	0,10	51,45 €
VRM-M10	0,4t	M10	34	11	8,5	25	25	28	20	47	14	20	16	12	0,10	60,87 €
VRM-M12	0,75t	M12	42	13	10	30	30	34	25	56	17	24	20	14	0,20	65,42 €
VRM-M16	1,5t	M16	51	15	14	35	35,5	40	30	65	21	30	22	19	0,30	83,72 €
VRM-M20	2,3t	M20	57	17	16	40	40	50	34	75	23	37	29	24	0,50	95,67 €
VRM-M24	3,2t	M24	69	21	19	48	50	60	40	90	29	45	35	30	0,90	118,88 €
VRM-M30	4,5t	M30	86	26	24	60	60	75	52	112	34	34	44	36	1,50	166,71 €

Dimensions in mm

Folding lifting ring, for welding

VLBS  RUD®

Central bearing

- **With positioning spring**
- 2 protective lugs improve the locating of the lifting hook and give added protection to the positioning spring. The support effect is increased (useful when load is side loaded or at 90° or when surfaces to be welded are not flat).
- Pink thermochromic powder coating, vibrant/fluorescent
- High dynamic and static resistance
- Mounting bracket is forged from steel alloy (S355J2+N) which is both strong and easy to weld.
- SWL is clearly indicated
- Ring profile conforms to the welding requirements of DIN18800 (welding instructions supplied with the product). Weld positions (closed, HV) ensure resistance to corrosion and allows the ring to be used outside.



4 Suitable for lifting in any direction
Safety coefficient = 4

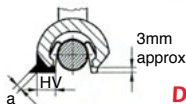
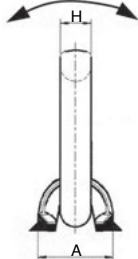
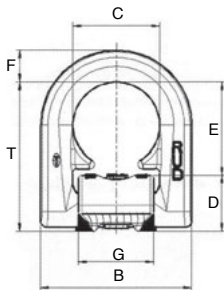
Pivots through 180°

Advantages

- Integrated spring greatly reduces induced noise and wear due to friction

Info

- Conforms to European Directive 98/37/CE
- The nominal SWL indicated on the ring is valid for lifting in any direction
- The ring should not be welded
- Welding to be carried out by suitably qualified personnel
- **Attention:** Read the instruction notice carefully



Weld positions

BG certified



DISCOUNTS

Qty	1+	5+	10+	15+
Disc.	List	-3%	-6%	On request

Part number	SWL		Dimensions (mm)										Weight (kg)	Weld size	Price each 1 to 4
	(t)	A	B	C	D	E	F	G	H	T					
VLBS-1	1,5	33	66	38	25	40	14	33	13,5	65	0,35	HV 5+ a 3	△	34,41 €	
VLBS-2	2,5	36	77	45	27	48	16	40	13,5	72	0,50	HV 7+ a 3	△	36,23 €	
VLBS-4	4,0	42	87	51	31	52	18	46	16,5	83	0,80	HV 8+ a 3	△	39,31 €	
VLBS-6	6,7	61	115	67	44	73	24	60	22,5	117	1,90	HV 12+ a 4	△	83,35 €	
VLBS-10	10,0	75	129	67	55	71	27	60	26,5	126	2,90	HV 16+ a 4	△	118,88 €	

Dimensions in mm

Lifting ring, for welding

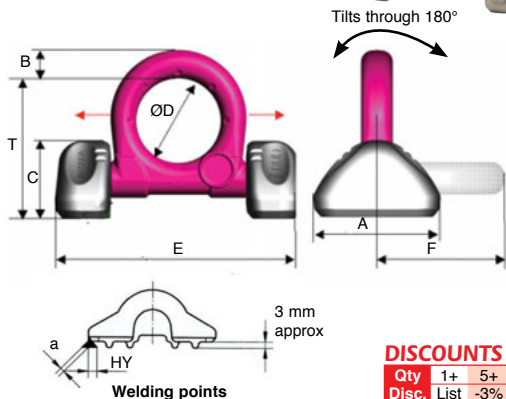
Dual bearings

RUD VRBS

- 2 mounting points for a better distribution of applied forces
- High dynamic and static strength
- Low profile
- SWL clearly marked
- Mounts manufactured from S355J2+N steel alloy
- Corrosion resistant epoxy coating

Info.

- Ring should not be welded
- Welding to be carried out by suitably qualified personnel
- Ring profile conforms to the welding requirements of DIN18800 (welding instructions supplied with the product)
- Position of welding positions (closed, HV) ensures corrosion resistance and renders the ring suitable for use outside.



DISCOUNTS

Qty	1+	5+	10+	15+
Disc.	List	-3%	-6%	On request

Part number	SWL (t)	A	B	C	ØD	E	F	T	Weight (kg)	Weld size	Length	Price each 1 to 4
VRBS-4	4,0	62	14	28	48	135	71	65	0,9	HY 4 + a 3	2 x 130 mm	42,40 €
VRBS-6	6,7	88	20	39	60	170	92	84	2,1	HY 5,5 + a 3	2 x 170 mm	74,47 €
VRBS-10	10,0	100	22	46	65	195	100	95	3,0	HY 6 + a 4	2 x 190 mm	124,86 €
VRBS-16	16,0	130	30	57	90	263	134	127	6,9	HY 8,5 + a 3	2 x 250 mm	224,71 €
VRBS-31	31,5	160	42	79	130	375	195	178	19,0	HY 18 + a 4	2 x 365 mm	545,12 €

Dimensions in mm

Rotating lifting ring

VLBG  **RUD**

Base rotates through 360°

- Bolt on arched lifting ring, wider opening
- Rotates through 360° for easy alignment to lifting direction
- Ring can be tilted without reduction in SWL
- Surface finish: Pink thermochromic coating offers high wear/corrosion resistance
- Operating instructions: see next page



Standard

With longer thread and nut



Full 360° rotation

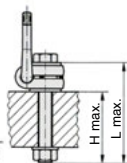
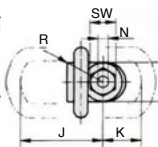
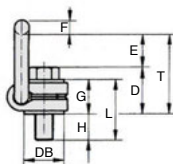
Option

- Can be supplied with a longer thread and a mounting screw for use with a through hole or for mounting on lighter metals such as aluminium

Info.

- Conforms to EU Directive 98/37/CE

4 Suitable for lifting in any direction
Safety coefficient = 4



BG certified



EMI OFB
005151



DISCOUNTS

Qty	1+	5+	10+	15+
Disc.	List	-3%	-6%	On request

Part number	SWL (t)	B		D	E	F	G	H		J	
		A	max.					stand.	max.		
VLBG-M8	0,30	30	54	34	35	40	10	29	11	76	75
VLBG-M10	0,63	30	54	34	36	39	10	29	16	96	75
VLBG-M12	1,00	32	54	34	37	38	10	29	21	116	75
VLBG-M16	1,50	33	56	36	46	39	13,5	36	24	149	86
VLBG-M20	2,50	50	82	54	55	55	16,5	43	32	187	113
VLBG-M24	4,00	50	82	54	58	67	18	43	37	222	130
VLBG-M27	4,00	60	103	65	78	69	22,5	61	39	-	151
VLBG-M30	5,00	60	103	65	80	67	22,5	61	49	279	151

Part number	K	L		M	N	SW	R	T	DB	Torque (Nm)	Weight (kg)	Price each 1 to 4
		stand.	max.									
VLBG-M8	45	40	105	8	5	13	32	75	24	30	0,3	91,87 €
VLBG-M10	45	45	125	10	6	17	32	75	24	60	0,32	90,23 €
VLBG-M12	45	50	145	12	8	19	32	75	26	100	0,33	91,87 €
VLBG-M16	47	60	185	16	10	24	38	85	30	150	0,55	98,20 €
VLBG-M20	64	75	230	20	12	30	48	110	45	250	1,3	112,35 €
VLBG-M24	78	80	265	24	14	36	48	125	45	400	1,5	120,68 €
VLBG-M27	80	100	-	27	-	41	67	147	60	400	3,1	206,86 €
VLBG-M30	80	110	340	30	17	46	67	147	60	500	3,3	219,27 €

Dimensions in mm

Rotating lifting ring

Base rotates through 360°

 RUD VLBG



- The ring, thread and nut are all certified and are 100% tested for cracks
- Metric versions have a universal hexagonal (external and internal) head that allows use of common tools.
- Multiple surface coatings for increased protection: the special CORRUD-DT (RUD patent) pre-coat guarantees anti corrosion protection 20 times higher than galvanising.
*except for the cut surface of any shortened threads
- Screwed part "H" is threaded along entire length
- Ensure that the mating surface (R) is truly flat. When fully tightened, the ring must be able to rotate through 360°.
- The lifting ring should be aligned in the direction of lift and be able to move freely. It should be use any edge as a support.
Do not rotate the ring whilst under load.
- Only for use by trained personnel and strictly in accordance with local lifting safety regulations.

Not allowed!



Not allowed!

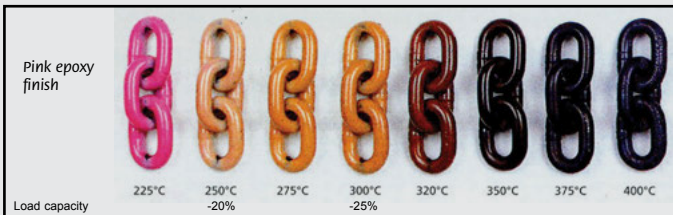


Why are RUD lifting rings "pink"?

Some RUD lifting rings have a patented pink finish. This vibrant fluorescent coating is heat sensitive and will change colour as the temperature rises.

Initially pink, as the temperature increases the colour will change to beige, then brown and finally black.

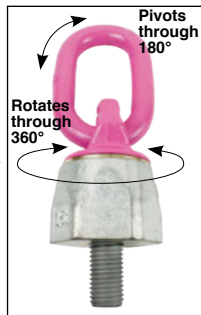
If the ring is black and there are blisters, a temperature of 400°C has been exceeded. This implies a reduction in the carrying capacity and maximum working temperature.



Threaded lifting ring

WBGv **RUD** Rotates through 360°

- Lifting ring for loads liable to swivel or tilt.
- Mounted on ball bearings
- Can be rotated under load
- Easy installation, only a tapped hole required
- Heavy duty lifting ring, manufactured and tested to DIN EN1677-4
- Surface finish: Pink epoxy powder over zinc plating
- Thread is 100% electromagnetically tested for cracks, CORRUD-DT coated
- Pivots through 180°



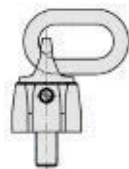
Option

- Can be supplied with a longer thread and a mounting screw for use with a through hole or for mounting on lighter metals such as aluminium

Info

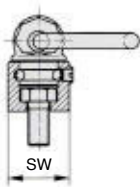
- Conforms to EU Directive 98/37/CE

* → X

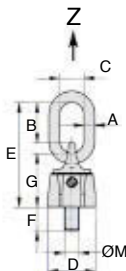


Nominal SWL
Worst case lift
direction

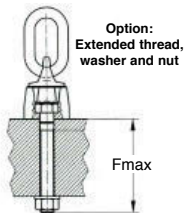
→ Y
Load direction



Aligned by
hand, SWL
increases ()



Vertical load
SWL values
doubled



Option:
Extended
thread,
washer and nut

4 Suitable for lifting in any direction
safety coefficient = 4



DISCOUNTS

Qty	1+	5+	10+	15+
Disc.	List -3%	-6%	On request	

Part number	Load		ØM	A	B	C	D	E	F	G	SW	Weight (kg)	Price each 1 to 4	
	SWL (t)	(t)												
WBG-V-M8	0,3 (0,4)		M8	8	33	29	36	76	13	102	36	28	0,3	93,50 €
WBG-V-M10	0,45 (0,6)		M10	8	33	29	36	78	17	122	38	30	0,3	98,76 €
WBG-V-M12	0,6 (0,75)		M12	10	51	35	42	105	21	140	45	36	0,6	104,93 €
WBG-V-M16	1,3 (1,5)		M16	10	49	35	48	114	30	180	54	41	0,6	112,52 €
WBG-V-M20	2 (2,5)		M20	13	56	35	64	135	33	223	65	55	1,1	189,01 €
WBG-V-M24	3,5 (4,0)		M24	18	68	40	81	172	40	255	87	70	2,7	254,06 €
WBG-V-M30	5 (6,0)		M30	22	93	50	99	220	50	330	105	85	5,5	339,06 €

Dimensions in mm

Universal threaded lifting hook

Rotates through 360°

RUD PPS

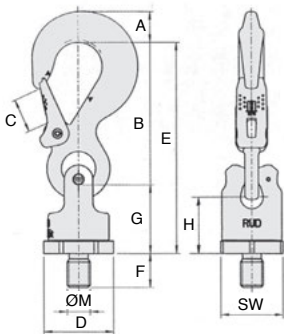
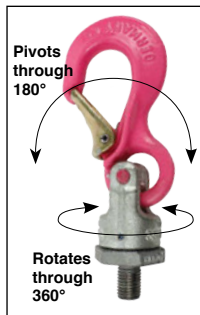
- **Universal lifting hook for all applications.**
- Suitable for use with cables, round or synthetic slings and chains
- Double ball bearings allows for loads to turn or tilt
- Visual overload indication on hook
- Hook and latched manufactured from forged steel and 100% crack tested
- Hook has a pink thermochromic finish (High visibility)

Option

- Can be supplied with a longer thread and nut for use with a through hole or for mounting on lighter metals such as aluminium

Info

- Conforms to EU Directive 98/37/CE
- Load capacity doesn't change with load direction



4 Suitable for lifting in any direction
Safety coefficient = 4

CE

DISCOUNTS

Qty	1+	5+	10+	15+
Disc.	List -3%	-6%	On request	

Part number	Load SWL (t)	ØM	A	B	C	D	F	SW stand.	G	E	Weight (kg)	Torque (Nm)	Price each 1 to 4
PPS-M12	0,63	M12	13	75	18	40	36	18	41	116	0,4	10	125,39 €
PPS-M16	1,5	M16	20	97	25	46	41	24	50	147	1,0	30	157,83 €
PPS-M20	2,5	M20	28	126	30	61	55	30	61	187	1,7	70	197,90 €
PPS-M24	4,0	M24	36	150	35	78	70	36	77	227	3,5	150	278,18 €
PPS-M30	5,0	M30	37	174	40	95	85	45	93	267	7,2	225	405,93 €
PPS-M36	8,0	M36	49	208	48	100	90	54	102	310	9,2	410	642,08 €

Dimensions in mm

**BOX OD ASSORTED
SPRING PINS**

NEW



p.348

**ROUNDED END
FEATHER KEY**



p.356

EXTERNAL CIRCLIP



p.358

**SHAFT LOCKING
WASHER**

**✓ INCREASED
STOCK**



p.360

**SELF LOCKING
COUNTER NUT**



Until
-50%**

p.361

LINCH PIN



**✓ INCREASED
STOCK**

p.362

COILED SPRING PIN



p.364

FIXING

p.348 - 393

DOWEL PIN



p.368

**EXTRACTABLE
DOWEL PIN**



p.372

HITCH PIN



**✓ INCREASED
STOCK**

p.373

HEXAGONAL SPACER



p.376

Box of assorted spring pins

New

BOX-BETA

Steel pins

- Chromed steel spring pins

Applications

- Ideal for your maintenance service or workshop

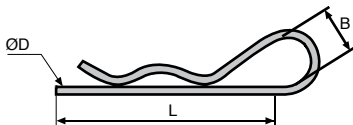


NEW!



Box contents

Quantity	ØD	L
50	2	47
40	2,5	64
30	3	68
8	4	86
5	5	97
5	6	108



DISCOUNTS

Qty	1+	2+	5+
Disc.	List	-5%	On request

Part number	Quantity per box	Price each
BOX-BETA	138 pieces	90,78 €

Dimensions in mm

Boxed set of cylindrical dowel pins **DIN6325**

Steel dowel pins

BOXDH

- Steel pins conforming to DIN6325

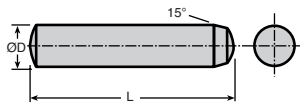
Applications

- Ideal for maintenance or workshop applications



Box contents

Quantity	ØD	L
100	2	10
50	2	32
100	3	10
50	3	20
100	4	10
30	4	24
50	5	12
40	5	24
30	5	36
50	6	10
40	6	16
30	6	20
25	6	30
20	6	40
30	8	20
20	8	40
20	10	24
10	10	40
10	12	40



✓ INCREASED STOCK

DISCOUNTS

Qty	1+	2+	5+
Disc.	List	-5%	On request

Part number	Quantity per box	Stock*	Price each
BOX-DH	805 pieces	✓	128,45 €

*Depending on availability - Dimensions in mm

Boxed set of threaded dowel pins **DIN7979D**

BOXDHX

Steel pins

- Threaded dowel pins conforming to DIN7979D

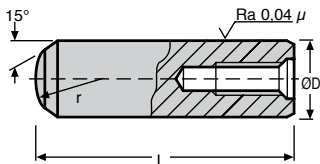
Applications

- Ideal for maintenance or workshop applications



Box contents

Quantity	ØD	L
30	5	20
20	6	24
20	6	30
20	8	24
20	8	30
20	8	40
20	10	30
15	12	40
10	16	60



INCREASED STOCK

DISCOUNTS

Qty	1+	2+	5+
Disc.	List	-5%	On request

Part number Quantity per box

BOX-DHX 175 pieces

Stock*



Price each

168,26 €

*Depending on availability - Dimensions in mm

Boxed set of threaded taper pins **DIN1B**

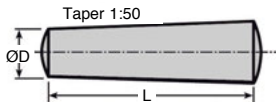
Steel pins

BOXTP

- Steel taper pins conforming to DIN1B

Applications

- Ideal for maintenance or workshop applications



Box contents

Quantity	ØD	L
50	2,0	40
50	2,5	40
20	3,0	50
20	4,0	50
20	5,0	70
20	6,0	70
10	8,0	90
10	10,0	100
10	12,0	120

INCREASED STOCK

DISCOUNTS

Qty	1+	2+	5+
Disc.	List	-5%	On request

Part number	Quantity per box	Stock*	Price each
BOX-TP	210 pieces	✓	113,63 €

*Depending on availability - Dimensions in mm

Boxed set of spring pins ISO 8752

Steel spring pins

BOXSAP

- Steel spring pins conforming to ISO 8752

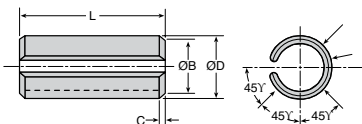
Applications

- Ideal for maintenance or workshop applications



Box contents

Quantity	ØD	L
50	2	20
50	3	30
50	3	40
50	4	30
50	4	40
50	4	54
30	5	40
30	5	50
20	5	60
20	6	40
20	6	5
20	6	60
10	8	30
10	8	40
10	8	50
10	8	60
10	8	80
5	10	40
5	10	80



DISCOUNTS

Qty	1+	2+	5+
Disc.	List	-5%	On request

Part number	Quantity per box	Stock*	Price each
BOX-SAP	500 pieces	✓	96,37 €

*Depending on availability - Dimensions in mm

Boxed set of **DIN6885A** keys

Steel or **stainless steel** keys

BOXKK
BOXKKSS

- Round ended keys conforming to DIN6885A (Type A)

Applications

- Ideal for maintenance or workshop applications

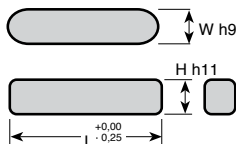


Box contents - BOX-KK (steel)

Quantity	W	H	L
10	3	3	15
20	4	4	15
10	5	5	15
20	5	5	20
25	6	6	25
10	6	6	40
5	6	6	90
25	8	7	25
25	8	7	30
20	8	7	40
20	8	7	50
10	8	7	70
5	8	7	100
20	10	8	40
5	10	8	100
20	12	8	36
3	12	8	100
15	14	9	40
10	14	9	50
3	14	9	100

Box contents - BOX-KK/SS (stainless steel)

Quantity	W	H	L
10	4	4	20
10	5	5	20
10	6	6	20
10	6	6	25
10	6	6	40
10	8	7	25
5	8	7	35
2	8	7	130
10	10	8	25
2	12	8	90



INCREASED STOCK

DISCOUNTS

Qty	1+	2+	5+
Disc.	List	-5%	On request

Part number	Material	Quantity per box	Stock*	Price each
BOX-KK	steel	281 pieces	✓	125,63 €
BOX-KK/SS	stainless steel	79 pieces	✓	193,57 €

*Depending on availability - Dimensions in mm

Boxed set of half round (Woodruff) keys NFE22179

BOXKU

Steel keys

- Half round keys conforming to NFE22179 (DIN6888)

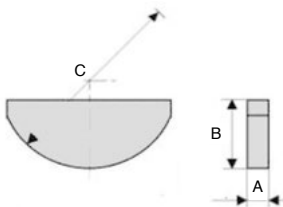
Applications

- Ideal for maintenance or workshop applications



Box contents

Quantity	A(h9)	B(h11)	C(h11)
50	3	3,7	10
50	4	5,0	13
25	5	6,5	16
25	5	7,5	19
25	6	9,0	22
25	6	10,0	25
15	8	11,0	28
10	8	13,0	32
2	8	15,0	38
2	10	16,0	45
1	12	19,0	65
1	12	24,0	80



INCREASED STOCK

DISCOUNTS

Qty	1+	2+	5+
Disc.	List	-5%	On request

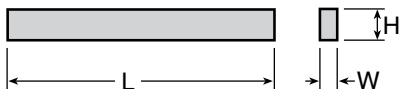
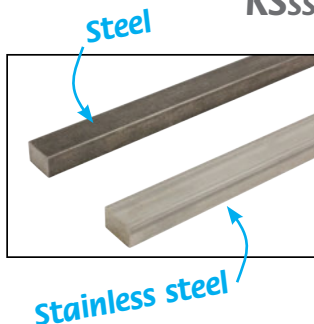
Part number	Quantity per box	Stock*	Price each
BOX-KU	231 pieces	✓	209,67 €

*Depending on availability - Dimensions in mm

Steel or 316 stainless steel

KS KSss

- To be cut to desired length
- Conforms to BS 4235 Part 1 1967
- Materials:
Steel C45
Stainless steel 316



DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

Part number		W (h9)	H (h11)	L (mm)	Stock*	Stock*	Price each 1 to 5	
Steel	Stainless				Steel	Stainless	Steel	Stainless
KS-2	-	2	2	300	✓	-	2,87 €	-
KS-3	-	3	3	300	✓	-	2,87 €	-
KS-4	-	4	4	300	✓	-	3,33 €	-
KS-5	KS-5SS	5	5	300	✓	✓	4,34 €	11,59 €
KS-6	KS-6SS	6	6	300	✓	✓	4,78 €	14,68 €
KS-8	-	8	8	300	✓	-	3,91 €	-
KS-87	KS-87SS	8	7	300	✓	✓	3,91 €	31,29 €
KS-10	-	10	10	300	✓	-	5,24 €	-
KS-108	KS-108SS	10	8	300	✓	✓	4,78 €	50,07 €
KS-12	-	12	12	300	✓	-	7,33 €	-
KS-128	KS-128SS	12	8	300	✓	✓	5,78 €	59,55 €
KS-14	-	14	14	300	✓	-	8,19 €	-
KS-149	KS-149SS	14	9	300	✓	-	7,74 €	58,17 €
KS-1610	KS-1610SS	16	10	300	✓	-	7,74 €	82,67 €
KS-1811	KS-1811SS	18	11	300	✓	-	8,76 €	69,32 €
KS-2012	-	20	12	300	✓	-	11,73 €	-
KS-2214	KS-2214SS	22	14	300	✓	-	14,14 €	128,69 €
KS-2514	-	25	14	300	✓	-	14,67 €	-

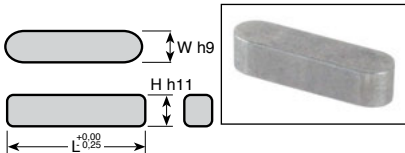
*Depending on availability - Dimensions in mm

Rounded end feather key **DIN 6885** **Ste** **DIN** **Stock**

KK

Steel

- Mechanical interlock
- Type A (2 round ends)
- Keyway required in associated parts
- Material: Steel C45
- **Not sold individually, please contact us for details**



Options

- Also exists in stainless steel (316) and imperial sizes

DISCOUNTS

Qty	1+	20+	50+	100+	200+	500+	1000+
Disc.	List	-45%	-55%	-65%	-70%	-80%	On request

Part number	W (h9)	H (h11)	L	Stock*	Price each 1 to 5
KK2-10	2	2	10	✓	0,55 €
KK2-14	2	2	14	✓	0,55 €
KK2-20	2	2	20	✓	0,55 €
KK2-22	2	2	22	✓	0,55 €
KK3-8	3	3	8	✓	0,42 €
KK3-10	3	3	10	✓	0,46 €
KK3-12	3	3	12	✓	0,42 €
KK3-15	3	3	15	✓	0,42 €
KK3-20	3	3	20	✓	0,43 €
KK3-30	3	3	30	✓	0,42 €
KK3-40	3	3	40	✓	0,42 €
KK4-8	4	4	8	✓	0,42 €
KK4-10	4	4	10	✓	0,42 €
KK4-12	4	4	12	✓	0,42 €
KK4-15	4	4	15	✓	0,42 €
KK4-16	4	4	16	✓	0,42 €
KK4-20	4	4	20	✓	0,42 €
KK4-25	4	4	25	✓	0,43 €
KK5-10	5	5	10	✓	0,42 €
KK5-12	5	5	12	-	1,58 €
KK5-14	5	5	14	✓	0,42 €
KK5-16	5	5	16	✓	0,42 €
KK5-18	5	5	18	✓	0,42 €
KK5-20	5	5	20	✓	0,44 €
KK5-25	5	5	25	✓	0,42 €
KK5-30	5	5	30	✓	0,46 €
KK5-35	5	5	35	✓	0,55 €
KK5-40	5	5	40	✓	0,55 €
KK5-50	5	5	50	✓	0,50 €
KK6-12	6	6	12	✓	0,55 €
KK6-14	6	6	14	✓	0,55 €
KK6-16	6	6	16	✓	0,55 €

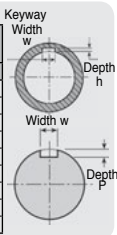
Part number	W (h9)	H (h11)	L	Stock*	Price each 1 to 19
KK6-18	6	6	18	✓	0,55 €
KK6-20	6	6	20	✓	0,55 €
KK6-25	6	6	25	✓	0,55 €
KK6-28	6	6	28	✓	0,55 €
KK6-30	6	6	30	✓	0,55 €
KK6-32	6	6	32	✓	0,55 €
KK6-36	6	6	36	✓	0,57 €
KK6-45	6	6	45	✓	0,73 €
KK6-50	6	6	50	✓	0,66 €
KK8-7-18	8	7	18	✓	0,73 €
KK8-7-20	8	7	20	✓	0,73 €
KK8-7-22	8	7	22	✓	0,73 €
KK8-7-25	8	7	25	✓	0,75 €
KK8-7-30	8	7	30	✓	0,73 €
KK8-7-40	8	7	40	✓	0,84 €
KK8-7-45	8	7	45	✓	1,70 €
KK8-7-50	8	7	50	✓	0,90 €
KK10-8-20	10	8	20	✓	0,89 €
KK10-8-28	10	8	28	✓	0,89 €
KK10-8-30	10	8	30	✓	1,03 €
KK10-8-36	10	8	36	✓	1,03 €
KK10-8-40	10	8	40	✓	1,03 €
KK10-8-45	10	8	45	✓	1,22 €
KK10-8-50	10	8	50	✓	1,22 €
KK12-8-36	12	8	36	✓	1,36 €
KK12-8-40	12	8	40	✓	1,36 €
KK12-8-45	12	8	45	✓	1,52 €
KK12-8-50	12	8	50	✓	1,57 €
KK12-8-56	12	8	56	-	1,70 €
KK12-8-60	12	8	60	✓	1,70 €
KK14-9-50	14	9	50	✓	1,88 €
KK14-9-70	14	9	70	✓	2,64 €

*Depending on availability - Dimensions in mm

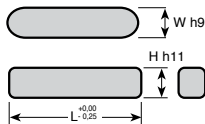
- **Mechanical interlock**
- Type A (2 round ends)
- Keyway required in associated parts
- Material: Key steel XC48 60 daN/mm²
- **Not sold individually, please contact us for details**

Designer's note

Bore or shaft diameter from Ø to Ø (inclusive)	Keyway (mm)		
	W	h	p
Ø6 - Ø8	2	1,07	1,25
Ø8 - Ø10	3	1,50	1,85
Ø10 - Ø12	4	1,86	2,55
Ø12 - Ø17	5	2,35	3,05
Ø17 - Ø22	6	2,83	3,55
Ø22 - Ø30	8	3,34	4,10
Ø30 - Ø38	10	3,34	5,10
Ø38 - Ø44	12	3,35	5,10
Ø44 - Ø50	14	3,80	5,50



stainless steel



DISCOUNTS

Qty	1+	6+	20+	50+	100+	200+
Disc.	List	-15%	-45%	-55%	-65%	On request

Part number	Width W (h9)	Height H (h11)	Length L	Stock*	Price each 1 to 5 parts
KK2-20SS	2	2	20	✓	3,86 €
KK3-10SS	3	3	10	✓	1,36 €
KK3-20SS	3	3	20	✓	1,49 €
KK4-10SS	4	4	10	✓	1,66 €
KK4-12SS	4	4	12	✓	1,03 €
KK4-18SS	4	4	18	✓	1,71 €
KK4-20SS	4	4	20	✓	1,84 €
KK4-25SS	4	4	25	✓	1,94 €
KK5-10SS	5	5	10	✓	1,78 €
KK5-20SS	5	5	20	✓	2,11 €
KK5-25SS	5	5	25	✓	2,24 €
KK5-30SS	5	5	30	✓	2,55 €
KK6-10SS	6	6	10	✓	2,11 €
KK6-20SS	6	6	20	✓	2,54 €
KK6-25SS	6	6	25	✓	2,84 €
KK6-30SS	6	6	30	✓	3,29 €
KK8-7-20SS	8	7	20	✓	3,41 €
KK8-7-25SS	8	7	25	✓	3,86 €
KK8-7-30SS	8	7	30	✓	4,44 €
KK8-7-35SS	8	7	35	✓	4,82 €
KK10-8-20SS	10	8	20	✓	4,59 €
KK10-8-25SS	10	8	25	✓	5,31 €
KK10-8-30SS	10	8	30	✓	6,19 €
KK10-8-35SS	10	8	35	✓	6,77 €
KK12-8-20SS	12	8	20	-	7,40 €
KK12-8-25SS	12	8	25	✓	7,35 €
KK12-8-30SS	12	8	30	✓	7,40 €
KK12-8-35SS	12	8	35	✓	7,95 €

*Depending on availability - Dimensions in mm

- Flexible ring for preventing axial movement of a shaft

- Special pliers required for mounting (not supplied)

- Material: Stainless steel A2

- Corrosion resistant

- Working temperature:

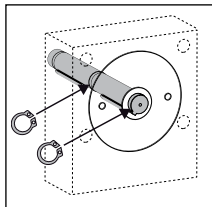
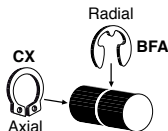
-20°C to +200°C

(Tolerates occasional use

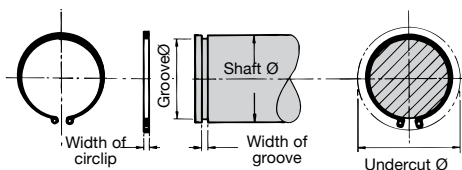
at up to 300°C)

- Sold by the packet, quantity depends on size

stainless steel



Typical application



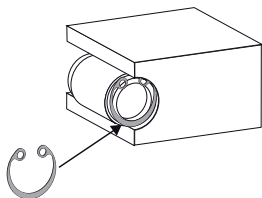
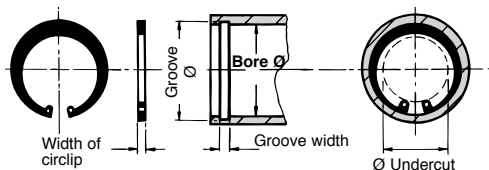
DISCOUNTS

N° packets	1+	6+	20+	50+
Disc.	List	-10%	-20%	On request

Part number	Shaft Ø	Circlip width	Groove Ø	Groove width	Undercut Ø	Qty. per packet	Stock*	Price per packet
CX-4S/B	4	0,40	3,80	0,50	8,60	200	✓	22,23 €
CX-5S/B	5	0,60	4,80	0,70	10,30	200	✓	25,88 €
CX-6S/B	6	0,70	5,70	0,80	11,70	200	✓	25,65 €
CX-7S/B	7	0,80	6,70	0,90	13,50	200	✓	29,31 €
CX-8S/B	8	0,80	7,60	0,90	14,70	200	✓	33,75 €
CX-9S/B	9	1,00	8,60	1,10	16,00	200	-	38,16 €
CX-10S/B	10	1,00	9,60	1,10	17,00	100	✓	20,36 €
CX-12S/B	12	1,00	11,50	1,10	19,00	100	✓	22,92 €
CX-14S/B	14	1,00	13,40	1,10	21,40	100	✓	32,41 €
CX-15S/B	15	1,00	14,30	1,10	22,60	100	✓	34,46 €
CX-16S/B	16	1,00	15,20	1,10	23,80	100	✓	37,79 €
CX-17S/B	17	1,00	16,20	1,10	25,00	100	✓	45,09 €
CX-18S/B	18	1,20	17,00	1,30	26,20	100	✓	60,78 €
CX-20S/B	20	1,20	19,00	1,30	28,40	100	✓	68,65 €
CX-22S/B	22	1,20	21,00	1,30	30,80	50	✓	40,49 €
CX-24S/B	24	1,20	22,90	1,30	33,20	50	✓	43,88 €
CX-25S/B	25	1,20	23,90	1,30	34,20	50	✓	45,48 €
CX-26S/B	26	1,20	24,90	1,30	35,50	50	✓	56,11 €
CX-30S/B	30	1,50	28,60	1,60	40,60	50	✓	79,71 €
CX-35S/B	35	1,50	33,00	1,60	47,00	25	✓	67,06 €

*Depending on availability - Dimensions in mm

- Flexible ring for preventing axial movement of a bored component
- Special pliers required for mounting (not supplied)
- Material: Stainless steel A2
- Corrosion resistant
- Working temperature: -20°C to +200°C (Tolerates occasional use at up to 300°C)
- Sold by the packet, quantity depends on size



DISCOUNTS

N° packets	1+	6+	20+	50+
Disc.	List	-10%	-20%	On request

Part number	Bore Ø	Circlip width	Groove Ø	Groove width	Undercut Ø	Qty. per packet	Stock*	Price per packet
CY-10S/B	10	1,00	10,40	1,10	3,30	200	-	54,00 €
CY-11S/B	11	1,00	11,40	1,10	4,10	100	✓	58,63 €
CY-12S/B	12	1,00	12,50	1,10	4,90	100	✓	30,37 €
CY-13S/B	13	1,00	13,60	1,10	5,40	100	-	30,10 €
CY-14S/B	14	1,00	14,60	1,10	6,20	100	-	33,75 €
CY-15S/B	15	1,00	15,70	1,10	7,20	100	-	35,10 €
CY-16S/B	16	1,00	16,80	1,10	8,00	100	✓	36,86 €
CY-18S/B	18	1,00	19,00	1,10	9,40	100	-	40,49 €
CY-20S/B	20	1,00	21,00	1,10	11,20	100	✓	45,23 €
CY-22S/B	22	1,00	23,00	1,10	13,20	50	✓	28,00 €

*Depending on availability - Dimensions in mm

Shaft locking washer

StaDIN

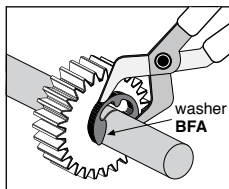
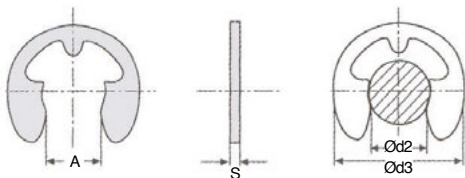
BFA

E clip

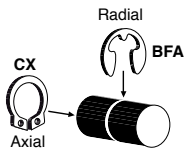
- Conforms to DIN6799
- Stainless steel A2

Advantages

- Can be fitted to a smooth shaft or in a groove (preferred)
- Can either be fitted axially or radially
- Easily disassembled using a screwdriver



Typical application



INCREASED STOCK

DISCOUNTS

Qty	1+	6+	11+
Disc	List	-10%	On request

Part number	Ød2	Shaft Ø	Ød3 max	A	S	Quantity per box	Stock*	Price each 1 to 5
BFA-1.2/B	1,2	1,4 - 2,0	3,25	1,01	0,3	1000	✓	28,63 €
BFA-1.5/B	1,5	2,0 - 2,5	4,25	1,28	0,4	1000	✓	30,34 €
BFA-1.9/B	1,9	2,5 - 3,0	4,80	1,61	0,5	1000	✓	32,37 €
BFA-2.3/B	2,3	3,0 - 4,0	6,30	1,94	0,6	1000	✓	35,44 €
BFA-3.2/B	3,2	4,0 - 5,0	7,30	2,70	0,6	1000	✓	41,58 €
BFA-4/B	4,0	5,0 - 7,0	9,30	3,34	0,7	1000	✓	43,98 €
BFA-5/B	5,0	6,0 - 8,0	11,30	4,11	0,7	1000	✓	63,06 €
BFA-6/B	6,0	7,0 - 9,0	12,30	5,26	0,7	1000	✓	71,60 €
BFA-7/B	7,0	8,0 - 11,0	14,30	5,84	0,9	500	✓	48,58 €
BFA-8/B	8,0	9,0 - 12,0	16,30	6,52	1,0	500	✓	55,06 €
BFA-9/B	9,0	10,0 - 14,0	18,80	7,63	1,1	500	✓	77,06 €
BFA-10/B	10,0	11,0 - 15,0	20,40	8,32	1,2	500	✓	92,74 €
BFA-12/B	12,0	13,0 - 18,0	23,40	10,45	1,3	200	✓	54,68 €
BFA-15/B	15,0	16,0 - 24,0	29,40	12,61	1,5	200	✓	103,71 €
BFA-19/B	19,0	20,0 - 31,0	37,60	15,92	1,75	100	-	123,17 €

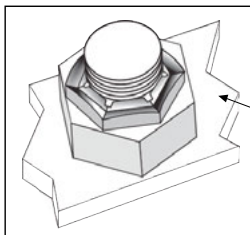
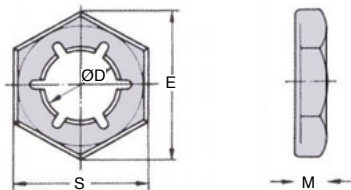
*Depending of availability - Dimensions in mm

- Self locking nut
- Conforms to DIN 7967
- Stainless steel A2

Advantages

- Self locking on threaded shafts

stainless steel



Typical application

Used as a counter nut

Until
-50%**

INCREASED STOCK

DISCOUNTS

Qty Disc.	1+	6+	11+
	List	-10%	On request

Part number	For thread ØD	M	E	S	Quantity per box	Stock*	Price each 1 to 5
PAL-M4/B	M4	4,65	7,66	7	500	-	15,35 €
PAL-M5/B	M5	5	8,79	8	500	✓	17,05 €
PAL-M6/B	M6	6	11,05	10	200	✓	8,11 €
PAL-M8/B	M8	8	14,38	13	100	✓	10,84 €
PAL-M10/B	M10	10	16,64	15	100	✓	6,10 €
PAL-M12/B	M12	12	20,03	18	100	-	7,81 €

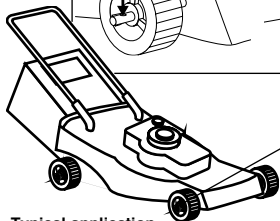
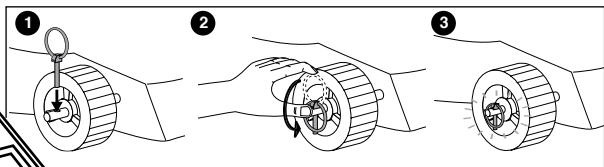
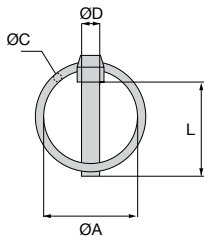
Dimensions in mm



- Low cost clip
- Made from zinc plated steel
- Supplied by the packet

Advantages

- Manual assembly/disassembly



Typical application

INCREASED STOCK

DISCOUNTS

Qty	1+	5+	10+	21+
Disc.	List	-10%	-20%	On request

Part number	ØD	L	ØA	ØC	Weight per 100 (kg)	Quantity per pack	Stock*	Price each 1 to 4
GCA4.5-3/B	4,5	42	34	3	1,31	100	✓	42,50 €
GCA6-3.5/B	6	42	41	3,5	2,30	50	✓	21,86 €
GCA7-3.5/B	7	42	41	3,5	2,65	50	✓	22,21 €
GCA8-3.5/B	8	42	41	3,5	2,91	50	✓	25,66 €
GCA9-3.5/B	9	42	41	3,5	3,55	50	-	27,65 €
GCA10-3.5/B	10	42	41	3,5	4,27	50	✓	29,03 €
GCA11-3.5/B	11	42	41	3,5	4,77	50	-	30,46 €

*Depending on availability - Dimensions in mm



Pipe linch pin

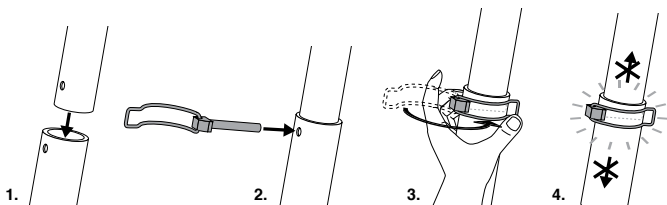
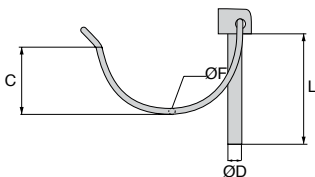
Zinc plated steel

GCT

- Low cost clip
- Made from white zinc plated steel
- Supplied by the packet

Advantages

- Manual assembly/disassembly



INCREASED STOCK

DISCOUNTS

Qty	1+	5+	10+	21+
Disc.	List	-10%	-20%	On request

Part number	ØD	L	C	ØF	For tube ØT	Weight per 100 (kg)	Qty per packet	Stock*	Price each 1 to 4
GCT4.5-40/B	4,5	40	18	3	38-39	1,7	50	✓	27,00 €
GCT6-32/B	6	32	18	3	30-31	2,0	50	✓	28,77 €
GCT6-45/B	6	45	22	3	43-44	2,6	50	✓	31,11 €
GCT8-40/B	8	40	18	3	38-39	3,5	50	✓	34,09 €
GCT8-45/B	8	45	22	3	43-44	3,8	50	✓	36,41 €
GCT8-50/B	8	50	25	3	48-49	4,0	50	✓	38,65 €
GCT8-60/B	8	60	28	3	58-59	4,3	50	✓	42,23 €
GCT10-40/B	10	40	18	3,2	37-38	5,0	25	✓	23,03 €
GCT10-50/B	10	50	25	3,2	47-48	5,8	25	✓	25,56 €
GCT10-60/B	10	60	28	3,2	57-58	6,3	25	✓	28,36 €

*Depending on availability - Dimensions in mm

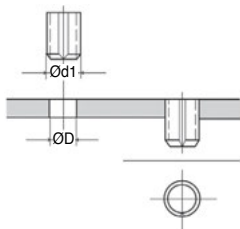
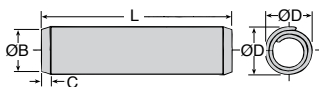
- For fastening two associated parts
- Stress spread uniformly across width
- Absorbs shocks and vibrations
- For information on shear strength, please see technical information
- Material: stainless steel A2
- Sold by the packet, quantity depends on size

Uses

- The selection of a spring pin is based on a number of factors:
- The shearing force to be handled
- The rigidity required for the final assembly
- The strength required under both variable and vibrating loads
- Low cost and easy assembly mechanism, an alternative to using dowel pins
- Reliable transmission of high forces
- High wear resistance
- Can be used as a safety mechanism

Assembly

- Before assembly $\varnothing d1$ will be greater than the hole bore

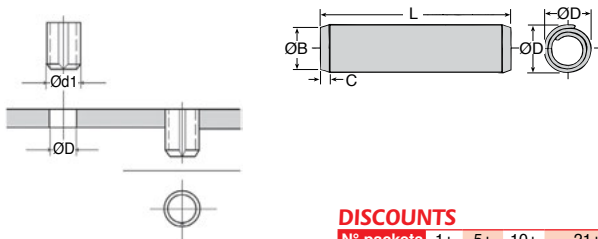


DISCOUNTS

N° packets	1+	5+	10+	21+
Discount	Prix	-10%	-20%	On request

Part number	ØD expanded			L	Chamfer		Hole Ø		Qty. per packet	Price per packet
	ØNom.	Min. Ø	Max. Ø		ØB	C	Min.	Max.		
EP1.5-6/B	1,5	1,62	1,73	6	1,40	0,50	1,50	1,60	100	✓ 9,10 €
EP1.5-8/B	1,5	1,62	1,73	8	1,40	0,50	1,50	1,60	100	✓ 13,42 €
EP1.5-10/B	1,5	1,62	1,73	10	1,40	0,50	1,50	1,60	100	✓ 9,36 €
EP1.5-14/B	1,5	1,62	1,73	14	1,40	0,50	1,50	1,60	100	- 14,05 €
EP1.5-16/B	1,5	1,62	1,73	16	1,40	0,50	1,50	1,60	100	✓ 9,61 €
EP2-6/B	2,0	2,13	2,25	6	1,90	0,70	1,99	2,10	100	✓ 9,91 €
EP2-8/B	2,0	2,13	2,25	8	1,90	0,70	1,99	2,10	100	✓ 10,09 €
EP2-10/B	2,0	2,13	2,25	10	1,90	0,70	1,99	2,10	100	✓ 10,38 €
EP2-14/B	2,0	2,13	2,25	14	1,90	0,70	1,99	2,10	100	✓ 12,70 €
EP2-16/B	2,0	2,13	2,25	16	1,90	0,70	1,99	2,10	100	✓ 8,80 €
EP2-20/B	2,0	2,13	2,25	20	1,90	0,70	1,99	2,10	100	✓ 11,57 €

*Depending on availability - Dimensions in mm



DISCOUNTS

N° packets	1+	5+	10+	21+
Discount	Prix -10%	-20%	On request	

Part number	ØNom.	ØD expanded		L	Chamfer		Hole Ø		Qty. per packet	Stock*	Price per packet
		Min. Ø	Max. Ø		ØB	C	Min.	Max.			
EP3-10/B	3,0	3,15	3,30	10	2,90	0,90	2,99	3,10	100	✓	12,75 €
EP3-12/B	3,0	3,15	3,30	12	2,90	0,90	2,99	3,10	100	✓	16,53 €
EP3-16/B	3,0	3,15	3,30	16	2,90	0,90	2,99	3,10	100	✓	25,29 €
EP3-20/B	3,0	3,15	3,30	20	2,90	0,90	2,99	3,10	100	✓	19,45 €
EP3-24/B	3,0	3,15	3,30	24	2,90	0,90	2,99	3,10	100	✓	21,22 €
EP3-28/B	3,0	3,15	3,30	28	2,90	0,90	2,99	3,10	100	✓	22,97 €
EP3-30/B	3,0	3,15	3,30	30	2,90	0,90	2,99	3,10	100	-	33,13 €
EP4-12/B	4,0	4,20	4,40	12	3,90	1,10	3,98	4,12	50	✓	13,46 €
EP4-16/B	4,0	4,20	4,40	16	3,90	1,10	3,98	4,12	50	-	14,19 €
EP4-20/B	4,0	4,20	4,40	20	3,90	1,10	3,98	4,12	50	✓	12,01 €
EP4-26/B	4,0	4,20	4,40	26	3,90	1,10	3,98	4,12	50	✓	16,42 €
EP4-30/B	4,0	4,20	4,40	30	3,90	1,10	3,98	4,12	50	✓	17,50 €
EP4-35/B	4,0	4,20	4,40	35	3,90	1,10	3,98	4,12	50	✓	18,91 €
EP4-50/B	4,0	4,20	4,40	50	3,90	1,10	3,98	4,12	25	-	13,72 €
EP5-14/B	5,0	5,25	5,50	14	4,85	1,30	4,95	5,12	25	✓	10,20 €
EP5-18/B	5,0	5,25	5,50	18	4,85	1,30	4,95	5,12	25	✓	12,25 €
EP5-20/B	5,0	5,25	5,50	20	4,85	1,30	4,95	5,12	25	✓	12,75 €
EP5-30/B	5,0	5,25	5,50	30	4,85	1,30	4,95	5,12	25	✓	15,16 €
EP5-40/B	5,0	5,25	5,50	40	4,85	1,30	4,95	5,12	25	✓	16,19 €
EP6-20/B	6,0	6,25	6,50	20	5,85	1,50	5,95	6,13	25	✓	14,46 €
EP6-24/B	6,0	6,25	6,50	24	5,85	1,50	5,95	6,13	25	-	17,05 €
EP6-28/B	6,0	6,25	6,50	28	5,85	1,50	5,95	6,13	25	-	18,42 €
EP6-30/B	6,0	6,25	6,50	30	5,85	1,50	5,95	6,13	10	✓	10,43 €
EP6-40/B	6,0	6,25	6,50	40	5,85	1,50	5,95	6,13	10	✓	11,95 €
EP6-50/B	6,0	6,25	6,50	50	5,85	1,50	5,95	6,13	10	✓	13,20 €
EP8-26/B	8,0	8,30	8,63	26	7,80	2,00	7,93	8,17	10	-	13,06 €
EP8-50/B	8,0	8,30	8,63	50	7,80	2,00	7,93	8,17	10	-	20,72 €
EP8-60/B	8,0	8,30	8,63	60	7,80	2,00	7,93	8,17	10	-	23,97 €
EP10-30/B	10,0	10,35	10,80	30	9,75	2,50	9,93	10,20	10	✓	21,43 €
EP10-50/B	10,0	10,35	10,80	50	9,75	2,50	9,93	10,20	10	-	48,05 €
EP10-60/B	10,0	10,35	10,80	60	9,75	2,50	9,93	10,20	10	-	54,63 €

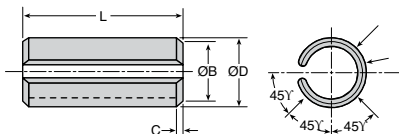
*Depending on availability - Dimensions in mm

- For fastening two associated parts
- Stress spread uniformly across width
- Absorbs shocks and vibrations
- For information on shear strength, please see technical information
- Material: stainless steel 304



Info.

- Sold by the packet



DISCOUNTS

N° packets	1+	5+	10+	21+
Discount	List	-10%	-20%	On request

Part number	ØD expanded			L	ØB	Chamfer C	Hole Ø		Qty. per packet	Price per packet
	Nom. Ø	Min. Ø	Max. Ø				Min.	Max.		
SRP1.5-6/B	1,5	1,70	1,80	6	1,40	0,50	1,50	1,60	100	9,36 €
SRP1.5-8/B	1,5	1,70	1,80	8	1,40	0,50	1,50	1,60	100	9,99 €
SRP1.5-10/B	1,5	1,70	1,80	10	1,40	0,50	1,50	1,60	100	10,18 €
SRP1.5-14/B	1,5	1,70	1,80	14	1,40	0,50	1,50	1,60	100	10,85 €
SRP1.5-20/B	1,5	1,70	1,80	20	1,40	0,50	1,50	1,60	100	12,93 €
SRP2-5/B	2,0	2,30	2,40	5	1,90	0,70	2,00	2,10	100	10,47 €
SRP2-8/B	2,0	2,30	2,40	8	1,90	0,70	2,00	2,10	100	9,36 €
SRP2-10/B	2,0	2,30	2,40	10	1,90	0,70	2,00	2,10	100	10,85 €
SRP2-12/B	2,0	2,30	2,40	12	1,90	0,70	2,00	2,10	100	10,18 €
SRP2-14/B	2,0	2,30	2,40	14	1,90	0,70	2,00	2,10	100	11,57 €
SRP2-16/B	2,0	2,30	2,40	16	1,90	0,70	2,00	2,10	100	12,25 €
SRP2-18/B	2,0	2,30	2,40	18	1,90	0,70	2,00	2,10	100	12,59 €
SRP2-20/B	2,0	2,30	2,40	20	1,90	0,70	2,00	2,10	100	12,93 €
SRP2-24/B	2,0	2,30	2,40	24	1,90	0,70	2,00	2,10	100	15,02 €
SRP2-30/B	2,0	2,30	2,40	30	1,90	0,70	2,00	2,10	100	17,78 €

*Depending on availability - Dimensions in mm

DISCOUNTS

N° packets	1+	5+	10+	21+
Discount	List	-10%	-20%	On request

Part number	ØD expanded				L	ØB	Chamfer C	Hole Ø		Qty. per packet	Stock*	Price per packet
	Nom. Ø	Min. Ø	Max. Ø	Min.				Max.				
SRP2.5-8/B	2,5	2,80	2,90	8	2,40	0,70	2,50	2,60	100	-	11,50 €	
SRP2.5-10/B	2,5	2,80	2,90	10	2,40	0,70	2,50	2,60	100	✓	11,93 €	
SRP2.5-16/B	2,5	2,80	2,90	16	2,40	0,70	2,50	2,60	100	✓	12,93 €	
SRP2.5-20/B	2,5	2,80	2,78	20	2,40	0,70	2,49	2,60	100	-	13,88 €	
SRP2.5-30/B	2,5	2,80	2,78	30	2,40	0,70	2,49	2,60	100	✓	15,82 €	
SRP3-8/B	3,0	3,30	3,30	8	2,90	0,90	3,00	3,10	100	✓	10,85 €	
SRP3-10/B	3,0	3,30	3,30	10	2,90	0,90	3,00	3,10	100	✓	12,25 €	
SRP3-12/B	3,0	3,30	3,30	12	2,90	0,90	3,00	3,10	100	✓	11,57 €	
SRP3-14/B	3,0	3,30	3,30	14	2,90	0,90	3,00	3,10	100	✓	13,50 €	
SRP3-16/B	3,0	3,30	3,30	16	2,90	0,90	3,00	3,10	100	✓	12,46 €	
SRP3-18/B	3,0	3,30	3,30	18	2,90	0,90	3,00	3,10	100	✓	14,36 €	
SRP3-20/B	3,0	3,30	3,30	20	2,90	0,90	3,00	3,10	100	✓	14,87 €	
SRP3-24/B	3,0	3,30	3,30	24	2,90	0,90	3,00	3,10	100	✓	17,10 €	
SRP3-30/B	3,0	3,30	3,30	30	2,90	0,90	3,00	3,10	100	✓	17,10 €	
SRP3-40/B	3,0	3,30	3,30	40	2,90	0,90	3,00	3,10	100	✓	21,22 €	
SRP4-10/B	4,0	4,40	4,60	10	3,90	1,10	4,00	4,12	100	✓	16,27 €	
SRP4-12/B	4,0	4,40	4,60	12	3,90	1,10	4,00	4,12	100	✓	17,10 €	
SRP4-16/B	4,0	4,40	4,60	16	3,90	1,10	4,00	4,12	100	✓	17,10 €	
SRP4-20/B	4,0	4,40	4,60	20	3,90	1,10	4,00	4,12	100	✓	18,45 €	
SRP4-24/B	4,0	4,40	4,60	24	3,90	1,10	4,00	4,12	100	✓	19,86 €	
SRP4-26/B	4,0	4,40	4,60	26	3,90	1,10	4,00	4,12	100	-	21,22 €	
SRP4-28/B	4,0	4,40	4,60	28	3,90	1,10	4,00	4,12	100	✓	23,97 €	
SRP4-30/B	4,0	4,40	4,60	30	3,90	1,10	4,00	4,12	100	✓	24,66 €	
SRP4-35/B	4,0	4,40	4,60	35	3,90	1,10	4,00	4,12	50	-	14,56 €	
SRP4-40/B	4,0	4,40	4,60	40	3,90	1,10	4,00	4,12	50	✓	15,60 €	
SRP4-45/B	4,0	4,40	4,60	45	3,90	1,10	4,00	4,12	50	✓	16,66 €	
SRP4-50/B	4,0	4,40	4,60	50	3,90	1,10	4,00	4,12	50	✓	18,05 €	
SRP5-10/B	5,0	5,40	5,60	10	4,85	1,30	5,00	5,12	50	-	10,06 €	
SRP5-16/B	5,0	5,40	5,60	16	4,85	1,30	5,00	5,12	50	✓	11,15 €	
SRP5-20/B	5,0	5,40	5,60	20	4,85	1,30	5,00	5,12	50	✓	14,23 €	
SRP5-24/B	5,0	5,40	5,60	24	4,85	1,30	5,00	5,12	50	✓	14,46 €	
SRP5-30/B	5,0	5,40	5,60	30	4,85	1,30	5,00	5,12	50	✓	13,20 €	
SRP5-35/B	5,0	5,40	5,45	35	4,85	1,30	5,00	5,12	50	✓	14,48 €	
SRP5-40/B	5,0	5,40	5,45	40	4,85	1,30	5,00	5,12	50	✓	19,35 €	
SRP5-50/B	5,0	5,40	5,45	50	4,85	1,30	5,00	5,12	50	✓	22,19 €	
SRP6-20/B	6,0	6,40	6,70	20	5,85	1,50	6,00	6,12	50	✓	16,59 €	
SRP6-30/B	6,0	6,40	6,70	30	5,85	1,50	6,00	6,12	50	✓	21,12 €	
SRP6-40/B	6,0	6,40	6,70	40	5,85	1,50	6,00	6,12	50	✓	25,97 €	
SRP6-50/B	6,0	6,40	6,70	50	5,85	1,50	6,00	6,12	50	✓	30,47 €	
SRP8-30/B	8,0	8,50	8,80	30	7,80	2,00	8,00	8,15	25	✓	15,16 €	
SRP8-40/B	8,0	8,50	8,80	40	7,80	2,00	8,00	8,15	10	✓	9,03 €	
SRP8-50/B	8,0	8,50	8,80	50	7,80	2,00	8,00	8,15	10	✓	10,43 €	
SRP10-30/B	10,0	10,50	10,80	30	9,75	2,50	10,00	10,15	10	✓	13,36 €	
SRP10-40/B	10,0	10,50	10,80	40	9,75	2,50	10,00	10,15	10	✓	15,12 €	
SRP10-50/B	10,0	10,50	10,80	50	9,75	2,50	10,00	10,15	10	✓	16,95 €	

*Depending on availability - Dimensions in mm

- For fastening two associated parts
- Relative positioning
- 15° chamfer
- Material: hardened steel 100 Cr6 rectified 58-60HRC
- Conforms to DIN 6325 (ISO 8734)
- For information on shear strength, please see technical information
- Sold by the packet



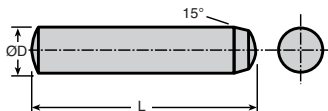
DISCOUNTS

Qty	1+	5+	10+	21+
Disc.	List	-10%	-20%	On request

Part number	ØD m6	Length L	Qty per Packet	Stock*	Price each per packet
DH1-4/B	1,0	4	100	-	5,89 €
DH1-5/B	1,0	5	100	✓	5,89 €
DH1-6/B	1,0	6	100	✓	5,89 €
DH1-8/B	1,0	8	100	-	6,56 €
DH1-10/B	1,0	10	100	-	6,80 €
DH1-12/B	1,0	12	100	-	7,01 €
DH1.5-5/B	1,5	5	100	✓	4,33 €
DH1.5-6/B	1,5	6	100	✓	5,89 €
DH1.5-8/B	1,5	8	100	✓	4,90 €
DH1.5-10/B	1,5	10	100	✓	5,13 €
DH1.5-12/B	1,5	12	100	-	5,44 €
DH1.5-14/B	1,5	14	100	-	5,89 €
DH1.5-16/B	1,5	16	100	-	6,35 €
DH1.5-20/B	1,5	20	100	✓	10,32 €
DH1.5-30/B	1,5	30	100	-	23,27 €
DH2-6/B	2,0	6	100	✓	4,90 €
DH2-8/B	2,0	8	100	✓	5,20 €
DH2-10/B	2,0	10	100	✓	5,41 €
DH2-12/B	2,0	12	100	✓	5,70 €
DH2-14/B	2,0	14	100	✓	6,10 €
DH2-16/B	2,0	16	100	✓	6,44 €
DH2-18/B	2,0	18	100	✓	6,69 €
DH2-22/B	2,0	22	100	✓	7,59 €
DH2-28/B	2,0	28	100	✓	14,18 €
DH2-30/B	2,0	30	100	✓	16,92 €
DH2-40/B	2,0	40	100	✓	24,10 €
DH2.5-6/B	2,5	6	100	✓	5,36 €
DH2.5-8/B	2,5	8	100	✓	5,49 €
DH2.5-10/B	2,5	10	100	✓	5,72 €
DH2.5-12/B	2,5	12	100	✓	5,89 €
DH2.5-14/B	2,5	14	100	✓	6,07 €
DH2.5-16/B	2,5	16	100	✓	6,14 €
DH2.5-20/B	2,5	20	100	✓	17,97 €

Part number	ØD m6	Length L	Qty per Packet	Stock*	Price each per packet
DH2.5-30/B	2,5	30	100	-	14,18 €
DH2.5-40/B	2,5	40	100	✓	22,90 €
DH3-6/B	3,0	6	100	✓	5,13 €
DH3-8/B	3,0	8	100	✓	4,93 €
DH3-10/B	3,0	10	100	✓	5,20 €
DH3-12/B	3,0	12	100	✓	5,49 €
DH3-14/B	3,0	14	100	✓	5,89 €
DH3-16/B	3,0	16	100	✓	6,20 €
DH3-18/B	3,0	18	100	✓	6,60 €
DH3-20/B	3,0	20	100	✓	6,84 €
DH3-24/B	3,0	24	100	✓	7,48 €
DH3-26/B	3,0	26	100	✓	7,81 €
DH3-30/B	3,0	30	100	✓	8,55 €
DH3-32/B	3,0	32	100	✓	8,85 €
DH3-40/B	3,0	40	100	✓	13,29 €
DH3-45/B	3,0	45	100	✓	13,29 €
DH3-50/B	3,0	50	100	✓	23,09 €
DH4-6/B	4,0	6	100	✓	6,23 €
DH4-8/B	4,0	8	100	✓	6,17 €
DH4-10/B	4,0	10	100	✓	6,76 €
DH4-12/B	4,0	12	100	✓	6,93 €
DH4-14/B	4,0	14	100	✓	7,25 €
DH4-16/B	4,0	16	100	✓	7,68 €
DH4-18/B	4,0	18	100	✓	8,07 €
DH4-20/B	4,0	20	100	✓	8,51 €
DH4-24/B	4,0	24	100	✓	9,30 €
DH4-26/B	4,0	26	100	-	9,68 €
DH4-28/B	4,0	28	100	-	10,11 €
DH4-30/B	4,0	30	100	✓	10,50 €
DH4-32/B	4,0	32	100	-	10,89 €
DH4-36/B	4,0	36	100	-	11,74 €
DH4-40/B	4,0	40	100	✓	13,02 €
DH4-50/B	4,0	50	100	✓	19,45 €

*Depending on availability - Dimensions in mm



DISCOUNTS

Qty	1+	5+	10+	21+
Disc.	List	-10%	-20%	On request

Part number	ØD m6	Length L	Qty per Packet	Stock*	Price each per packet	Part number	ØD m6	Length L	Qty per Packet	Stock*	Price each per packet
DH4-60/B	4,0	60	100	✓	26,97 €	DH6-50/B	6,0	50	25	✓	8,07 €
DH5-8/B	5,0	8	25	✓	4,70 €	DH6-60/B	6,0	60	25	✓	9,26 €
DH5-10/B	5,0	10	25	✓	4,72 €	DH6-80/B	6,0	80	25	✓	20,28 €
DH5-12/B	5,0	12	25	✓	4,78 €	DH6-100/B	6,0	100	25	-	24,61 €
DH5-14/B	5,0	14	25	✓	4,90 €	DH8-14/B	8,0	14	25	✓	7,48 €
DH5-16/B	5,0	16	25	✓	5,04 €	DH8-16/B	8,0	16	25	✓	7,50 €
DH5-18/B	5,0	18	25	-	5,16 €	DH8-18/B	8,0	18	25	✓	7,54 €
DH5-20/B	5,0	20	25	✓	5,23 €	DH8-20/B	8,0	20	25	✓	7,59 €
DH5-22/B	5,0	22	25	✓	5,44 €	DH8-22/B	8,0	22	25	✓	7,84 €
DH5-24/B	5,0	24	25	✓	5,49 €	DH8-24/B	8,0	24	25	✓	8,02 €
DH5-26/B	5,0	26	25	✓	5,65 €	DH8-30/B	8,0	30	25	✓	8,74 €
DH5-28/B	5,0	28	25	✓	5,70 €	DH8-40/B	8,0	40	25	✓	9,82 €
DH5-30/B	5,0	30	25	✓	5,81 €	DH8-50/B	8,0	50	25	✓	11,17 €
DH5-36/B	5,0	36	25	✓	6,23 €	DH8-60/B	8,0	60	25	-	12,29 €
DH5-40/B	5,0	40	25	✓	6,44 €	DH8-80/B	8,0	80	25	✓	18,79 €
DH5-45/B	5,0	45	25	✓	6,84 €	DH8-100/B	8,0	100	25	✓	22,71 €
DH5-50/B	5,0	50	25	✓	7,25 €	DH10-20/B	10,0	20	25	✓	8,85 €
DH6-10/B	6,0	10	25	✓	5,13 €	DH10-24/B	10,0	24	25	-	9,77 €
DH6-12/B	6,0	12	25	✓	5,16 €	DH10-26/B	10,0	26	25	✓	10,08 €
DH6-14/B	6,0	14	25	✓	5,30 €	DH10-30/B	10,0	30	25	✓	10,83 €
DH6-16/B	6,0	16	25	✓	5,30 €	DH10-36/B	10,0	36	25	✓	12,03 €
DH6-18/B	6,0	18	25	✓	5,44 €	DH10-40/B	10,0	40	25	-	12,76 €
DH6-20/B	6,0	20	25	✓	5,65 €	DH10-45/B	10,0	45	25	✓	13,54 €
DH6-24/B	6,0	24	25	✓	5,81 €	DH10-50/B	10,0	50	25	-	14,45 €
DH6-26/B	6,0	26	25	✓	6,07 €	DH10-60/B	10,0	60	25	✓	16,40 €
DH6-28/B	6,0	28	25	✓	6,17 €	DH10-80/B	10,0	80	25	-	22,71 €
DH6-30/B	6,0	30	25	✓	6,32 €	DH12-20/B	12,0	20	25	-	13,46 €
DH6-32/B	6,0	32	25	✓	6,40 €	DH12-30/B	12,0	30	25	✓	15,45 €
DH6-36/B	6,0	36	25	✓	6,40 €	DH12-40/B	12,0	40	25	✓	17,85 €
DH6-40/B	6,0	40	25	✓	7,03 €	DH12-60/B	12,0	60	25	-	22,80 €
DH6-45/B	6,0	45	25	✓	7,59 €						

*Depending on availability - Dimensions in mm

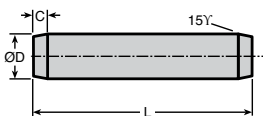
- For fastening two associated parts

- Relative positioning

- Material:

stainless steel 303

- Sold by the packet



DISCOUNTS

No. pack	1+	5+	10+	21+
Disc.	List	-10%	-20%	On request

Part number	ØD m6	C	Length L	Qty per packet	Stock*	Price per packet
DP0.8-4/B	0,8	0,12	4	100	✓	5,31 €
DP0.8-5/B	0,8	0,12	5	100	✓	5,60 €
DP0.8-8/B	0,8	0,12	8	100	✓	5,85 €
DP0.8-10/B	0,8	0,12	10	100	✓	6,07 €
DP1.0-4/B	1,0	0,15	4	100	✓	5,31 €
DP1.0-5/B	1,0	0,15	5	100	✓	5,60 €
DP1.0-6/B	1,0	0,15	6	100	✓	5,71 €
DP1.0-8/B	1,0	0,15	8	100	✓	5,85 €
DP1.0-10/B	1,0	0,15	10	100	✓	6,07 €
DP1.0-12/B	1,0	0,15	12	100	✓	6,18 €
DP1.5-4/B	1,5	0,23	4	100	✓	6,03 €
DP1.5-5/B	1,5	0,23	5	100	✓	6,18 €
DP1.5-6/B	1,5	0,23	6	100	✓	6,18 €
DP1.5-8/B	1,5	0,23	8	100	✓	6,35 €
DP1.5-10/B	1,5	0,23	10	100	✓	6,39 €
DP1.5-12/B	1,5	0,23	12	100	✓	6,56 €
DP1.5-14/B	1,5	0,23	14	100	✓	6,93 €
DP1.5-16/B	1,5	0,23	16	100	✓	7,15 €
DP2.0-4/B	2,0	0,30	4	100	✓	6,18 €
DP2.0-5/B	2,0	0,30	5	100	✓	6,23 €
DP2.0-6/B	2,0	0,30	6	100	✓	6,46 €
DP2.0-8/B	2,0	0,30	8	100	✓	6,69 €
DP2.0-10/B	2,0	0,30	10	100	✓	6,93 €
DP2.0-12/B	2,0	0,30	12	100	✓	7,42 €
DP2.0-14/B	2,0	0,30	14	100	✓	7,70 €
DP2.0-16/B	2,0	0,30	16	100	✓	8,06 €
DP2.0-18/B	2,0	0,30	18	100	✓	8,48 €
DP2.0-20/B	2,0	0,30	20	100	✓	9,49 €
DP2.0-24/B	2,0	0,30	24	100	✓	10,47 €
DP2.5-5/B	2,5	0,40	5	100	✓	7,20 €
DP2.5-6/B	2,5	0,40	6	100	✓	7,49 €
DP2.5-8/B	2,5	0,40	8	100	✓	8,02 €
DP2.5-10/B	2,5	0,40	10	100	✓	8,66 €
DP2.5-12/B	2,5	0,40	12	100	✓	9,06 €
DP2.5-16/B	2,5	0,40	16	100	✓	10,17 €
DP2.5-20/B	2,5	0,40	20	100	✓	11,93 €
DP2.5-24/B	2,5	0,40	24	100	✓	12,85 €
DP3.0-5/B	3,0	0,45	5	100	✓	8,43 €
DP3.0-6/B	3,0	0,45	6	100	✓	8,59 €

*Depending on availability - Dimensions in mm

Part number	ØD m6	C	Length L	Qty per packet	Stock*	Price per packet
DP3.0-8/B	3,0	0,45	8	100	✓	9,06 €
DP3.0-10/B	3,0	0,45	10	100	✓	9,49 €
DP3.0-12/B	3,0	0,45	12	100	✓	9,69 €
DP3.0-14/B	3,0	0,45	14	100	✓	10,70 €
DP3.0-16/B	3,0	0,45	16	100	✓	11,19 €
DP3.0-18/B	3,0	0,45	18	100	✓	11,62 €
DP3.0-20/B	3,0	0,45	20	100	✓	12,22 €
DP3.0-24/B	3,0	0,45	24	100	✓	13,22 €
DP3.0-30/B	3,0	0,45	30	100	✓	19,74 €
DP4.0-6/B	4,0	0,60	6	100	✓	11,35 €
DP4.0-8/B	4,0	0,60	8	100	✓	12,15 €
DP4.0-10/B	4,0	0,60	10	100	✓	13,22 €
DP4.0-12/B	4,0	0,60	12	100	✓	13,03 €
DP4.0-14/B	4,0	0,60	14	100	✓	14,45 €
DP4.0-16/B	4,0	0,60	16	100	✓	15,15 €
DP4.0-18/B	4,0	0,60	18	100	✓	16,92 €
DP4.0-20/B	4,0	0,60	20	100	✓	18,03 €
DP4.0-24/B	4,0	0,60	24	100	✓	21,01 €
DP4.0-30/B	4,0	0,60	30	100	✓	24,47 €
DP4.0-40/B	4,0	0,60	40	100	✓	31,00 €
DP4.0-50/B	4,0	0,60	50	100	✓	39,98 €
DP5.0-6/B	5,0	0,75	6	25	-	4,23 €
DP5.0-10/B	5,0	0,75	10	25	✓	4,90 €
DP5.0-12/B	5,0	0,75	12	25	✓	5,31 €
DP5.0-14/B	5,0	0,75	14	25	✓	5,85 €
DP5.0-16/B	5,0	0,75	16	25	✓	6,18 €
DP5.0-18/B	5,0	0,75	18	25	✓	6,73 €
DP5.0-20/B	5,0	0,75	20	25	✓	7,36 €
DP5.0-24/B	5,0	0,75	24	25	✓	8,17 €
DP5.0-30/B	5,0	0,75	30	25	✓	9,06 €
DP5.0-40/B	5,0	0,75	40	25	✓	11,35 €
DP5.0-50/B	5,0	0,75	50	25	✓	14,62 €
DP6.0-8/B	6,0	0,90	8	25	✓	8,29 €
DP6.0-10/B	6,0	0,90	10	25	✓	6,63 €
DP6.0-12/B	6,0	0,90	12	25	✓	7,15 €
DP6.0-14/B	6,0	0,90	14	25	✓	7,70 €
DP6.0-16/B	6,0	0,90	16	25	✓	8,29 €
DP6.0-18/B	6,0	0,90	18	25	✓	8,83 €
DP6.0-20/B	6,0	0,90	20	25	✓	9,69 €
DP6.0-24/B	6,0	0,90	24	25	✓	10,53 €
DP6.0-28/B	6,0	0,90	28	25	✓	11,88 €
DP6.0-30/B	6,0	0,90	30	25	✓	12,50 €
DP6.0-40/B	6,0	0,90	40	25	✓	15,55 €
DP6.0-45/B	6,0	0,90	45	25	✓	19,90 €
DP8.0-10/B	8,0	1,20	10	25	✓	6,63 €
DP8.0-14/B	8,0	1,20	14	25	✓	13,41 €
DP8.0-16/B	8,0	1,20	16	25	✓	14,24 €
DP8.0-20/B	8,0	1,20	20	25	✓	16,05 €
DP8.0-24/B	8,0	1,20	24	25	✓	17,43 €
DP8.0-30/B	8,0	1,20	30	25	✓	19,90 €
DP8.0-40/B	8,0	1,20	40	25	✓	24,19 €
DP8.0-50/B	8,0	1,20	50	25	✓	28,61 €
DP10.0-16/B	10,0	1,50	16	25	✓	21,12 €
DP10.0-20/B	10,0	1,50	20	25	✓	66,33 €
DP10.0-24/B	10,0	1,50	24	25	✓	26,69 €
DP10.0-30/B	10,0	1,50	30	25	-	30,55 €
DP10.0-40/B	10,0	1,50	40	25	✓	36,07 €
DP10.0-50/B	10,0	1,50	50	25	✓	43,49 €
DP10.0-60/B	10,0	1,50	60	25	✓	49,28 €

*Depending on availability - Dimensions in mm

Extractable dowel pin **DIN 7979D**

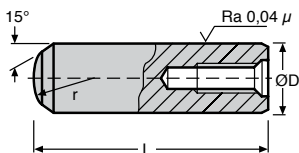
DHX

Hardened steel

- Easy extraction for situations where access is difficult or restricted
- External diameter tolerance: m6
- Material: hardened steel (DIN 7979D)
- Sold by the packet

Info.

- Ground flat along length allows air to escape during insertion/removal



DISCOUNTS

N° packets	1+	5+	10+	20+	50+
Discount	Prix	-10%	-20%	-30%	On request

Part number	ØD m6	Thread	Length L	Qty per packet	Price per packet
DHX4-10/B	4	M2,5	10	10	✓ 34,71 €
DHX4-12/B	4	M2,5	12	10	✓ 34,86 €
DHX4-14/B	4	M2,5	14	10	✓ 34,98 €
DHX4-16/B	4	M2,5	16	10	✓ 35,11 €
DHX4-20/B	4	M2,5	20	10	✓ 35,45 €
DHX4-24/B	4	M2,5	24	10	✓ 35,59 €
DHX4-30/B	4	M2,5	30	10	✓ 36,87 €
DHX4-40/B	4	M2,5	40	10	✓ 38,57 €
DHX5-10/B	5	M3	10	10	✓ 19,90 €
DHX5-12/B	5	M3	12	10	✓ 20,01 €
DHX5-16/B	5	M3	16	10	✓ 20,13 €
DHX5-18/B	5	M3	18	10	✓ 20,24 €
DHX5-20/B	5	M3	20	10	✓ 20,56 €
DHX5-24/B	5	M3	24	10	✓ 20,91 €
DHX5-30/B	5	M3	30	10	✓ 21,87 €
DHX5-36/B	5	M3	36	10	✓ 22,65 €
DHX5-40/B	5	M3	40	10	✓ 23,16 €
DHX5-50/B	5	M3	50	10	✓ 27,11 €
DHX6-12/B	6	M4	12	10	✓ 19,30 €
DHX6-14/B	6	M4	14	10	✓ 19,30 €
DHX6-16/B	6	M4	16	10	✓ 17,31 €
DHX6-18/B	6	M4	18	10	✓ 17,37 €
DHX6-20/B	6	M4	20	10	✓ 16,20 €
DHX6-24/B	6	M4	24	10	✓ 16,27 €

Part number	ØD m6	Thread	Length L	Qty per packet	Price per packet
DHX6-28/B	6	M4	28	10	✓ 16,39 €
DHX6-30/B	6	M4	30	10	✓ 16,48 €
DHX6-40/B	6	M4	40	10	✓ 16,92 €
DHX6-60/B	6	M4	60	10	✓ 19,54 €
DHX8-16/B	8	M5	16	10	✓ 19,94 €
DHX8-20/B	8	M5	20	10	✓ 16,97 €
DHX8-24/B	8	M5	24	10	✓ 17,13 €
DHX8-28/B	8	M5	28	10	✓ 17,26 €
DHX8-30/B	8	M5	30	10	✓ 17,79 €
DHX8-40/B	8	M5	40	10	✓ 18,42 €
DHX8-50/B	8	M5	50	10	✓ 19,30 €
DHX10-16/B	10	M6	16	10	✓ 25,27 €
DHX10-20/B	10	M6	20	10	✓ 21,72 €
DHX10-24/B	10	M6	24	10	✓ 22,29 €
DHX10-30/B	10	M6	30	10	✓ 19,19 €
DHX10-40/B	10	M6	40	10	✓ 20,06 €
DHX10-45/B	10	M6	45	10	✓ 20,60 €
DHX10-50/B	10	M6	50	10	✓ 21,18 €
DHX10-60/B	10	M6	60	10	✓ 22,29 €
DHX12-40/B	12	M6	40	10	✓ 22,88 €
DHX12-60/B	12	M6	60	10	✓ 26,63 €
DHX12-90/B	12	M6	90	10	✓ 42,18 €
DHX12-100/B	12	M6	100	10	- 39,46 €

*Depending on availability - Dimensions in mm



Hitch pin

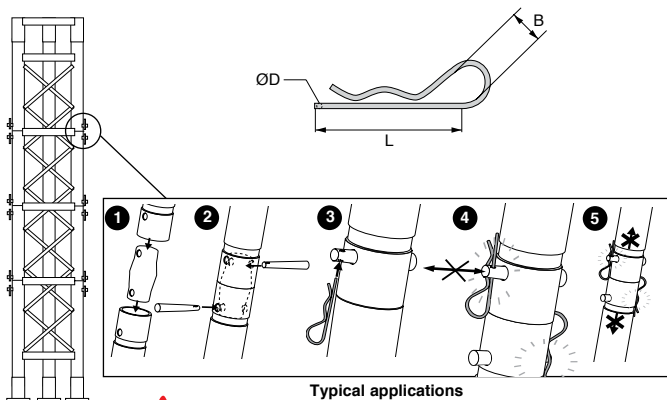
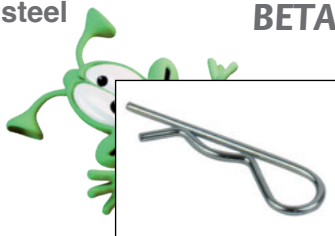
Zinc plated steel

BETA

- Low cost clip
- Made from zinc plated steel
- Supplied by the packet

Advantages

- Manual assembly/disassembly



Typical applications



DISCOUNTS

Qty	1+	5+	10+	21+
Disc.	List	-10%	-20%	On request

Part number	ØD	L	B	For shaft	Weight per 100 (kg)	Quantity per pack	Stock*	Price each 1 to 4
BETA-2/B	2	53	12	9-11	0,5	100	✓	7,35 €
BETA-2.5/B	2,5	52	10	11-13	0,6	100	✓	9,22 €
BETA-3/B	3	66	15	13-17	0,9	100	✓	11,86 €
BETA-4/B	4	83	22	17-20	2,3	100	✓	22,74 €
BETA-4.5/B	4,5	68	24	20-23	2,5	100	-	30,21 €
BETA-5/B	5	100	23	23-26	3,9	100	-	38,65 €
BETA-6/B	6	105	26	26-30	6,0	50	✓	27,00 €
BETA-7/B	7	125	26	30-34	9,1	25	✓	37,77 €
BETA-8/B	8	142	29	34-45	13,6	25	-	47,25 €

Dimensions in mm

Minimum double shear resistance (kN) according to ISO 8749

EP range - nickel stainless steel

Diameters Ø	0,8	1,0	1,2	1,5	2,0	2,5	3,0	3,5	4,0	5,0	6,0	8,0	10,0	12,0
Standard series ISO 8750	0,30	0,45	0,65	1,05	1,9	2,9	4,2	5,7	7,6	11,5	16,8	30	48	67

SRP range - stainless steel 304

Diameters Ø	1,5	2,0	2,5	3,0	4,0	5,0	6,0	8,0	10,0
Standard series ISO 8752	0,98	1,81	2,84	4,07	7,25	10,75	16,17	26,46	42,14

DH range - hardened steel

Diameters Ø	1,0	1,5	2,0	2,5	3,0	4,0	5,0	6,0	8,0	10,0	12,0	16,0	20,0
Standard series DIN 6325	1,5	3,4	5,5	8,0	13,0	22,0	31,0	53,0	88,0	132,0	210,0	350,0	485,0

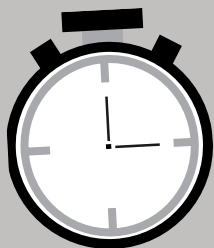
DP range - stainless steel A2

Diameters Ø	1,0	1,5	2,0	2,5	3,0	4,0	5,0	6,0	8,0	10,0	12,0
Standard series ISO 2338	0,7	1,7	2,9	4,4	6,6	11,7	18,1	26,0	47,0	64,1	92,0

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**Only for items in stock*

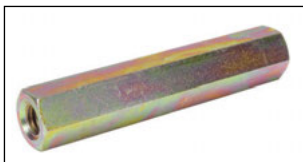
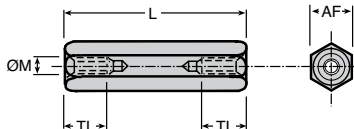
Hexagonal spacer



HSE HSB

Steel or Brass

- Female/female pillar
- Material: blue steel zinc-plated by electrolysis or brass
- Sold by the packet



DISCOUNTS

N° packets	1+	5+	20+	100+
Discount	Prix	-20%	-30%	On request

Part number	Thread	ØM	L	TL	AF	Qty. per packet	Stock*		Price per packet	
							Steel	Brass	Steel	Brass
-	HSB2-5/B	M2	5	5	4	20	-	✓	-	3,91 €
-	HSB2-8/B	M2	8	8	4	20	-	✓	-	4,14 €
-	HSB2-10/B	M2	10	10	4	20	-	✓	-	4,39 €
-	HSB2-12/B	M2	12	12	4	20	-	✓	-	4,74 €
-	HSB2-15/B	M2	15	15	4	20	-	✓	-	5,35 €
-	HSB2-18/B	M2	18	18	4	20	-	✓	-	6,22 €
-	HSB2-20/B	M2	20	20	4	20	-	✓	-	7,43 €
-	HSB2-25/B	M2	25	8	4	20	-	✓	-	11,20 €
-	HSB2-30/B	M2	30	8	4	20	-	-	-	13,01 €
-	HSB2-35/B	M2	35	8	4	20	-	-	-	15,05 €
-	HSB2-40/B	M2	40	8	4	20	-	✓	-	16,02 €
-	HSB2-45/B	M2	45	8	4	20	-	-	-	17,84 €
HSE2.5-5/B	HSB2.5-5/B	M2,5	5	5	5	20	✓	✓	5,53 €	3,66 €
HSE2.5-8/B	HSB2.5-8/B	M2,5	8	8	5	20	-	✓	5,98 €	4,02 €
HSE2.5-10/B	HSB2.5-10/B	M2,5	10	10	5	20	✓	✓	6,39 €	4,32 €
HSE2.5-12/B	HSB2.5-12/B	M2,5	12	12	5	20	-	✓	6,74 €	4,63 €
HSE2.5-15/B	HSB2.5-15/B	M2,5	15	15	5	20	-	-	7,84 €	5,26 €
HSE2.5-18/B	HSB2.5-18/B	M2,5	18	18	5	20	-	-	8,61 €	5,60 €
HSE2.5-20/B	HSB2.5-20/B	M2,5	20	20	5	20	-	-	9,66 €	6,32 €
HSE2.5-25/B	HSB2.5-25/B	M2,5	25	10	5	20	-	-	10,22 €	7,20 €
HSE2.5-30/B	HSB2.5-30/B	M2,5	30	10	5	20	-	-	10,70 €	8,40 €
HSE2.5-35/B	HSB2.5-35/B	M2,5	35	10	5	20	-	-	11,95 €	9,98 €
HSE2.5-40/B	HSB2.5-40/B	M2,5	40	10	5	20	-	-	12,65 €	11,76 €
HSE2.5-45/B	HSB2.5-45/B	M2,5	45	10	5	20	-	-	13,14 €	13,01 €
HSE3-5/B	HSB3-5/B	M3	5	5	5	20	-	✓	4,19 €	3,43 €
HSE3-8/B	HSB3-8/B	M3	8	8	5	20	✓	✓	4,47 €	3,77 €
HSE3-10/B	HSB3-10/B	M3	10	10	5	20	✓	✓	4,71 €	4,02 €
HSE3-12/B	HSB3-12/B	M3	12	12	5	20	✓	-	4,95 €	4,39 €
HSE3-15/B	HSB3-15/B	M3	15	15	5	20	✓	✓	5,35 €	4,74 €
HSE3-18/B	HSB3-18/B	M3	18	18	5	20	✓	-	5,91 €	5,35 €
HSE3-20/B	HSB3-20/B	M3	20	20	5	20	✓	✓	6,42 €	5,91 €
HSE3-25/B	HSB3-25/B	M3	25	10	5	20	✓	✓	6,35 €	6,80 €
HSE3-30/B	HSB3-30/B	M3	30	10	5	20	✓	-	6,56 €	7,77 €
HSE3-35/B	HSB3-35/B	M3	35	10	5	20	✓	✓	6,88 €	9,12 €
HSE3-40/B	HSB3-40/B	M3	40	10	5	20	✓	✓	7,16 €	11,29 €
HSE3-45/B	HSB3-45/B	M3	45	10	5	20	-	-	7,46 €	12,48 €

*Depending on availability - Dimensions in mm

Part number		Thread ØM	L	TL	AF	Qty. per packet	Stock*		Price per packet	
Steel	Brass						Steel	Brass	Steel	Brass
HSE3-50/B	HSB3-50/B	M3	50	10	5	20	-	-	12,05 €	13,84 €
HSE3-55/B	HSB3-55/B	M3	55	10	5	20	-	-	12,58 €	14,94 €
HSE3-60/B	HSB3-60/B	M3	60	10	5	20	✓	-	13,01 €	16,02 €
HSE3-70/B	HSB3-70/B	M3	70	10	5	20	-	-	14,21 €	17,84 €
HSE3-80/B	HSB3-80/B	M3	80	10	5	20	-	-	15,54 €	19,66 €
HSE4-5/B	HSB4-5/B	M4	5	5	7	20	-	-	4,95 €	4,22 €
HSE4-8/B	HSB4-8/B	M4	8	8	7	20	-	✓	5,29 €	4,74 €
HSE4-10/B	HSB4-10/B	M4	10	10	7	20	✓	-	5,43 €	5,02 €
HSE4-12/B	HSB4-12/B	M4	12	12	7	20	✓	-	5,78 €	5,60 €
HSE4-15/B	HSB4-15/B	M4	15	15	7	20	✓	✓	6,29 €	6,47 €
HSE4-18/B	HSB4-18/B	M4	18	18	7	20	-	-	6,84 €	7,29 €
HSE4-20/B	HSB4-20/B	M4	20	20	7	20	✓	✓	7,68 €	8,15 €
HSE4-25/B	HSB4-25/B	M4	25	10	7	20	✓	-	7,88 €	9,37 €
HSE4-30/B	HSB4-30/B	M4	30	10	7	20	✓	✓	8,50 €	10,94 €
HSE4-35/B	HSB4-35/B	M4	35	10	7	20	✓	-	9,04 €	13,01 €
HSE4-40/B	HSB4-40/B	M4	40	10	7	20	✓	✓	9,50 €	16,02 €
HSE4-45/B	HSB4-45/B	M4	45	10	7	20	✓	✓	9,77 €	17,84 €
HSE4-50/B	HSB4-50/B	M4	50	10	7	20	✓	-	14,53 €	18,95 €
HSE4-55/B	HSB4-55/B	M4	55	10	7	20	-	-	15,21 €	20,88 €
HSE4-60/B	HSB4-60/B	M4	60	10	7	20	✓	-	15,92 €	23,28 €
HSE4-70/B	HSB4-70/B	M4	70	10	7	20	-	-	17,36 €	26,32 €
HSE4-80/B	HSB4-80/B	M4	80	10	7	20	✓	-	18,88 €	31,18 €
HSE5-5/B	HSB5-5/B	M5	5	5	8	20	-	-	6,12 €	5,74 €
HSE5-8/B	HSB5-8/B	M5	8	8	8	20	✓	-	6,12 €	5,84 €
HSE5-10/B	HSB5-10/B	M5	10	10	8	20	-	-	6,12 €	5,98 €
HSE5-12/B	HSB5-12/B	M5	12	12	8	20	✓	-	7,33 €	6,71 €
HSE5-15/B	HSB5-15/B	M5	15	15	8	20	✓	-	7,98 €	7,77 €
HSE5-18/B	HSB5-18/B	M5	18	18	8	20	-	-	10,51 €	8,78 €
HSE5-20/B	HSB5-20/B	M5	20	20	8	20	✓	-	11,04 €	9,60 €
HSE5-25/B	HSB5-25/B	M5	25	10	8	20	✓	-	11,89 €	11,20 €
HSE5-30/B	HSB5-30/B	M5	30	10	8	20	✓	✓	12,84 €	13,01 €
HSE5-35/B	HSB5-35/B	M5	35	10	8	20	-	-	13,40 €	16,64 €
HSE5-40/B	HSB5-40/B	M5	40	10	8	20	✓	-	14,12 €	19,05 €
HSE5-45/B	HSB5-45/B	M5	45	10	8	20	-	-	15,02 €	20,26 €
HSE5-50/B	HSB5-50/B	M5	50	10	8	20	✓	-	16,22 €	22,72 €
HSE5-55/B	HSB5-55/B	M5	55	10	8	20	-	-	17,33 €	25,13 €
HSE5-60/B	HSB5-60/B	M5	60	10	8	20	-	✓	18,26 €	27,54 €
HSE5-70/B	HSB5-70/B	M5	70	10	8	20	✓	✓	19,99 €	32,41 €
HSE5-80/B	HSB5-80/B	M5	80	10	8	20	-	-	22,46 €	40,88 €
HSE6-10/B	-	M6	10	10	10	20	✓	-	14,57 €	-
HSE6-12/B	-	M6	12	12	10	20	✓	-	14,88 €	-
HSE6-15/B	-	M6	15	15	10	20	✓	-	15,66 €	-
HSE6-18/B	-	M6	18	18	10	20	✓	-	16,54 €	-
HSE6-20/B	-	M6	20	20	10	20	✓	-	17,18 €	-
HSE6-25/B	-	M6	25	25	10	20	✓	-	18,78 €	-
HSE6-30/B	-	M6	30	13	10	20	✓	-	19,54 €	-
HSE6-35/B	-	M6	35	13	10	20	✓	-	20,36 €	-
HSE6-40/B	-	M6	40	13	10	20	✓	-	21,14 €	-
HSE6-45/B	-	M6	45	13	10	20	✓	-	22,06 €	-
HSE6-50/B	-	M6	50	13	10	20	✓	-	23,02 €	-
HSE6-55/B	-	M6	55	13	10	20	✓	-	23,94 €	-
HSE6-60/B	-	M6	60	13	10	20	✓	-	25,36 €	-
HSE6-70/B	-	M6	70	13	10	20	-	-	27,36 €	-
HSE6-80/B	-	M6	80	13	10	20	✓	-	28,40 €	-

*Depending on availability - Dimensions in mm

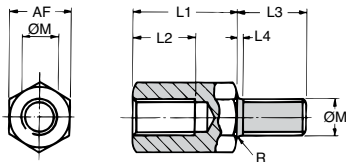
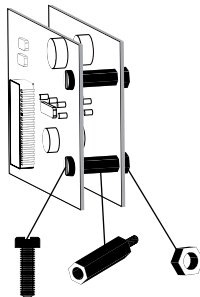
Hexagonal spacer



MPE

Steel

- Male/female pillar
- Material: blue steel zinc-plated by electrolysis
- Sold by the packet



DISCOUNTS

N° packets	1+	5+	20+	100+
Discount	Prix -20%	-30%	On request	

Part number	Thread ØM	L1	L2	L3	L4	AF	R	Qty. per packet	Price per packet
MPE3-5/B	M3	5	3	8	0,90	5	0,10	20	3,88 €
MPE3-8/B	M3	8	4	8	0,90	5	0,10	20	4,95 €
MPE3-10/B	M3	10	6	8	0,90	5	0,10	20	5,32 €
MPE3-12/B	M3	12	8	8	0,90	5	0,10	20	5,39 €
MPE3-15/B	M3	15	8	8	0,90	5	0,10	20	5,56 €
MPE3-18/B	M3	18	8	8	0,90	5	0,10	20	5,74 €
MPE3-20/B	M3	20	8	8	0,90	5	0,10	20	5,81 €
MPE3-25/B	M3	25	10	10	0,90	5	0,10	20	6,68 €
MPE3-30/B	M3	30	10	10	0,90	5	0,10	20	6,98 €
MPE3-35/B	M3	35	10	10	0,90	5	0,10	20	7,29 €
MPE3-40/B	M3	40	10	10	0,90	5	0,10	20	11,36 €
MPE3-45/B	M3	45	10	10	0,90	5	0,10	20	12,33 €
MPE3-50/B	M3	50	10	10	0,90	5	0,10	20	13,37 €
MPE3-55/B	M3	55	10	10	0,90	5	0,10	20	14,06 €
MPE3-60/B	M3	60	10	10	0,90	5	0,10	20	14,88 €
MPE3-70/B	M3	70	10	10	0,90	5	0,10	20	16,12 €
MPE3-80/B	M3	80	10	10	0,90	5	0,10	20	17,09 €
MPE4-5/B	M4	5	3	8	1,20	7	0,20	20	6,22 €
MPE4-8/B	M4	8	4	8	1,20	7	0,20	20	6,68 €
MPE4-10/B	M4	10	6	8	1,20	7	0,20	20	6,19 €
MPE4-12/B	M4	12	8	8	1,20	7	0,20	20	6,68 €
MPE4-15/B	M4	15	8	8	1,20	7	0,20	20	6,74 €
MPE4-18/B	M4	18	8	8	1,20	7	0,20	20	7,36 €

*Depending on availability - Dimensions in mm

Part number	Thread ØM	L1	L2	L3	L4	AF	R	Qty. per packet	Stock*	Price per packet
MPE4-20/B	M4	20	8	8	1,20	7	0,20	20	✓	7,59 €
MPE4-25/B	M4	25	10	10	1,20	7	0,20	20	✓	8,91 €
MPE4-30/B	M4	30	10	10	1,20	7	0,20	20	✓	9,53 €
MPE4-35/B	M4	35	10	10	1,20	7	0,20	20	✓	10,13 €
MPE4-40/B	M4	40	10	10	1,20	7	0,20	20	✓	14,46 €
MPE4-45/B	M4	45	10	10	1,20	7	0,20	20	✓	14,46 €
MPE4-50/B	M4	50	10	10	1,20	7	0,20	20	✓	16,35 €
MPE4-55/B	M4	55	10	10	1,20	7	0,20	20	-	17,39 €
MPE4-60/B	M4	60	10	10	1,20	7	0,20	20	✓	18,36 €
MPE4-70/B	M4	70	10	10	1,20	7	0,20	20	✓	20,77 €
MPE4-80/B	M4	80	10	10	1,20	7	0,20	20	✓	22,40 €
MPE5-5/B	M5	5	3	8	1,40	8	0,20	20	-	9,98 €
MPE5-8/B	M5	8	4	8	1,40	8	0,20	20	-	9,98 €
MPE5-10/B	M5	10	6	8	1,40	8	0,20	20	✓	9,98 €
MPE5-12/B	M5	12	8	8	1,40	8	0,20	20	✓	10,38 €
MPE5-15/B	M5	15	8	8	1,40	8	0,20	20	✓	10,88 €
MPE5-18/B	M5	18	8	8	1,40	8	0,20	20	-	11,42 €
MPE5-20/B	M5	20	8	8	1,40	8	0,20	20	✓	11,89 €
MPE5-25/B	M5	25	10	10	1,40	8	0,20	20	✓	12,87 €
MPE5-30/B	M5	30	10	10	1,40	8	0,20	20	✓	13,70 €
MPE5-35/B	M5	35	10	10	1,40	8	0,20	20	✓	15,05 €
MPE5-40/B	M5	40	10	10	1,40	8	0,20	20	✓	16,39 €
MPE5-45/B	M5	45	10	10	1,40	8	0,20	20	✓	17,33 €
MPE5-50/B	M5	50	10	10	1,40	8	0,20	20	✓	18,33 €
MPE5-55/B	M5	55	10	10	1,40	8	0,20	20	-	19,33 €
MPE5-60/B	M5	60	10	10	1,40	8	0,20	20	✓	20,50 €
MPE5-70/B	M5	70	10	10	1,40	8	0,20	20	-	22,98 €
MPE5-80/B	M5	80	10	10	1,40	8	0,20	20	✓	26,88 €
MPE6-10/B	M6	10	6	12	2,10	10	0,25	20	✓	14,46 €
MPE6-12/B	M6	12	8	12	2,10	10	0,25	20	✓	14,57 €
MPE6-15/B	M6	15	8	12	2,10	10	0,25	20	✓	15,21 €
MPE6-18/B	M6	18	12	12	2,10	10	0,25	20	✓	15,66 €
MPE6-20/B	M6	20	13	12	2,10	10	0,25	20	✓	16,22 €
MPE6-25/B	M6	25	13	12	2,10	10	0,25	20	✓	17,67 €
MPE6-30/B	M6	30	13	12	2,10	10	0,25	20	✓	18,50 €
MPE6-35/B	M6	35	13	12	2,10	10	0,25	20	✓	19,33 €
MPE6-40/B	M6	40	13	12	2,10	10	0,25	20	✓	20,19 €
MPE6-45/B	M6	45	13	12	2,10	10	0,25	20	✓	21,11 €
MPE6-50/B	M6	50	13	12	2,10	10	0,25	20	✓	22,29 €
MPE6-55/B	M6	55	13	12	2,10	10	0,25	20	-	23,16 €
MPE6-60/B	M6	60	13	12	2,10	10	0,25	20	✓	24,00 €
MPE6-70/B	M6	70	13	12	2,10	10	0,25	20	✓	26,08 €
MPE6-80/B	M6	80	13	12	2,10	10	0,25	20	✓	27,77 €

*Depending on availability - Dimensions in mm

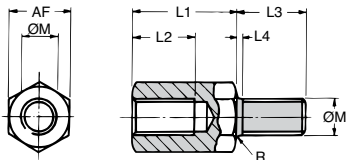
Hexagonal spacer



MPB

Brass

- Male/female pillar
- Material:
nickel brass
- Sold by the packet



DISCOUNTS

N° packets	1+	5+	20+	100+
Discount	Prix	-20%	-30%	On request

Part number	Thread	ØM	L1	L2	L3	L4	AF	R	Qty. per packet	Stock*	Price per packet
MPB2-5/B	M2		5	3	6	0,70	4	0,10	20	✓	4,63 €
MPB2-8/B	M2		8	4	6	0,70	4	0,10	20	✓	4,86 €
MPB2-10/B	M2		10	6	6	0,70	4	0,10	20	✓	5,26 €
MPB2-12/B	M2		12	8	6	0,70	4	0,10	20	✓	5,50 €
MPB2-15/B	M2		15	8	6	0,70	4	0,10	20	-	6,08 €
MPB2-18/B	M2		18	8	6	0,70	4	0,10	20	-	7,04 €
MPB2-20/B	M2		20	8	6	0,70	4	0,10	20	✓	7,77 €
MPB2-25/B	M2		25	8	6	0,70	4	0,10	20	-	9,98 €
MPB2-30/B	M2		30	8	6	0,70	4	0,10	20	-	11,76 €
MPB2-35/B	M2		35	8	6	0,70	4	0,10	20	-	13,60 €
MPB2-40/B	M2		40	8	6	0,70	4	0,10	20	-	15,44 €
MPB2.5-5/B	M2,5		5	3	6	0,80	5	0,10	20	✓	4,50 €
MPB2.5-8/B	M2,5		8	4	6	0,80	5	0,10	20	✓	4,86 €
MPB2.5-10/B	M2,5		10	6	6	0,80	5	0,10	20	✓	5,26 €
MPB2.5-12/B	M2,5		12	8	6	0,80	5	0,10	20	✓	5,84 €
MPB2.5-15/B	M2,5		15	8	6	0,80	5	0,10	20	✓	6,47 €
MPB2.5-18/B	M2,5		18	8	6	0,80	5	0,10	20	-	7,29 €
MPB2.5-20/B	M2,5		20	8	6	0,80	5	0,10	20	✓	7,92 €
MPB2.5-25/B	M2,5		25	8	6	0,80	5	0,10	20	✓	8,78 €
MPB2.5-30/B	M2,5		30	8	6	0,80	5	0,10	20	✓	10,32 €
MPB2.5-35/B	M2,5		35	8	6	0,80	5	0,10	20	-	12,39 €
MPB2.5-40/B	M2,5		40	8	6	0,80	5	0,10	20	-	14,21 €

*Depending on availability - Dimensions in mm

Part number	Thread ØM	L1	L2	L3	L4	AF	R	Qty. per packet	Stock*	Price per packet
MPB3-5/B	M3	5	3	8	0,90	5	0,10	20	✓	4,25 €
MPB3-8/B	M3	8	4	8	0,90	5	0,10	20	✓	4,57 €
MPB3-10/B	M3	10	6	8	0,90	5	0,10	20	✓	4,86 €
MPB3-12/B	M3	12	8	8	0,90	5	0,10	20	-	5,26 €
MPB3-15/B	M3	15	8	8	0,90	5	0,10	20	✓	5,74 €
MPB3-18/B	M3	18	8	8	0,90	5	0,10	20	✓	6,47 €
MPB3-20/B	M3	20	8	8	0,90	5	0,10	20	✓	6,94 €
MPB3-25/B	M3	25	10	10	0,90	5	0,10	20	✓	8,02 €
MPB3-30/B	M3	30	10	10	0,90	5	0,10	20	✓	9,25 €
MPB3-35/B	M3	35	10	10	0,90	5	0,10	20	✓	11,67 €
MPB3-40/B	M3	40	10	10	0,90	5	0,10	20	-	12,87 €
MPB3-45/B	M3	45	10	10	0,90	5	0,10	20	-	14,21 €
MPB3-50/B	M3	50	10	10	0,90	5	0,10	20	✓	15,44 €
MPB3-60/B	M3	60	10	10	0,90	5	0,10	20	-	18,47 €
MPB3-70/B	M3	70	10	10	0,90	5	0,10	20	✓	20,63 €
MPB3-80/B	M3	80	10	10	0,90	5	0,10	20	-	22,72 €
MPB4-5/B	M4	5	3	8	1,20	7	0,20	20	-	5,98 €
MPB4-8/B	M4	8	4	8	1,20	7	0,20	20	✓	6,71 €
MPB4-10/B	M4	10	6	8	1,20	7	0,20	20	✓	7,04 €
MPB4-12/B	M4	12	8	8	1,20	7	0,20	20	✓	7,43 €
MPB4-15/B	M4	15	8	8	1,20	7	0,20	20	-	8,29 €
MPB4-18/B	M4	18	8	8	1,20	7	0,20	20	-	9,25 €
MPB4-20/B	M4	20	8	8	1,20	7	0,20	20	✓	9,98 €
MPB4-25/B	M4	25	10	10	1,20	7	0,20	20	✓	11,54 €
MPB4-30/B	M4	30	10	10	1,20	7	0,20	20	✓	13,37 €
MPB4-35/B	M4	35	10	10	1,20	7	0,20	20	-	16,64 €
MPB4-40/B	M4	40	10	10	1,20	7	0,20	20	✓	18,72 €
MPB4-45/B	M4	45	10	10	1,20	7	0,20	20	✓	20,50 €
MPB4-50/B	M4	50	10	10	1,20	7	0,20	20	✓	22,09 €
MPB4-55/B	M4	55	10	10	1,20	7	0,20	20	-	24,53 €
MPB4-60/B	M4	60	10	10	1,20	7	0,20	20	-	26,96 €
MPB4-70/B	M4	70	10	10	1,20	7	0,20	20	-	30,57 €
MPB4-80/B	M4	80	10	10	1,20	7	0,20	20	-	33,61 €
MPB5-5/B	M5	5	3	8	1,40	8	0,20	20	-	8,64 €
MPB5-8/B	M5	8	4	8	1,40	8	0,20	20	-	8,78 €
MPB5-10/B	M5	10	6	8	1,40	8	0,20	20	✓	8,88 €
MPB5-12/B	M5	12	8	8	1,40	8	0,20	20	✓	9,60 €
MPB5-15/B	M5	15	8	8	1,40	8	0,20	20	-	10,70 €
MPB5-18/B	M5	18	8	8	1,40	8	0,20	20	-	12,15 €
MPB5-20/B	M5	20	8	8	1,40	8	0,20	20	✓	13,11 €
MPB5-25/B	M5	25	10	10	1,40	8	0,20	20	✓	15,44 €
MPB5-30/B	M5	30	10	10	1,40	8	0,20	20	✓	18,72 €
MPB5-35/B	M5	35	10	10	1,40	8	0,20	20	-	20,74 €
MPB5-40/B	M5	40	10	10	1,40	8	0,20	20	✓	22,56 €
MPB5-45/B	M5	45	10	10	1,40	8	0,20	20	-	24,79 €
MPB5-50/B	M5	50	10	10	1,40	8	0,20	20	✓	26,96 €
MPB5-55/B	M5	55	10	10	1,40	8	0,20	20	-	29,13 €
MPB5-60/B	M5	60	10	10	1,40	8	0,20	20	✓	32,02 €
MPB5-70/B	M5	70	10	10	1,40	8	0,20	20	-	36,02 €
MPB5-80/B	M5	80	10	10	1,40	8	0,20	20	-	41,50 €

*Depending on availability - Dimensions in mm

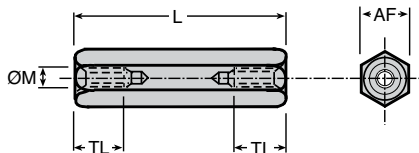
Hexagonal spacer



HS

Stainless steel 303

- Female/female pillar
- Material:
stainless steel 303
- Sold by the packet



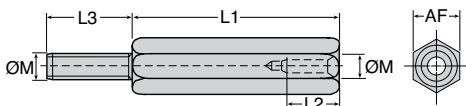
DISCOUNTS

N° packets	1+	5+	20+	100+
Discount	Prix	-20%	-30%	On request

Part number	Thread	ØM	L	TL	AF	Qty per packet	Stock*	Price per packet
HS3-5/B	M3		5	5	5,5	20	✓	14,77 €
HS3-8/B	M3		8	8	5,5	20	-	15,62 €
HS3-10/B	M3		10	10	5,5	20	✓	15,94 €
HS3-12/B	M3		12	12	5,5	20	✓	17,64 €
HS3-15/B	M3		15	15	5,5	20	✓	19,42 €
HS3-18/B	M3		18	18	5,5	20	✓	22,03 €
HS3-20/B	M3		20	20	5,5	20	✓	24,17 €
HS3-25/B	M3		25	10	5,5	20	-	25,45 €
HS3-35/B	M3		35	10	5,5	20	-	28,27 €
HS3-40/B	M3		40	10	5,5	20	-	28,98 €
HS3-45/B	M3		45	10	5,5	20	-	29,80 €
HS4-5/B	M4		5	5	7,0	20	-	17,48 €
HS4-8/B	M4		8	8	7,0	20	-	19,05 €
HS4-10/B	M4		10	10	7,0	20	✓	20,86 €
HS4-12/B	M4		12	12	7,0	20	✓	22,35 €
HS4-15/B	M4		15	15	7,0	20	-	25,03 €
HS4-18/B	M4		18	18	7,0	20	-	27,22 €
HS4-20/B	M4		20	20	7,0	20	✓	27,71 €
HS4-25/B	M4		25	10	7,0	20	✓	28,13 €

*Depending on availability - Dimensions in mm

- Male/female pillar
- Material:
stainless steel 303
- Sold by the packet



DISCOUNTS

N° packets	1+	5+	20+	100+
Discount	Prix	-20%	-30%	On request

Part number	Thread ØM	L1	L2	L3	AF	Qty. per packet	Stock*	Price per packet
MPS3-5/B	M3	5	3	8	5,50	20	✓	20,71 €
MPS3-8/B	M3	8	4	8	5,50	20	✓	21,21 €
MPS3-10/B	M3	10	6	8	5,50	20	✓	21,59 €
MPS3-12/B	M3	12	8	8	5,50	20	✓	23,02 €
MPS3-15/B	M3	15	8	8	5,50	20	✓	23,56 €
MPS3-18/B	M3	18	8	8	5,50	20	✓	24,12 €
MPS3-20/B	M3	20	8	8	5,50	20	✓	24,44 €
MPS3-25/B	M3	25	10	10	5,50	20	✓	27,47 €
MPS4-5/B	M4	5	3	8	7,00	20	✓	21,54 €
MPS4-8/B	M4	8	4	8	7,00	20	✓	22,32 €
MPS4-10/B	M4	10	6	8	7,00	20	✓	22,86 €
MPS4-12/B	M4	12	8	8	7,00	20	-	24,44 €
MPS4-15/B	M4	15	8	8	7,00	20	✓	25,25 €
MPS4-18/B	M4	18	8	8	7,00	20	-	25,99 €
MPS4-20/B	M4	20	8	8	7,00	20	✓	26,57 €
MPS4-25/B	M4	25	10	10	7,00	20	✓	30,16 €

*Depending on availability - Dimensions in mm

Hexagonal threaded sleeves

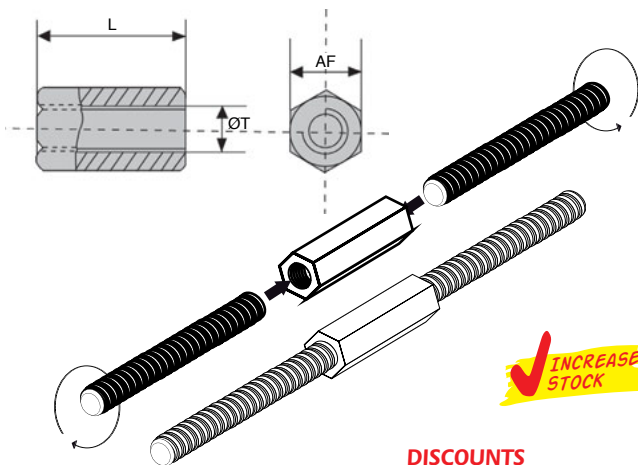
Sta Ste

MHX

Steel or **stainless steel**

- Hexagonal sleeves, through threaded
- Suitable for joining threaded bars
- Materials:
 - Blue galvanised steel S300PB
 - Stainless steel 303
- Sold by the packet

steel or stainless steel



INCREASED STOCK

DISCOUNTS

Qty	1+	5+	20+	50+
Disc.	List	-5%	-10%	On request

Part number		Thread ØT	L	AF	Qty per packet	Stock*		Price per packet 1 to 4	
Steel	Stainless steel					Steel	Stl	Steel	Stl steel
MHX3-10/B	MHX3-10/SS/B	M3	10	5,5	20	✓	-	4,15 €	13,54 €
MHX3-12/B	MHX3-12/SS/B	M3	12	5,5	20	-	-	4,26 €	14,97 €
MHX3-15/B	MHX3-15/SS/B	M3	15	5,5	20	✓	-	4,71 €	16,48 €
MHX3-18/B	-	M3	18	5,5	20	-	-	5,17 €	-
MHX3-20/B	-	M3	20	5,5	20	✓	-	5,55 €	-

Dimensions in mm



DISCOUNTS

Qty	1+	5+	20+	50+
Disc.	List	-5%	-10%	On request

Part number		Thread			Qty per packet	Stock*		Price per packet 1 to 4	
Steel	Stainless steel	ØT	L	AF		Steel	Stl	Steel	Stl steel
MHX4-10/B	MHX4-10/SS/B	M4	10	7,0	20	-	-	4,32 €	15,60 €
MHX4-12/B	MHX4-12/SS/B	M4	12	7,0	20	-	-	4,60 €	17,47 €
MHX4-15/B	MHX4-15/SS/B	M4	15	7,0	20	-	-	5,00 €	19,43 €
MHX4-18/B	-	M4	18	7,0	20	-	-	5,44 €	-
MHX4-20/B	-	M4	20	7,0	20	✓	-	6,11 €	-
-	MHX5-12/SS/B	M5	12	8,0	20	-	✓	-	20,60 €
MHX5-15/B	MHX5-15/SS/B	M5	15	8,0	20	✓	-	6,35 €	21,75 €
-	MHX5-18/SS/B	M5	18	8,0	20	-	-	-	23,00 €
MHX5-20/B	MHX5-20/SS/B	M5	20	8,0	20	✓	✓	8,80 €	23,39 €
MHX5-25/B	-	M5	25	8,0	20	-	-	9,46 €	-
MHX6-15/B	MHX6-15/SS/B	M6	15	10,0	20	✓	✓	5,31 €	29,91 €
MHX6-18/B	MHX6-18/SS/B	M6	18	10,0	20	-	-	5,81 €	27,13 €
MHX6-20/B	MHX6-20/SS/B	M6	20	10,0	20	-	-	5,99 €	32,71 €
MHX6-25/B	MHX6-25/SS/B	M6	25	10,0	20	-	✓	6,27 €	33,18 €
MHX6-30/B	MHX6-30/SS/B	M6	30	10,0	20	✓	✓	7,24 €	39,71 €
MHX6-35/B	-	M6	35	10,0	20	✓	✓	8,88 €	-
MHX6-40/B	-	M6	40	10,0	20	✓	✓	9,64 €	-
MHX6-50/B	-	M6	50	10,0	20	-	-	16,57 €	-
MHX8-15/B	-	M8	15	13,0	20	✓	-	8,50 €	-
MHX8-20/B	-	M8	20	13,0	20	✓	-	9,84 €	-
MHX8-25/B	MHX8-25/SS/B	M8	25	13,0	20	✓	✓	12,03 €	56,24 €
MHX8-30/B	MHX8-30/SS/B	M8	30	13,0	20	✓	✓	13,88 €	66,62 €
MHX8-35/B	-	M8	35	13,0	20	-	-	15,99 €	-
MHX8-40/B	-	M8	40	13,0	20	✓	-	18,11 €	-
MHX8-45/B	-	M8	45	13,0	20	-	-	21,57 €	-
MHX8-50/B	-	M8	50	13,0	20	✓	-	27,13 €	-
MHX8-60/B	-	M8	60	13,0	20	✓	-	32,79 €	-
MHX10-20/B	-	M10	20	17,0	20	✓	-	13,68 €	-
MHX10-25/B	MHX10-25/SS/B	M10	25	17,0	20	-	-	16,76 €	96,14 €
MHX10-30/B	MHX10-30/SS/B	M10	30	17,0	20	-	-	20,03 €	115,16 €
MHX10-40/B	MHX10-40/SS/B	M10	40	17,0	20	✓	-	26,45 €	153,32 €
MHX10-50/B	-	M10	50	17,0	20	-	-	32,79 €	-
MHX10-60/B	-	M10	60	17,0	20	-	-	40,40 €	-
MHX10-70/B	-	M10	70	17,0	20	✓	-	47,32 €	-
MHX12-25/B	-	M12	25	19,0	20	✓	-	20,99 €	-
MHX12-30/B	MHX12-30/SS/B	M12	30	19,0	20	-	-	25,68 €	136,12 €
MHX12-40/B	MHX12-40/SS/B	M12	40	19,0	20	✓	-	33,67 €	161,68 €
MHX12-50/B	MHX12-50/SS/B	M12	50	19,0	20	✓	-	42,12 €	201,75 €
MHX12-60/B	-	M12	60	19,0	20	-	-	50,29 €	-
MHX12-70/B	-	M12	70	19,0	20	✓	-	57,98 €	-

Dimensions in mm

Cylindrical spacer



PLN

Nylon

- Moulded pillar

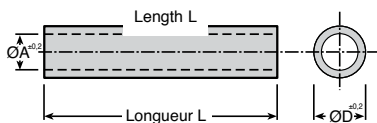
- Material:

Nylon

Info.

- As supplied, ends are closed

- Sold by the packet



DISCOUNTS

N° packets	1+	5+	20+	100+
Discount	Prix -20%	-30%	On request	

Part number	Nominal ØA	ØA	L	ØD	Qty. per packet	Stock*	Price per packet
PLN3-3/B	3	3,2	3 ±0,15	6	100	✓	7,03 €
PLN3-4/B	3	3,2	4 ±0,15	6	100	✓	7,03 €
PLN3-5/B	3	3,2	5 ±0,15	6	100	✓	7,03 €
PLN3-6/B	3	3,2	6 ±0,15	6	100	✓	7,03 €
PLN3-8/B	3	3,2	8 ±0,15	6	100	✓	7,03 €
PLN3-10/B	3	3,2	10 ±0,15	6	100	✓	7,03 €
PLN3-12/B	3	3,2	12 ±0,20	6	100	✓	8,90 €
PLN3-15/B	3	3,2	15 ±0,20	6	100	✓	8,90 €
PLN3-20/B	3	3,2	20 ±0,20	6	100	-	8,90 €
PLN3-25/B	3	3,2	25 ±0,25	6	100	-	11,17 €
PLN3-30/B	3	3,2	30 ±0,25	6	100	-	11,17 €

*Depending on availability - Dimensions in mm

DISCOUNTS

N° packets	1+	5+	20+	100+
Discount	Prix	-20%	-30%	On request

Part number	Nominal ØA	ØA	L	ØD	Qty. per packet	Stock*	Price per packet
PLN4-2/B	4	4,2	2 ^{+0,15}	8	100	✓	8,02 €
PLN4-3/B	4	4,2	3 ^{+0,15}	8	100	✓	8,02 €
PLN4-4/B	4	4,2	4 ^{+0,15}	8	100	✓	8,02 €
PLN4-5/B	4	4,2	5 ^{+0,15}	8	100	✓	8,02 €
PLN4-6/B	4	4,2	6 ^{+0,15}	8	100	✓	8,02 €
PLN4-8/B	4	4,2	8 ^{+0,15}	8	100	✓	8,02 €
PLN4-10/B	4	4,2	10 ^{+0,15}	8	100	✓	8,02 €
PLN4-12/B	4	4,2	12 ^{+0,20}	8	100	-	9,30 €
PLN4-15/B	4	4,2	15 ^{+0,20}	8	100	✓	9,30 €
PLN4-18/B	4	4,2	18 ^{+0,20}	8	100	-	9,30 €
PLN4-25/B	4	4,2	25 ^{+0,25}	8	100	-	12,01 €
PLN4-30/B	4	4,2	30 ^{+0,25}	8	100	✓	12,01 €
PLN5-2/B	5	5,2	2 ^{+0,15}	10	100	✓	8,90 €
PLN5-3/B	5	5,2	3 ^{+0,15}	10	100	-	8,90 €
PLN5-4/B	5	5,2	4 ^{+0,15}	10	100	-	8,90 €
PLN5-5/B	5	5,2	5 ^{+0,15}	10	100	-	8,90 €
PLN5-6/B	5	5,2	6 ^{+0,15}	10	100	-	8,90 €
PLN5-8/B	5	5,2	8 ^{+0,15}	10	100	-	8,90 €
PLN5-10/B	5	5,2	10 ^{+0,15}	10	100	-	8,90 €
PLN5-12/B	5	5,2	12 ^{+0,20}	10	100	-	11,19 €
PLN5-15/B	5	5,2	15 ^{+0,20}	10	100	-	11,19 €
PLN5-18/B	5	5,2	18 ^{+0,20}	10	100	-	11,19 €
PLN5-20/B	5	5,2	20 ^{+0,20}	10	100	-	11,19 €
PLN5-25/B	5	5,2	25 ^{+0,25}	10	100	-	14,20 €
PLN5-30/B	5	5,2	30 ^{+0,25}	10	100	-	14,20 €
PLN6-2/B	6	6,2	2 ^{+0,15}	10	100	✓	8,90 €
PLN6-3/B	6	6,2	3 ^{+0,15}	10	100	-	8,90 €
PLN6-4/B	6	6,2	4 ^{+0,15}	10	100	-	8,90 €
PLN6-5/B	6	6,2	5 ^{+0,15}	10	100	✓	8,90 €
PLN6-6/B	6	6,2	6 ^{+0,15}	10	100	✓	8,90 €
PLN6-8/B	6	6,2	8 ^{+0,15}	10	100	✓	8,90 €
PLN6-10/B	6	6,2	10 ^{+0,15}	10	100	✓	8,90 €
PLN6-12/B	6	6,2	12 ^{+0,20}	10	100	✓	11,19 €
PLN6-15/B	6	6,2	15 ^{+0,20}	10	100	✓	11,19 €
PLN6-18/B	6	6,2	18 ^{+0,20}	10	100	✓	11,19 €
PLN6-20/B	6	6,2	20 ^{+0,20}	10	100	✓	11,19 €
PLN6-25/B	6	6,2	25 ^{+0,25}	10	100	-	14,20 €
PLN6-30/B	6	6,2	30 ^{+0,25}	10	100	✓	14,20 €

*Depending on availability - Dimensions in mm

Cylindrical spacer



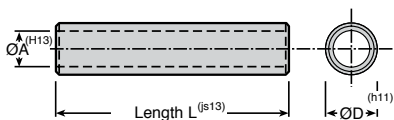
PLB

Brass

- Machined pillar
- Material:
Brass
- Sold by the packet

Option

- Alternative lengths are available



DISCOUNTS

No pack	1+	5+	20+	100+
Disc	List	-20%	-30%	On request

Part number	Nominal ØA	ØA	ØD	L	Qty. per packet	Stock*	Price per packet
PLB2-1/B	2,0	2,2	4	1	20	✓	2,63 €
PLB2-2/B	2,0	2,2	4	2	20	✓	2,70 €
PLB2-3/B	2,0	2,2	4	3	20	-	2,81 €
PLB2-4/B	2,0	2,2	4	4	20	✓	2,95 €
PLB2-5/B	2,0	2,2	4	5	20	✓	3,01 €
PLB2-8/B	2,0	2,2	4	8	20	✓	3,19 €
PLB2-10/B	2,0	2,2	4	10	20	-	3,43 €
PLB2-12/B	2,0	2,2	4	12	20	-	3,53 €
PLB2-15/B	2,0	2,2	4	15	20	-	3,91 €
PLB2-18/B	2,0	2,2	4	18	20	-	4,39 €
PLB2-20/B	2,0	2,2	4	20	20	-	5,02 €
PLB2-25/B	2,0	2,2	4	25	20	-	6,56 €
PLB2-30/B	2,0	2,2	4	30	20	-	7,77 €
PLB2.5-1/B	2,5	2,5	5	1	20	-	2,70 €
PLB2.5-2/B	2,5	2,5	5	2	20	-	2,81 €
PLB2.5-3/B	2,5	2,5	5	3	20	✓	2,95 €
PLB2.5-4/B	2,5	2,5	5	4	20	✓	3,05 €
PLB2.5-5/B	2,5	2,5	5	5	20	✓	3,19 €
PLB2.5-8/B	2,5	2,5	5	8	20	✓	3,53 €
PLB2.5-10/B	2,5	2,5	5	10	20	-	3,77 €
PLB2.5-12/B	2,5	2,5	5	12	20	-	4,02 €
PLB2.5-15/B	2,5	2,5	5	15	20	-	4,50 €
PLB2.5-18/B	2,5	2,5	5	18	20	-	5,12 €
PLB2.5-20/B	2,5	2,5	5	20	20	✓	5,84 €
PLB2.5-25/B	2,5	2,5	5	25	20	-	7,53 €
PLB2.5-30/B	2,5	2,5	5	30	20	-	8,78 €

*Depending on availability - Dimensions in mm

Part number	Nominal ØA	ØA	ØD	L	Qty. per packet	Stock*	Price per packet
PLB3-1/B	3,0	3,2	6	1	20	✓	2,54 €
PLB3-2/B	3,0	3,2	6	2	20	✓	2,63 €
PLB3-3/B	3,0	3,2	6	3	20	✓	2,81 €
PLB3-4/B	3,0	3,2	6	4	20	✓	2,95 €
PLB3-5/B	3,0	3,2	6	5	20	✓	3,05 €
PLB3-8/B	3,0	3,2	6	8	20	✓	3,53 €
PLB3-10/B	3,0	3,2	6	10	20	✓	3,91 €
PLB3-12/B	3,0	3,2	6	12	20	✓	4,25 €
PLB3-15/B	3,0	3,2	6	15	20	✓	4,74 €
PLB3-18/B	3,0	3,2	6	18	20	-	5,35 €
PLB3-20/B	3,0	3,2	6	20	20	-	5,74 €
PLB3-25/B	3,0	3,2	6	25	20	-	7,43 €
PLB3-30/B	3,0	3,2	6	30	20	-	8,78 €
PLB3-35/B	3,0	3,2	6	35	20	-	9,98 €
PLB3-40/B	3,0	3,2	6	40	20	-	12,39 €
PLB3-45/B	3,0	3,2	6	45	20	-	Sur demande
PLB4-1/B	4,0	4,3	8	1	20	-	2,70 €
PLB4-2/B	4,0	4,3	8	2	20	✓	2,81 €
PLB4-3/B	4,0	4,3	8	3	20	✓	3,05 €
PLB4-4/B	4,0	4,3	8	4	20	✓	3,30 €
PLB4-5/B	4,0	4,3	8	5	20	✓	3,43 €
PLB4-8/B	4,0	4,3	8	8	20	✓	4,25 €
PLB4-10/B	4,0	4,3	8	10	20	✓	4,86 €
PLB4-12/B	4,0	4,3	8	12	20	✓	5,60 €
PLB4-15/B	4,0	4,3	8	15	20	✓	6,32 €
PLB4-18/B	4,0	4,3	8	18	20	✓	7,04 €
PLB4-20/B	4,0	4,3	8	20	20	-	7,77 €
PLB4-25/B	4,0	4,3	8	25	20	-	10,09 €
PLB4-30/B	4,0	4,3	8	30	20	✓	11,76 €
PLB4-35/B	4,0	4,3	8	35	20	-	13,60 €
PLB4-40/B	4,0	4,3	8	40	20	-	16,02 €
PLB4-50/B	4,0	4,3	8	50	20	-	On request
PLB5-1/B	5,0	5,3	10	1	20	-	3,43 €
PLB5-2/B	5,0	5,3	10	2	20	-	3,53 €
PLB5-3/B	5,0	5,3	10	3	20	✓	3,91 €
PLB5-4/B	5,0	5,3	10	4	20	✓	4,25 €
PLB5-5/B	5,0	5,3	10	5	20	✓	4,63 €
PLB5-8/B	5,0	5,3	10	8	20	✓	6,71 €
PLB5-10/B	5,0	5,3	10	10	20	✓	7,53 €
PLB5-12/B	5,0	5,3	10	12	20	✓	8,02 €
PLB5-15/B	5,0	5,3	10	15	20	✓	9,37 €
PLB5-18/B	5,0	5,3	10	18	20	-	10,57 €
PLB5-20/B	5,0	5,3	10	20	20	✓	11,76 €
PLB5-25/B	5,0	5,3	10	25	20	✓	14,21 €
PLB5-30/B	5,0	5,3	10	30	20	✓	17,27 €
PLB5-35/B	5,0	5,3	10	35	20	✓	20,26 €
PLB5-40/B	5,0	5,3	10	40	20	-	22,72 €

*Depending on availability - Dimensions in mm

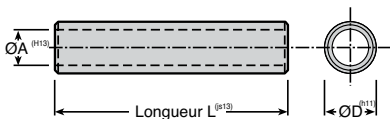
Cylindrical spacer



PLS

Stainless steel 303

- Machined pillar, female/female
- Material:
Stainless steel 303
- Sold by the packet



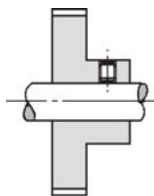
DISCOUNTS

No pack	1+	5+	20+	100+
Disc	List	-20%	-30%	On request

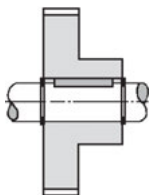
Part number	Nominal ØA	ØA	ØD	L	Qty. per packet	Stock*	Price per packet
PLS3-5/B	3	3,2	6	5	20	✓	24,42 €
PLS3-6/B	3	3,2	6	6	20	✓	25,74 €
PLS3-8/B	3	3,2	6	8	20	✓	26,71 €
PLS3-10/B	3	3,2	6	10	20	✓	28,49 €
PLS3-12/B	3	3,2	6	12	20	✓	29,14 €
PLS3-15/B	3	3,2	6	15	20	-	30,78 €
PLS3-18/B	3	3,2	6	18	20	-	32,28 €
PLS3-20/B	3	3,2	6	20	20	-	32,99 €
PLS3-25/B	3	3,2	6	25	20	-	36,00 €
PLS3-30/B	3	3,2	6	30	20	-	38,48 €
PLS4-5/B	4	4,3	8	5	20	✓	26,71 €
PLS4-6/B	4	4,3	8	6	20	✓	28,17 €
PLS4-8/B	4	4,3	8	8	20	✓	29,31 €
PLS4-10/B	4	4,3	8	10	20	✓	31,22 €
PLS4-12/B	4	4,3	8	12	20	-	31,96 €
PLS4-15/B	4	4,3	8	15	20	✓	33,79 €
PLS4-18/B	4	4,3	8	18	20	-	35,42 €
PLS4-20/B	4	4,3	8	20	20	-	36,15 €
PLS4-25/B	4	4,3	8	25	20	✓	39,46 €
PLS4-30/B	4	4,3	8	30	20	✓	42,21 €

*Depending on availability - Dimensions in mm

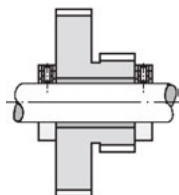
Some different fastening systems



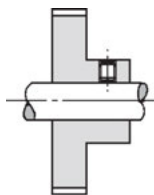
Set screw



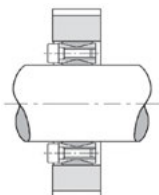
Key. circlip



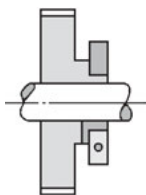
Self-lubricating bushing



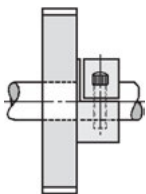
Gear & pinion pinned



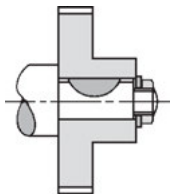
Internal clamp



Gear clamp



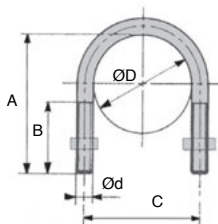
Integral gearclamp



Woodruff key and lock nut fixing

And also technicians to help you on
+33(0)4 37 496 496

- Drawn steel wire, tolerance h9, overall tolerance 10
- 2 hexagonal nuts
- Material:
Zinc plated (8µm) steel A37 with corrosion protection.
- Not sold individually, please contact us for details



DISCOUNTS

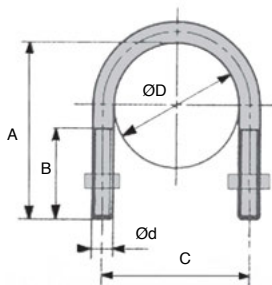
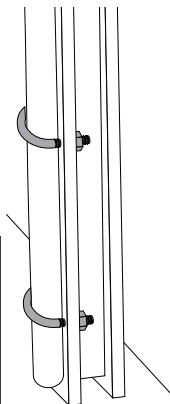
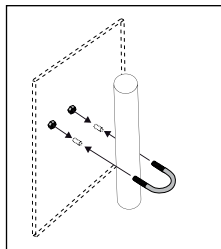
Qty	1+	101+	201+	301+	401+	501+
Disc. Prix	-5%	-10%	-15%	-20%	On request	

Part number	For tube ØExternal ØD	Ø internal d	Keylines Ød	A (mm)	B (mm)	C (mm)	Stock*	Price each 1 to 100
EBM013	13	1/4	M6	28	18	19	✓	0,25 €
EBM017	17	3/8	M6	39	22	23	✓	0,27 €
EBM021	21	1/2	M6	41	24	27	✓	0,30 €
EBM027	27	3/4	M8	50	30	35	✓	0,42 €
EBM034	34	1	M8	55	32	42	✓	0,47 €
EBM042	42	1 ^{1/4}	M8	68	35	50	✓	0,47 €
EBM049	49	1 ^{1/2}	M8	70	36	57	✓	0,49 €
EBM060	60	2	M8	80	36	68	✓	0,56 €
EBM070	70	2 ^{1/4}	M8	100	40	78	✓	0,88 €
EBM076	76	2 ^{1/2}	M8	110	40	84	✓	0,88 €
EBM089	89	3	M10	116	40	99	✓	1,26 €
EBM102	102	3 ^{1/4}	M10	130	40	112	-	1,44 €
EBM108	108	3 ^{1/2}	M10	135	40	118	-	1,98 €
EBM114	114	4	M10	156	40	124	-	2,11 €
EBM133	133	4 ^{1/4}	M10	175	40	143	-	2,59 €
EBM139	139	5	M10	195	55	149	-	3,40 €
EBM159	159	5 ^{1/2}	M12	195	50	171	-	3,96 €
EBM168	168	6	M12	200	55	180	-	4,01 €
EBM219	219	8	M14	270	50	233	-	7,21 €

*Depending on availability - Dimensions in mm

- Drawn steel wire, tolerance h9, overall tolerance 10
- 2 hexagonal nuts
- Material:
Stainless steel 304

Stainless steel



DISCOUNTS

Qty	1+	101+	201+	301+	401+
Disc. Prix	-5%	-10%	-15%	On request	

Part number	For tubr		Filet Ød	A (mm)	B (mm)	C (mm)	Stock*	Price each 1 to 100
	ØE external ØD	Ø internal d						
EIM013	13	1/4	M6	28	20	19	-	1,19 €
EIM017	17	3/8	M6	36	22	23	-	1,44 €
EIM021	21	1/2	M6	40	20	27	✓	1,51 €
EIM027	27	3/4	M8	50	30	35	✓	2,77 €
EIM034	34	1	M8	55	30	42	✓	3,03 €
EIM042	42	1 ^{1/4}	M8	68	35	50	✓	3,43 €
EIM049	49	1 ^{1/2}	M8	70	35	57	✓	3,55 €
EIM060	60	2	M8	80	35	68	✓	3,68 €
EIM076	76	2 ^{1/2}	M8	110	45	84	-	4,43 €
EIM089	89	3	M10	115	45	99	-	7,96 €
EIM114	114	4	M10	156	55	124	-	8,98 €

*Depending on availability - Dimensions in mm

**STEEL THREAD
INSERTS**

**✓ INCREASED
STOCK**



p.396

**SELF TAPPING
STEEL INSERT**



p.402

**CYLINDRICAL
THREADED SLEEVES**

**✓ INCREASED
STOCK**



p.410

THREADED BAR
stainless steel



p.411

SHOULDER SCREW



p.412

**HEXAGONAL HEADED
BOLTS**



p.418

SCREWS
p.396 - 443

SOCKET-HEAD SCREW



p.420

**COUNTERSUNK
SCREW** *stainless steel*



p.426

**NYLON TIPPED SET
SCREW** *stainless steel*



p.429

**MANUALLY OPERATED
WING NUT**



p.440

Thread inserts are a convenient way of repairing siezed, damaged or hanging threads. It also allows renovate threads in high quality materials.

Thread inserts can be used in varying materials such as light alloys or cast materials.

Advantages

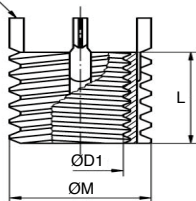
- Quick and easy to install
- Tangs are used during installation and then serve as an anti-rotation mechanism.
- **Apart from the insertion tool, no other special tools are required.**

Assembly

- **Some tapping required**
- Refer to technical oages for assembly/disassembly instructions



Locking tang



DISCOUNTS

Qty	1+	10+	20+	30+	50+
Disc.	List	-5%	-10%	-15%	On request

Part number	Thread ØD1	Thread ØM	Length L	Assembly drill size Ø	Assembly counterbore +0,25	Assembly thread	Min thread depth	Removal drill size Ø	Removal thread depth	Price each 1 to 9
FR-M5	M5	M8	8	6,9	8,3	M8	9,5	5,5	4,0	5,20 €
FR-M6	M6	M10x1,25	10	8,8	10,3	M10x1,25	11,5	7,5	4,8	5,63 €
FR-M8	M8	M12x1,25	12	10,8	12,3	M12x1,25	13,5	9,5	4,8	6,23 €
FR-M8x100	M8x1	M12x1,25	12	10,8	12,3	M12x1,25	13,5	9,5	4,8	6,23 €
FR-M10	M10	M14x1,5	14	12,8	14,3	M14x1,5	15,5	11,5	4,8	7,73 €
FR-M10x125	M10x1,25	M14x1,5	14	12,8	14,3	M14x1,5	15,5	11,5	4,8	7,73 €
FR-M12	M12	M16x1,5	16	14,8	16,3	M16x1,5	17,5	13,5	4,8	9,98 €
FR-M12x125	M12x1,25	M16x1,5	16	14,8	16,3	M16x1,5	17,5	13,5	4,8	9,98 €

Dimensions in mm

Thread inserts are a convenient way of repairing siezed, damaged or hanging threads. It also allows renovate threads in high quality materials.

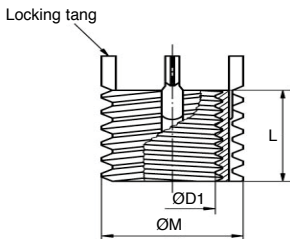
Thread inserts can be used in varying materials such as light alloys or cast

Advantages

- Quick and easy to install
- Tangs are used during installation and then serve as an anti-rotation mechanism.
- Apart from the insertion tool, no other special tools are required.

Assembly

- Some tapping required
- Refer to technical oages for assembly/disassembly instructions



DISCOUNTS

Qty	1+	10+	20+	30+	50+
Disc.	List	-5%	-10%	-15%	On request

Part number	Thread ØD1	Thread ØM	Length L	Assembly drill size Ø	Assembly counterbore +0,25	Assembly thread	Min thread depth	Removal drill size Ø	Removal thread depth	Price each 1 to 9
FR-M5/SS	M5	M8	8	6,9	8,3	M8	9,5	5,5	4,0	10,58 €
FR-M6/SS	M6	M10x1,25	10	8,8	10,3	M10x1,25	11,5	7,5	4,8	10,28 €
FR-M8/SS	M8	M12x1,25	12	10,8	12,3	M12x1,25	13,5	9,5	4,8	10,86 €
FR-M8x100/SS	M8x1	M12x1,25	12	10,8	12,3	M12x1,25	13,5	9,5	4,8	10,86 €
FR-M10/SS	M10	M14x1,5	14	12,8	14,3	M14x1,5	15,5	11,5	4,8	12,44 €
FR-M10x125/SS	M10x1,25	M14x1,5	14	12,8	14,3	M14x1,5	15,5	11,5	4,8	12,44 €
FR-M12/SS	M12	M16x1,5	16	14,8	16,3	M16x1,5	17,5	13,5	4,8	15,85 €
FR-M12x125/SS	M12x1,25	M16x1,5	16	14,8	16,3	M16x1,5	17,5	13,5	4,8	15,85 €

Dimensions in mm

Thread inserts

FR_{TOOL}

Assembly tool



✓ INCREASED STOCK

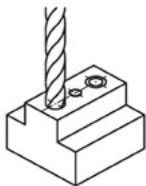
DISCOUNTS

Qty	1+	10+	20+	30+	50+
Disc.	List	-5%	-10%	-15%	On request

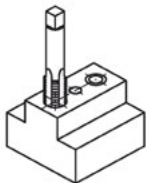
Part number	Corresponding diameter D1	Stock*	Price each 1 to 9
FR-M5/TOOL	M5	✓	31,05 €
FR-M6/TOOL	M6	✓	32,08 €
FR-M8/TOOL	M8, M8x1	✓	33,46 €
FR-M10/TOOL	M10, M10x1,25	✓	35,86 €
FR-M12/TOOL	M12, M12x1,25	✓	38,74 €

*Depending on availability - Dimensions in mm

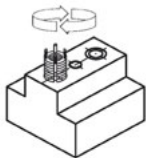
Assembly



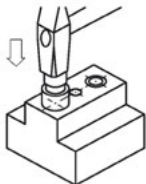
- 1.***
Drill the pilot hole or rebores the old thread with a starting taper (82°-100°)



- 2.***
Tap the required thread using a standard tap.



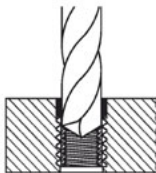
- 3.**
Screw in the thread inserts. These should finish below the top surface of the material (0.3 to 0.7mm).



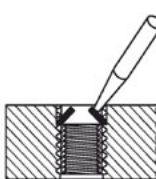
- 4.**
Insert the keys using the supplied tool, tapping gently with a hammer.

Steps 1+2. Refer to the parts table for the dimensions.

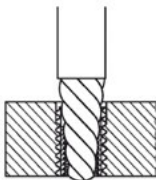
Disassembly



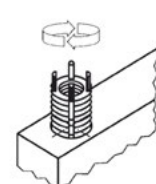
- 1.***
Rebores the remaining material between the keys and threads to the depth indicated



- 2.**
Bend the keys towards the centre until they break



- 3.**
Remove the thread inserts using the extraction tool



- 4.**
Mount the new thread inserts in the original threads

*Steps 1. Refer to the parts table for the dimensions

Powercoil thread inserts

Stock

PWC

Thread repair

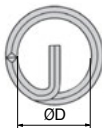
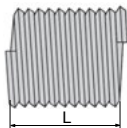
- Thread insert repair kits (with or without insertion tools)
- Single size of insert per kit
- The thread length is 1.5 x the O.D.

Tap

- The taps supplied are designed to be used with thread inserts (STI) and are not compatible with standard metric threads.

Info

- Kits with tools supplied include 1 drill, 1 tap, 1 insertion tool and 1 tang break tool.



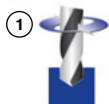
DISCOUNTS

Qty	1+	5+	10+	15+
Disc.	List	-5%	-10%	On request

Part number	ØD	Pitch	L	Ø Drilling	Qty per box	Stock*	Price each 1 to 4
Kit inc installation tools							
PWC-M3/KIT	M3	0,50	4,5	3,2	20	✓	104,10 €
PWC-M4/KIT	M4	0,70	6,0	4,2	20	✓	104,10 €
PWC-M5/KIT	M5	0,80	7,5	5,2	20	✓	104,10 €
PWC-M6/KIT	M6	1,00	9,0	6,3	20	✓	109,71 €
PWC-M8/KIT	M8	1,25	12,0	8,3	20	✓	126,61 €
PWC-M10/KIT	M10	1,50	15,0	10,4	15	-	135,05 €
PWC-M12/KIT	M12	1,75	18,0	12,4	10	-	163,19 €
Wallets without installation tools							
PWC-M3/B	M3	0,50	4,5	3,2	10	✓	8,88 €
PWC-M4/B	M4	0,70	6,0	4,2	10	✓	8,88 €
PWC-M5/B	M5	0,80	7,5	5,2	10	✓	8,88 €
PWC-M6/B	M6	1,00	9,0	6,3	10	✓	8,88 €
PWC-M8/B	M8	1,25	12,0	8,3	10	✓	10,54 €
PWC-M10/B	M10	1,50	15,0	10,4	10	✓	11,92 €
PWC-M12/B	M12	1,75	18,0	12,4	10	✓	17,68 €

Dimensions in mm

Powercell thread inserts allow threads to be reinforced or repaired and result in greater strength. In new applications they can be used to reinforce lighter materials. For repairs, they are used to restore damaged threads to an as-new condition.

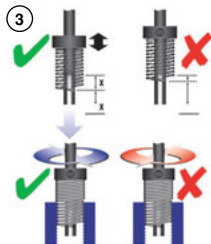


- ① Drill to clear the damaged thread with a standard twist drill. Thread Repair Kits up to M12 include the correct size drill. The required drill size is shown on the front of the packaging.



- ② Use the specified tap to cut the holding thread into the prepared hole. When tapping a hole, it is recommended to use a suitable cutting lubricant.

Note: Thread inserts require the use of STI (Screw thread insert) taps which are slightly oversized to provide the correct hole diameter. Always check that the thread and pitch of the tap are the same as the bolt that will be used in the finished hole.

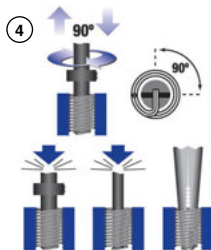


- ③ Loosen the grub screw and slide the collar along the insert tool shaft so that the tang on the insert is positioned half way up the insert tool slot.

Note: Do not position the tang at the very top or bottom of the insert tool slot.

Use the installation tool to wind the insert into the threaded hole using a light downward pressure until it is half a turn below the surface.

Note: Do not rotate in the opposite direction to the thread direction as the tang may break.



- ④ Lift installation tool, rotate 90° and tap down sharply to break off the thread insert tang. Use the tang break off tool to perform this function where supplied.

Note: For larger inserts use long nosed pliers to remove the tang.

The damaged thread has now successfully been repaired and will normally be stronger than the original.

Self tapping steel insert



INS

For hard materials

- Self tapping insert with fine external thread

- Material: chromed zinc steel

Applications

- For use with aluminium or other non ferrous metals, thermoplastics and hardwoods

Mounting

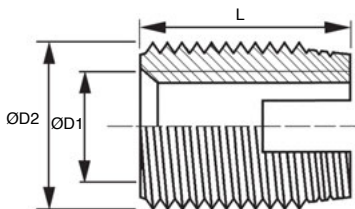
- Mount the insert in a plain hole with the aid of the insertion tool INS-TOOL, a tap, a drill fitted with a threaded head or an automatic threading machine.

- The insert should be installed in such a way that the thread/slot cuts its own thread

- For soft material the initial hole should be drilled at the minimum recommended size, for a hard material, at the maximum recommended size

Info.

- Sold by wallet



Excellent resistance to being removed

DISCOUNTS

Qty	1+	10+	20+	30+	40+
Disc.	List	-5%	-10%	-15%	On request

Part number	Internal thread ØD1	External thread ØD2	Length L	Recommended drill size		Qty by packet	Stock*	Price per packet
				mini	maxi			
INS300-M3/B	M3	M5 X 0,5	6	4,6	4,8	20	✓	9,49 €
INS300-M4/B	M4	M6,5 X 0,75	8	5,8	6,2	20	✓	12,92 €
INS300-M5/B	M5	M8 X 1	10	7,1	7,6	20	✓	14,20 €
INS300-M6/B	M6	M10 X 1,5	14	8,6	9,4	20	✓	16,95 €
INS300-M8/B	M8	M12 X 1,5	15	10,6	11,4	20	✓	20,92 €
INS300-M10/B	M10	M14 X 1,5	18	12,6	13,4	15	✓	28,00 €
INS300-M12/B	M12	M16 X 1,5	22	14,6	15,4	10	✓	33,65 €

*Depending on availability - Dimensions in mm

- Self tapping insert with fine external thread
- Material: brass

Applications

- For use with thermoplastics and hardwoods

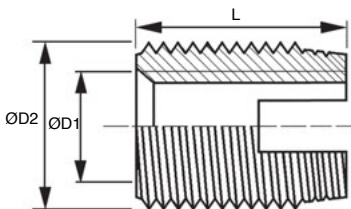
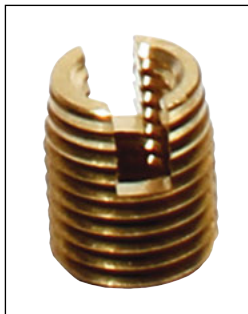
Mounting

- Mount the insert in a plain hole with the aid of the Insertion tool INS-TOOL, a tap, a drill fitted with a threaded head or an automatic threading machine.
- The insert should be installed in such a way that the thread/slot cuts its own thread
- For soft material the initial hole should be drilled at the minimum recommended size, for a hard material, at the maximum recommended size

Info.

- Sold by wallet

Excellent resistance to being removed



DISCOUNTS

Qty	1+	10+	20+	30+	40+
Disc.	List	-5%	-10%	-15%	On request

Part number	Internal thread ØD1	External thread ØD2	Length L	Recommended drill size		Qty per packet	Stock*	Price per packet
				mini	maxi			
INS300-M3/BR/B	M3	M5 X 0,5	6	4,6	4,8	20	✓	9,76 €
INS300-M4/BR/B	M4	M6,5 X 0,75	8	5,8	6,2	20	✓	13,54 €
INS300-M5/BR/B	M5	M8 X 1	10	7,1	7,6	20	✓	15,30 €
INS300-M6/BR/B	M6	M10 X 1,5	14	8,6	9,4	20	✓	19,69 €
INS300-M8/BR/B	M8	M12 X 1,5	15	10,6	11,4	20	✓	28,34 €
INS300-M10/BR/B	M10	M14 X 1,5	18	12,6	13,4	15	✓	35,25 €
INS300-M12/BR/B	M12	M16 X 1,5	22	14,6	15,4	10	✓	37,29 €

*Depending on availability - Dimensions in mm

- Self tapping insert with fine external thread
- Material: stainless steel 303 (except for M10 +M12 threads: stainless steel 130F)

Applications

- For use with aluminium or other non ferrous metals, thermoplastics and hardwoods

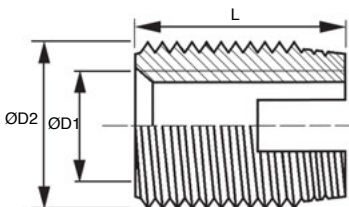
Mounting

- Mount the insert in a plain hole with the aid of the Insertion tool INS-TOOL, a tap, a drill fitted with a threaded head or an automatic threading machine.
- The insert should be installed in such a way that the thread/slot cuts its own thread
- For soft material the initial hole should be drilled at the minimum recommended size, for a hard material, at the maximum recommended size

Info.

- Sold by wallet

stainless steel



Excellent resistance to being removed

DISCOUNTS

Qty	1+	10+	20+	30+	40+
Disc. List	-5%	-10%	-15%	On request	

Part number	Internal thread ØD1	External thread ØD2	Length L	Recommended drill size		Qty per packet	Stock*	Price per packet
				mini	maxi			
INS300-M3/SS/B	M3	M5 X 0,5	6	4,6	4,8	20	✓	44,41 €
INS300-M4/SS/B	M4	M6,5 X 0,75	8	5,8	6,2	20	✓	45,40 €
INS300-M5/SS/B	M5	M8 X 1	10	7,1	7,6	20	✓	45,45 €
INS300-M6/SS/B	M6	M10 X 1,5	14	8,6	9,4	20	✓	50,89 €
INS300-M8/SS/B	M8	M12 X 1,5	15	10,6	11,4	20	✓	68,91 €
INS300-M10/SS/B	M10	M14 X 1,5	18	12,6	13,4	15	✓	73,51 €
INS300-M12/SS/B	M12	M16 X 1,5	22	14,6	15,4	10	-	73,35 €

*Depending on availability - Dimensions in mm

Insertion tool for self tapping inserts

Assembly tool

INSTOOL

- Insertion tool for self tapping inserts
- Hexagonal shaft and rotating hexagonal end



Example of a typical application



DISCOUNTS

Qty	1+	10+	20+	30+	40+
Disc.	List	-5%	-10%	-15%	On request

Part number	Ød	SW	Stock*	Price each 1 to 9
INS300-TOOL-M3	M3	10	✓	82,37 €
INS300-TOOL-M4	M4	10	✓	82,37 €
INS300-TOOL-M5	M5	17	✓	93,35 €
INS300-TOOL-M6	M6	17	✓	93,35 €
INS300-TOOL-M8	M8	17	✓	107,08 €
INS300-TOOL-M10	M10	19	✓	112,57 €
INS300-TOOL-M12	M12	19	✓	145,52 €

Dimensions in mm

Self tapping inserts- coarse thread

INS100

For soft materials

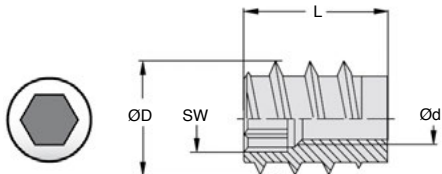
- Self tapping insert with coarse external thread
- No collar
- Deforms on installation, no special tools required
- Hexagonal drive socket simplifies installation
- Chromed steel

Applications

- For use in rubber, soft plastic or soft wood

Info.

- Sold by wallet



DISCOUNTS

Qty	1+	10+	20+	30+	40+
Disc.	List	-5%	-10%	-15%	On request

Part number	ØD	L	Ød	SW	Recommended Ø drill		Packet qty	Weight (g)	Stock*	Price each by packet
					min	max				
INS100-M4/B	8,0	8	M4	4	6,6	6,9	20	1,4	-	9,49 €
INS100-M5/B	10,0	10	M5	5	8,4	8,9	20	2,5	✓	12,07 €
INS100-M6/B	12,0	12	M6	6	10,0	10,4	20	4,8	✓	15,00 €
INS100-M8/B	14,0	15	M8	8	12,0	12,4	20	7,3	✓	25,16 €
INS100-M10/B	18,5	20	M10	10	16,2	16,7	15	19,2	-	39,30 €
INS100-M12/B	22,0	30	M12	12	19,5	20,0	10	38,0	-	117,42 €

*Depending on availability - Dimensions in mm

Self tapping insert with collar-coarse thread

For soft materials

INS150

- Self tapping insert with coarse external thread
- With collar
- Deforms on installation, no special tools required
- Hexagonal drive socket simplifies installation
- Chromed steel

Applications

- For use in rubber, soft plastic or soft wood

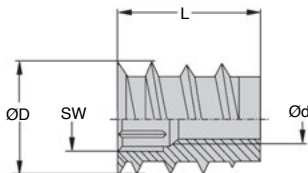
Advantage

- Collar prevents insert being inserted too far

Info.

- Sold by wallet

With collar



DISCOUNTS

Qty	1+	10+	20+	30+	40+
Disc.	List	-5%	-10%	-15%	On request

Part number	ØD	L	Ød	SW	Recommended Ø drill		Packet qty	Weight (g)	Stock*	Price each by packet
					min	max				
INS150-M4/B	8,0	8	M4	4	6,6	6,9	20	1,4	✓	27,03 €
INS150-M5/B	10,0	12	M5	5	8,4	8,9	20	2,8	✓	33,62 €
INS150-M6/B	12,0	15	M6	6	10,0	10,4	20	6,0	✓	39,59 €
INS150-M8/B	14,0	18	M8	8	12,0	12,4	20	8,7	✓	66,00 €
INS150-M10/B	18,5	25	M10	10	16,2	16,7	15	24,2	✓	77,06 €
INS150-M12/B	22,0	25	M12	12	19,5	20,0	10	34,5	-	92,96 €

*Depending on availability - Dimensions in mm

Boxed set of self tapping inserts

BOXINS300

For hard materials

- Selection of self tapping inserts with fine external thread

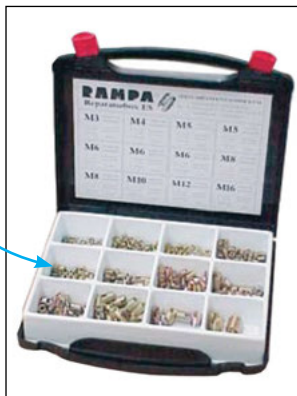
Assembly

- Refer to INS300

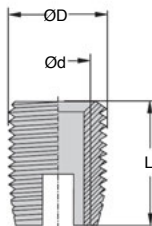
Applications

- For use in aluminium or other non-ferrous metals, thermoplastics or hardwoods

297 pieces



Quantity	ØD	L	Ød
30	M5x0,5	6	M3
50	M6,5x0,75	8	M4
20	M8x1	8	M5
40	M8x1	10	M5
20	M9x1	8	M6
20	M9x1	12	M6
40	M10x1,5	14	M6
20	M12x1,5	12	M8
30	M12x1,5	15	M8
20	M14x1,5	18	M10
5	M16x1,5	22	M12
2	M20x1,5	25	M10



DISCOUNTS

Qty	1+	2+	5+
Disc.	List	-5%	On request

Part number	Material	Quantity per box	Stock*	Price each
BOX-INS300	Yellow zinc plated hardened steel	297 pieces	✓	328,82 €

*Depending of availability - Dimensions in mm

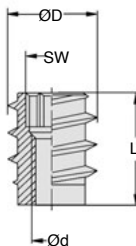
- Selection of self tapping inserts with coarse external thread for soft materials
- No collar
- Deforms on installation, no special tools required
- Hexagonal drive socket simplifies installation
- Chromed steel

Applications

- For use in rubber, soft plastic or soft wood



Quantity	ØD	L	Ød	SW	Material
40	8,0	8	M4	4	Plated steel
25	8,0	10	M4	4	Brass
50	10,0	10	M5	5	Plated steel
30	10,0	12	M5	5	Brass
40	12,0	12	M6	6	Plated steel
20	12,0	15	M6	6	Brass
20	12,0	20	M6	6	Plated steel
25	14,0	15	M8	8	Plated steel
20	16,0	18	M8	8	Brass
10	16,0	23	M8	8	Plated steel
10	18,5	20	M10	10	Plated steel
10	18,5	25	M10	10	Brass



DISCOUNTS

Qty	1+	2+	5+
Disc.	List	-5%	On request

Part number	Quantity per box	Stock*	Price each
BOX-INS100	300 pieces	✓	316,92 €

*Depending of availability - Dimensions in mm

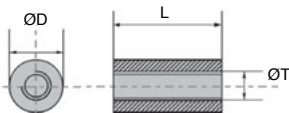
Cylindrical threaded sleeves



MCL

Steel or stainless steel

- Cylindrical sleeves, through drilled
- Suitable for joining threaded bars
- Materials:
Blue galvanised steel S300PB
Stainless steel 303
- Sold by the packet



DISCOUNTS

No. packets	1+	5+	20+	50+
Discounts	List	-5%	-10%	On request

Part number		Thread				Qty per packet	Stock*		Price per packet 1 to 4	
Steel	Stainless steel	ØT	L	ØD	Steel		S/steel	Steel	S/steel	
MCL4-15/B	-	M4	15	7	20	✓	-	4,55 €	-	
MCL4-20/B	-	M4	20	7	20	✓	-	4,83 €	-	
-	MCL5-15/SS/B	M5	15	8	20	-	✓	-	23,87 €	
MCL5-20/B	-	M5	20	8	20	✓	-	4,93 €	-	
MCL5-25/B	-	M5	25	8	20	✓	-	5,31 €	-	
MCL6-10/B	MCL6-10/SS/B	M6	10	10	20	✓	✓	4,15 €	20,60 €	
MCL6-15/B	-	M6	15	10	20	-	-	4,55 €	-	
MCL6-20/B	MCL6-20/SS/B	M6	20	10	20	✓	✓	5,12 €	25,02 €	
MCL6-25/B	MCL6-25/SS/B	M6	25	10	20	✓	✓	5,50 €	30,30 €	
MCL6-30/B	MCL6-30/SS/B	M6	30	10	20	✓	✓	6,27 €	35,40 €	
MCL6-35/B	-	M6	35	10	20	✓	-	7,81 €	-	
MCL6-40/B	-	M6	40	10	20	✓	-	8,30 €	-	
MCL6-50/B	-	M6	50	10	20	✓	-	14,73 €	-	
MCL8-15/B	-	M8	15	11	20	✓	-	5,12 €	-	
MCL8-20/B	MCL8-20/SS/B	M8	20	11	20	-	✓	5,50 €	32,99 €	
MCL8-25/B	MCL8-25/SS/B	M8	25	11	20	✓	-	5,88 €	35,40 €	
MCL8-30/B	MCL8-30/SS/B	M8	30	11	20	✓	✓	6,47 €	43,17 €	
MCL8-35/B	MCL8-35/SS/B	M8	35	11	20	-	-	8,68 €	46,93 €	
MCL8-40/B	MCL8-40/SS/B	M8	40	11	20	✓	-	9,26 €	52,71 €	
MCL8-50/B	MCL8-50/SS/B	M8	50	11	20	✓	✓	14,92 €	65,96 €	
MCL10-20/B	MCL10-20/SS/B	M10	20	13	20	✓	-	6,95 €	41,18 €	
MCL10-25/B	MCL10-25/SS/B	M10	25	13	20	-	✓	8,11 €	51,06 €	
MCL10-30/B	MCL10-30/SS/B	M10	30	13	20	-	-	8,68 €	60,58 €	
MCL10-35/B	-	M10	35	13	20	-	-	10,22 €	-	
MCL10-40/B	MCL10-40/SS/B	M10	40	13	20	-	✓	11,75 €	71,82 €	
MCL10-50/B	MCL10-50/SS/B	M10	50	13	20	-	✓	17,90 €	89,50 €	
MCL10-60/B	-	M10	60	13	20	-	-	21,83 €	-	
MCL12-20/B	-	M12	20	15	20	✓	-	9,84 €	-	
MCL12-25/B	-	M12	25	15	20	-	-	10,81 €	-	
MCL12-30/B	MCL12-30/SS/B	M12	30	15	20	-	✓	12,24 €	80,46 €	
MCL12-35/B	-	M12	35	15	20	-	-	14,34 €	-	
MCL12-40/B	MCL12-40/SS/B	M12	40	15	20	-	-	15,80 €	93,08 €	
MCL12-50/B	MCL12-50/SS/B	M12	50	15	20	-	-	24,26 €	103,92 €	
MCL12-60/B	-	M12	60	15	20	-	-	30,80 €	-	

*Depending on availability - Dimensions in mm

- **Conforms to DIN 975**
- **Material:**
Stainless steel: 303/304 - A2
- **Working temperature up to +430°C**

Uses

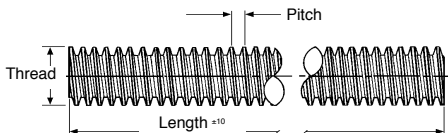
- Suitable for harsh environments

Options

- Stainless steel 316

Accessories

- Nuts **SHN**
- Stainless steel screws



DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

Part number	Thread	Pitch	Length (mm)	Stock*	Price each 1 to 5
TIF-2/SS	M2	0,40	1000	✓	10,11 €
TIF-2.5/SS	M2,5	0,45	1000	✓	11,08 €
TIF-3/SS	M3	0,50	1000	✓	4,02 €
TIF-4/SS	M4	0,70	1000	✓	4,00 €
TIF-5/SS	M5	0,80	1000	✓	2,76 €
TIF-6/SS	M6	1,00	1000	✓	3,05 €
TIF-8/SS	M8	1,25	1000	✓	5,74 €
TIF-10/SS	M10	1,50	1000	✓	9,22 €
TIF-12/SS	M12	1,75	1000	✓	13,34 €
TIF-14/SS	M14	2,00	1000	✓	18,34 €
TIF-16/SS	M16	2,00	1000	✓	22,29 €
TIF-18/SS	M18	2,50	1000	✓	32,60 €
TIF-20/SS	M20	2,50	1000	✓	36,31 €
TIF-22/SS	M22	2,50	1000	-	48,21 €
TIF-24/SS	M24	3,00	1000	-	51,99 €
TIF-27/SS	M27	3,00	1000	-	79,03 €
TIF-30/SS	M30	3,50	1000	-	99,95 €
TIF-33/SS	M33	3,50	1000	-	118,04 €
TIF-36/SS	M36	4,00	1000	-	135,07 €

*Depending on availability - Dimensions in mm

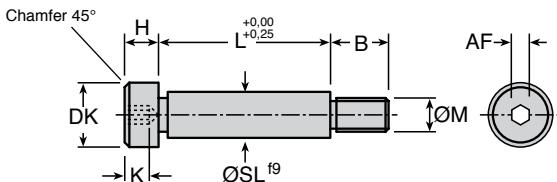
Shoulder screw ISO 7379



HSS

Hardened steel Class 12.9

- **Shoulder screws, quality class 12.9**
- For centering as well as holding
- Material: Hardened steel 33-38 HRC (oil-hardened)
- Traction resistance 1220N/mm²
- Shear strength 624N/mm²
- Minimum elongation: 8%
- Working temperature: -50°C to +300°C
- **Not sold individually, please contact us for details**



ØSL	ØM	Traction Force (kN)			Tightening torque (Nm)
		Thread	Should	Groove	
6	M5	16,99	20,47	7,62	7,61
8	M6	24,03	36,38	10,90	13,14
10	M8	43,77	56,86	20,81	33,63
12	M10	69,38	81,88	33,79	60,56
16	M12	100,52	145,55	49,80	120,62

DISCOUNTS

Qty	1+	6+	20+	40+	60+	100+	300+
Disc.	IIST	-10%	-15%	-20%	-30%	-55%	On request

Part number	Thread		L	Pas	b	dk	k	ØsL	H	AF	Stock*	Price each 1 to 5
	ØM											
HSS5-10	M5		10	0,80	9,75	10,22	2,4	Ø6	4,5	3	✓	2,96 €
HSS5-12	M5		12	0,80	9,75	10,22	2,4	Ø6	4,5	3	✓	2,96 €
HSS5-16	M5		16	0,80	9,75	10,22	2,4	Ø6	4,5	3	✓	3,08 €
HSS5-20	M5		20	0,80	9,75	10,22	2,4	Ø6	4,5	3	✓	3,08 €
HSS5-25	M5		25	0,80	9,75	10,22	2,4	Ø6	4,5	3	✓	3,15 €
HSS5-30	M5		30	0,80	9,75	10,22	2,4	Ø6	4,5	3	✓	3,15 €
HSS5-40	M5		40	0,80	9,75	10,22	2,4	Ø6	4,5	3	✓	3,20 €

*Depending on availability - Dimensions in mm

DISCOUNTS

Qty	1+	6+	20+	40+	60+	100+	300+
Disc.	IIIST	-10%	-15%	-20%	-30%	-55%	On request

Part number	Thread ØM	L	Pas	b	dk	k	ØsL	H	AF	Stock*	Price each 1 to 5
HSS6-12	M6	12	1,00	11,25	13,27	3,3	Ø8	5,5	4	✓	3,24 €
HSS6-16	M6	16	1,00	11,25	13,27	3,3	Ø8	5,5	4	✓	3,33 €
HSS6-20	M6	20	1,00	11,25	13,27	3,3	Ø8	5,5	4	✓	3,46 €
HSS6-25	M6	25	1,00	11,25	13,27	3,3	Ø8	5,5	4	✓	3,46 €
HSS6-30	M6	30	1,00	11,25	13,27	3,3	Ø8	5,5	4	✓	3,61 €
HSS6-40	M6	40	1,00	11,25	13,27	3,3	Ø8	5,5	4	✓	3,75 €
HSS6-50	M6	50	1,00	11,25	13,27	3,3	Ø8	5,5	4	✓	3,84 €
HSS8-16	M8	16	1,25	13,25	16,27	4,2	Ø10	7,0	5	✓	3,92 €
HSS8-20	M8	20	1,25	13,25	16,27	4,2	Ø10	7,0	5	✓	3,92 €
HSS8-25	M8	25	1,25	13,25	16,27	4,2	Ø10	7,0	5	✓	4,07 €
HSS8-30	M8	30	1,25	13,25	16,27	4,2	Ø10	7,0	5	✓	4,97 €
HSS8-40	M8	40	1,25	13,25	16,27	4,2	Ø10	7,0	5	✓	5,28 €
HSS8-50	M8	50	1,25	13,25	16,27	4,2	Ø10	7,0	5	✓	5,33 €
HSS8-60	M8	60	1,25	13,25	16,27	4,2	Ø10	7,0	5	✓	5,33 €
HSS8-70	M8	70	1,25	13,25	16,27	4,2	Ø10	7,0	5	✓	5,85 €
HSS8-80	M8	80	1,25	13,25	16,27	4,2	Ø10	7,0	5	✓	6,53 €
HSS10-16	M10	16	1,50	16,4	18,27	4,9	Ø12	8,0	6	✓	6,20 €
HSS10-20	M10	20	1,50	16,4	18,27	4,9	Ø12	8,0	6	✓	6,30 €
HSS10-25	M10	25	1,50	16,4	18,27	4,9	Ø12	8,0	6	✓	6,76 €
HSS10-30	M10	30	1,50	16,4	18,27	4,9	Ø12	8,0	6	✓	6,84 €
HSS10-40	M10	40	1,50	16,4	18,27	4,9	Ø12	8,0	6	✓	6,72 €
HSS10-50	M10	50	1,50	16,4	18,27	4,9	Ø12	8,0	6	✓	7,43 €
HSS10-60	M10	60	1,50	16,4	18,27	4,9	Ø12	8,0	6	✓	9,15 €
HSS10-70	M10	70	1,50	16,4	18,27	4,9	Ø12	8,0	6	✓	9,72 €
HSS10-80	M10	80	1,50	16,4	18,27	4,9	Ø12	8,0	6	-	12,54 €
HSS10-90	M10	90	1,50	16,4	18,27	4,9	Ø12	8,0	6	-	14,40 €
HSS10-100	M10	100	1,50	16,4	18,27	4,9	Ø12	8,0	6	-	17,11 €
HSS12-30	M12	30	1,75	18,4	24,33	6,6	Ø16	10,0	8	✓	11,72 €
HSS12-40	M12	40	1,75	18,4	24,33	6,6	Ø16	10,0	8	✓	12,67 €
HSS12-50	M12	50	1,75	18,4	24,33	6,6	Ø16	10,0	8	✓	13,19 €
HSS12-60	M12	60	1,75	18,4	24,33	6,6	Ø16	10,0	8	✓	15,69 €
HSS12-70	M12	70	1,75	18,4	24,33	6,6	Ø16	10,0	8	✓	16,30 €
HSS12-80	M12	80	1,75	18,4	24,33	6,6	Ø16	10,0	8	-	17,70 €
HSS12-90	M12	90	1,75	18,4	24,33	6,6	Ø16	10,0	8	-	19,30 €
HSS12-120	M12	120	1,75	18,4	24,33	6,6	Ø16	10,0	8	-	32,66 €

*Depending on availability - Dimensions in mm

Shoulder screw **stainless steel 303**

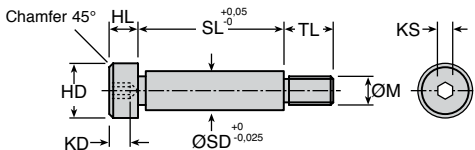
SHS

Stainless steel 550 N/mm²

- **Material: Stainless steel 303**
- For centering as well as holding
- Working temperature up to +430°C
- Hexagonal socket head
- Traction resistance: 550N/mm²
- **Not sold individually, please contact us for details**

Uses

- For use in harsh environments



DISCOUNTS

Qty	1+	6+	20+	40+	60+	100+	300+
Disc.	List	-10%	-15%	-20%	-30%	-55%	On request

Part number	Thread		SL	HD	HL	TL	KS	KD	Stock*	Price each 1 to 5
	ØM	SD								
SHS3-4	M3	3,987	4,013	6	3	4	2,0	1,6	✓	6,39 €
SHS3-5	M3	3,987	5,013	6	3	4	2,0	1,6	✓	6,39 €
SHS3-6	M3	3,987	6,013	6	3	4	2,0	1,6	✓	6,39 €
SHS3-8	M3	3,987	8,013	6	3	4	2,0	1,6	✓	6,39 €
SHS3-10	M3	3,987	10,013	6	3	4	2,0	1,6	✓	6,39 €

*Depending on availability - Dimensions in mm

DISCOUNTS

Qty	1+	6+	20+	40+	60+	100+	300+
Disc.	List	-10%	-15%	-20%	-30%	-55%	On request

Part number	Thread									Stock*	Price each 1 to 5
	ØM	SD	SL	HD	HL	TL	KS	KD			
SHS4-4	M4	4,987	4,013	8	4	5	2,5	2,0	✓	6,39 €	
SHS4-5	M4	4,987	5,013	8	4	5	2,5	2,0	✓	6,39 €	
SHS4-6	M4	4,987	6,013	8	4	5	2,5	2,0	✓	6,39 €	
SHS4-8	M4	4,987	8,013	8	4	5	2,5	2,0	✓	6,39 €	
SHS4-10	M4	4,987	10,013	8	4	5	2,5	2,0	✓	6,39 €	
SHS4-12	M4	4,987	12,013	8	4	5	2,5	2,0	✓	7,27 €	
SHS4-14	M4	4,987	14,013	8	4	5	2,5	2,0	✓	7,27 €	
SHS4-16	M4	4,987	16,013	8	4	5	2,5	2,0	✓	7,27 €	
SHS4-20	M4	4,987	20,013	8	4	5	2,5	2,0	✓	7,27 €	
SHS4-25	M4	4,987	25,013	8	4	5	2,5	2,0	✓	9,08 €	
SHS4-30	M4	4,987	30,013	8	4	5	2,5	2,0	✓	9,08 €	
SHS5-4	M5	5,987	4,013	10	5	6	3,0	2,4	✓	6,39 €	
SHS5-5	M5	5,987	5,013	10	5	6	3,0	2,4	✓	6,39 €	
SHS5-6	M5	5,987	6,013	10	5	6	3,0	2,4	✓	6,39 €	
SHS5-8	M5	5,987	8,013	10	5	6	3,0	2,4	✓	6,39 €	
SHS5-10	M5	5,987	10,013	10	5	6	3,0	2,4	✓	6,39 €	
SHS5-12	M5	5,987	12,013	10	5	6	3,0	2,4	✓	7,27 €	
SHS5-14	M5	5,987	14,013	10	5	6	3,0	2,4	✓	7,27 €	
SHS5-16	M5	5,987	16,013	10	5	6	3,0	2,4	✓	9,72 €	
SHS5-20	M5	5,987	20,013	10	5	6	3,0	2,4	✓	10,51 €	
SHS5-25	M5	5,987	25,013	10	5	6	3,0	2,4	✓	10,51 €	
SHS5-30	M5	5,987	30,013	10	5	6	3,0	2,4	✓	10,51 €	
SHS6-6	M6	7,987	6,013	12	6	11	4,0	3,2	✓	10,51 €	
SHS6-8	M6	7,987	8,013	12	6	11	4,0	3,2	✓	10,51 €	
SHS6-10	M6	7,987	10,013	12	6	11	4,0	3,2	✓	10,51 €	
SHS6-12	M6	7,987	12,013	12	6	11	4,0	3,2	✓	10,51 €	
SHS6-16	M6	7,987	16,013	12	6	11	4,0	3,2	✓	10,51 €	
SHS6-20	M6	7,987	20,013	12	6	11	4,0	3,2	✓	10,51 €	
SHS6-25	M6	7,987	25,013	12	6	11	4,0	3,2	✓	13,32 €	
SHS6-30	M6	7,987	30,013	12	6	11	4,0	3,2	✓	13,32 €	
SHS6.1-8/SD	M6	9,987	8,013	12	6	11	4,0	3,2	-	16,28 €	
SHS6.1-10/SD	M6	9,987	10,013	12	6	11	4,0	3,2	✓	16,28 €	
SHS6.1-12/SD	M6	9,987	12,013	12	6	11	4,0	3,2	-	16,28 €	
SHS6.1-16/SD	M6	9,987	16,013	12	6	11	4,0	3,2	-	16,28 €	
SHS8-8	M8	9,987	8,013	14	7	12	5,0	4,0	✓	13,17 €	
SHS8-10	M8	9,987	10,013	14	7	12	5,0	4,0	✓	13,17 €	
SHS8-12	M8	9,987	12,013	14	7	12	5,0	4,0	✓	13,17 €	
SHS8-16	M8	9,987	16,013	14	7	12	5,0	4,0	✓	13,17 €	
SHS8-25	M8	9,987	25,013	14	7	12	5,0	4,0	✓	18,73 €	
SHS8-30	M8	9,987	30,013	14	7	12	5,0	4,0	✓	18,73 €	
SHS10-12	M10	11,987	12,013	20	8	16	6,0	4,8	✓	22,85 €	
SHS10-16	M10	11,987	16,013	20	8	16	6,0	4,8	✓	22,85 €	
SHS10-20	M10	11,987	20,013	20	8	16	6,0	4,8	✓	22,85 €	
SHS10-25	M10	11,987	25,013	20	8	16	6,0	4,8	✓	22,85 €	
SHS10-30	M10	11,987	30,013	20	8	16	6,0	4,8	✓	36,91 €	

*Depending on availability - Dimensions in mm

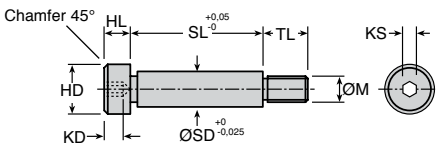
Shoulder screw **stainless steel 416**

SHss S/steel pre-treated 850-1000N/mm²

- **Material: pre-treated stainless steel 416**
26-32 HRC
- For centering as well as holding
- Working temperature up to +430°C
- Hexagonal socket head
- Traction resistance 850-1000 N/mm²







Uses

- For use in harsh environments



DISCOUNTS

Qty	1+	6+	20+	40+	60+	100+	300+
Disc.	List	-10%	-15%	-20%	-30%	-55%	On request

Part number	Thread		SL	HD	HL	TL	KS	KD		Price each	
	ØM	SD								1 to 5	
SHSS3-4	M3	3,987	4,013	6	3	4	2,0	1,6		15,01	€
SHSS3-5	M3	3,987	5,013	6	3	4	2,0	1,6		15,01	€
SHSS3-6	M3	3,987	6,013	6	3	4	2,0	1,6		15,01	€
SHSS3-8	M3	3,987	8,013	6	3	4	2,0	1,6		15,01	€
SHSS3-10	M3	3,987	10,013	6	3	4	2,0	1,6		15,01	€

*Depending on availability - Dimensions in mm

DISCOUNTS

Qty	1+	6+	20+	40+	60+	100+	300+
Disc.	List	-10%	-15%	-20%	-30%	-55%	On request

Part number	Thread				HL	TL	KS	KD	Stock*	Price each 1 to 5
	ØM	SD	SL	HD						
SHSS4-4	M4	4,987	4,013	8	4	5	2,5	2,0	✓	15,01 €
SHSS4-5	M4	4,987	5,013	8	4	5	2,5	2,0	✓	15,01 €
SHSS4-6	M4	4,987	6,013	8	4	5	2,5	2,0	-	15,01 €
SHSS4-8	M4	4,987	8,013	8	4	5	2,5	2,0	✓	15,01 €
SHSS4-10	M4	4,987	10,013	8	4	5	2,5	2,0	✓	15,01 €
SHSS4-12	M4	4,987	12,013	8	4	5	2,5	2,0	✓	17,13 €
SHSS4-14	M4	4,987	14,013	8	4	5	2,5	2,0	✓	17,13 €
SHSS4-16	M4	4,987	16,013	8	4	5	2,5	2,0	✓	17,13 €
SHSS4-20	M4	4,987	20,013	8	4	5	2,5	2,0	✓	17,13 €
SHSS4-25	M4	4,987	25,013	8	4	5	2,5	2,0	✓	21,40 €
SHSS4-30	M4	4,987	30,013	8	4	5	2,5	2,0	✓	21,40 €
SHSS5-4	M5	5,987	4,013	10	5	6	3,0	2,4	-	15,01 €
SHSS5-5	M5	5,987	5,013	10	5	6	3,0	2,4	✓	15,01 €
SHSS5-6	M5	5,987	6,013	10	5	6	3,0	2,4	✓	15,01 €
SHSS5-8	M5	5,987	8,013	10	5	6	3,0	2,4	✓	15,01 €
SHSS5-10	M5	5,987	10,013	10	5	6	3,0	2,4	✓	15,01 €
SHSS5-12	M5	5,987	12,013	10	5	6	3,0	2,4	✓	17,13 €
SHSS5-14	M5	5,987	14,013	10	5	6	3,0	2,4	✓	17,13 €
SHSS5-16	M5	5,987	16,013	10	5	6	3,0	2,4	✓	17,13 €
SHSS5-20	M5	5,987	20,013	10	5	6	3,0	2,4	✓	24,60 €
SHSS5-25	M5	5,987	25,013	10	5	6	3,0	2,4	✓	24,60 €
SHSS5-30	M5	5,987	30,013	10	5	6	3,0	2,4	✓	24,60 €
SHSS6-6	M6	7,987	6,013	12	6	11	4,0	3,2	✓	18,33 €
SHSS6-8	M6	7,987	8,013	12	6	11	4,0	3,2	✓	18,33 €
SHSS6-10	M6	7,987	10,013	12	6	11	4,0	3,2	✓	18,33 €
SHSS6-12	M6	7,987	12,013	12	6	11	4,0	3,2	✓	18,33 €
SHSS6-16	M6	7,987	16,013	12	6	11	4,0	3,2	✓	18,33 €
SHSS6-20	M6	7,987	20,013	12	6	11	4,0	3,2	✓	18,33 €
SHSS6-25	M6	7,987	25,013	12	6	11	4,0	3,2	-	49,41 €
SHSS6-30	M6	7,987	30,013	12	6	11	4,0	3,2	-	49,41 €
SHSS6.1-8/SD	M6	9,987	8,013	12	6	11	4,0	3,2	-	17,79 €
SHSS6.1-10/SD	M6	9,987	10,013	12	6	11	4,0	3,2	-	17,79 €
SHSS6.1-12/SD	M6	9,987	12,013	12	6	11	4,0	3,2	-	17,79 €
SHSS6.1-16/SD	M6	9,987	16,013	12	6	11	4,0	3,2	-	21,34 €
SHSS8-8	M8	9,987	8,013	14	7	12	5,0	4,0	-	22,88 €
SHSS8-10	M8	9,987	10,013	14	7	12	5,0	4,0	✓	22,88 €
SHSS8-12	M8	9,987	12,013	14	7	12	5,0	4,0	✓	37,36 €
SHSS8-16	M8	9,987	16,013	14	7	12	5,0	4,0	✓	27,98 €
SHSS8-20	M8	9,987	20,013	14	7	12	5,0	4,0	✓	27,98 €
SHSS8-25	M8	9,987	25,013	14	7	12	5,0	4,0	-	32,28 €
SHSS8-30	M10	9,987	30,013	14	7	12	6,0	4,0	-	27,98 €
SHSS10-12	M10	11,987	12,013	20	8	16	6,0	4,8	✓	28,16 €
SHSS10-16	M10	11,987	16,013	20	8	16	6,0	4,8	✓	33,93 €
SHSS10-20	M10	11,987	20,013	20	8	16	6,0	4,8	✓	28,16 €
SHSS10-25	M10	11,987	25,013	20	8	16	6,0	4,8	✓	28,16 €
SHSS10-30	M10	11,987	30,013	20	8	16	6,0	4,8	-	On request

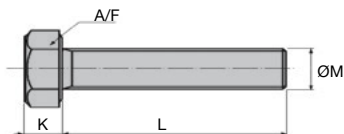
*Depending on availability - Dimensions in mm

Hexagonal headed bolts, **DIN 933**

VTH

Chromed steel (Class 8.8)

- Bolt conforming to DIN 933
- Full thread
- Material:
Chromed steel (Class 8.8)
- Mechanical characteristics conform to ISO 898-1
- Supplied by the pack



DISCOUNTS

Qty of packs	1+	6+	20+	50+
Discounts	List	-5%	-20%	On request

Part number	ØM	Pitch		L	K	A/F across flats	Qty per pack	Price each
		P	L					1 to 5
VTH4-10/B	M4	0,70	10	2,92	7,0	500	11,44 €	
VTH4-12/B	M4	0,70	12	2,92	7,0	500	12,61 €	
VTH4-16/B	M4	0,70	16	2,92	7,0	500	14,89 €	
VTH4-20/B	M4	0,70	20	2,92	7,0	500	16,81 €	
VTH4-25/B	M4	0,70	25	2,92	7,0	500	19,84 €	
VTH4-30/B	M4	0,70	30	2,92	7,0	500	22,51 €	
VTH4-35/B	M4	0,70	35	2,92	7,0	200	14,05 €	
VTH4-40/B	M4	0,70	40	2,92	7,0	200	15,74 €	
VTH5-10/B	M5	0,80	10	3,65	8,0	500	11,60 €	
VTH5-12/B	M5	0,80	12	3,65	8,0	500	12,82 €	
VTH5-16/B	M5	0,80	16	3,65	8,0	500	14,95 €	
VTH5-20/B	M5	0,80	20	3,65	8,0	500	17,12 €	
VTH5-25/B	M5	0,80	25	3,65	8,0	500	19,84 €	
VTH5-30/B	M5	0,80	30	3,65	8,0	500	22,60 €	
VTH5-35/B	M5	0,80	35	3,65	8,0	200	10,16 €	
VTH5-40/B	M5	0,80	40	3,65	8,0	200	11,23 €	
VTH5-45/B	M5	0,80	45	3,65	8,0	200	15,43 €	
VTH5-50/B	M5	0,80	50	3,65	8,0	200	17,09 €	

Dimensions in mm



DISCOUNTS

Qty of packs	1+	6+	20+	50+
Discounts	List	-5%	-20%	On request

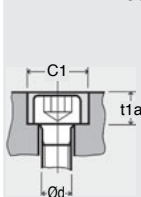
Part number	ØM	Pitch			K	A/F across flats	Qty per pack	Price each 1 to 5
		P	L					
VTH6-10/B	M6	1,00	10	4,15	10,0	500	22,51 €	
VTH6-16/B	M6	1,00	16	4,15	10,0	500	18,97 €	
VTH6-20/B	M6	1,00	20	4,15	10,0	500	21,39 €	
VTH6-25/B	M6	1,00	25	4,15	10,0	500	24,58 €	
VTH6-30/B	M6	1,00	30	4,15	10,0	500	27,78 €	
VTH6-40/B	M6	1,00	40	4,15	10,0	200	13,70 €	
VTH6-50/B	M6	1,00	50	4,15	10,0	200	16,27 €	
VTH6-60/B	M6	1,00	60	4,15	10,0	200	21,51 €	
VTH8-20/B	M8	1,25	20	5,45	13,0	200	17,34 €	
VTH8-30/B	M8	1,25	30	5,45	13,0	200	21,82 €	
VTH8-40/B	M8	1,25	40	5,45	13,0	100	13,20 €	
VTH8-50/B	M8	1,25	50	5,45	13,0	100	15,34 €	
VTH8-60/B	M8	1,25	60	5,45	13,0	100	17,65 €	
VTH8-70/B	M8	1,25	70	5,45	13,0	100	19,88 €	
VTH8-80/B	M8	1,25	80	5,45	13,0	100	22,14 €	
VTH10-20/B	M10	1,50	20	6,58	17,0	200	29,94 €	
VTH10-30/B	M10	1,50	30	6,58	17,0	200	37,01 €	
VTH10-40/B	M10	1,50	40	6,58	17,0	100	21,98 €	
VTH10-50/B	M10	1,50	50	6,58	17,0	100	25,50 €	
VTH10-60/B	M10	1,50	60	6,58	17,0	50	14,58 €	
VTH10-70/B	M10	1,50	70	6,58	17,0	50	16,33 €	
VTH10-80/B	M10	1,50	80	6,58	17,0	50	18,09 €	
VTH10-100/B	M10	1,50	100	6,58	17,0	50	21,61 €	
VTH12-20/B	M12	1,75	20	7,68	19,0	100	21,85 €	
VTH12-35/B	M12	1,75	35	7,68	19,0	100	29,13 €	
VTH12-45/B	M12	1,75	45	7,68	19,0	100	34,22 €	
VTH12-55/B	M12	1,75	55	7,68	19,0	50	19,60 €	
VTH12-60/B	M12	1,75	60	7,68	19,0	50	20,53 €	
VTH12-70/B	M12	1,75	70	7,68	19,0	50	23,43 €	
VTH12-80/B	M12	1,75	80	7,68	19,0	50	25,96 €	
VTH12-100/B	M12	1,75	100	7,68	19,0	50	31,05 €	

Dimensions in mm

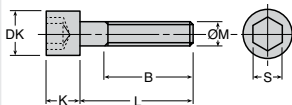
- **Conforms to ISO 4762 and DIN 912**
- Screw quality class 12.9
- Material: Hardened steel 39-44 HRC (oil-hardened)
- Tensile strength: 1220N/mm²
- Elastic limit: 1100N/mm²
- Shear strength: 732N/mm²
- Max. locking torque:
CHC3 = 2 Nm, CHC4 = 4.6 Nm,
CHC5 = 9 Nm, CHC6 = 15.7 Nm
- **Sold by the packet**



Designer's note



Nominal diameter d	Cylindrical screw		
	C1 min.	t1a min.	t1b min.
M1,6	5	1,7	1,2
M2	6	2,1	1,5
M2,5	7	2,7	1,8
M3	8	3,2	2,1
M4	10	4,2	3,0
M5	11	5,3	3,7
M6	13	6,3	4,2
M8	18	8,4	5,3
M10	20	10,5	6,3
M12	22	12,6	7,4



DISCOUNTS

No. pack	1+	6+	20+	50+
Disc.	List	-10%	-20%	On request

Part number	Thread	Total length L	Pitch	B	DK	K	S	Qty per packet	Stock*	Price per packet
CHC1.6-4/B	M1,6	4	0,35	4	3,00	1,60	1,50	200	-	89,48 €
CHC1.6-6/B	M1,6	6	0,35	6	3,00	1,60	1,50	200	✓	89,48 €
CHC2-4/B	M2	4	0,40	4	3,80	2,00	1,50	200	✓	28,49 €
CHC2-5/B	M2	5	0,40	5	3,80	2,00	1,50	200	-	28,49 €
CHC2-6/B	M2	6	0,40	6	3,80	2,00	1,50	200	✓	28,49 €
CHC2-8/B	M2	8	0,40	8	3,80	2,00	1,50	200	✓	28,40 €
CHC2-10/B	M2	10	0,40	10	3,80	2,00	1,50	200	✓	28,87 €
CHC2-12/B	M2	12	0,40	12	3,80	2,00	1,50	200	✓	29,79 €
CHC2.5-5/B	M2,5	5	0,45	5	4,50	2,50	2,00	200	-	26,96 €
CHC2.5-6/B	M2,5	6	0,45	6	4,50	2,50	2,00	200	✓	26,88 €
CHC2.5-8/B	M2,5	8	0,45	8	4,50	2,50	2,00	200	-	28,79 €
CHC2.5-10/B	M2,5	10	0,45	10	4,50	2,50	2,00	200	✓	30,61 €
CHC2.5-12/B	M2,5	12	0,45	12	4,50	2,50	2,00	200	✓	32,95 €
CHC3-6/B	M3	6	0,50	6	5,68	3,00	2,50	200	✓	16,80 €
CHC3-8/B	M3	8	0,50	8	5,68	3,00	2,50	200	✓	13,72 €
CHC3-10/B	M3	10	0,50	10	5,68	3,00	2,50	200	✓	10,53 €
CHC3-12/B	M3	12	0,50	12	5,68	3,00	2,50	200	✓	10,72 €
CHC3-16/B	M3	16	0,50	16	5,68	3,00	2,50	200	✓	12,09 €
CHC3-20/B	M3	20	0,50	20	5,68	3,00	2,50	200	✓	12,28 €
CHC3-25/B	M3	25	0,50	25	5,68	3,00	2,50	200	-	13,72 €
CHC3-30/B	M3	30	0,50	30	5,68	3,00	2,50	200	✓	15,41 €
CHC3-35/B	M3	35	0,50	35	5,68	3,00	2,50	200	-	109,90 €

*Depending on availability - Dimensions in mm

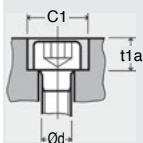
Part number	Thread ØM	Total length L	Pitch	B	DK	K	S	Qty per packet	Stock*	Price per packet
CHC4-6/B	M4	6	0,70	6	7,22	4	3	200	-	19,27 €
CHC4-8/B	M4	8	0,70	8	7,22	4	3	200	✓	19,27 €
CHC4-10/B	M4	10	0,70	10	7,22	4	3	200	✓	13,55 €
CHC4-12/B	M4	12	0,70	12	7,22	4	3	200	✓	13,89 €
CHC4-14/B	M4	14	0,70	14	7,22	4	3	200	-	17,71 €
CHC4-16/B	M4	16	0,70	16	7,22	4	3	200	✓	12,01 €
CHC4-20/B	M4	20	0,70	20	7,22	4	3	200	✓	13,55 €
CHC4-25/B	M4	25	0,70	25	7,22	4	3	200	✓	15,70 €
CHC4-30/B	M4	30	0,70	20	7,22	4	3	200	✓	17,02 €
CHC4-35/B	M4	35	0,70	20	7,22	4	3	200	✓	20,39 €
CHC4-40/B	M4	40	0,70	20	7,22	4	3	200	✓	22,97 €
CHC4-45/B	M4	45	0,70	20	7,22	4	3	200	-	27,41 €
CHC4-50/B	M4	50	0,70	20	7,22	4	3	200	✓	27,41 €
CHC5-8/B	M5	8	0,80	8	8,72	5	4	200	✓	16,51 €
CHC5-10/B	M5	10	0,80	10	8,72	5	4	200	✓	15,70 €
CHC5-12/B	M5	12	0,80	12	8,72	5	4	200	✓	14,48 €
CHC5-16/B	M5	16	0,80	16	8,72	5	4	200	✓	12,67 €
CHC5-18/B	M5	18	0,80	18	8,72	5	4	200	-	15,50 €
CHC5-20/B	M5	20	0,80	20	8,72	5	4	200	✓	15,50 €
CHC5-25/B	M5	25	0,80	20	8,72	5	4	200	✓	15,41 €
CHC5-30/B	M5	30	0,80	22	8,72	5	4	200	✓	16,60 €
CHC5-35/B	M5	35	0,80	22	8,72	5	4	100	✓	8,72 €
CHC5-40/B	M5	40	0,80	22	8,72	5	4	100	✓	9,89 €
CHC5-45/B	M5	45	0,80	22	8,72	5	4	100	-	11,61 €
CHC5-50/B	M5	50	0,80	22	8,72	5	4	100	✓	13,76 €
CHC5-60/B	M5	60	0,80	22	8,72	5	4	100	-	20,42 €
CHC5-70/B	M5	70	0,80	22	8,72	5	4	100	-	54,56 €
CHC6-8/B	M6	8	1,00	8	10,22	6	5	200	✓	27,41 €
CHC6-10/B	M6	10	1,00	10	10,22	6	5	200	✓	21,39 €
CHC6-12/B	M6	12	1,00	12	10,22	6	5	200	✓	19,83 €
CHC6-16/B	M6	16	1,00	16	10,22	6	5	200	✓	15,15 €
CHC6-18/B	M6	18	1,00	18	10,22	6	5	200	-	23,12 €
CHC6-20/B	M6	20	1,00	20	10,22	6	5	200	✓	15,70 €
CHC6-25/B	M6	25	1,00	25	10,22	6	5	200	✓	16,60 €
CHC6-30/B	M6	30	1,00	35	10,22	6	5	200	✓	17,50 €
CHC6-35/B	M6	35	1,00	24	10,22	6	5	100	✓	10,84 €
CHC6-40/B	M6	40	1,00	24	10,22	6	5	200	✓	22,97 €
CHC6-45/B	M6	45	1,00	24	10,22	6	5	100	-	13,03 €
CHC6-50/B	M6	50	1,00	24	10,22	6	5	100	-	13,47 €
CHC6-55/B	M6	55	1,00	24	10,22	6	5	100	-	17,26 €
CHC6-60/B	M6	60	1,00	24	10,22	6	5	100	-	18,72 €
CHC6-70/B	M6	70	1,00	24	10,22	6	5	100	-	21,86 €
CHC6-80/B	M6	80	1,00	24	10,22	6	5	100	-	27,13 €
CHC6-90/B	M6	90	1,00	24	10,22	6	5	100	-	43,62 €
CHC6-100/B	M6	100	1,00	24	10,22	6	5	100	-	48,24 €
CHC6-110/B	M6	110	1,00	24	10,22	6	5	100	-	70,20 €

*Depending on availability - Dimensions in mm

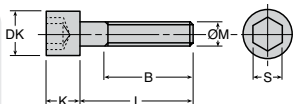
- **Conforms to ISO 4762 and DIN 912**
- Screw quality class 12.9
- Material: Hardened steel 39-44 HRC (oil-hardened)
- Tensile strength: 1220N/mm²
- Elastic limit: 1100N/mm²
- Shear strength: 732N/mm²
- Max. locking torque:
- CHC3 = 2 Nm, CHC4 = 4.6 Nm, CHC5 = 9 Nm, CHC6 = 15.7 Nm
- **Sold by the packet**



Designer's note



Nominal diameter d	Cylindrical screw		
	C1 min.	t1a min.	t1b min.
M1,6	5	1,7	1,2
M2	6	2,1	1,5
M2,5	7	2,7	1,8
M3	8	3,2	2,1
M4	10	4,2	3,0
M5	11	5,3	3,7
M6	13	6,3	4,2
M8	18	8,4	5,3
M10	20	10,5	6,3
M12	22	12,6	7,4



DISCOUNTS

No. pack	1+	6+	20+	50+
Disc.	List	-10%	-20%	On request

Part number	Thread	Total length L	Pitch	B	DK	K	S	Qty per packet	Stock*	Price per packet
CHC8-12/B	M8	12	1,25	12	13,27	8	6	200	-	33,13 €
CHC8-16/B	M8	16	1,25	16	13,27	8	6	200	✓	24,62 €
CHC8-20/B	M8	20	1,25	20	13,27	8	6	200	✓	25,18 €
CHC8-25/B	M8	25	1,25	25	13,27	8	6	200	✓	27,66 €
CHC8-30/B	M8	30	1,25	30	13,27	8	6	200	✓	30,26 €
CHC8-35/B	M8	35	1,25	35	13,27	8	6	100	✓	17,13 €
CHC8-40/B	M8	40	1,25	28	13,27	8	6	100	✓	18,74 €
CHC8-45/B	M8	45	1,25	28	13,27	8	6	100	-	20,89 €
CHC8-50/B	M8	50	1,25	28	13,27	8	6	100	✓	20,83 €
CHC8-60/B	M8	60	1,25	28	13,27	8	6	100	✓	26,66 €
CHC8-70/B	M8	70	1,25	28	13,27	8	6	100	-	35,73 €
CHC8-80/B	M8	80	1,25	28	13,27	8	6	100	-	42,58 €
CHC8-90/B	M8	90	1,25	28	13,27	8	6	50	-	22,45 €
CHC8-100/B	M8	100	1,25	28	13,27	8	6	50	-	25,91 €
CHC8-110/B	M8	110	1,25	28	13,27	8	6	50	-	62,54 €
CHC8-120/B	M8	120	1,25	28	13,27	8	6	50	-	69,14 €
CHC8-130/B	M8	130	1,25	28	13,27	8	6	50	-	75,80 €

*Depending on availability - Dimensions in mm

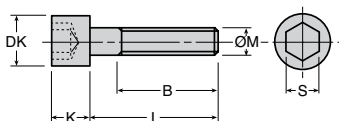
Part number	Thread ØM	Total length L	Pitch	B	DK	K	S	Qty per packet	Stock*	Price per packet
CHC10-16/B	M10	16	1,50	16	16,27	10	8	100	-	26,44 €
CHC10-20/B	M10	20	1,50	20	16,27	10	8	100	-	23,61 €
CHC10-25/B	M10	25	1,50	25	16,27	10	8	100	-	25,25 €
CHC10-30/B	M10	30	1,50	30	16,27	10	8	100	✓	26,66 €
CHC10-35/B	M10	35	1,50	35	16,27	10	8	100	-	29,15 €
CHC10-40/B	M10	40	1,50	40	16,27	10	8	100	-	31,29 €
CHC10-50/B	M10	50	1,50	32	16,27	10	8	100	✓	32,91 €
CHC10-60/B	M10	60	1,50	32	16,27	10	8	100	-	44,89 €
CHC10-70/B	M10	70	1,50	32	16,27	10	8	50	-	25,74 €
CHC10-80/B	M10	80	1,50	32	16,27	10	8	50	-	28,87 €
CHC12-20/B	M12	20	1,75	20	18,27	12	10	50	-	20,83 €
CHC12-25/B	M12	25	1,75	25	18,27	12	10	50	-	17,40 €
CHC12-30/B	M12	30	1,75	30	18,27	12	10	50	✓	18,72 €
CHC12-35/B	M12	35	1,75	35	18,27	12	10	50	-	20,39 €
CHC12-40/B	M12	40	1,75	40	18,27	12	10	50	-	21,93 €
CHC12-50/B	M12	50	1,75	36	18,27	12	10	50	-	26,07 €
CHC12-60/B	M12	60	1,75	36	18,27	12	10	50	✓	30,98 €
CHC12-70/B	M12	70	1,75	36	18,27	12	10	50	-	35,22 €
CHC12-80/B	M12	80	1,75	36	18,27	12	10	50	-	39,63 €
CHC12-90/B	M12	90	1,75	36	18,27	12	10	50	-	45,45 €
CHC12-100/B	M12	100	1,75	36	18,27	12	10	50	-	52,86 €
CHC12-110/B	M12	110	1,75	36	18,27	12	10	50	-	58,79 €
CHC12-120/B	M12	120	1,75	36	18,27	12	10	50	-	66,64 €
CHC12-130/B	M12	130	1,75	36	18,27	12	10	50	-	106,93 €
CHC12-140/B	M12	140	1,75	36	18,27	12	10	50	-	114,78 €
CHC12-150/B	M12	150	1,75	36	18,27	12	10	50	-	164,32 €
CHC12-160/B	M12	160	1,75	36	18,27	12	10	25	-	107,79 €
CHC12-180/B	M12	180	1,75	36	18,27	12	10	25	-	164,20 €
CHC12-200/B	M12	200	1,75	36	18,27	12	10	25	-	184,75 €

*Depending on availability - Dimensions in mm

- **Conforms to ISO 4762 and DIN 912**
- Material: Stainless steel 302/304 - A2
- Hexagonal socket
- Sold by the packet

Uses

- Suitable for harsh environments



DISCOUNTS

No. packets	1+	6+	10+
Discounts	List	-5%	On request

Part number									Stock*	Price per packet
CHC1.6-5/SS/B	M1,6	0,35	5	-	3,0	1,6	1,5	200	-	11,07 €
CHC1.6-8/SS/B	M1,6	0,35	8	-	3,0	1,6	1,5	200	✓	30,94 €
CHC1.6-10/SS/B	M1,6	0,35	10	-	3,0	1,6	1,5	200	✓	24,05 €
CHC2-4/SS/B	M2	0,40	4	-	3,8	2,0	1,5	500	-	39,25 €
CHC2-5/SS/B	M2	0,40	5	-	3,8	2,0	1,5	500	✓	36,59 €
CHC2-6/SS/B	M2	0,40	6	-	3,8	2,0	1,5	500	✓	28,74 €
CHC2-8/SS/B	M2	0,40	8	-	3,8	2,0	1,5	500	✓	48,09 €
CHC2-10/SS/B	M2	0,40	10	-	3,8	2,0	1,5	500	✓	32,93 €
CHC2-12/SS/B	M2	0,40	12	-	3,8	2,0	1,5	500	✓	34,50 €
CHC2-20/SS/B	M2	0,40	20	-	3,8	2,0	1,5	500	✓	73,70 €
CHC2.5-4/SS/B	M2,5	0,45	4	-	4,5	2,5	2,0	500	-	27,96 €
CHC2.5-5/SS/B	M2,5	0,45	5	-	4,5	2,5	2,0	500	-	31,88 €
CHC2.5-6/SS/B	M2,5	0,45	6	-	4,5	2,5	2,0	500	-	23,78 €
CHC2.5-8/SS/B	M2,5	0,45	8	-	4,5	2,5	2,0	500	✓	25,61 €
CHC2.5-10/SS/B	M2,5	0,45	10	-	4,5	2,5	2,0	500	-	23,52 €
CHC2.5-16/SS/B	M2,5	0,45	16	-	4,5	2,5	2,0	500	✓	31,36 €
CHC2.5-20/SS/B	M2,5	0,45	20	-	4,5	2,5	2,0	500	✓	45,47 €
CHC3-6/SS/B	M3	0,50	6	-	5,5	3,0	2,5	1000	✓	49,65 €
CHC3-8/SS/B	M3	0,50	8	-	5,5	3,0	2,5	1000	✓	51,74 €
CHC3-10/SS/B	M3	0,50	10	-	5,5	3,0	2,5	1000	✓	54,16 €
CHC3-12/SS/B	M3	0,50	12	-	5,5	3,0	2,5	1000	✓	37,11 €
CHC3-16/SS/B	M3	0,50	16	-	5,5	3,0	2,5	1000	✓	61,14 €
CHC3-20/SS/B	M3	0,50	20	-	5,5	3,0	2,5	1000	✓	66,68 €
CHC3-25/SS/B	M3	0,50	25	18	5,5	3,0	2,5	1000	✓	55,93 €
CHC3-30/SS/B	M3	0,50	30	18	5,5	3,0	2,5	1000	✓	96,94 €
CHC3-35/SS/B	M3	0,50	35	18	5,5	3,0	2,5	500	-	53,57 €
CHC4-6/SS/B	M4	0,70	6	-	7,0	4,0	3,0	500	✓	33,00 €
CHC4-8/SS/B	M4	0,70	8	-	7,0	4,0	3,0	500	✓	24,10 €
CHC4-10/SS/B	M4	0,70	10	-	7,0	4,0	3,0	500	✓	31,91 €

*Depending on availability - Dimensions in mm

Part number	Thread		Total					Qty per packet	Stock*	Price per packet
	ØM	Pitch	length L	B	DK	K	S			
CHC4-12/SS/B	M4	0,70	12	-	7,0	4	3	500	✓	36,45 €
CHC4-16/SS/B	M4	0,70	16	-	7,0	4	3	500	✓	24,92 €
CHC4-20/SS/B	M4	0,70	20	-	7,0	4	3	500	✓	33,59 €
CHC4-25/SS/B	M4	0,70	25	-	7,0	4	3	500	✓	38,53 €
CHC4-30/SS/B	M4	0,70	30	20	7,0	4	3	500	✓	51,69 €
CHC4-35/SS/B	M4	0,70	35	20	7,0	4	3	500	✓	44,89 €
CHC4-40/SS/B	M4	0,70	40	20	7,0	4	3	500	✓	71,56 €
CHC4-50/SS/B	M4	0,70	50	20	7,0	4	3	200	✓	35,03 €
CHC5-8/SS/B	M5	0,80	8	-	8,5	5	4	500	✓	46,01 €
CHC5-10/SS/B	M5	0,80	10	-	8,5	5	4	500	✓	40,87 €
CHC5-12/SS/B	M5	0,80	12	-	8,5	5	4	500	✓	43,40 €
CHC5-16/SS/B	M5	0,80	16	-	8,5	5	4	500	✓	49,47 €
CHC5-20/SS/B	M5	0,80	20	-	8,5	5	4	500	✓	56,78 €
CHC5-25/SS/B	M5	0,80	25	-	8,5	5	4	500	✓	54,73 €
CHC5-30/SS/B	M5	0,80	30	22	8,5	5	4	500	✓	72,05 €
CHC5-35/SS/B	M5	0,80	35	22	8,5	5	4	500	✓	70,06 €
CHC5-40/SS/B	M5	0,80	40	22	8,5	5	4	500	✓	94,32 €
CHC5-50/SS/B	M5	0,80	50	22	8,5	5	4	200	✓	49,33 €
CHC6-8/SS/B	M6	1,00	8	-	10,0	6	5	500	✓	53,81 €
CHC6-10/SS/B	M6	1,00	10	-	10,0	6	5	500	✓	61,74 €
CHC6-12/SS/B	M6	1,00	12	-	10,0	6	5	500	✓	68,59 €
CHC6-16/SS/B	M6	1,00	16	-	10,0	6	5	500	✓	75,55 €
CHC6-20/SS/B	M6	1,00	20	-	10,0	6	5	500	✓	58,62 €
CHC6-25/SS/B	M6	1,00	25	-	10,0	6	5	500	✓	68,41 €
CHC6-30/SS/B	M6	1,00	30	-	10,0	6	5	500	✓	96,69 €
CHC6-35/SS/B	M6	1,00	35	24	10,0	6	5	500	✓	61,85 €
CHC6-40/SS/B	M6	1,00	40	24	10,0	6	5	500	-	67,36 €
CHC6-50/SS/B	M6	1,00	50	24	10,0	6	5	500	✓	164,20 €
CHC6-60/SS/B	M6	1,00	60	24	10,0	6	5	500	-	125,30 €
CHC6-80/SS/B	M6	1,00	80	24	10,0	6	5	100	✓	69,07 €
CHC6-100/SS/B	M6	1,00	100	24	10,0	6	5	100	✓	91,29 €
CHC8-10/SS/B	M8	1,25	10	-	13,0	8	6	200	-	41,65 €
CHC8-16/SS/B	M8	1,25	16	-	13,0	8	6	200	✓	55,57 €
CHC8-20/SS/B	M8	1,25	20	-	13,0	8	6	200	✓	57,30 €
CHC8-25/SS/B	M8	1,25	25	-	13,0	8	6	200	✓	63,54 €
CHC8-30/SS/B	M8	1,25	30	-	13,0	8	6	200	✓	66,34 €
CHC8-35/SS/B	M8	1,25	35	-	13,0	8	6	200	✓	84,75 €
CHC8-40/SS/B	M8	1,25	40	28	13,0	8	6	200	✓	104,25 €
CHC8-50/SS/B	M8	1,25	50	28	13,0	8	6	200	✓	109,58 €
CHC8-60/SS/B	M8	1,25	60	28	13,0	8	6	200	✓	132,72 €
CHC8-80/SS/B	M8	1,25	80	28	13,0	8	6	200	-	203,17 €
CHC10-20/SS/B	M10	1,50	20	-	16,0	10	8	100	✓	39,19 €
CHC10-25/SS/B	M10	1,50	25	-	16,0	10	8	100	✓	50,42 €
CHC10-30/SS/B	M10	1,50	30	-	16,0	10	8	100	✓	60,08 €
CHC10-40/SS/B	M10	1,50	40	-	16,0	10	8	100	✓	70,33 €
CHC10-50/SS/B	M10	1,50	50	32	16,0	10	8	100	-	41,99 €

*Depending on availability - Dimensions in mm

Countersunk screw **DIN 7991**



FHCss

Stainless steel A2

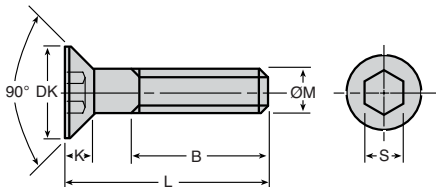
- Material: Stainless steel 302/304 - A2
- Hexagonal socket
- Sold by the packet

Uses

- Suitable for harsh environments

Info.

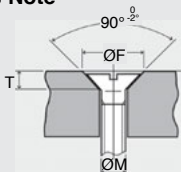
- Dimension B is for information only and can vary depending the shipment



Designer's Note

Countersunk heads

Thread	ØF (H13)		T
	num.	max.	
M3	6,60	6,82	1,60
M4	9,80	10,02	2,65
M5	10,90	11,17	2,70
M6	13,20	13,47	3,30
M8	18,10	18,43	4,55
M10	21,00	21,33	5,00
M12	25,20	25,53	5,85



DISCOUNTS

No. pack.	1+	6+	10+
Disc.	List	-5%	On request

Part number	Thread		Total length L	B	DK	K	S	Qty per packet	Stock*	Price per packet
	ØM	Pitch								
FHC3-8/SS/B	M3	0,50	8	-	6	1,6	2,0	500	✓	25,81 €
FHC3-12/SS/B	M3	0,50	12	-	6	1,6	2,0	500	✓	30,05 €
FHC3-16/SS/B	M3	0,50	16	-	6	1,6	2,0	500	✓	31,74 €
FHC3-20/SS/B	M3	0,50	20	-	6	1,6	2,0	500	✓	36,82 €

*Depending on availability - Dimensions in mm

DISCOUNTS

No. pack.	1+	6+	10+
Disc.	List	-5%	On request

Part number	Thread		Total length L	B	DK	K	S	Qty per packet	Stock*	Price per packet
	ØM	Pitch								
FHC4-10/SS/B	M4	0,70	10	-	8	2,3	2,5	500	✓	26,63 €
FHC4-12/SS/B	M4	0,70	12	-	8	2,3	2,5	500	✓	32,10 €
FHC4-16/SS/B	M4	0,70	16	-	8	2,3	2,5	500	✓	29,60 €
FHC4-20/SS/B	M4	0,70	20	-	8	2,3	2,5	500	✓	33,86 €
FHC4-25/SS/B	M4	0,70	25	-	8	2,3	2,5	500	✓	36,82 €
FHC4-30/SS/B	M4	0,70	30	20	8	2,3	2,5	200	✓	20,75 €
FHC5-10/SS/B	M5	0,80	10	-	10	2,8	3,0	500	✓	29,60 €
FHC5-12/SS/B	M5	0,80	12	-	10	2,8	3,0	500	✓	30,46 €
FHC5-16/SS/B	M5	0,80	16	-	10	2,8	3,0	500	✓	33,86 €
FHC5-20/SS/B	M5	0,80	20	-	10	2,8	3,0	500	✓	36,82 €
FHC5-25/SS/B	M5	0,80	25	-	10	2,8	3,0	500	✓	56,42 €
FHC5-30/SS/B	M5	0,80	30	-	10	2,8	3,0	200	✓	18,57 €
FHC5-35/SS/B	M5	0,80	35	22	10	2,8	3,0	200	✓	29,84 €
FHC6-10/SS/B	M6	1,00	10	-	12	3,3	4,0	500	✓	35,10 €
FHC6-12/SS/B	M6	1,00	12	-	12	3,3	4,0	500	✓	50,18 €
FHC6-16/SS/B	M6	1,00	16	-	12	3,3	4,0	500	✓	59,03 €
FHC6-20/SS/B	M6	1,00	20	-	12	3,3	4,0	200	✓	23,60 €
FHC6-25/SS/B	M6	1,00	25	-	12	3,3	4,0	200	✓	31,24 €
FHC6-30/SS/B	M6	1,00	30	-	12	3,3	4,0	200	✓	21,50 €
FHC6-35/SS/B	M6	1,00	35	-	12	3,3	4,0	200	✓	30,92 €
FHC6-40/SS/B	M6	1,00	40	-	12	3,3	4,0	200	✓	35,67 €
FHC6-45/SS/B	M6	1,00	45	-	12	3,3	4,0	100	-	16,96 €
FHC6-60/SS/B	M6	1,00	60	20	12	3,3	4,0	100	-	40,81 €
FHC6-70/SS/B	M6	1,00	70	20	12	3,3	4,0	100	-	64,15 €
FHC8-16/SS/B	M8	1,25	16	-	16	4,4	5,0	200	✓	41,48 €
FHC8-20/SS/B	M8	1,25	20	-	16	4,4	5,0	200	✓	48,06 €
FHC8-25/SS/B	M8	1,25	25	-	16	4,4	5,0	100	✓	30,90 €
FHC8-30/SS/B	M8	1,25	30	-	16	4,4	5,0	100	✓	33,29 €
FHC8-40/SS/B	M8	1,25	40	-	16	4,4	5,0	100	✓	23,07 €
FHC8-50/SS/B	M8	1,25	50	-	16	4,4	5,0	100	✓	37,46 €
FHC10-35/SS/B	M10	1,50	35	-	20	5,5	6,0	100	✓	61,82 €
FHC10-40/SS/B	M10	1,50	40	-	20	5,5	6,0	100	✓	61,41 €
FHC10-50/SS/B	M10	1,50	50	32	20	5,5	6,0	100	-	55,68 €
FHC12-30/SS/B	M12	1,75	30	-	24	6,5	8,0	50	✓	45,26 €
FHC12-40/SS/B	M12	1,75	40	36	24	6,5	8,0	50	-	33,45 €
FHC12-50/SS/B	M12	1,75	50	36	24	6,5	8,0	50	-	39,59 €
FHC12-60/SS/B	M12	1,75	60	36	24	6,5	8,0	50	-	46,89 €
FHC12-70/SS/B	M12	1,75	70	36	24	6,5	8,0	50	-	60,04 €
FHC12-80/SS/B	M12	1,75	80	36	24	6,5	8,0	50	-	80,54 €

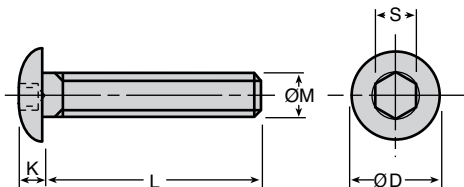
*Depending on availability - Dimensions in mm

Socket head button screw **ISO 7380** **Stal** **ISO**

BHC

Stainless steel A2

- **Conforms to ISO 7380**
- **Material:**
stainless steel 302/304-A2
- Hexagonal socket
- Sold by the packet



INCREASED STOCK

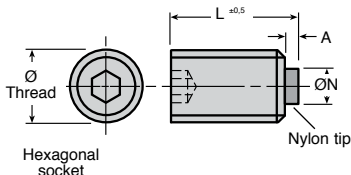
DISCOUNTS

No. packets	1+	6+	10+
Discounts	List	-5%	On request

Part number	Thread		Length L	ØD	K	S	Qty. per packet	Stock*	Price per packet
	ØM	Pitch							
BHC4-8/SS/B	M4	0,70	8	7,6	2,20	2,5	500	✓	28,83 €
BHC4-10/SS/B	M4	0,70	10	7,6	2,20	2,5	500	✓	34,57 €
BHC4-12/SS/B	M4	0,70	12	7,6	2,20	2,5	500	✓	23,02 €
BHC4-16/SS/B	M4	0,70	16	7,6	2,20	2,5	500	-	32,04 €
BHC5-10/SS/B	M5	0,80	10	9,5	2,75	3,0	500	✓	38,39 €
BHC5-12/SS/B	M5	0,80	12	9,5	2,75	3,0	500	✓	27,89 €
BHC5-16/SS/B	M5	0,80	16	9,5	2,75	3,0	500	-	31,07 €
BHC5-20/SS/B	M5	0,80	20	9,5	2,75	3,0	500	✓	62,52 €
BHC6-12/SS/B	M6	1,00	12	10,5	3,30	4,0	500	✓	61,45 €
BHC6-16/SS/B	M6	1,00	16	10,5	3,30	4,0	500	-	69,13 €
BHC6-20/SS/B	M6	1,00	20	10,5	3,30	4,0	500	✓	79,89 €
BHC6-25/SS/B	M6	1,00	25	10,5	3,30	4,0	500	-	56,59 €
BHC8-16/SS/B	M8	1,25	16	14,0	4,40	5,0	200	✓	37,04 €
BHC8-20/SS/B	M8	1,25	20	14,0	4,40	5,0	200	✓	58,64 €
BHC8-25/SS/B	M8	1,25	25	14,0	4,40	5,0	200	-	69,85 €
BHC8-30/SS/B	M8	1,25	30	14,0	4,40	5,0	200	-	65,13 €

Dimensions in mm

- Does not damage shafts
- Self-locking
- Nylon tip adapts to shaft and increases grip



DISCOUNTS

Qty	1+	6+	20+	40+	60+	100+	300+
Disc.	List -10%	-15%	-20%	-25%	-30%		On request

Part number	Ø Thread	Pitch	L	ØN	A	Stock*	Price each 1 to 5
NTM2-4	M2	0,4	4,0	0,8	0,8	✓	13,09 €
NTM2-5	M2	0,4	5,0	0,8	0,8	✓	11,81 €
NTM2-6	M2	0,4	6,0	0,8	0,8	✓	8,75 €
NTM2-7	M2	0,4	7,0	0,8	0,8	✓	19,62 €
NTM3-4	M3	0,5	4,0	1,6	0,8	✓	6,67 €
NTM3-5	M3	0,5	5,0	1,6	0,8	✓	5,00 €
NTM3-6	M3	0,5	6,0	1,6	0,8	✓	7,79 €
NTM4-5	M4	0,7	5,0	2,4	1,2	✓	6,21 €
NTM4-7	M4	0,7	7,0	2,4	1,2	✓	4,71 €
NTM4-11	M4	0,7	11,0	2,4	1,2	✓	5,87 €
NTM4-15	M4	0,7	15,0	2,4	1,2	✓	21,93 €
NTM5-7	M5	0,8	7,0	2,4	1,2	✓	14,88 €
NTM5-11	M5	0,8	11,0	2,4	1,2	✓	4,71 €
NTM5-15	M5	0,8	15,0	2,4	1,2	✓	7,66 €
NTM5-21	M5	0,8	21,0	2,4	1,2	✓	7,32 €
NTM6-7.5	M6	1,0	7,5	3,2	1,6	✓	5,87 €
NTM6-11.5	M6	1,0	11,5	3,2	1,6	✓	6,03 €
NTM6-17.5	M6	1,0	17,5	3,2	1,6	✓	10,60 €
NTM6-26.5	M6	1,0	26,5	3,2	1,6	✓	12,10 €
NTM10-14.5	M10	1,5	14,5	4,8	2,4	-	9,67 €
NTM10-22.5	M10	1,5	22,5	4,8	2,4	-	22,10 €
NTM10-32.5	M10	1,5	32,5	4,8	2,4	-	On request

*Depending on availability - Dimensions in mm

Set screw **Delrin tip**

Ste

NTM_{DL}

Blackened steel finish

- Materiel

Screw : steel (class 10.9)

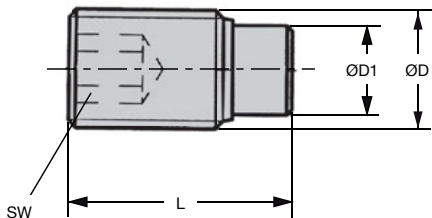
Tip : Delrin

Info

- The tip is fitted into the screw.
These screws are designed to lock or gently hold screws, axles, shafts or other components with a high quality surface finish.



Delrin tip



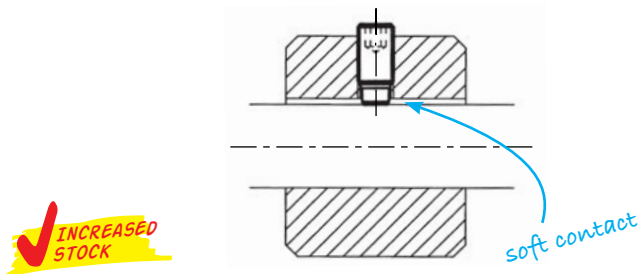
INCREASED STOCK

DISCOUNTS

Qty	1+	6+	30+	40+	60+	100+	300+
Disc.	List	-10%	-15%	-20%	-25%	-45%	On request

Part number	ØD	ØD1	L	SW	Stock*	Price each 1 to 19
NTM4-7/DL	M4	2	7	2	✓	2,98 €
NTM4-9/DL	M4	2	9	2	✓	2,98 €
NTM4-11/DL	M4	2	11	2	✓	2,98 €
NTM4-13/DL	M4	2	13	2	✓	2,98 €
NTM4-17/DL	M4	2	17	2	✓	2,98 €
NTM4-31/DL	M4	2	31	2	✓	7,21 €
NTM4-41/DL	M4	2	41	2	-	7,37 €
NTM5-9/DL	M5	3	9	2,5	✓	2,75 €
NTM5-11/DL	M5	3	11	2,5	-	2,75 €
NTM5-13/DL	M5	3	13	2,5	-	2,75 €
NTM5-17/DL	M5	3	17	2,5	✓	2,75 €
NTM5-21/DL	M5	3	21	2,5	-	2,98 €
NTM5-31/DL	M5	3	31	2,5	-	7,75 €
NTM5-41/DL	M5	3	41	2,5	-	7,87 €

*Depending on availability - Dimensions in mm



Part number	ØD	ØD1	L	SW	Stock*	Price each 1 to 19
NTM6-11/DL	M6	3,5	11,3	3	✓	2,75 €
NTM6-13/DL	M6	3,5	13,3	3	-	2,75 €
NTM6-17/DL	M6	3,5	17,3	3	✓	2,98 €
NTM6-21/DL	M6	3,5	21,3	3	✓	2,98 €
NTM6-26/DL	M6	3,5	26,3	3	✓	3,14 €
NTM6-41/DL	M6	3,5	41,3	3	✓	7,93 €
NTM6-51/DL	M6	3,5	51,3	3	✓	8,08 €
NTM6-61/DL	M6	3,5	61,3	3	-	8,14 €
NTM8-13/DL	M8	5	13,6	4	-	3,14 €
NTM8-17/DL	M8	5	17,6	4	✓	3,14 €
NTM8-21/DL	M8	5	21,6	4	-	3,19 €
NTM8-26/DL	M8	5	26,6	4	✓	3,42 €
NTM8-33/DL	M8	5	33,6	4	✓	3,87 €
NTM8-51/DL	M8	5	51,6	4	-	7,75 €
NTM8-61/DL	M8	5	61,6	4	-	7,87 €
NTM8-81/DL	M8	5	81,6	4	-	7,93 €
NTM10-18/DL	M10	6,5	17,9	5	✓	3,75 €
NTM10-22/DL	M10	6,5	21,9	5	-	3,87 €
NTM10-27/DL	M10	6,5	26,9	5	-	3,93 €
NTM10-34/DL	M10	6,5	33,9	5	✓	4,54 €
NTM10-42/DL	M10	6,5	41,9	5	-	5,20 €
NTM10-52/DL	M10	6,5	51,9	5	-	7,87 €
NTM10-62/DL	M10	6,5	61,9	5	-	7,98 €
NTM10-82/DL	M10	6,5	81,9	5	✓	8,08 €
NTM12-22/DL	M12	8	22,1	6	-	4,36 €
NTM12-27/DL	M12	8	27,1	6	-	4,54 €
NTM12-34/DL	M12	8	34,1	6	-	4,93 €
NTM12-42/DL	M12	8	42,1	6	-	5,54 €
NTM12-52/DL	M12	8	52,1	6	-	6,36 €
NTM12-62/DL	M12	8	62,1	6	-	8,14 €
NTM12-82/DL	M12	8	82,1	6	-	8,31 €

*Depending on availability - Dimensions in mm

NTM_{BR}

Blackened steel finish

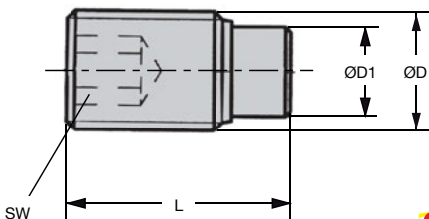
- Material

Screw : steel (class 10.9)

Tip : brass

Info

- The tip is fitted into the screw.
- These screws are designed to lock or gently hold screws, axles, shafts or other components with a high quality surface finish.



INCREASED STOCK

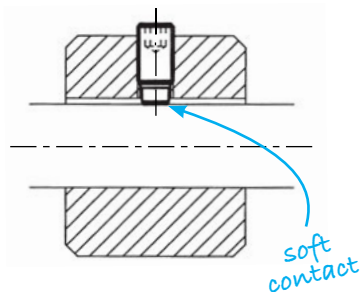
DISCOUNTS

Qty	1+	20+	30+	40+	60+	100+	300+
Disc.	List	-10%	-15%	-20%	-25%	-45%	On request

Part number	ØD	ØD1	L	SW	Stock*	Price each 1 to 19
NTM4-6/BR	M4	2,5	6,5	2	✓	5,88 €
NTM4-10/BR	M4	2,5	10,5	2	✓	5,88 €
NTM4-16/BR	M4	2,5	16,5	2	-	6,07 €
NTM4-30/BR	M4	2,5	30,5	2	-	8,17 €
NTM4-40/BR	M4	2,5	40,5	2	-	8,32 €
NTM5-8/BR	M5	3	8,5	2,5	-	5,28 €
NTM5-12/BR	M5	3	12,5	2,5	✓	5,28 €
NTM5-20/BR	M5	3	20,5	2,5	✓	5,53 €
NTM5-30/BR	M5	3	30,5	2,5	✓	8,32 €
NTM5-40/BR	M5	3	40,5	2,5	-	8,43 €

*Depending on availability - Dimensions in mm

INCREASED STOCK



Part number	ØD	ØD1	L	SW	Stock*	Price each 1 to 19
NTM6-11/BR	M6	4,0	11,5	3	✓	5,28 €
NTM6-17/BR	M6	4,0	17,5	3	✓	5,28 €
NTM6-26/BR	M6	4,0	26,5	3	✓	5,53 €
NTM6-41/BR	M6	4,0	41,5	3	-	8,49 €
NTM6-51/BR	M6	4,0	51,5	3	-	8,63 €
NTM6-61/BR	M6	4,0	61,5	3	✓	8,67 €
NTM8-12/BR	M8	5,5	12,0	4	✓	5,48 €
NTM8-22/BR	M8	5,5	22,0	4	-	5,48 €
NTM8-32/BR	M8	5,5	32,0	4	✓	5,63 €
NTM8-52/BR	M8	5,5	52,0	4	-	8,79 €
NTM8-62/BR	M8	5,5	62,0	4	✓	8,92 €
NTM8-82/BR	M8	5,5	82,0	4	-	8,98 €
NTM10-14/BR	M10	7,0	14,0	5	✓	6,23 €
NTM10-18/BR	M10	7,0	18,0	5	-	6,23 €
NTM10-27/BR	M10	7,0	27,0	5	-	6,41 €
NTM10-37/BR	M10	7,0	37,0	5	-	6,77 €
NTM10-52/BR	M10	7,0	52,0	5	-	8,92 €
NTM10-62/BR	M10	7,0	62,0	5	-	9,08 €
NTM10-82/BR	M10	7,0	82,0	5	✓	9,23 €
NTM12-18/BR	M12	8,5	18,5	6	-	6,92 €
NTM12-22/BR	M12	8,5	22,5	6	-	6,92 €
NTM12-32/BR	M12	8,5	32,5	6	-	7,48 €
NTM12-42/BR	M12	8,5	42,5	6	-	8,07 €
NTM12-52/BR	M12	8,5	52,5	6	-	9,08 €
NTM12-62/BR	M12	8,5	62,5	6	-	9,27 €
NTM12-82/BR	M12	8,5	82,5	6	✓	9,53 €

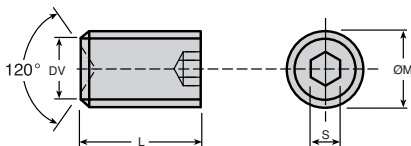
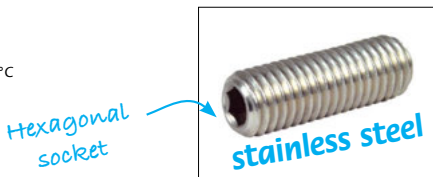
*Depending on availability - Dimensions in mm

Set screw with hexagonal socket

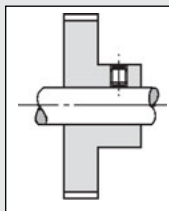
HCss

Stainless steel A2

- Conforms to DIN 916
- Material:
Stainless steel 302/304 - A2
- Working temperature up to +430°C
- Sold by the packet



Designer's Note



Bore or shaft diameter		Screw size
from Ø	to Ø (included)	ØT
Ø4	- Ø6	M3
Ø6	- Ø8	M3
Ø8	- Ø10	M3
Ø10	Ø12	M4
Ø12	- Ø17	M5
Ø17	- Ø22	M6
Ø22	- Ø30	M8
Ø30	- Ø44	M10
Ø44	- Ø58	M12

DISCOUNTS

No. pack	1+	6+	10+
Disc.	List	-5%	On request

Part number	Thread		Length			Qty. per packet	Stock*	Price per packet
	ØM	Pitch	L	DV	S			
HC2-3/SS/B	M2	0,40	3	1,0	0,9	200	✓	69,86 €
HC2-4/SS/B	M2	0,40	4	1,0	0,9	200	✓	68,81 €
HC2-5/SS/B	M2	0,40	5	1,0	0,9	200	✓	69,32 €
HC2-6/SS/B	M2	0,40	6	1,0	0,9	200	✓	69,32 €
HC2-10/SS/B	M2	0,40	10	1,0	0,9	200	✓	84,09 €
HC2.5-5/SS/B	M2,5	0,45	5	1,2	1,3	200	✓	69,32 €
HC2.5-8/SS/B	M2,5	0,45	8	1,2	1,3	200	-	84,06 €
HC2.5-10/SS/B	M2,5	0,45	10	1,2	1,3	200	-	84,06 €

*Depending on availability - Dimensions in mm

Part number	Thread		Length			Qty. per packet	Stock*	Price per packet
	ØM	Pitch	L	DV	S			
HC3-3/SS/B	M3	0,50	3	1,4	1,5	500	✓	37,65 €
HC3-4/SS/B	M3	0,50	4	1,4	1,5	500	✓	30,05 €
HC3-5/SS/B	M3	0,50	5	1,4	1,5	500	✓	26,63 €
HC3-6/SS/B	M3	0,50	6	1,4	1,5	500	✓	30,05 €
HC3-8/SS/B	M3	0,50	8	1,4	1,5	500	✓	33,00 €
HC3-10/SS/B	M3	0,50	10	1,4	1,5	500	✓	33,86 €
HC3-12/SS/B	M3	0,50	12	1,4	1,5	500	-	36,82 €
HC3-16/SS/B	M3	0,50	16	1,4	1,5	500	-	46,58 €
HC3-20/SS/B	M3	0,50	20	1,4	1,5	500	✓	53,81 €
HC4-4/SS/B	M4	0,70	4	2,0	2,0	500	✓	26,63 €
HC4-5/SS/B	M4	0,70	5	2,0	2,0	500	✓	23,68 €
HC4-6/SS/B	M4	0,70	6	2,0	2,0	500	✓	22,82 €
HC4-8/SS/B	M4	0,70	8	2,0	2,0	500	-	22,82 €
HC4-10/SS/B	M4	0,70	10	2,0	2,0	500	✓	26,63 €
HC4-12/SS/B	M4	0,70	12	2,0	2,0	500	-	27,89 €
HC4-16/SS/B	M4	0,70	16	2,0	2,0	500	-	33,86 €
HC4-20/SS/B	M4	0,70	20	2,0	2,0	500	✓	45,73 €
HC5-5/SS/B	M5	0,80	5	2,5	2,5	500	✓	33,00 €
HC5-6/SS/B	M5	0,80	6	2,5	2,5	500	✓	25,40 €
HC5-8/SS/B	M5	0,80	8	2,5	2,5	500	✓	26,63 €
HC5-10/SS/B	M5	0,80	10	2,5	2,5	500	✓	27,49 €
HC5-12/SS/B	M5	0,80	12	2,5	2,5	500	✓	28,32 €
HC5-16/SS/B	M5	0,80	16	2,5	2,5	500	-	30,05 €
HC5-20/SS/B	M5	0,80	20	2,5	2,5	500	✓	49,12 €
HC5-25/SS/B	M5	0,80	25	2,5	2,5	200	-	27,23 €
HC5-30/SS/B	M5	0,80	30	2,5	2,5	200	✓	33,00 €
HC6-6/SS/B	M6	1,00	6	3,0	3,0	500	✓	28,32 €
HC6-8/SS/B	M6	1,00	8	3,0	3,0	500	✓	29,60 €
HC6-10/SS/B	M6	1,00	10	3,0	3,0	500	✓	30,46 €
HC6-12/SS/B	M6	1,00	12	3,0	3,0	500	✓	31,74 €
HC6-16/SS/B	M6	1,00	16	3,0	3,0	500	-	41,49 €
HC6-20/SS/B	M6	1,00	20	3,0	3,0	500	✓	44,89 €
HC6-25/SS/B	M6	1,00	25	3,0	3,0	200	✓	27,89 €
HC6-30/SS/B	M6	1,00	30	3,0	3,0	200	✓	33,20 €
HC6-35/SS/B	M6	1,00	35	3,0	3,0	200	-	39,80 €
HC6-40/SS/B	M6	1,00	40	3,0	3,0	200	✓	45,08 €
HC8-16/SS/B	M8	1,25	16	5,0	4,0	200	✓	25,40 €
HC8-20/SS/B	M8	1,25	20	5,0	4,0	200	✓	33,06 €
HC8-25/SS/B	M8	1,25	25	5,0	4,0	200	-	37,59 €
HC8-30/SS/B	M8	1,25	30	5,0	4,0	200	✓	45,54 €
HC8-40/SS/B	M8	1,25	40	5,0	4,0	200	-	67,96 €
HC10-10/SS/B	M10	1,50	10	6,0	5,0	100	-	16,53 €
HC10-16/SS/B	M10	1,50	16	6,0	5,0	100	-	21,90 €
HC10-20/SS/B	M10	1,50	20	6,0	5,0	100	✓	24,51 €
HC10-25/SS/B	M10	1,50	25	6,0	5,0	100	-	26,49 €
HC10-30/SS/B	M10	1,50	30	6,0	5,0	100	-	32,57 €
HC10-40/SS/B	M10	1,50	40	6,0	5,0	100	-	40,95 €
HC10-50/SS/B	M10	1,50	50	6,0	5,0	100	-	58,29 €

*Depending on availability - Dimensions in mm

Self aligning washers



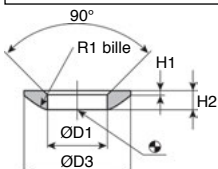
**RCC
RCX**

For M6-M12 screws

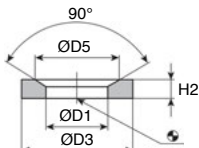
- Use a pair of one concave and one convex washer
- Material: stainless steel 1.4305

Advantages

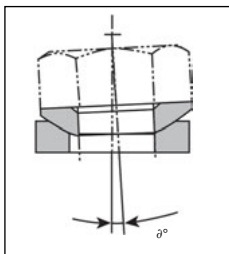
- Spreads pressure uniformly
- Ensures screw head seats correctly



RCX convex washer



RCC concave washer



Typical application

DISCOUNTS

Qty	1+	6+	20+	50+
Disc.	List	-5%	-10%	On request

Part number	For screw	ØD1 H13	ØD3	ØD5	H1	H2	R1	Max.static load (kN)	Stock*	Price each 1 to 5
Convex washer										
RCX-6/SS	M6	6,4	12	-	0,7	2,3	9	9	✓	1,81 €
RCX-8/SS	M8	8,4	17	-	0,6	3,2	12	17	✓	2,45 €
RCX-10/SS	M10	10,5	21	-	0,8	4,0	15	26	✓	3,34 €
RCX-12/SS	M12	13,0	24	-	1,1	4,6	17	38	✓	3,99 €
Concave washer										
RCC-6/SS	M6	7,1	12	11,0	-	2,8	-	9	✓	1,84 €
RCC-8/SS	M8	9,6	17	14,5	-	3,5	-	17	✓	2,62 €
RCC-10/SS	M10	12,0	21	18,5	-	4,2	-	26	✓	3,54 €
RCC-12/SS	M12	14,2	24	20,0	-	5,0	-	38	✓	4,13 €

*Depending on availability - Dimensions in mm

Steel or stainless steel A2

SHW
WM

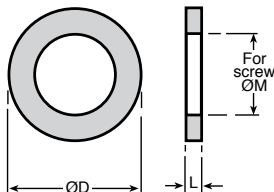
- **Conforms to DIN125**
- Working temperature:
up to +430°C
- Material:
Stainless steel A2
303/304
- Sold by the packet

Accessories

- Steel and stainless steel screws

Option

- Also available in stainless steel 316 (A4)



Steel or stainless steel

DISCOUNTS

N° packs	1+	6+	11+
Discounts	List	-10%	On request

Part number	For thread ØM	ØD	L	Quantity per packet	Stock*	Price each 1 to 5
Steel						
WM-2/B	M2	5	0,3	200	-	3,10 €
WM-2.5/B	M2,5	6	0,5	200	-	2,33 €
WM-3/B	M3	7	0,5	200	-	2,48 €
WM-4/B	M4	9	0,8	200	✓	2,82 €
WM-5/B	M5	10	1,0	100	-	2,33 €
WM-6/B	M6	12	1,6	100	-	2,75 €
WM-8/B	M8	16	1,6	100	✓	3,30 €
WM-10/B	M10	20	2,0	100	✓	4,65 €
WM-12/B	M12	24	2,5	100	-	7,41 €
WM-14/B	M14	28	2,5	100	-	9,06 €
WM-16/B	M16	30	3,0	100	-	13,97 €
WM-20/B	M20	37	3,0	100	-	15,79 €
Stainless steel A2						
SHW-2/B	M2	5	0,3	2000	✓	10,53 €
SHW-2.5/B	M2,5	6	0,5	2000	✓	17,60 €
SHW-3/B	M3	7	0,5	1000	✓	2,76 €
SHW-4/B	M4	9	0,8	1000	✓	5,59 €
SHW-5/B	M5	10	1,0	1000	✓	7,70 €
SHW-6/B	M6	12	1,6	1000	✓	18,27 €
SHW-8/B	M8	16	1,6	500	✓	12,41 €
SHW-10/B	M10	20	2,0	500	✓	30,59 €
SHW-12/B	M12	24	2,5	200	✓	26,01 €
SHW-14/B	M14	28	2,5	200	✓	31,37 €
SHW-16/B	M16	30	3,0	200	✓	32,07 €
SHW-20/B	M20	37	3,0	200	✓	43,93 €

*Depending on availability - Dimensions in mm

Hexagonal nut **DIN 934**



SHNA SHN

Steel Class 6181 or stainless steel Class A2

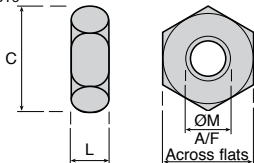
- Conforms to DIN 934
- Bore chamfered at $120^\circ \pm 10^\circ$
- Exterior chamfered at 30°
- Standard pitch
- Materials:
 - Chromed steel Class 6181
 - Stainless steel 303/304 Class A2
 - Max working temperature 430°C
- Sold by the pack



Steel or
stainless steel

Options

- Also available in A4/316 stainless steel
- Fine threaded (SHN-F or N-F)



DISCOUNTS

N° packs	1+	6+	11+
Discounts	List -10%	On request	

Part number	Thread	ØM	Pitch	A/F	C	L	Qty per pack	Stock*	Price each 1 to 5
Steel class 6181									
SHNA-3/B	M3	0,50	5,5	6,01	2,4	500	-		5,27 €
SHNA-4/B	M4	0,70	7,0	7,66	3,2	500	-		2,92 €
SHNA-5/B	M5	0,80	8,0	8,79	4,0	500	-		2,99 €
SHNA-6/B	M6	1,00	10,0	11,05	5,0	500	-		6,45 €
SHNA-8/B	M8	1,25	13,0	14,38	6,5	200	-		5,51 €
SHNA-10/B	M10	1,50	17,0	18,90	8,0	100	-		6,10 €
SHNA-12/B	M12	1,75	19,0	21,10	10,0	50	-		4,48 €
SHNA-16/B	M16	2,00	24,0	26,75	13,0	25	-		4,48 €
SHNA-20/B	M20	2,50	30,0	32,95	16,0	25	-		8,52 €
Stainless steel (class A2)									
SHN-1.6/B	M1,6	0,35	3,2	3,48	1,0	500	-		87,20 €
SHN-2/B	M2	0,40	4,0	4,32	1,6	2000	✓		32,96 €
SHN-2.5/B	M2,5	0,45	5,0	5,45	2,0	500	✓		11,59 €
SHN-3/B	M3	0,50	5,5	6,01	2,4	1000	✓		13,36 €
SHN-4/B	M4	0,70	7,0	7,66	3,2	500	✓		10,79 €
SHN-5/B	M5	0,80	8,0	8,79	4,0	500	✓		14,73 €
SHN-6/B	M6	1,00	10,0	11,05	5,0	200	✓		9,14 €
SHN-8/B	M8	1,25	13,0	14,38	6,5	100	✓		10,34 €
SHN-10/B	M10	1,50	17,0	18,90	8,0	100	✓		15,71 €
SHN-12/B	M12	1,75	19,0	21,10	10,0	100	✓		25,57 €
SHN-14/B	M14	2,00	22,0	24,49	11,0	50	✓		15,44 €
SHN-16/B	M16	2,00	24,0	26,75	13,0	50	✓		37,65 €
SHN-20/B	M20	2,50	30,0	32,95	16,0	50	✓		46,55 €
SHN-24/B	M24	3,00	36,0	39,55	19,0	25	-		55,28 €

*Depending to availability - Dimensions in mm

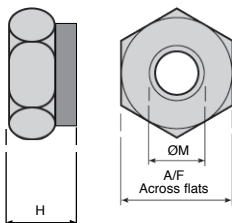
Steel or stainless steel (A2)
with nylon insert

NINA
NIN

- **Conforms to DIN 934**
- Anti-vibration, self locking
- Nylon insert
- Material:
 - Chromed steel (Class 6.8)
 - Stainless steel (Class A2)
- Sold by the pack



Steel or
stainless steel



DISCOUNTS

N° packs	1+	6+	11+
Discounts	List	-10%	On request

Part number	Thread ØM	Pitch	A/F Across flats	H	Qty per pack	Stock*	Price each 1 to 5
Steel							
NINA-5/B	M5	0,80	8,0	5,0	500	✓	8,72 €
NINA-6/B	M6	1,00	10,0	6,0	500	✓	11,97 €
NINA-8/B	M8	1,25	13,0	8,0	200	✓	10,20 €
NINA-10/B	M10	1,50	17,0	10,0	200	✓	22,61 €
NINA-12/B	M12	1,75	19,0	12,0	200	✓	34,07 €
NINA-16/B	M16	2,00	24,0	16,0	100	-	37,67 €
NINA-20/B	M20	2,50	30,0	20,0	50	-	31,56 €
Stainless steel							
NIN-3/B	M3	0,50	5,5	4,0	1000	✓	32,99 €
NIN-4/B	M4	0,70	7,0	5,0	1000	✓	31,40 €
NIN-5/B	M5	0,80	8,0	5,0	1000	✓	38,84 €
NIN-6/B	M6	1,00	10,0	6,0	500	✓	31,37 €
NIN-8/B	M8	1,25	13,0	8,0	200	✓	29,30 €
NIN-10/B	M10	1,50	17,0	10,0	200	✓	48,15 €
NIN-12/B	M12	1,75	19,0	12,0	100	✓	35,07 €
NIN-16/B	M16	2,00	24,0	16,0	50	✓	31,24 €
NIN-20/B	M20	2,50	30,0	20,0	25	-	71,96 €

*Depending to availability - Dimensions in mm

Manually operated wing nut

WING

Steel (ANSI B18-17) or
Stainless steel (DIN315/315)

- **Wing nut**

- **Materials:**

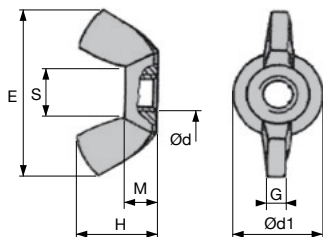
Steel wing nut (conforms to ANSI B18-17):

chromed forged steel

Stainless steel wing nut

(conforms to DIN314/315):

A2 stainless steel



DISCOUNTS

Qty per packs	1+	6+	20+	50+
Discounts	List	-5%	-20%	On request

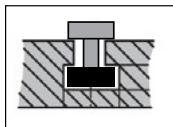
Part number	Ød	Ød1	S	E	G	H	M	Qty per packs	Price each 1 to 5
Steel									
WING-M3/B	M3	7,5	-	18,5	-	8,8	3,0	500	46,18 €
WING-M4/B	M4	7,8	-	18,5	-	8,8	3,0	500	49,76 €
WING-M5/B	M5	9,5	-	22,5	-	10,5	3,8	500	51,19 €
WING-M6/B	M6	12,4	-	27,2	-	12,7	4,7	500	57,57 €
WING-M8/B	M8	13,5	-	30,0	-	14,6	5,6	200	30,05 €
WING-M10/B	M10	15,6	-	35,0	-	16,7	6,3	200	48,64 €
WING-M12/B	M12	20,5	-	47,6	-	22,3	7,5	100	53,29 €
A2 stainless steel									
WING-M3/SS/B	M3	6,8	4,5	15,3	1,2	7,2	2,4	100	13,61 €
WING-M4/SS/B	M4	8,0	5,2	17,6	1,6	8,6	2,9	100	12,98 €
WING-M5/SS/B	M5	10,3	6,7	22,5	2,1	11,0	4,1	100	14,14 €
WING-M6/SS/B	M6	12,7	8,4	27,8	2,5	13,6	5,1	100	20,01 €
WING-M8/SS/B	M8	13,8	9,1	30,3	2,8	14,8	5,6	100	28,23 €
WING-M10/SS/B	M10	16,5	11	36,2	3,3	17,7	6,8	100	50,21 €
WING-M12/SS/B	M12	22,5	15	49,4	4,5	24,1	9,0	50	53,53 €

Dimensions in mm

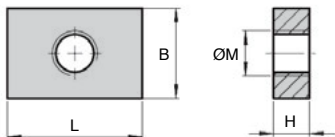
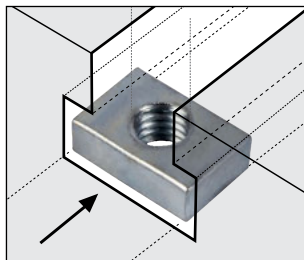
- Threaded plate for securing a component using a screw
- Material:
Steel sheet

Info

- Sold in packs of 1,000



Typical application
in a T slot



DISCOUNTS

Qty	1+	5+	10+	20+
Disc.	List	-5%	-10%	On request

Part number	L	B	H	ØM	Qty per pack	Price each 1 to 4
ERT15-10-4-M5/L	15	10	4	M5	100	28,77 €
ERT15-10-4-M6/L	15	10	4	M6	100	28,77 €
ERT15-10-5-M6/L	15	10	5	M6	100	28,77 €
ERT19-16-4-M4/L	19	16	4	M4	100	31,95 €
ERT19-16-4-M5/L	19	16	4	M5	100	31,95 €
ERT19-16-4-M6/L	19	16	4	M6	100	31,95 €
ERT19-16-4-M8/L	19	16	4	M8	100	31,95 €
ERT19-19-4-M5/L	19	19	4	M5	100	31,95 €
ERT19-19-4-M6/L	19	19	4	M6	100	31,95 €
ERT19-19-4-M8/L	19	19	4	M8	100	31,95 €
ERT20-13-5-M6/L	20	13	5	M6	100	31,95 €
ERT20-13-5-M8/L	20	13	5	M8	100	31,95 €
ERT20-20-4-M4/L	20	20	4	M4	100	35,14 €
ERT20-20-6-M5/L	20	20	6	M5	100	35,14 €
ERT20-20-6-M6/L	20	20	6	M6	100	35,14 €
ERT20-20-6-M8/L	20	20	6	M8	100	35,14 €
ERT25-12-5-M6/L	25	12	5	M6	100	31,95 €

Dimensions in mm

Security strap

LDS

Avoids losing screws

- Suitable for M6-M12 screws

- Material:

Strap: PVC

Washer: Glass fibre reinforced PA nylon

Advantages

- Allows screws to be safely secured as required by the Machinery Directive 2006/42/EC which states "any removable screw must be held captive"



Info

- The screw can be removed completely from the hole

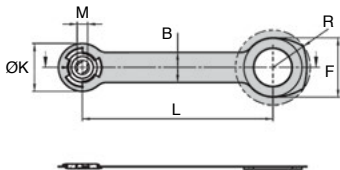
- Not sold individually, please contact us for detail



Insert the screw into the hole



Remove the backing



Stick the strap over the hole



Screw in



Screw mounted



Screw removed but not lost

DISCOUNTS

Qty	1+	40+	100+	200+
Disc.	List	-5%	-10%	On request

Part number	For screw ØM	L	R	B	ØK	F	Weight (g)	Price each 1 to 39
LDS-6	M6	90	34,9	14,2	22,6	28	1,0	2,50 €
LDS-8	M8	100	39,5	18,2	28,2	32	1,5	2,60 €
LDS-10	M10	110	46,7	23,2	33,2	39	2,0	2,71 €
LDS-12	M12	120	46,8	23,2	33,2	29	3,0	2,82 €

Dimensions in mm

Captive washer

Ensures screws are not lost

RAP

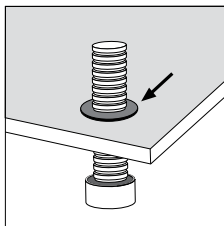
- For M5, M6 and M8 screws
- Material:
PA nylon, natural finish

Advantages

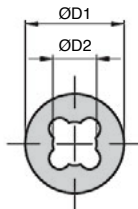
- Allows screws to be safely secured when not in use as required by the **Machinery Directive 2006/42/EC** which states "any removable screw must be held captive"

Info

- Screw is held captive in the smooth hole
- Supplied by the packet, contact us for details



Typical application



DISCOUNTS

Qty	1+	40+	100+	200+
Disc.	List	-5%	-10%	On request

Part number	For screw ØM	ØD1	ØD2	Weight (g)	Price each 1 to 39
RAP-5	M5	10	4,1	1,0	0,21 €
RAP-6	M6	12	5,1	1,0	0,21 €
RAP-8	M8	14	6,2	1,0	0,21 €

Dimensions in mm

Questions ? Need a quote ?

OUR TECHNICAL TEAM

IS HERE TO HELP



- With made to measure items
- Help choosing the right component
- For any other questions

Tel. +33 (0)4 37 496 496

Fax. +33 (0)4 37 490 055

cial2@hpceurope.com

Technical information

ISO THREAD (ANGLE 60°)

Thread	Pitch (mm)	Ø Outside (mm)	Tapping drill Ø (mm)
M2	0,40	2,00	1,60
M2,5	0,45	2,50	2,05
M3	0,50	3,00	2,50
M4	0,70	4,00	3,30
M5	0,80	5,00	4,20
M6	1,00	6,00	5,00
M7	1,00	7,00	6,00
M8	1,25	8,00	6,80
M10	1,50	10,00	8,50
M12	1,75	12,00	10,20
M14	2,00	14,00	12,00
M16	2,00	16,00	14,00
M18	2,50	18,00	15,50
M20	2,50	20,00	17,50
M22	2,50	22,00	19,50
M24	3,00	24,00	21,00

Other thread types BSP

Thread 55° (inc ↗)	Ø Hole for tapping (mm)	Pitch (mm)	No. threads per inch (T.P.I)	Outside diameter (mm)
1/8 BSP	8,75	0,91	28	9,73
1/4 BSP	11,80	1,34	19	13,16
3/8 BSP	15,25	1,34	19	16,66
1/2 BSP	19,05	1,81	14	20,96
5/8 BSP	21,03	1,81	14	22,91
3/4 BSP	24,50	1,81	14	26,44
7/8 BSP	28,25	1,81	14	30,20
1 BSP	30,75	2,31	11	33,25
1 1/4 BSP	39,50	2,31	11	41,91
1 1/2 BSP	45,24	2,31	11	47,80
1 3/4 BSP	51,00	2,31	11	53,75
2 BSP	57,00	2,31	11	59,61

Technical information

Thread BSF

Thread 55° (inc ↘)	Ø Hole for tapping (mm)	Pitch (mm)	No. thread per inch (T.P.I.)	Outside diameter (mm)
3/16 BSF	3,97	0,79	32	4,76
1/4 BSF	5,30	0,98	26	6,35
5/16 BSF	6,75	1,15	22	7,94
3/8 BSF	8,25	1,27	20	9,53
7/16 BSF	9,70	1,41	18	11,11
1/2 BSF	11,11	1,59	16	12,70
9/16 BSF	12,70	1,59	16	14,29
5/8 BSF	14,00	1,84	14	15,88
3/4 BSF	16,75	2,12	12	19,05
7/8 BSF	19,84	2,31	11	22,23
1 BSF	22,75	2,54	10	25,40

Thread BSW

1/8 BSW	2,55	0,64	40	3,18
3/16 BSW	3,70	1,06	24	4,76
1/4 BSW	5,10	1,27	20	6,35
5/16 BSW	6,50	1,41	18	7,94
3/8 BSW	7,94	1,59	16	9,53
7/16 BSW	9,36	1,81	14	11,11
1/2 BSW	10,50	2,12	12	12,70
9/16 BSW	12,10	2,12	12	14,29
5/8 BSW	13,50	2,31	11	15,88
3/4 BSW	16,27	2,54	10	19,05
7/8 BSW	19,25	2,82	9	22,23
1 BSW	22,00	3,18	8	25,40

Thread BA

0-BA	5,10	1,00	25,38	6,00
1-BA	4,50	0,90	28,25	5,30
2-BA	4,00	0,81	31,35	4,70
3-BA	3,45	0,73	34,84	4,10
4-BA	3,00	0,66	38,46	3,60
5-BA	2,65	0,59	43,10	3,20
6-BA	2,30	0,53	47,85	2,80
7-BA	2,05	0,48	52,91	2,50
8-BA	1,80	0,43	59,71	2,20

Technical information

Thread UNF

Thread 60° (inc ↘)	Hole Ø for tapping (mm)	Pitch (mm)	No. threads per inch (T.P.I)	Outside diameter (mm)
2-64 UNF	1,90	0,40	64	2,18
3-56 UNF	2,15	0,45	56	2,51
4-48 UNF	2,40	0,53	48	2,84
6-40 UNF	2,95	0,64	40	3,51
8-36 UNF	3,55	0,71	36	4,17
10-32 UNF	4,10	0,79	32	4,83
12-28 UNF	4,65	0,91	28	5,49
1/4-28 UNF	5,50	0,91	28	6,35
5/16-24 UNF	6,90	1,06	24	7,94
3/8-24 UNF	8,50	1,06	24	9,53
7/16-20 UNF	9,90	1,27	20	11,11
1/2-20 UNF	11,40	1,27	20	12,70
9/16-18 UNF	12,90	1,41	18	14,29
5/8-18 UNF	14,50	1,41	18	15,88
3/4-16 UNF	17,46	1,59	16	19,05
7/8-14 UNF	20,42	1,81	14	22,23
1-12 UNF	23,25	2,12	12	25,40

Thread UNC

Thread 60° (inc ↘)	Hole Ø for tapping (mm)	Pitch (mm)	No. threads per inch (T.P.I)	Outside diameter (mm)
2-56 UNC	1,85	0,45	56	2,18
3-48 UNC	2,10	0,53	48	2,51
4-40 UNC	2,35	0,64	40	2,84
6-32 UNC	2,84	0,79	32	3,51
8-32 UNC	3,50	0,79	32	4,17
10-24 UNC	3,90	1,06	24	4,83
12-24 UNC	4,55	1,06	24	5,49
1/4-20 UNC	5,30	1,27	20	6,35
5/16-18 UNC	6,60	1,41	18	7,94
3/8-16 UNC	8,00	1,59	16	9,53
7/16-14 UNC	9,40	1,81	14	11,11
1/2-13 UNC	10,80	1,95	13	12,70
9/16-12 UNC	12,25	2,12	12	14,29
5/8-11 UNC	13,50	2,31	11	15,88
3/4-10 UNC	16,50	2,54	10	19,05
7/8-9 UNC	19,45	2,82	9	22,23
1-8 UNC	22,25	3,18	8	25,40

Stainless steel types

Austenitic stainless steel - Generality

General remarks about austenitic stainless steel

The basic structure of austenitic stainless steel is the well-known alloy of 18% CHROMIUM and 8% NICKEL. The CHROMIUM and NICKEL content can be increased to improve corrosion resistance. In order to do this, supplementary elements such as Molybdenum can also be added.

AUSTENITIC STEELS are non-magnetic and cannot be heat-treated or tempered. Cold working or work hardening is the only way to harden this type of steel but the process must happen quickly. The steel can later be converted back to its initial state if it is annealed. This solution is used as a replacement for heat treatment.

Type Z8CNF18.09

(stainless steel 303)

- Colour code: white
- Austenitic: non-magnetic
- SULPHUR added to facilitate machining.
- Good corrosion resistance
- Weldability: acceptable (but in general oxyacetylene welding is not recommended)
- Cold forming is possible but bends with sharp angles should be avoided.
- **Applications:** Production by batch machining, automated machines...

Type Z4CN19.10FF

(stainless steel 304)

- Colour code: yellow
- Austenitic: non-magnetic
- This is the most common type of stainless steel used
- Machining quality: acceptable
- Good corrosion resistance
- Good weldability (but in general oxyacetylene welding is not recommended)
- Cold forming gives very good results (slightly magnetic when cold-formed)
- **Applications:** hospitals, laundries, all general mechanical applications.

Type Z3CND18.14.08

(stainless steel 316L)

- Colour code: red
- Austenitic steel: non-magnetic
- High corrosion resistance, especially against salt water and acids.
- Machining quality: acceptable
- Good weldability
- Cold forming gives very good results (non-magnetic when reheated, slightly magnetic when cold-formed)
- **Applications:** petrochemical industry, marine environments, hospitals, catering.

Type Z6DNT18.10

(stainless steel 321)

- Colour code: blue
- Austenitic steel: non-magnetic
- Machining quality: acceptable
- Good corrosion and oxidation resistance
- Very good weldability
- Cold forming gives very good results (non-magnetic when reheated, slightly magnetic when cold-formed).
- **Applications:** petrochemical industry, in general all mechanical applications...

Martensitic steels

- These steels, which generally contain 13% Chromium, are the least corrosion-resistant stainless steels. They should therefore be used when corrosive conditions are relatively rare. Their main application is for cutlery.

Austenitic steels

- This type of stainless steel is by far the most widely-used. It resists most types of corrosion and is principally used in food preparation areas, dairies, breweries, and other processing plants, as well as in several parts of the chemical industry.

Ferritic steels

- The most commonly used ferritic steel is Z8C17 (stainless steel 430) which contains 17% Chromium. They have a greater corrosion resistance than martensitic steels, without being as efficient as standard austenitic steels. They are generally used for decorative trim on car motors and household appliances.

Le molybdenum

- Molybdenum, when added to austenitic steel, greatly improves corrosion resistance. Type 316 stainless steels contain between 2 and 3% Molybdenum.
- This type of steel is principally used in chemical and petrochemical industries where resistance to chlorine, as an example, is necessary. Nevertheless, it is important to mention that these steels are not resistant to all types of chemical attacks (such as hydrochloric or oxalic acid, especially when hot or in high concentrations).

Stainless steel types

Mechanical properties

Mechanical properties, softening temperatures and intergranular corrosion tests of austenetic stainless steel

Type of steel	Proof stress		Tensile strength	Elongation A.min	Hardness Hv. max †	Condition	Softening temperature range		Intergranular sensitivisation time test min
	R _{p0.2} min N/mm ²	R _{p0.1,0} min N/mm ²	R _m .min N/mm ²				min	max	
Z1CN17.08	215	250	540	40%	220	Softened	1000°C	1120°C	Nil
Z1CN18.12	180	215	480	40%	135	Softened	1000°C	1120°C	30
Z4CN19.10ff	195	230	500	40%	190	Softened	1000°C	1120°C	15
Z5CN17.08	195	230	500	40%	190	Softened	1000°C	1120°C	15
Z7CN18.09	195	230	500	40%	190	Softened	1000°C	1120°C	Nil
Z5CN18.11ff	185	220	490	40%	185	Softened	1000°C	1120°C	Nil
Z2CND17.12	190	225	490	40%	195	Softened	1000°C	1120°C	30
Z2CND18.13	205	240	510	40%	205	Softened	1000°C	1120°C	15
Z6CND17.11.02	205	240	510	40%	205	Softened	1000°C	1120°C	15
Z2CND19.15.04	195	230	490	40%	195	Softened	1000°C	1120°C	30
Z6CNT18.10	200	235	500	40%	200	Softened	1000°C	1120°C	30
Z6CNNb18.10	205	240	510	40%	200	Softened	1000°C	1120°C	30

Mechanical properties and softening temperatures for ferritic and martensitic steels

Type of steel	Proof stress	Tensile strength	Elongation A.min	Hardness		Softening		Hardening ‡		Tempering	
	R _{p0.2} min N/mm ²	R _m .min N/mm ²		HV max †	Condition	mini	max.	mini.	max.	mini.	max.
Ferritic steels											
28C12	245	420	20%	190	175	Softened	1000°C	1120°C	Nil		
28CA12	245	420	20%	190	175	Softened	1000°C	1120°C	30		
28C17	245	430	20%	190	175	Softened	1000°C	1120°C	15		
Martensitic steels											
210C13	-	-	-			Softened Quenched Hardened	700°C	780°C	950°C 1020°C		650°C 750°C
230C13	-	-	-	230	220	Softened Quenched Hardened Softened	700°C	780°C	950°C 1050°C		150°C 250°C
	420			175			700°C	780°C	-	-	-

1 N/mm² = 1 mp_a

• Stretching was measured with flat test-parts of gauge length 50mm or 5.65 $\sqrt{s_0}$ for cylindrical test-parts a gauge length of 5.64 $\sqrt{s_0}$ was used

† For parts of sufficient thickness, the Brinell hardness test can be used, applying the same hardness limit values for HB as those given for HV

‡ Only as an indication.

Stainless steel types

Stainless steels: Manufacturing guide

	301S1	302S25	304S16	304S12	305S19	303S21	303S41	309S24	310S24	316S16
Blanking	B	B	B	B	B	—	—	B	B	B
Brazing	B	B	B	B	B	B	D	B	B	B
Buffing	A	A-B	A-B	B	A-B	B	D	B	B	B
Coining	B-C	B	B	B	A-B	A	D	B	B	B
Drilling	C-D	C	C	C	C	B-C	B	C	C	C
Embossing	B-C	B	B	B	B	—	C	B	B	B
Cold-forging	C	B	B	B	B	B	D	B-C	B-C	B
Hot-forging	B	B	B	B	B	B	B	B	B	B
Hardening by cold work										
a) Annealed 1000psi	115,00	90,00	85,00	82,00	80,00	—	—	90,00	95,00	90,00
kg/mm ²	80,80	63,30	59,70	58,00	56,20	—	—	63,30	66,80	63,30
b) 25% Réduction 1000psi	169,00	142,00	138,00	140,00	130,00	—	—	130,00	126,00	134,00
kg/mm ²	119,00	100,00	97,00	98,00	91,00	—	—	91,00	89,00	94,00
c) 50% Réduction 1000psi	220,00	180,00	178,00	182,00	170,00	—	—	169,00	165,00	165,00
kg/mm ²	155,00	127,00	125,00	128,00	119,00	—	—	119,00	116,00	116,00
Hardened by heat treatment	No	No	No	No	Non	No	No	No	No	No
Machining	C	C	C	C	C	B-C	B-C	C	C	C
Magnetic	Non†	Non†	Non†	Non†	Non††	Non††	Non†	Non†	Non††	Non†
Punching	C	B	B	B	B	—	—	B	B	B
Polishing	A	A	A	A	A	A	D	B	B	B
Roll forming	B	A	A	A	A	—	—	B	A	A
Sawing	C	C	C	C	C	C	B	C	C	C
Shearing	B	B	B	B	B	B	C	B	B	B
Soldering	B	B	B	B	B	B	C-D	B	B	B
Spinning	D	B-C	B-C	B-C	A	—	—	B-C	B	B
Spot-welding (Résistance)	A	A	A	A	A	B	D	A	A	A
Welding (coated electrodes)	B	A-B	A	A	A	B	D	B	B	A
Welding (oxyacetylene)	D	D	D	D	D	D	D	D	D	D
Welding metal insert gas arc	A-B	A-B	A	A	A	B-C	D	A	A	A
Welding tungsten inert gas arc	A	A	A	A	A	B	D	A	A	A

A = Excellent

B = Good

C = Acceptable

D = Not recommended

† Develops magnetism after cold working

†† Develops less magnetism after cold working

* Severe sharp bends to be avoided

Stainless steel types

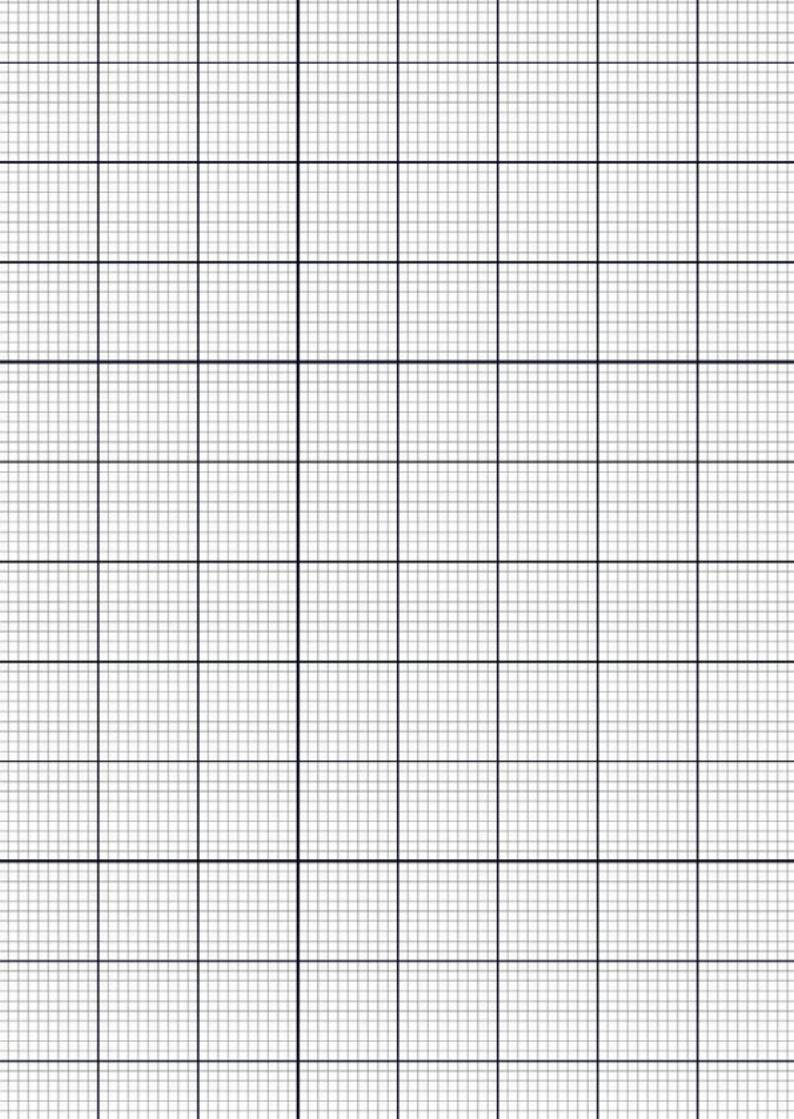
Characteristics of stainless steels

Stainless steel types	Description	Application
304	Z4CN19.10FF 18% CHROMIUM, 9% NICKEL Forming : good	Sinks, architectural pieces, car exhausts, cutlery, kitchenware, piping.
304L	Z1CN18.12 Z1CN18.09 LESS CARBON THAN STAINLESS STEEL 304	Breweries, dairies, food and pharmaceutical industries, kitchenware, sinks
305	Z8CN18.12 18% CHROMIUM, 12% NICKEL. Forming: good	Same as stainless steel 310.
309	- 23% CHROMIUM, 14% NICKEL High oxidation resistance	
310	- 25% CHROMIUM, 20% NICKEL High oxidation resistance	Ovens, metallurgical factories, heat exchangers
316	Z3CND17.11.01 17% CHROMIUM, 11% NICKEL 2.5% MOLYBDENE High corrosion resistance	Chemical and petrochemical plants, architectural pieces, breweries
316L	Z2CND17.12 Less CARBON than STAINLESS STEEL 316	
317	- 18% CHROMIUM, 12% NICKEL 2.5% MOLYBDENE et TITANIUM High corrosion resistance	Chemical and petrochemical factories, acetic acid distilleries
317L 317	Z2CND19.15.04 Less CARBON than STAINLESS STEEL	
321	Z6CNT18.10 18% CHROMIUM, 10% NICKEL and TITANIUM	Aircraft parts, chemical and petrochemical industries, heating elements
325	- CONTAINS SULPHUR: EASIER TO USAGE MACHINE THAN STAINLESS STEEL 321, ONLY AVAILABLE IN BARS	
347	Z6CNNb 18.10 18% CHROMIUM. 10% NICKEL and NIOBIUM Sensitisation and nitric acid resistance	Transformation factories, aircraft parts

Stainless steel types

Characteristics of stainless steels

Steel type	Description	Applications
Martensic steels: Magnetic, tempering possible, moderate corrosion resistance		
410	Z10C13 12% CHROMIUM	Pump and turbine parts, general mechanics, knife blades, valves
416	Z11CF13 Contains sulphur: easier to machine par than stainless steel 410	Construction, railway carriages, mine-carts
420	Z20C13 Heat-resistant	
431	Z15CN16.02 17% CHROMIUM, 2½% NICKEL Only available in bars	
Ferritic steels : magnetic, chrome steels, chlorides give corrosion resistance		
430	Z8C17 17% CHROMIUM	Sinks, Architectural parts, decorative car parts
434	- 12% CHROMIUM and TITANIUM Resistant to atmospheric corrosion and chipping	Car exhaust systems
409	Z3CT12 12% CHROMIUM and TITANIUM Weldable up to thicknesses of 2.5mm	Construction, railway carriages, mine-carts
403	Z8C12 Modified stainless steel 409, weldable in reinforced section, forming possible	
Austenitic steels: non-magnetic, chromium and nickel steels, good weldability, good general corrosion resistance		
301	Z11CN17.08 17% CHROME, 7% NICKEL Forming: possible	General construction, springs, marine chafing plates and protective plates
302	Z10CN18.09 18% CHROMIUM, 9% NICKEL Forming: good	Same as stainless steel 304
303	Z8CNF18.09 Easier to machine than stainless steel 302, only available in bars	



General terms and conditions of sale

For professional Clients

Note. This translation of the original Engrenages HPC French Terms and Conditions is offered as a guide only. In the case of any dispute, the terms and conditions in the original French document will apply.

1 - APPLICATION AND ENFORCEMENT OF THESE TERMS AND CONDITIONS OF SALE.

The act of a professional Client ("The client") placing an order with Engrenages HPC ("HPC") implies the complete and unreserved agreement by the Client to these general terms and conditions of sale, to the exclusion of any other documents such as catalogues produced by HPC, which are provided for information only and are merely intended as an indication, and regardless of any other information that may be included on the Client's order documents, the Client's terms and conditions of purchase or in any other document transmitted by the Client to HPC.

Any conditions applied by the Client will therefore by default be not accepted by HPC, regardless of when they may be brought to their attention unless they have been explicitly confirmed in writing by HPC.

Only specifications relating to custom-made parts can modify these general terms and conditions but should there be a conflict between these T+C's and the specifications of the pieces to be manufactured, these T+C's shall take precedence

The fact that HPC does not immediately apply any of the clauses in these terms and conditions should not be interpreted as meaning that they may not do so at a later date.

2 - ORDERS.

Orders must be placed in writing to HPC by the Client. Any order placed by telephone must be confirmed in writing by the Client within 24 hours. Without such confirmation the order will be cancelled. An order will only become definitive and the sales contract confirmed when it is accepted by HPC, this acceptance taking the form of an order confirmation sent to the Client or the delivery of the products ordered.

In case of any modification HPC may deem necessary to be made to the Client's order and confirmed in the order acknowledgment sent to the Client, the latter is assumed to have accepted the modification unless HPC is advised in writing within 24 hours of receipt.

No order with a value lower than 20 Euros (before tax) will be accepted, this includes orders passed at the trade counter at HPC's offices.

No order with a value lower than 150 Euros (before tax) will be accepted from customers outside of France (EU countries included)

3 - ORDER MODIFICATIONS

Any modification to, or cancellation of an order requested by the Client will not be taken into consideration unless it is received in writing before the goods (for standard products) are despatched or manufacture is started (of custom-made products) and acceptance of the modification has been expressly confirmed by HPC in a fax addressed to the Client within 24 hours of the request. If either of these conditions is not fulfilled, the products ordered initially will be sent and full payment will become due.

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4 - PRICES

All prices mentioned in the catalogue are given excluding any taxes. Value Added Tax (VAT) at the current rate, delivery and packing charges as marked in the catalogue and any insurance to which the Client wishes to subscribe, will be added to these prices. Choice of packaging material will be made by HPC unless the Client has made a prior request.

Unless stated to the contrary, products are sold at the price applicable the day the order is placed. Prices quoted in the catalogue are those applicable on the date of publication marked on the cover of said catalogue. HPC reserves the right to modify these prices at any time.

5 - DELIVERY METHODS AND TIMES.

A - DESPATCH DATES

Items in stock on the date an order is accepted can be made available for collection or despatched within a maximum of 72 hours. For catalogue items not in stock at the time the order is accepted or for special items, an estimated despatch time will be given when the order is accepted.

Should the estimated delivery date given by HPC be exceeded by more than thirty (30) working days and except in the case of force majeure, the Client has the right to cancel the order within thirty (30) working days from the estimated delivery date by sending a registered letter.

For the purposes of the Terms and Conditions, force majeure is considered to cover, but not limited to such events as: war, riot, fire, industrial disputes, natural disasters or failure of their suppliers to deliver.

B - DELIVERY

Unless stated otherwise, delivery is carried out by the collection of the goods by Client from HPC's premises in Dardilly 69570 (France) or by delivery a means of transport chosen by HPC or the Client. Products are sold from Dardilly 69570 France (HPC premises) and are transported at the risk of the Client, the goods remaining the property of HPC until full payment is received as explained in Clause 10.

Unless otherwise agreed, goods are sold "ex-works" and transport is carried out at the Client's cost by a transport method chosen by HPC unless one has been specified by the Client.

In case of loss or damage during transit, it is the Client's responsibility to make any claims or remarks to the transporter in writing by recommended letter or other legally accepted means within 3 days of reception of the products (article L133-3 of the French Commercial Code)

HPC reserves the right to make partial deliveries from an order where necessary.

C - RECEPTION

Without prejudice to any claims for damaged goods made direct to the transport company concerned, any complaints regarding differences between the products delivered and those products ordered or identified on the delivery document, should be sent in writing to HPC within 30 days of receipt of the goods. Claims received outside of this period will not be accepted

It is the Client's responsibility to provide full proof of the existence of problems or faults with the goods supplied. He must give HPC access and means to evaluate and rectify any problems. He will not however attempt to repair any faults either directly or by intervention of a third party.

HPC's guarantee is limited to the free replacement or repair of products or components that they have agreed are faulty.

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For professional Clients

Any product for which the Client required repair or replacement under guarantee must be returned to HPC's service department whose authorisation is required before any replacement can be made. Transport costs will be charged to the Client if a claim for replacement under guarantee is found not to be applicable.

6 - METHODS OF PAYMENT.

Invoices which will be sent at the same time as goods are despatched, are payable as follows:

- On receipt
- 30 days from the end of the month of the date of the invoice or summary invoice. This method of payment is subject to acceptance by HPC and may be withdrawn at any moment without the Client's approval.
- in Euros
- by cheque, credit card, bank transfer, or promissory note, the choice of method of payment cannot change the payment due date. No discounts are made for advance payments.

7 - LATE OR NON PAYMENT

If payment is not made within the period quoted above and after receipt of a formal notice of non payment with payment not being received within 8 days, the Client will be liable for charges equivalent to an interest rate of one and a half times the prevailing legal interest rate on the sum owed as well as any costs associated with the final collection of the unpaid sum. Any claims by the Client do not exempt him from paying an invoice on or before the due date. Non or partial payments will lead to the immediate requirement for the Client to pay all sums outstanding to HPC, even if they are not yet due and whatever the intended method of payment might be.

8 - GARANTEE.

HPC guarantees the Client against faults or hidden defects that appear in the products sold under the conditions stipulated in article 1641 of the French Civil Code.

For products made to a Client's specification, HPC's responsibility is limited to manufacturing items that conform to the specifications supplied but does not guarantee their functionality or suitability for any application the Client may use them for. The Client is solely responsible for the information transmitted to HPC.

For standard products, HPC guarantees their conformity to the specifications quoted in the catalogue except where the original manufacturer has changed the technical specification. Any action to invoke HPC's responsibility and/or the implementation of the guarantee offered by HPC must be made within 30 days of receipt of the goods by the Client. Any claim under the guarantee will be limited to an amount equal to the price paid for the product. In no case can damage caused by a product marketed by HPC be a reason to any claim for damages or repair.

In the event that a product manufactured to a Client's specification infringes the rights of a third party, the Client accepts responsibility for refunding all the costs (procedure, claims, damages, lawyers' expenses, other advisors...) suffered by HPC and will actively cooperate at his own expense in the defence of the latter.

The guarantee will be considered void if products have been modified or interfered with in any way by the Client without prior written agreement from HPC or if the products have been used in any abnormal way or under unsuitable conditions taking into account their characteristics and normal

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applicable uses and standards (in particular in the event of use or installation in any aerial or space going craft for which the products are completely unsuited)

9 - RETURNED MATERIAL.

Every returned product must be the subject of a formal written agreement between the HPC and the Client by fax, email or letter.

The choice of transport method will be made by HPC. Any product returned without this prior agreement will be stored on behalf of the Client but will not oblige HPC to provide a refund or replacement.

In any event, no product returned more than 30 days after receipt of the product by the Client will be accepted. The cost of returning a product is always the responsibility of the purchaser and the risk in the product remains with him. Any returned product must be addressed to HPC's registered office.

Once the material has been accepted by HPC for return, a Credit Note for the value of the products, valid for duration of six months will be issued. The condition and quantity of all products returned will be subject to inspection.

In the case of an obvious problem or the non-conformity of the product has been confirmed by HPC, the Client will either receive at the discretion of HPC, either replacement products or a refund, no other charges or penalties will be accepted.

10 - RETENTION OF PROPERTY

The transfer of property in any standard or custom-made part is subject to the full payment of the invoice, payment is understood to take place the day funds reach HPC's bank account.

The above provision does not stop the risk in the product passing to the Client (in particular risk of loss, deterioration, and damage caused by the shipped parts) once the parts have been handed over or dispatched by HPC.

If a Client supplies a product for modification, repair or to be used as a sample, the Client remains the owner of the original product and is responsible for the cost of their transport to and from HPC. The Client also accepts all risks related to their transport, any possible modification by HPC, and any damage that might be caused.

11 - APPLICABLE LAW - COURT OF JURISDICTION.

Sales concluded with HPC are subject to French law.

Any dispute which may arise between the two parties relating to the interpretation and/or execution and/or termination of the contract will be brought before the competent commercial courts of the jurisdiction for the registered office of HPC, even in the event of case of appeal or plurality of defendants.

Photos are non-contractual

All product information is subject to technical modifications where necessary

Part number	Volume	1	2	3	4	5	Page	
203R	PERIFLEX®						78	
712	handle	1	92	→	94	1	105, 113	
A								
AAG, ABG	toothed bar	4	38,	212				
AB	anti-backlash wormwheel	4	185					
ABL	antistatic brush	5	184	→	187			
ABM	anti-backlash gear	4	176	→	177			
ABS	anti-backlash wormwheel	4	184					
AC	hook	1	124	→	125			
ACA	splined shaft	2	108					
ACL	angle bracket	5	329	→	355			
ACLFPA	panel mounting block	5	346					
ACM	bonnet fastener	1	155	→	157			
ADG, ASG	toothed bar	4	39,	213				
ADL	eye bolt	1	330	→	331			
ADSR	backlash free coupling	2	44	→	45			
AF	rigid coupling	2	82					
AFM, ASM	Igidur cylindrical polymer bush	3	28	→	33			
AHEX	hexagonal shaft	2	230					
AK, AKD, AKN	coupling Gerwah	2	54	→	57			
ALI	power supply DC	2	261	→	263			
APB, APB BOU	adjusting rod	5	107	→	109			
APBC	circular rod	3	117					
ARL	Plastic flexible rack	4	199					
ARTE		NEW	1	268	→	269		
AT	timing pulley	4	64	→	83			
AT	toothed bar	4	62	→	63			
AT	timing belt	4	84	→	86			
AT-M	timing belt per metre	4	86					
AT-P	connecting plate	4	87					
AT-ZY	elasto mount	1	248	→	249			
AWMP	aluminium shaft	3	229					
AXTR	axle for tensioner pulley	4	129					
A-ZY(ss)	cylindrical mount	1	252	→	255			
B								
B, B/Eco	Bevel gear	4	132	→	133,	138	→	139
B332	reducer	2	225					
B3PAN	Panamech Multi-Beam	2	31					
BAB	clamping pin	1	24	→	39,	41		
BABA	lifting pin	1	332	→	333			
BAD NEW	brush ring	5	182	→	183			
BAG	locking assembly	2	118	→	119			
BAGO NEW	locking ring	2	115					
BAG1-TR	leadscrew locking ring	3	309					

Part number	Volume	1	2	3	4	5	Page		
BAGR	adjustable shaft collar	2	114						
BAP	clamping collar	2	116	→	117	5	74	→	75
BAN	angular clamp	5	22						
BC	Panamech Multi-Beam	2	28	→	29				
BCA	splined bush	2	109						
BCH	mushroom knob	1	111						
BCM	cylindrical brushes	5	167	→	171				
BDP	holding arm	5	23	→	25				
BEF, BEK	miniature leadscrew	3	316	→	317				
BETA	spring pin	1	373						
BFA	shaft locking washer	1	360						
BFM	flanged nut	3	305,	308					
BG(C)	OLDHAM coupling	2	34	→	35				
BH	single housed bearing assembly	3	64	→	67				
BHC	socket head button screw	1	428						
BISF	ball transfer unit	5	47						
BKGS	backlash free coupling	2	42	→	43				
BL, BLH, BLHT	right bevel gearbox	2	174	→	197				
BLHB, BLHO, BLHI	right bevel gearbox	2	178	→	194				
BLHM	right bevel gearbox	2	179	→	195				
BLM	spring loaded plunger	1	62						
BLOC	doorstop	5	280						
BOX-BETA NEW	dowel pin	1	348						
BOX-DH, BOX-DHX	dowel pin	1	349	→	350				
BOX-INS	self tapping insert	1	408	→	409				
BOX-KK, BOX-KU	key	1	353	→	354				
BOX-SAP	spring pin	1	352						
BPM	spring plunger	1	63	→	65				
BPMc	slotted spring plunger	1	66						
BPTRW, BTCW	cap for tube	5	138	→	139				
BPOM	ball transfer unit	5	48						
BPF, BPFL, BPP	flanged bearing	3	48	→	50				
BPTRM	end cap	5	140	→	141				
BRI	panel holder	5	282						
BS	Panamech Multi-Beam	2	26	→	27				
BSB	ballscrew bearing unit	3	324						
BSM	spring plunger	1	60	→	61				
BSP	compact precision slide	3	162	→	163				
BSPM	miniature leadscrew	3	314	→	315				
BSPT	single rod clip	5	106						
BTC	end cap	5	142	→	144,	272			
BTE, BTE(ss)	universal tension arm	4	120	→	121				
BTEU	ball transfer unit	5	49						
BTEU, BTHD	ball transfer unit	5	45	→	46				
BUC	shaft and bush splined	2	111	→	113				

Part number	Volume	1	2	3	4	5	Page
BUH	motor gearboxes						256
BUT	panel 5 top						281
BWU	compact precision shaft	6					164 → 169
B-ZY(ss)	cylindrical mount	1					256 → 259
C							
CAB	cable						1 296 → 297
CAP	plate chain						5 60 → 63
CAR ^{NEW}	articulated coupling	6					400 → 403
CC, CT	collar clamp						2 120 → 121
CCL(ss)	wire thimble						1 298 → 299
CD	compression spring						1 180 → 191
CDR	cable for clamping pin						1 40
CGLc ^{NEW}	tubular structure						5 263
CGR ^{NEW}	tubular structure						5 250 → 258
CGR ^{NEW}	tubular structure						5 259 → 261
CF(S), CFES	cam follower						6 283 → 284
CFC	spring loaded						1 57
CFCL	cam follower						6 285
CFF(ss)	rod end						6 131, 133
CFU	cam follower						6 280 → 281
CHA	hinge						5 196 → 199, 205
CHAE	decorative hinge						5 201 → 204
CHAFR	adjustable friction hinge						6 222
CHAK	indent hinge						6 223
CHAL	long hinge						6 200
CHAM	marine hinge						6 206
CHA-R	hinge						5 214 → 221
CHC	socket head screw						1 420 → 425
CHM, CHMR	wormwheel						2 280 → 293
CHM-BR, CHM-X	arm and shaft						2 294 → 295
CHML	worm and wheel gearbox						2 296 → 299
CHM-MOT	motor-reducers AC	2					276 → 279 5 88 → 90
CHN(ss)	straight long link chain						1 320 → 321
CHT	asynchronous AC motor						2 271 → 275
CHTRB	right bevel gearbox						2 232 → 235
CHTRP	right bevel gearbox						2 236 → 241
CLA, CLB	indexing handle						1 72 → 75
CLS-R/CLL-R	clevis components						1 230
CLG	moulded spur gear						4 248 → 290
CLM(ss)	clevis components						6 144
CLS, CLP	clevis components						6 142
CLL, CLLP	clevis components						6 143, 1 231
CLQ ^{NEW}	feeler strip on roll						6 114 → 115
CLR/CLRss ^{NEW}	straight clevis						1 227, 6 137
CLS(ss), CLP(ss)	clevis components						6 145

Part number	Volume	1	2	3	4	5	Page
CMA(ss)	eye screw						1 328 → 329
CMM(ss)	rod end						6 130, 132
CNA/CNG ^{NEW}	mounting plate						1 228, 6 138
COA/COG ^{NEW}	mounting plate						1 229, 6 139
CPAS	stay with safety catch						5 224
CR/CPE ^{NEW}	accessories for tubular structure						5 266 → 269
CRG	adjustment column						5 86 → 87, 6 362 → 363
CRM	imperial section rack						4 200
CRR ^{NEW}	rack for tubular structure						5 262
CSS(ss)	spherical bearing						6 122 → 123
CT, CTH	telescopic universal joint						2 94 → 95
CT-ZY	diabolo mount						1 250 → 251
CX, CY	circlip						1 358 → 359
CYT ^{NEW}	Graphit® connector						5 265
D							
D	springs in metre						1 192
DB, DB/Eco	bevel gear						4 134, 140
DBC	Panamech Multi-Beam						2 30
DBL	idler						5 72 → 73
DCA, DCG, DFG	suction cup						5 15 → 17
DER	AC asynchronous motor						2 302 → 305
DG	double spur gear						4 180 → 183
DGS	rod end						6 126 → 129
DH	dowel pin						1 368 → 369
DHX	extendable dowel pin						1 372
DIL, DIA, DIV	locking bolt						1 44 → 47
DKGS	coupling						2 40 → 41
DKN	coupling GERWAH®						2 52 → 53
D-KON, D-PAR(ss)	elasto buffer						1 266 → 267
DOG	motor-reducer DC						2 257 → 260
DOMI	adjustable slide						6 374 → 391
DP	dowel pin						1 370 → 371
DR	flexible rack						4 198
DSF	clutche						2 104 → 105
DST, DT	pinion shaft						4 186 → 189
DTR	chain idler sprocket						4 117
D-ZY(ss)	elasto buffer						1 260 → 263
E							
E	right angle reducer						2 166 → 173
EAR ^{NEW}	lock nut bearing						6 105
EBM	u bolt						1 392
ECF	well nut						1 247
ECL	adjusting nut						1 291
ECPR	high helix leadscrew						6 293
EDS	support bracket						5 111

Part number	Volume	1	2	3	4	5	Page
EFSM	Igubal® flange unit						③ 60
EFTC	fixing support						⑤ 279
EHD	coaxial reducer		②				204 → 209
EIM	stainless steel u bolt						① 393
EKGS	GERWAH® coupling		②				38 → 39
EKN	GERWAH® coupling		②				50 → 51
EMS, EML, EMR	thumb screw		①				107 → 108, 110
EP	spring pin		①				364 → 365
EP7	indicator		①				170 → 171
ERC, ERL, ERF	quick fitting cable		①				304 → 305
ERT	sliding nut						① 441
ESCB, ESSB	bipod						⑤ 145 → 146
ESCON-4Q	speed controller 5A		②				266
ESST	tripod						⑤ 147
ET	extension spring		①				194 → 203
ETP	manual handle						⑤ 357
ETP	locking assembly		②				132 → 139
E-X, E-DX	output shaft						② 173
E-ZY	cylindrical buffer		①				264 → 265
F							
F7 <small>NEW</small>	multifunction display		①				172 → 177
FB, FB/Eco	bevel gear						④ 136, 142
FBL	brush strip						⑤ 172 → 178
FDS(Q)	flexible shaft		②				70 → 74
FF	reducer		②				198 → 203
FGWA	end support						③ 235
FHC(ss)	countersunk screw		①				426 → 427
FIRST	servo amplifier						② 265
FR	thread inserts		①				396 → 399
FRT	rotary damper		①				236 → 239
FS	spring washer						③ 113
FTSN	supported shaft						③ 228
FU(ss)	nut for bearing						③ 106 → 107
G							
G, GD	universal joint		②				88 → 89
G	spur gear						④ 214 → 301
GA	gas spring		①	②	③		224 → 225, 228 → 229
GAL	conveyor wheel		⑤				38 → 39, 41, 76 → 79
GB	brass spur gear		④				224, 236, 244
GBM	nut for ballscrew						③ 321 → 322
GBS	nut for ballscrew						③ 319 → 320
GCA, GCT	spring pin		①				362 → 363
GCB	curved track						⑤ 81
GDR	straight track						⑤ 80
GE	toggle latch						① 120 → 122

Part number	Volume	1	2	3	4	5	Page
GE	spherical bushing						③ 118 → 121
GET-AL	elastic coupling ECO. range		②				66 → 67
GFX	elastic coupling ECO. range		②				62 → 63
GG	ground spur gear						④ 442 → 451
GGB	wing knob						① 96
GGP	wing knob						① 97
GLB	small 6 lobe female handle						① 98
GLP	small 6 lobe male handle						① 99
GLT	telescopic slide						⑤ 234 → 245
GLT	miniature slide						⑤ 237
GMC, GMK	guide						⑤ 98, 100 → 105
GP	toggle latch						① 123
GPB	threaded spherical knob						① 104
GR	centerless ground shaft						③ 23
GSI	gas spring		①	②	③		222 → 223, 226 → 227
GTC, GTC(ss)	belt tension rollers						④ 124 → 127
H							
H, HD	needle roller uni. joint		②				90 → 91
H	helical gear						④ 319 → 329
HBM	half rail guide						③ 270
HC(ss)	set screw		①				434 → 435
HCV, HRV	v-rail guidance system						③ 276 → 277
HFL	one way needle bearing						③ 97
HG, HPG	spur gear						④ 299 → 304
HK	manual locking clam						③ 204 → 207
HLA, HLC	right angled gearbox		②				242 → 249
HLU(T)	handwheel						① 90 → 91
HS, HSE, HSB	spacer		①				376 → 377, 382
HSS	shoulder screw		①				412 → 413
HTD	toothed bar						④ 14 → 15
HTD	timing pulley						④ 16 → 24
HTS, HTT, HW	half rail guide						③ 266 → 273
I							
IBJ	ball & socket joint						③ 140 ① 232
IN	internal gear						④ 190 → 194
INS	insert						① 402 → 407
J							
J, XJ	coaxial reducer		②				211 → 216
JCD, JCS	universal joint		②				92 → 93
JFM, JSM	Igidur® cylindrical polymer						③ 26 → 27
K							
KB, KBS, KBWW	linear bearing						③ 239 → 241
KB-OP	linear bearing						③ 245

Part number	Volume	1	2	3	4	5	Page
KGS	ballscrew						318
KH	linear bearing						236
KIT	motorisation kit						252 → 253
KK(ss)	keysteel						356 → 357
KM	bearing locknut						102
KS(ss)	keysteel						355
KSM	cylindrical nut						302
KSTM	Igubal® block bearing						62 → 63
L							
LAC	came lever						116 → 117
LAT	linear actuator						328 → 332
LB(E)	miniature linear bearing						238
LC	clutche						102 → 103
LDS	security strap						442
LF	bearing accessories						110 → 111
LFM	leadscrew						294 → 295, 306
LINK	motor-reducer AC						270
LPR	high helix leadscrew						292
LOQ	manual lock						285
LQT	mechanical catch						194
LR	precision locknut						108 → 109
LRH	leadscrew						298
LRM	trapezoidal nut						304, 307
LRR	spring loaded latch						192 → 193
LRX	linear roller slide						194 → 201
LSAG	linear ball spline						154 → 157
LSM	leadscrew						296 → 297
LVT	motorised actuator						334 → 341
LWL, LWH	linear ball slide						170 → 193
LWL25	linear ball LWL						182 → 183
M							
M	cover for uni. joint						96
M, PM	worm and wheel set						157 → 175
MAC(ss)	carabiner						310 → 311
MAT(ss) ^{NEW}	round bar						20, 22, 24
MAX	moto-reducer DC						254 → 255
MB	stop washer						103
MBEX	hexagonal ended handle						231
MBF	threaded blocking clamp						118
MC	shock absorber						243
MCL	sleeves						410
MDB, MTB	bevel gear						147
MDPOT	potentiometre						267
MDR(ss)	dee shackle						306 → 307
MDS	hub clamp						122
MEB	bevel gear						146
MEP	cylindrical handle						76
MET(C)	Metafram® cylindrical bush						34 → 41
MF	shock absorber flange						245
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PAP	handle for alu. profile						356

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PB	plastic ball bearing	3	68	→ 69			
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PCLA	handle	1	70	→ 71			
PCP	cell carrier assembly			5	124		
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PDD	spring plunger	1	58	→ 59			
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PGB	accessory-holder			5	347		
PGNT	T handle			1	112		
PGR	folding cylindrical revolving	1	77				
PGT	sliding profil			5	286		
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PLB, PLN, PLS	cylindrical spacer	1	386	→ 390			
PLC, PLT	magnetic stud			1	148		
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PMC	flexible machine mount	1	292	→ 293			
PML	solid foot for heavy lods	1	290				
PNA	coupling PERIFLEX®	2	76	→ 78			
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PO	handle			5	283		
PP	reducer	2	163	→ 165			
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PPF	clamping pin			1	51		
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PPS	precision pinion shaft	4	386	→ 391			
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PRT	rotary table			3	394	→ 395	
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PSG-DL, PSG-PK	precision spur gear	4	420	→ 433			
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PSPT	flexible tube handle			1	115		
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PV	suction finger			5	26	→ 27	
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P-X, P-DX	output shaft			2	162		
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QN, QNU	radial bearing			3	84	→ 86	
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SHA	handwheel						1 82 → 84
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