

Cable Support Solutions

Wibe cable ladders

The spine of an exceptional infrastructure



85

years of expertise
in cable support

Cable support is the backbone of our total power and network offer

With a powerful and extensive range of cable support products from Schneider Electric, our customers can feel confident that there is always a strong backbone to build their solutions around – whether in a shopping centre, heavy industry or an off-shore environment.



Cable support is an essential ingredient of the total Schneider Electric offer, from power distribution to building management.



P135034

In the late 1920s, the founders of Wibe, Mr Wikstrand and Mr Berg, realised the advantages of using a ladder horizontally as well as vertically. And that the horizontal ladder was ideal for carrying cabling. Since then, the product range has grown to include a vast amount of ladders, trays and accessories suitable for a variety of applications and environments.



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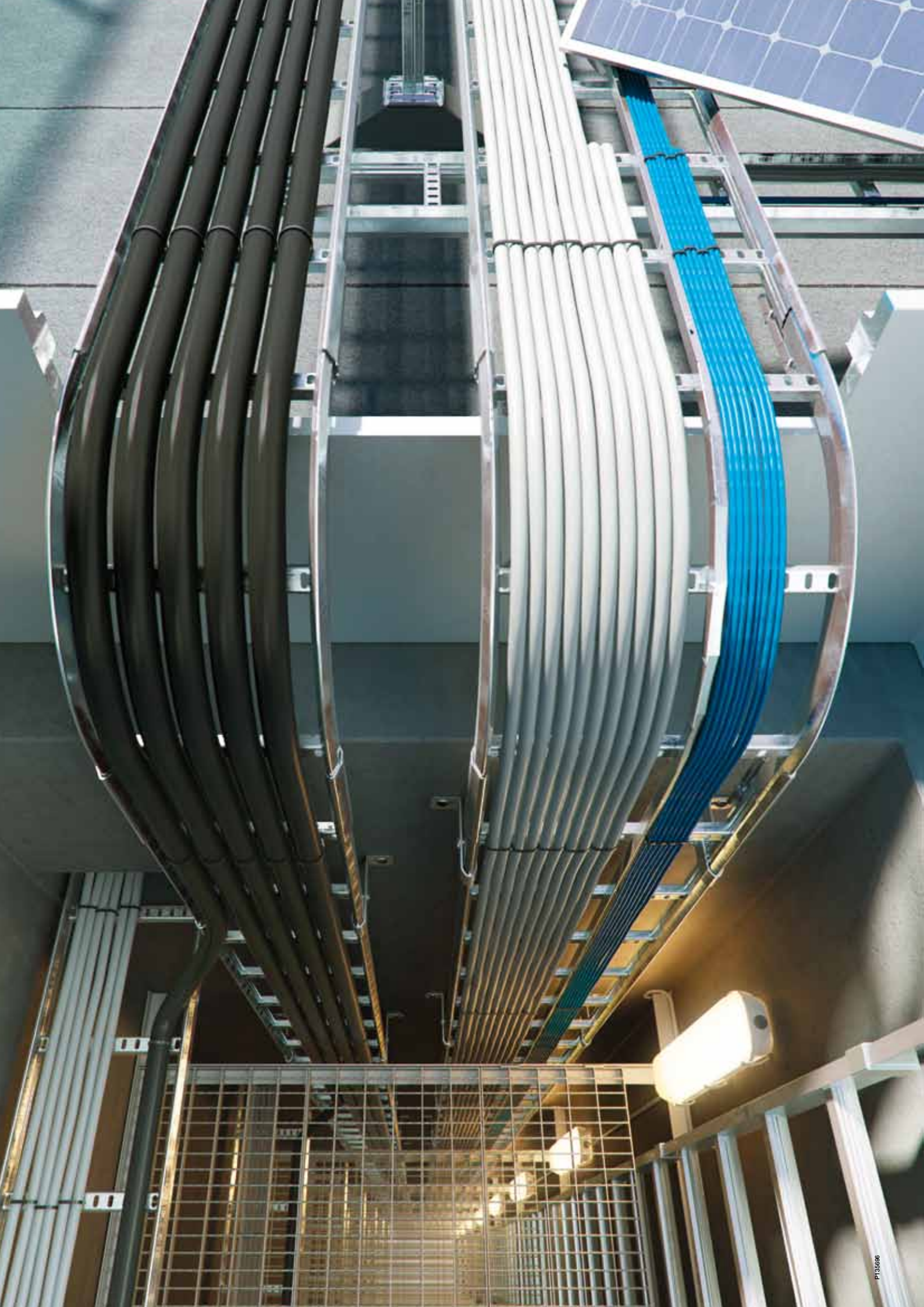
Our cable support range contains all the necessary elements for a complete solution – mesh trays, cable trays and cable ladders along with a wide variety of accessories.

Fully integrated

Wibe is a fully integrated part of Schneider Electric. This means that our customers, to an even greater extent, can benefit from the comprehensive Schneider Electric offer.



P135717



Wibe cable ladders

The spine of an exceptional infrastructure

The cable support system is as essential for the building's infrastructure as the bone structure for the body. Wibe cable ladders are robust and functional, enabling the same ladder to be used both horizontally and vertically. Add to that the extensive range of accessories as well as the wide variety of surface treatments – and you will have a safe and easily maintained solution which can be mounted in any direction or angle to fit around bends and curves in any environment.



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The Wibe cable ladder system is agile enough to be completely reconfigured in a matter of days.	
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Light, strong and durable

A product with the right properties and fit for purpose will meet the high demands on performance, reliability and cost-efficiency. That is why a thorough analysis of the environment in terms of corrosion, pollution, humidity and salt is crucial before deciding upon material and surface treatment. Whether you need a ladder for sheltered, dry indoor applications or the harshest offshore environments, we will find the solution for you. Just take a look at our offer:



Wibe KHZSP / KHZSPZ

Cable ladder with open profile and perforated rungs

KHZSP

Length: 4 and 6 m. Width: 200-600 mm
Corrosion class: C2 to C5-M
Surface treatment: Pre-galvanised, coating, Stainless steel AISI 316L

KHZSPZ

Length: 4 and 6 m. Width: 200-600 mm
Corrosion class: C3 to C4
Surface treatment: Hot-dip galvanised

Wibe KHZP / KHZPS

Cable ladder with perforated rungs

KHZPS

Length: 3 and 6 m. Width: 150-1000 mm
Corrosion class: C2
Surface treatment: Pre-galvanised

KHZP

Length: 3 and 6 m. Width: 150-1000 mm
Corrosion class: C3 to C5-M
Surface treatment: Hot-dip galvanised, Zinkpox®, Stainless steel AISI 316L

Wibe KHZPV

Reinforced cable ladder with perforated rungs

Length: 6 m.
Width: 200-1000 mm
Corrosion class: C3 to C5-M
Surface treatment: Hot-dip galvanised, Zinkpox®, Stainless steel AISI 316L

Wibe KHZ

Cable ladder with round rungs

Length: 6 m.
Width: 150 - 600 mm
Corrosion class: C3 to C5-I
Surface treatment: Hot-dip galvanised, Zinkpox®



Wibe KHZV

Reinforced cable ladder with round rungs

Length: 6 m.
Width: 200-600 mm
Corrosion class: C3 to C5-I
Surface treatment: Hot-dip galvanised, Zinkpox®



Wibe covers all corrosion classes

C1

Electro-galvanised

For heated facilities with low exposure to corrosion, such as hotels and offices.



C2

Pre-galvanised

For partly outdoor environments with low exposure to corrosion, for example warehouses and parking garages.



C3

Hot-dip galvanised

For urban and light industrial areas with average environmental corrosion, such as breweries and dairies.



C4

Hot-dip galvanised

For areas with high levels of environmental corrosion, humidity and airborne pollution such as industrial and coastal areas, chemical plants and dockyards.



C5-I

Stainless steel AISI 304, Zinkpox®,

For areas with almost permanent high levels of humidity and airborne pollution, such as chemical and heavy industries, tunnels and dockyards.



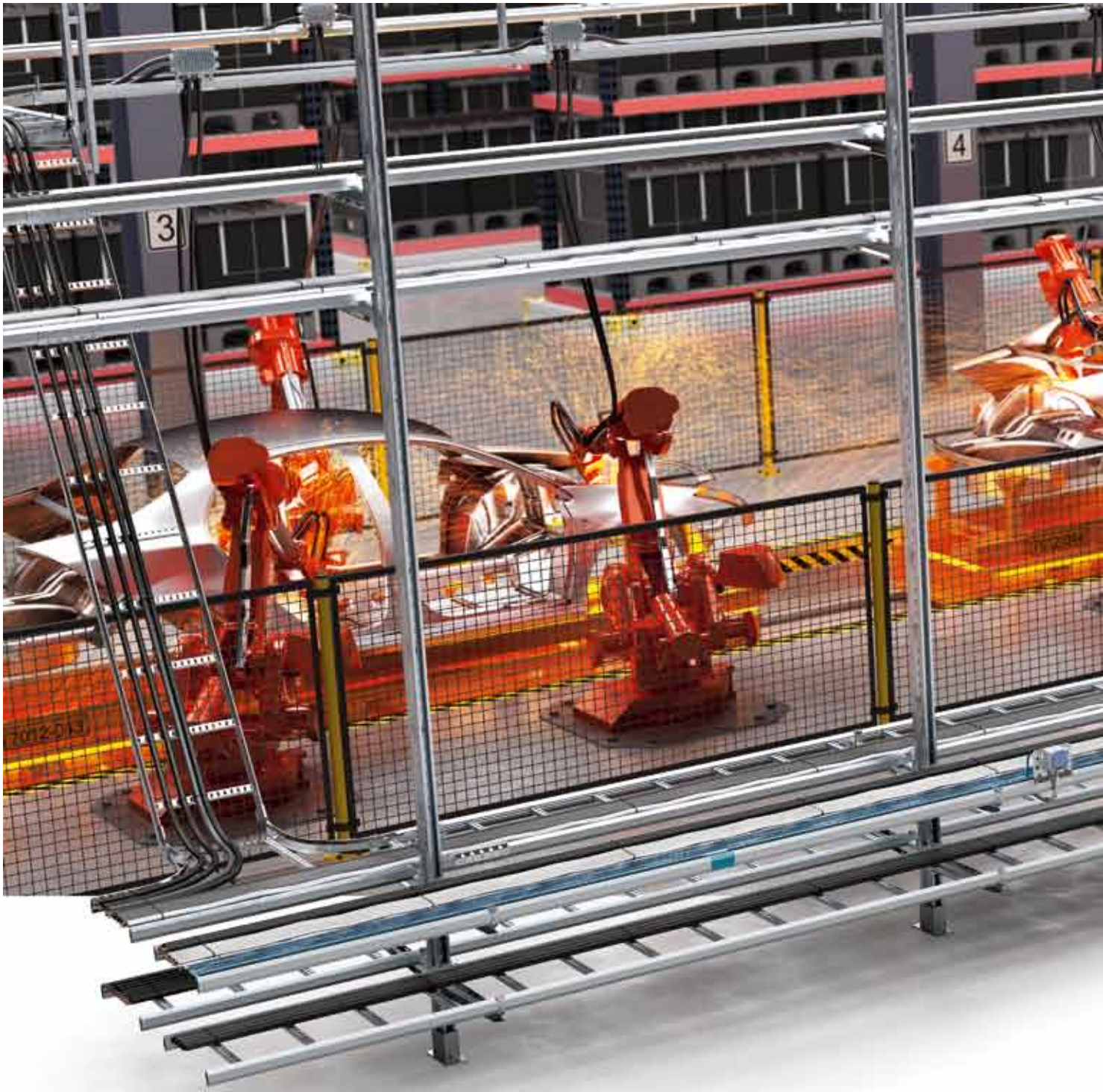
C5-M

Stainless steel AISI 316L,

For areas with almost permanent high levels of humidity, airborne pollution and salt, such as purifying plants and offshore.



For more information regarding surface treatments and corrosion classes, please see pages 132-135



P135711



P135768

Support bracket

Sturdy support bracket for centre support of cable ladders on pendant/fixing rails and vertical pieces.



P135711

Installation plate

Mounted on vertical cable ladders and used for terminal boxes, contact breakers etc.



P135787

Coupler 22

Versatile joint for horizontal or vertical branches in any angle. Suitable for 90 bend, T- or X-junctions or as a riser.



P135711

Vertical piece

Multipurpose support, either used from the ceiling or from the floor. Ready for either cantilever arms or support brackets.



Organised and ready for constant change

In a high-tech industry the infrastructure needs to be modular and flexible, minimising the risk of costly downtime when shifting to a new design or model. This is why the Wibe cable ladder system must be agile enough to be completely reconfigured in a matter of days.

An advanced industrial environment can put a strain on the power and network infrastructure. For Wibe cable ladders, there is no application too complicated. Our cable ladder offer includes a wide range of dimensions and accessories like

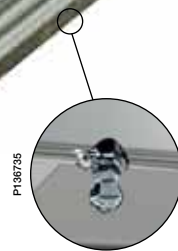
bends, raisers, cantilever arms, brackets, joints, couplers and much more, making the entire solution flexible and adjustable enough to take on any challenging task.



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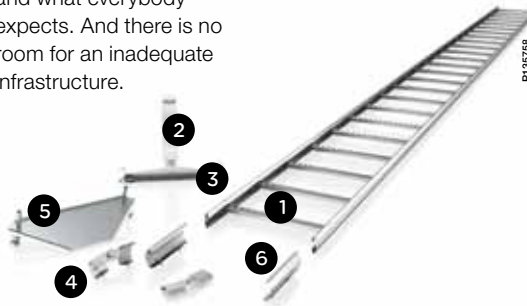
The challenge

A typical urban environment. Thousands of people commuting every day. It is busy and crowded. Departures and arrivals on time are vital and what everybody expects. And there is no room for an inadequate infrastructure.



P138725

A smart feature is the drainage holes placed at the top and bottom of the open profiles of the KHZSP stainless steel ladder, preventing moisture from filling up.



P138768

The solution

This installation includes only a few parts:

1. KHZSP Cable ladder in stainless steel
2. Round bar fixing for ceiling
3. Support bracket 3
4. Coupler 22
5. Angle plate 33
6. Joint 21



On track with the future

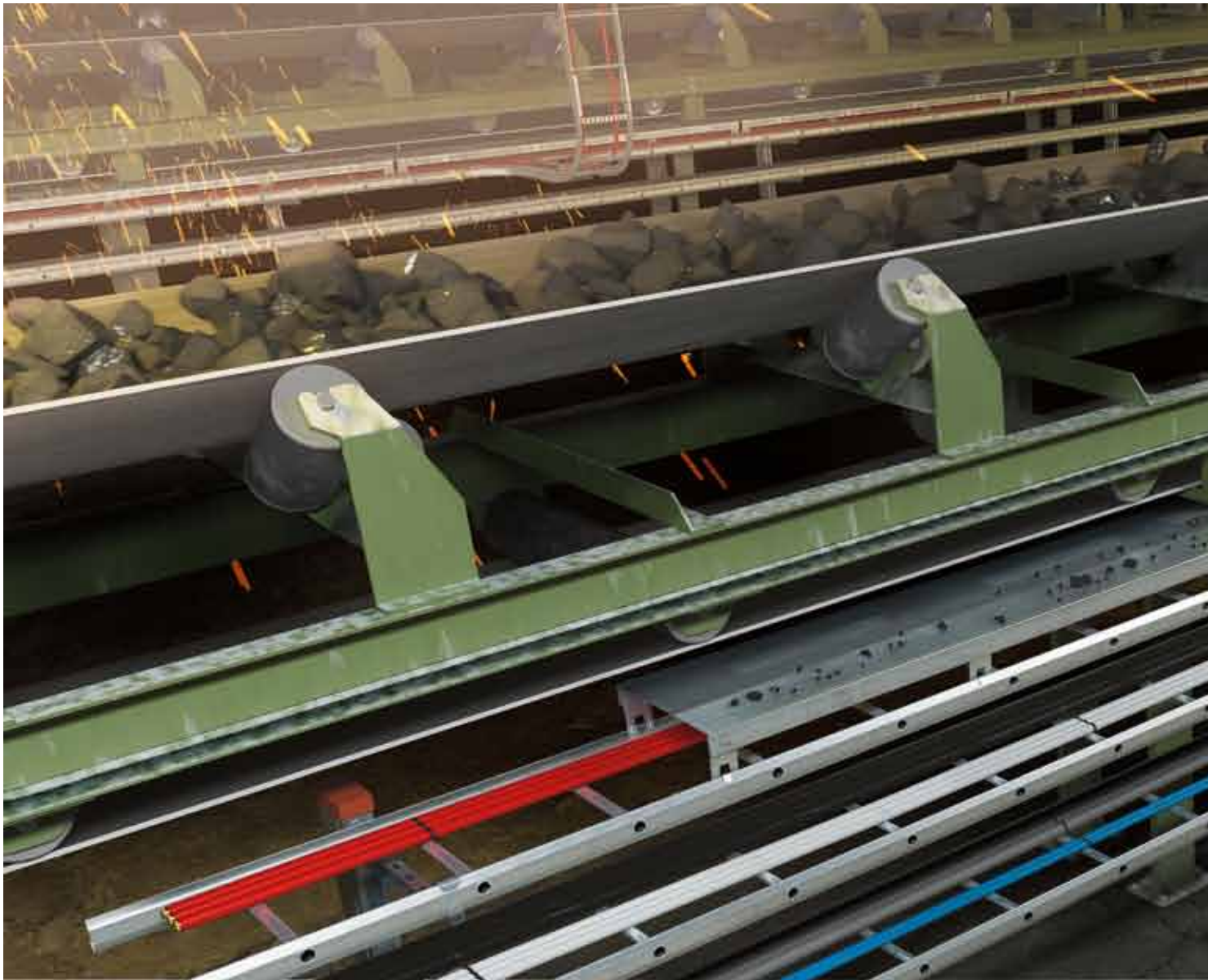
Today we constantly meet increasing expectations on performance, flexibility and sustainability. Advanced constructions require top quality in every detail and keeping up with technical development is a challenging task. Our goal is to prosper business performance whilst conserving environmental resources.

The monorail train illustrates a modern, technological city infrastructure but the idea of an elevated train on a single track actually dates back to the beginning of the 20th century.

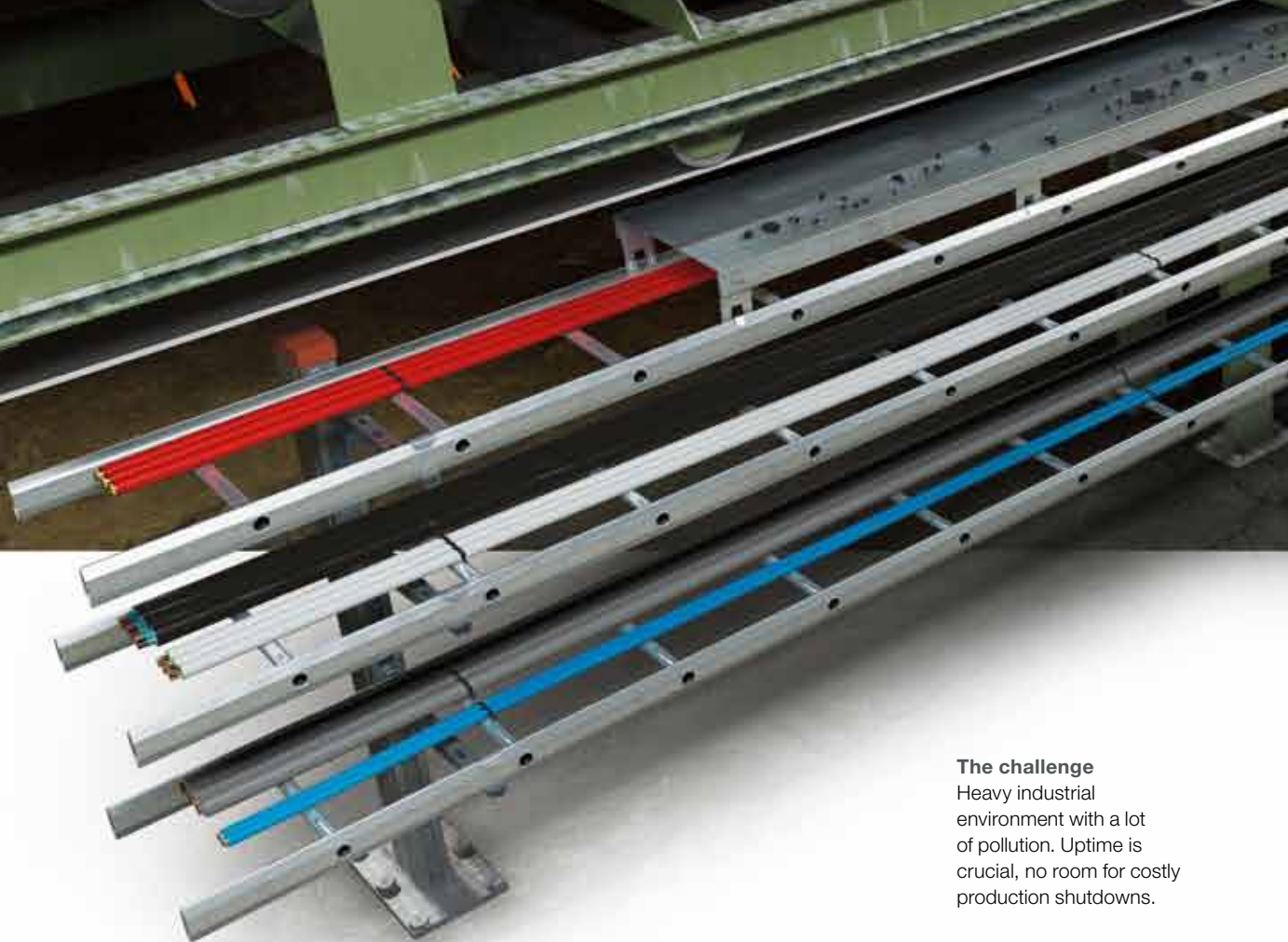
Today the monorail trains are often used as fast intercity connections, running through tunnels and open landscapes, exposed to rain, ice and snow – at a speed often exceeding 300 km/h - yet the

journey is smooth, comfortable and quiet.

Accentuating demands on capacity and comfort have spurred the development of advanced technique and sophisticated design. With the comprehensive offer which is constantly refined and improved, Wibe cable ladders exceed all the requirements.



P135703



The challenge

Heavy industrial environment with a lot of pollution. Uptime is crucial, no room for costly production shutdowns.

The solution

- These are the only parts needed:
1. KHZ Cable ladder in hot-dip galv
 2. Riser 18
 3. Joint 21
 4. Cover plate
 5. T-junction 16
 6. Vertical piece 20FS, Cantilever arm 50, End cap



P135720



Breaking ground for heavy-duty applications

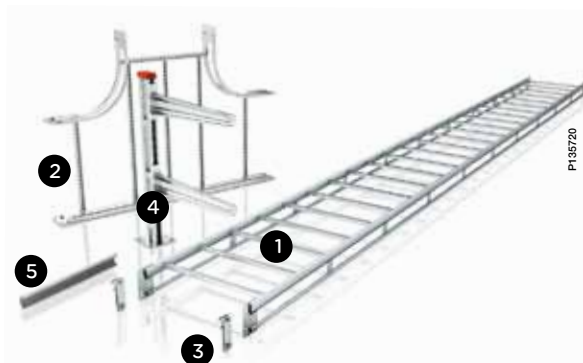
No environment is too tough or too dirty. With the appropriate material and ideal surface treatment of the cable support solutions, reliable power and network supply is secured.

In noisy, busy and very harsh conditions, maintaining continuous production is the priority and any malfunctions will jeopardise both safety of the staff and the all-important profitability. Here the cable support solution is really put to the test. The standing vertical

pieces can carry several layers of ladders on top of each other, securing easy maintenance and service. Details such as round rungs and cover plates protect the installation from dirt and damage.



P135704



P135720

The challenge

An environment like a huge sports arena calls for extra strong solutions – both in terms of safety and easy maintenance in unusual spaces.

Few but strong

The installation above is assembled with a limited number of parts:

- 1. KHZPV Cable ladder in hot-dip galv
- 2. T-junction 56
- 3. Take-off hook 47
- 4. Vertical piece 20F Cantilever arm 50F End cap
- 5. Profile protection



Safety and dependable operation in focus

Tens of thousands of people, roaring, cheering, all eyes on the game. High above is the headlight system, sustained by an extensive infrastructure of cable support solutions. Downright performance is what everybody expects and what they can count upon.

If the task is to support error-free, reliable lighting for the field and the audience along with power and network supply for broadcasting, only the strongest is good enough. Wibe reinforced ladder KHZPV has an impressive distribution load of 150 kg/m (at 4 m support distance), backed up by sturdy vertical pieces, cantilever arms, junctions,

etc. Another good feature is the profile protection, allowing safe tap-offs with secured maximum bend radius anywhere on the ladder. Equipped with a label, the profile protection can also be used for clear marking and identification.

Accessories and benefits

Screwless joint

When joining two ladders the screwless joint is very handy. Just snap it in place. The joint is suitable for fitting of 90° bends, T- and X-junctions and vertical mounting. No extra earthing is necessary.



Coupler 22

This ingenious coupler allows mounting of horizontal or vertical branches at any desired angle. It can be used for 90° bends, T-junctions, X-junctions or as a riser. In the section Use and installation in this catalogue you will find a number of installation examples.



Take-off hooks

Convenient hooks for use on ladders to make 90° branches. Just hook on and take off at any place on the ladder. Equipped with an extra hole for earthing or when vertical locking of the ladder is needed.



T-bolt 26F

This clever bolt has a rubber pad which allows it to stick anywhere in the fixing rail before it is even fixed. Just apply the T-bolt in the desired position, adjust it if necessary and then fix it in place by tightening the nut.





P138745

Junction box plates

The multi-purpose junction box plate 35S can be mounted in standing or hanging positions on the side sections of the cable ladder. The pre-defined hole pattern fits both LexCom and Actassi connectors.

The junction box plate 35P is intended to be mounted between the rungs of the cable ladder.



P138740

35S

35P



P138749

Tele-conduit

Keep the entire installation tidy and well organised – the tele-conduit enables the ladder to carry both power cables and network cables.



P138755



P138748

Support

The different supports like vertical pieces, fixing rails, cantilever arms and brackets are delivered in numerous sizes, offering swift flexibility as well as strength and organisational qualities to any complex installation.



P138754



P138751

Cable roller

The cable rollers simplify pulling of cables. The rollers are adjustable in height to allow cables to pass underneath. Suitable for 90° bends, T- and X-junctions as well as risers.



P138756

Certified according to DIN4102-12 for fire resistance E30 and E90

The longer the installation is resistant to fire, the longer the electric system will be able to operate normally. Wibe products with E30 and E90 certification can help decrease the number of casualties in the event of a fire. The well-proven, reliable system will prolong the access to critical emergency services, such as fire suppression systems, emergency lighting, ventilation and other basic installations.



The Wibe cable ladders meet the toughest product standards:
IEC 61537
UNE EN ISO 9227
DIN 4102-12 for fire resistance E30 and E90



The Wibe cable ladder system is also approved by Det Norske Veritas (DNV) for offshore and shipyard use.



The Wibe cable ladder system is also approved according to UL E-80034 for use in the US and Canada.

About the test

A selection of the Wibe products have proven excellent fire resistance properties. You can have confidence when installing Wibe cable ladders in environments requiring both E30 and E90 certification.

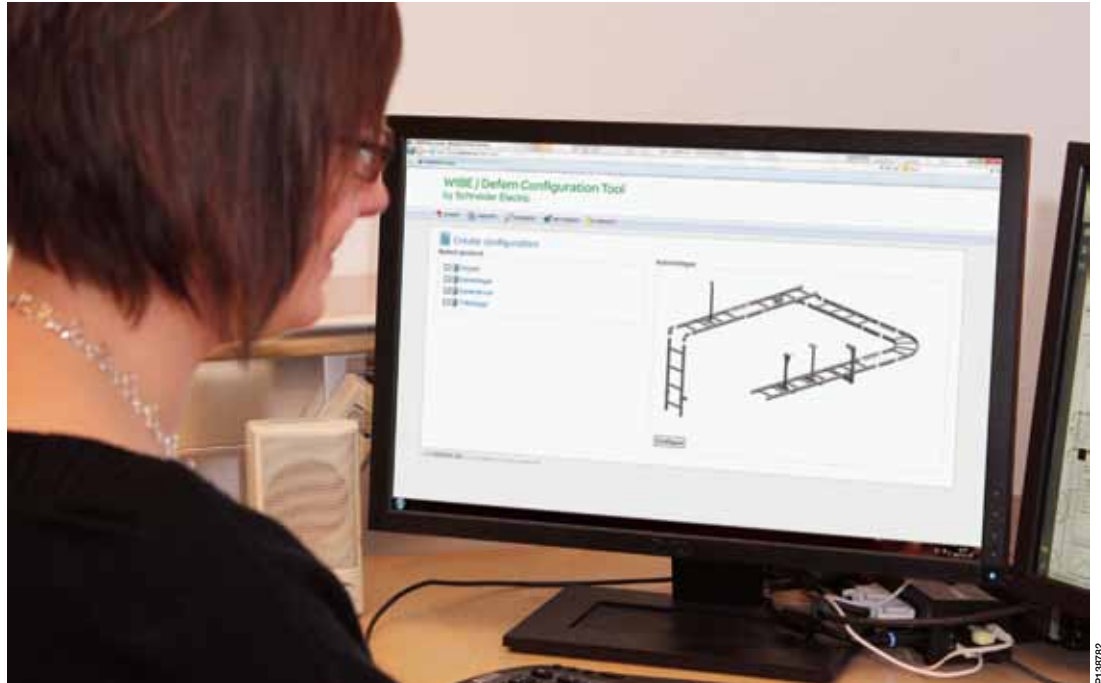
The cable ladders with supporting system and Dätwyler Pyrofil KERAM E30 and E90 cables were tested for 90 minutes in a temperature of up to 1000°C without collapsing and with the electrical performance still remaining intact.

For installation specification please see the Technical section of this catalogue.

Our configuration tool – the right choice



Eliminate waste and maximise usability and efficiency by using our configuration tool. Available at: <http://wibe.combinum.eu/>



The smartest way to be efficient and profitable is to cut down on costs. Material which is either insufficient or oversized, means money down the drain. Our configuration tool helps you calculate the dimensions you need, eliminating waste of your time, money and effort.

Make your specification accurate, flexible and up-to-date

The Wibe/Defem configuration tool is a unique and user-friendly assistant to specifiers, wholesalers and installers. The tool is free of charge and perfect for optimising the amount of material for any given installation. No previous experience is necessary – all you need is a standard web browser and a personal login (provided from Schneider Electric) and you are ready to go.

Make the right choice

It is all about making the right choice. Just specify your requirements regarding environment/corrosion class, load and support distances etc and you will have a customised selection for your

installation. Your calculations are saved, so you can adjust them at any time. The configuration tool is automatically updated as products are launched or replaced, enabling accurate and exact configurations. You can also easily have the BOM (Bill of Material) transferred to Excel to be used as your shopping list.

Today the configuration tool is available in English, Russian and Swedish and more versions are under development.

3.2
million
metres

manufactured each year.
Wibe cable ladders
form the backbone of the
modern infrastructure.

Experience and knowledge take you higher

Creating shared value

Throughout the years we have gained an outstanding amount of knowledge and skill as part of our resources for continuous product development. Another essential contribution to this is the experience of our customers. Together we investigate the needs of today and tomorrow in our common goal towards finding even more effective, sustainable and future-proof solutions. Our close cooperation brings increased knowledge and stronger competitiveness to both parties, resulting in successful projects which draw attention all over the world.



The Wibe cable ladder system handles routing of power, data and control cables. All with outstanding conditions for high performance and problem-free maintenance.



P136722

Burj Khalifa, Dubai. The world's tallest building stretches close to 830 m into the air. As a comparison, the Sears Tower in Chicago reaches 442 m and the Empire State Building in New York comes in at 381 m. Increasing demands on longer, taller and wider constructions call for kilometres of cables and an infrastructure backbone of comprehensive cable support solutions. As the only approved supplier of cable support to the Hyder Consultant with Emaar, Schneider Electric delivered 1,500 pcs of KHZP Cable Ladders (9,000 m).



P136752



P129702

Wibe cable ladders KHZ and KHZP installed at Borealis Stenungsund. Borealis in Sweden supports customers with speciality plastics for some of the largest energy supply, oil and water pipeline projects in the world.



P129687

Wibe cable ladder KHZV installed at Outokumpu Stainless steel, Avesta Sweden.



P128620

Wibe cable ladder KHZP installed at a Nuclear power station in Russia.



P138521

Wibe cable ladder KHZP installed at Lukoil sleet-proof mooring line Varandei, Barents Sea Russia.



P129667

Wibe cable ladders KHZ installed at SSAB Borlänge Steel plant, Sweden.



P129702

Wibe cable ladder KHZP installed at BP/ARCO/Technip – Al Rayyan Development, Qatar.



P129698

Wibe cable ladder KHZP installed at Kista Science Center, Sweden.



P129750

Wibe cable ladder KHZV installed at Gärdstaverken, Sweden.

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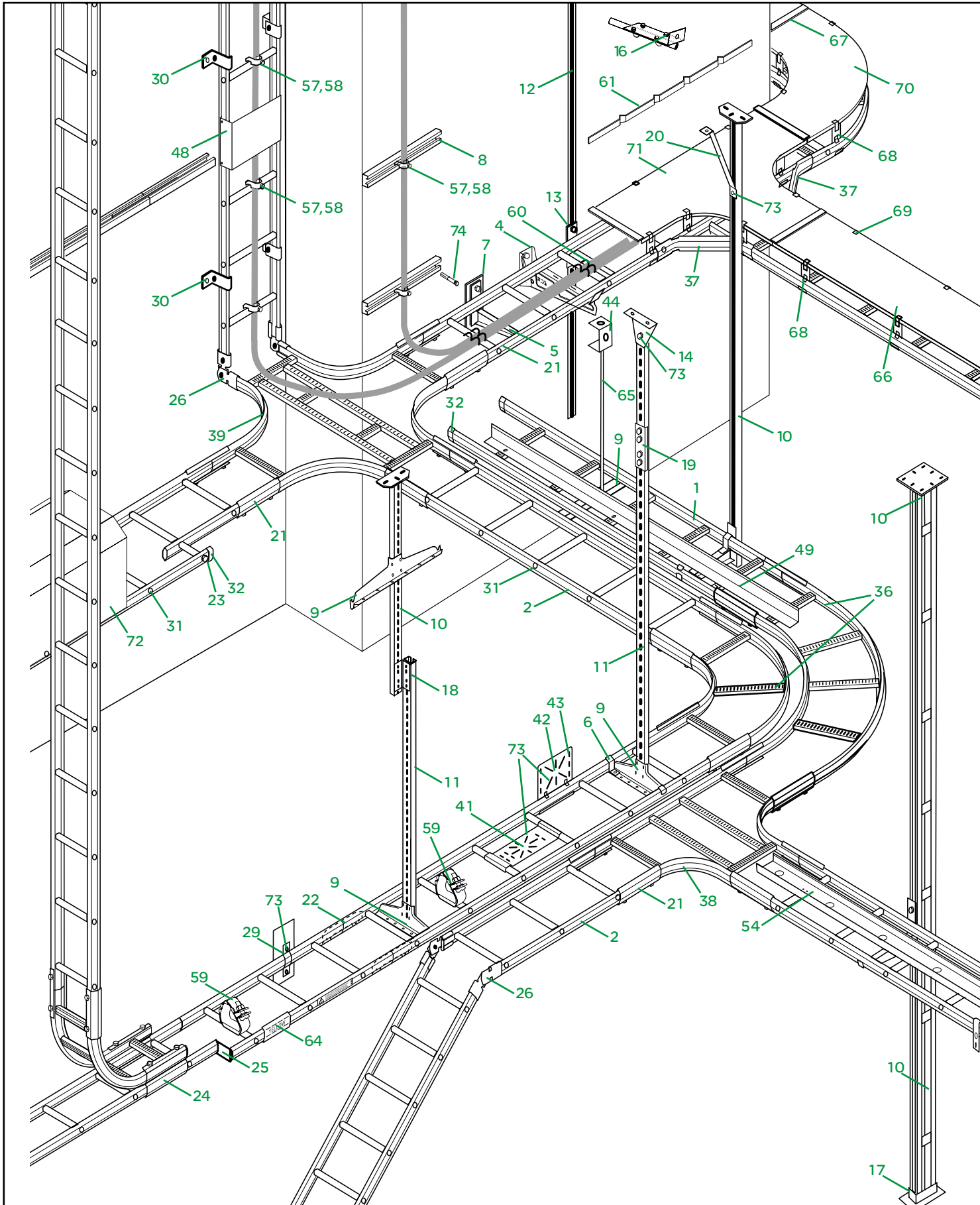
E-90 fire test 140

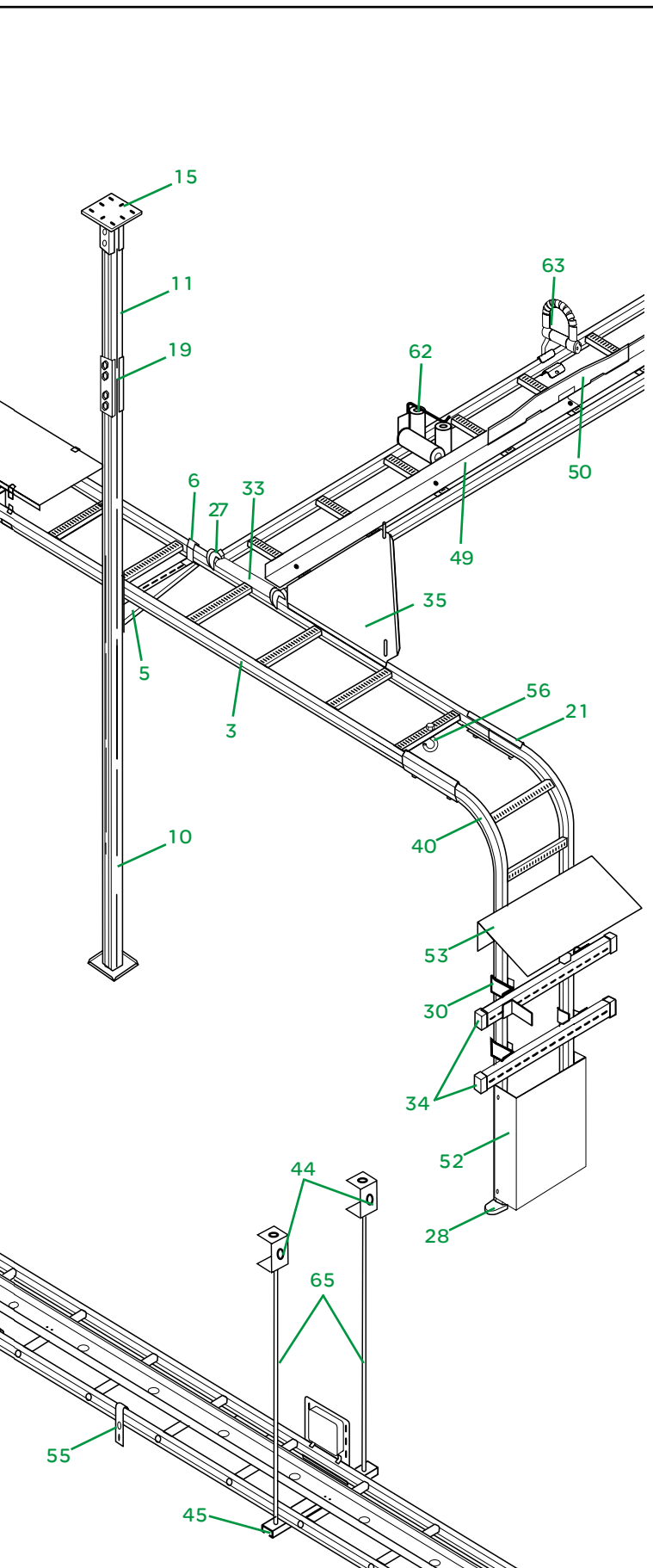
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Installation summary

KHZSP, KHZSPZ, KHZPS, KHZ, KHZP



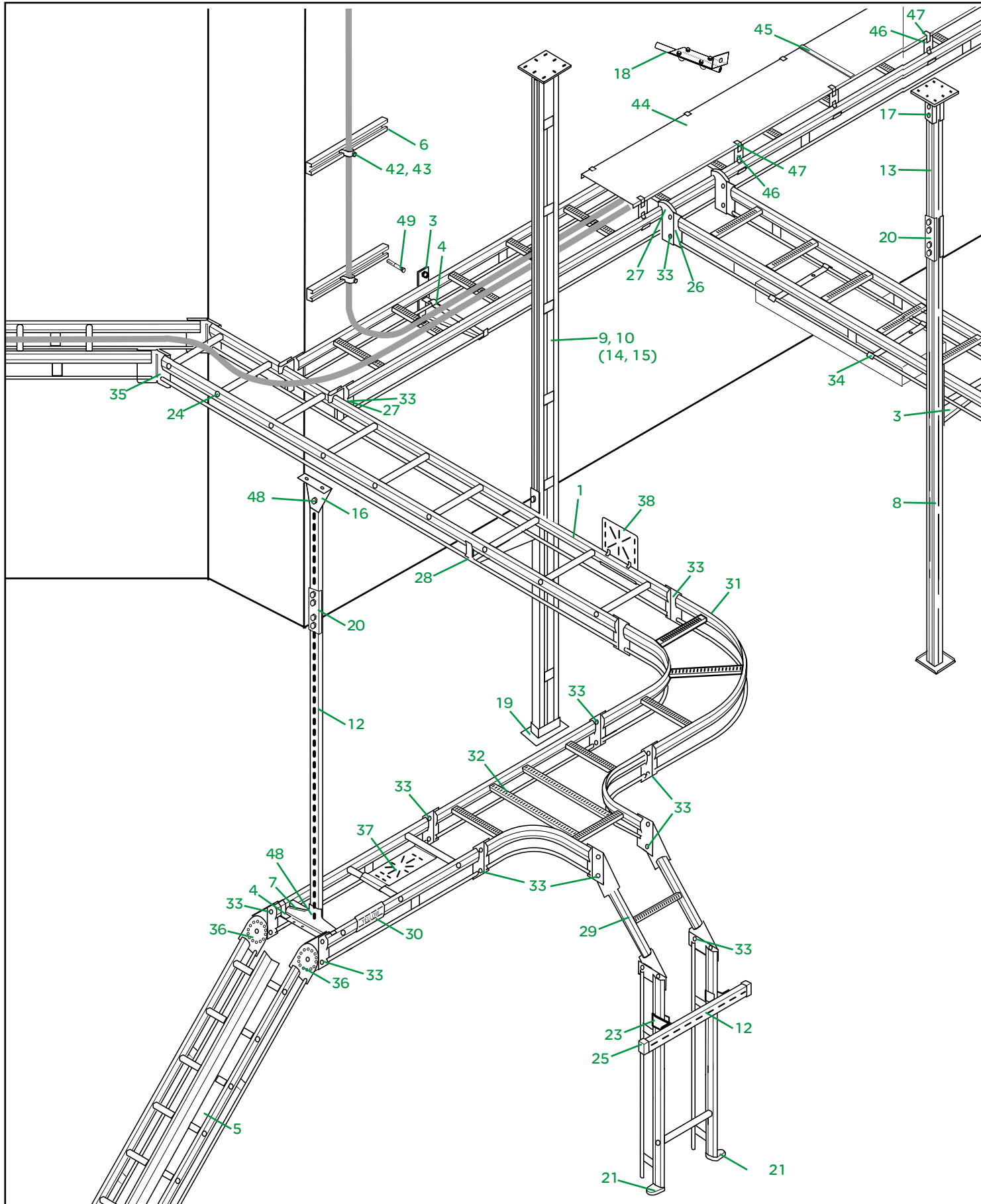


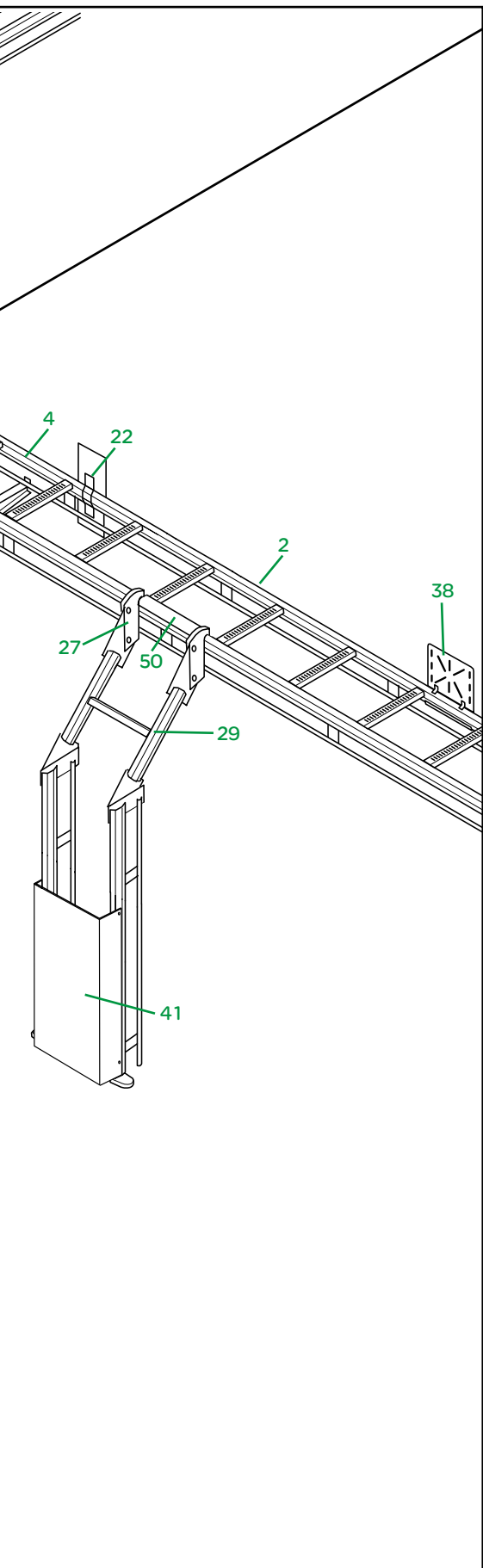
Components

- 1 Cable ladder KHZSP, KHZSPZ
- 2 Cable ladder KHZ
- 3 Cable ladder KHZPS, KHZP
- 4 Cantilever arm 50i
- 5 Cantilever arm 50, 50L, 50F
- 6 Profile clamp 42
- 7 Back plate 40
- 8 Mounting rail 40
- 9 Support bracket 3, Support bracket 6
- 10 Vertical pieces
- 11 Pendant/Fixing rails
- 12 Fixing rail 24/26x53 for casting-in
- 13 T-bolt 26F
- 14 Ceiling bracket 5
- 15 Pendant base plate 520
- 16 Round bar fixings(ceiling,wall,floor)
- 17 Rail fixing support 24/20F, 24/20FS
- 18 End bracket HT-11
- 19 Pendant joint 2J, 2FJ, 20J
- 20 Pendant bar 1
- 21 Joint 21
- 22 Joint 9
- 23 Intermediate connection bolt 29
- 24 Dropper joint 32
- 25 Reducer 31
- 26 Coupler 22
- 27 Fixed take-off hook 4
- 28 End connection 10
- 29 Profile clamp 41
- 30 Wall bracket 11/25, 11/75
- 31 Cross member plug 27
- 32 End plug 28, 28i
- 33 Profile protection 28P
- 34 End plug 28E, 28D, 28C, 28F
- 35 Angle plate 33/1, 33/2
- 36 90° bend 15
- 37 Junction coupler 14
- 38 T-junction 16
- 39 X-junction 17
- 40 Riser 18
- 41 Junction box plate 35P
- 42 Junction box plate 35S
- 43 Earth clamp W79
- 44 Ceiling bracket TF10 and TF16
- 45 Support bracket HSO
- 48 Installation plate 61
- 49 Dividing strip 39
- 50 Distance piece W39
- 52 Cover plate 65
- 53 Junction box cover
- 54 Tele-conduit 36
- 55 Clamp 12
- 56 Hook 8
- 57 Cable clamp A and R
- 58 Insert piece EM
- 59 Cable clamp ER
- 60 Lashing wire
- 61 Mounting rail WMS15, WMS25
- 62 Cable roller S
- 63 Cable roller 38 Rig'n roll/Cable roller set 66
- 64 Marking plate 93
- 65 Threaded rod W76 M10
- 66 Cover W5
- 67 Cover joint
- 68 Profile support piece 37
- 69 Cover clamp
- 70 Cover 90° bend
- 71 Cover T-junction
- 72 Protecting cover
- 73 Screw sets
- 74 Expansion bolts

Installation summary

KHZV, KHZPV



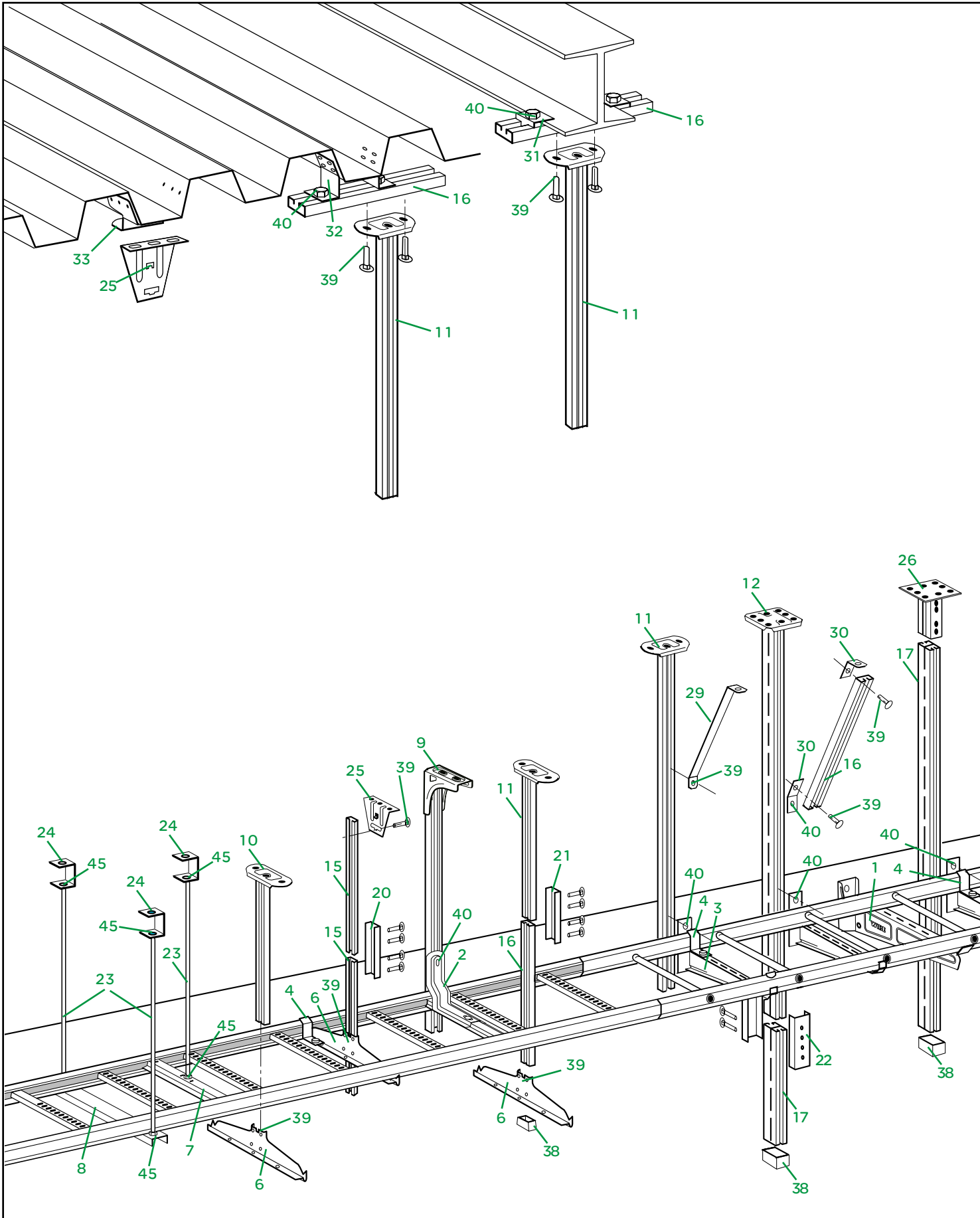


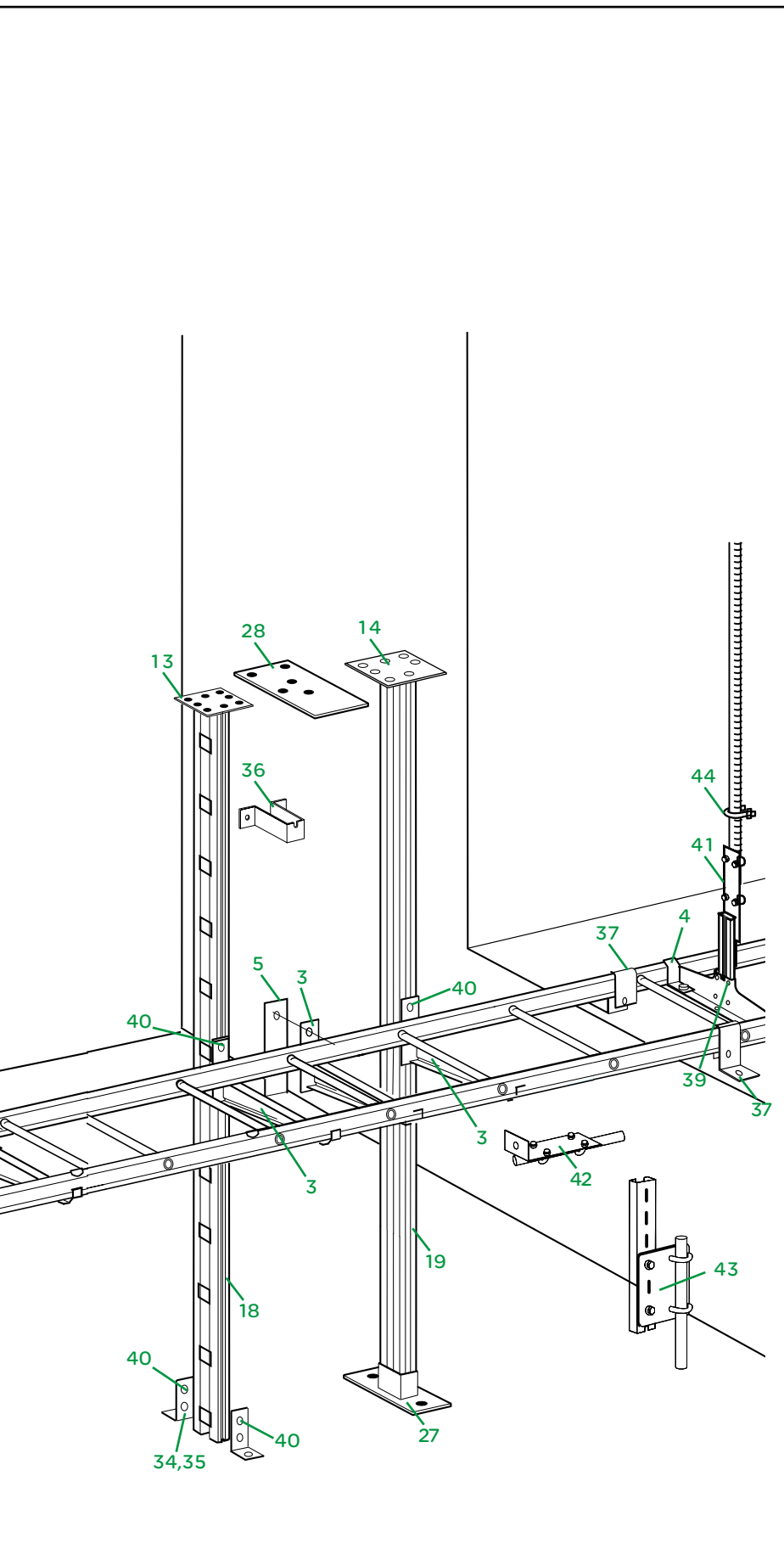
Components

- 1 Cable ladder KHZV
- 2 Cable ladder KHZPV
- 3 Cantilever arm 50F
- 4 Profile clamp 42,43
- 5 Dividing strip 39
- 6 Mounting rail 40
- 7 Support bracket 3
- 8 Vertical piece 20
- 9 Vertical piece 20F
- 10 Vertical piece 20FS
- 12 Pendant/Fixing rail 24/48
- 13 Pendant/Fixing rail 24/20
- 14 Pendant/Fixing rail 24/20F
- 15 Pendant/Fixing rail 24/20FS
- 16 Ceiling bracket 5
- 17 Pendant base plate 520
- 18 Round bar fixings (ceiling, wall, floor)
- 19 Rail fixing support 24/20F, 24/20FS
- 20 Pendant joint 2J, 2 FJ, 20J
- 21 End connection 10
- 22 Profile clamp 41
- 23 Wall bracket 11/25, 11/75
- 24 Cross member plug 27
- 25 End plug 28E, 28D, 28C, 28F
- 26 Joint 45
- 27 Take-off hook 47
- 28 Profile support piece 46
- 29 Riser coupler 49
- 30 Marking plate 93
- 31 90° bend 55
- 32 T-junction 56
- 33 Screw set M12
- 34 Lighting bracket 200
- 35 Coupler 44
- 36 Coupler 51
- 37 Junction box plate 35P
- 38 Junction box plate 35S
- 41 Cover plate 65
- 42 Cable clamp A and R
- 43 Insert piece EM
- 44 Cover W5
- 45 Cover joint
- 46 Profile support piece 37
- 47 Cover clamp
- 48 Screw sets
- 49 Expansion bolts
- 50 Profile protection 28P

Suspension components

KHZSP, KHZSPZ, KHZPS, KHZ, KHZP, KHZV, KHZPV



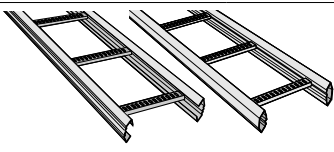






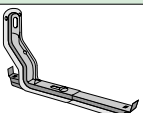






Suspension

- 1 Cantilever arm 50i
- 2 Cantilever arm 30
- 3 Cantilever arm 50L, 50, 50F
- 4 Profile clamp 42
- 5 Back plate 40
- 6 Support bracket 3
- 7 Support bracket 6
- 8 Support bracket HSO
- 9 Vertical piece 2Fi
- 10 Vertical piece 2
- 11 Vertical piece 2F
- 12 Vertical piece 20
- 13 Vertical piece 20F
- 14 Vertical piece 20FS
- 15 Pendant/Fixing rail 24/34
- 16 Pendant/Fixing rail 24/48
- 17 Pendant/Fixing rail 24/20
- 18 Pendant/Fixing rail 24/20F
- 19 Pendant/Fixing rail 24/20FS
- 20 Pendant joint 2J
- 21 Pendant joint 2FJ
- 22 Pendant joint 20J
- 23 Threaded rod W76 M10
- 24 Ceiling bracket TF-10, TF-16
- 25 Ceiling bracket 5
- 26 Pendant base plate 520
- 27 Rail fixing support 24/20F, 24/20FS
- 28 Ceiling plate 20F, 20FS
- 29 Pendant bar 1
- 30 Bracket 60/40
- 31 Beam clamp 5BK
- 32 Ceiling bracket 5TP
- 33 Ceiling bracket 5TPA
- 34 Angle bracket 5L
- 35 Angle bracket 5LS
- 36 Wall bracket 20, 20F
- 37 Wall bracket 11/25, 11/75
- 38 End plug 28E, 28D, 28C, 28F, 28J
- 39 Screw set 2S, 22S
- 40 T-bolts
- 41 Round bar fixing for ceilings
- 42 Round bar fixing for walls
- 43 Round bar fixing for floors
- 44 Clamp set M6
- 45 Nut M10

Choice guide

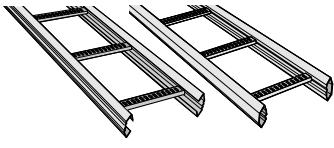
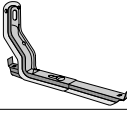


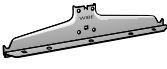
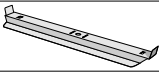




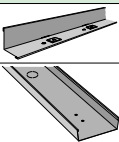
Pre-galvanised

	Complementary accessories		KHZSP 200	KHZSP 300	KHZSP 400	KHZSP 500	KHZSP 600	
	Profile clamp 42	T-bolt or screw set						
Cable ladders								
L=3 metres								
L=4 metres			718572	718573	718574	718575	718576	
L=6 metres			734488	734489	734490	734491	734492	
Joints & Couplers								
Joint 21 click ZM 			CSU795050	CSU795050	CSU795050	CSU795050	CSU795050	
Joint 21 ZM 			CSU795051	CSU795051	CSU795051	CSU795051	CSU795051	
Coupler 22 			721122	721122	721122	721122	721122	
Dropper joint 32 HDG 			734713	734713	734713	734713	734713	
Junction coupler 14 			723212	723212	723212	723212	723212	
Bends								
90° Bend 15 Interior 			723061	723062	723063	723064	723065	
Wall support								
Cantilever arm 30 	721121		727777	727778	727779	727780	727781	
Cantilever arm 50i/81 	721121		791413	791414	791415	780162	780163	
Cantilever arm 50 HDG 	721121		723434	723436	723437	723438	723439	
Wall bracket 11/25 			721105	721105	721105	721105	721105	
Wall bracket 11/75 			721106	721106	721106	721106	721106	

	KHZPS 150	KHZPS 200	KHZPS 300	KHZPS 400	KHZPS 500	KHZPS 600	KHZPS 800	KHZPS 1000
	WBES01745	WBES01746	WBES01747	WSBES01749	WSBES01748	WBES01750	WBES01751	WBES01752
	725350	725351	725352	725353	725354	725355	781099	725356
	CSU795050	CSU795050	CSU795050	CSU795050	CSU795050	CSU795050	CSU795050	CSU795050
	CSU795051	CSU795051	CSU795051	CSU795051	CSU795051	CSU795051	CSU795051	CSU795051
	721122	721122	721122	721122	721122	721122	721122	721122
	734713	734713	734713	734713	734713	734713	734713	734713
	723212	723212	723212	723212	723212	723212	723212	723212
		723061	723062	723063	723064	723065		
		791413	791414	791415	780162	780163		
	723433	723434	723436	723437	723438	723439	727126	727128
	721105	721105	721105	721105	721105	721105	721105	721105
	721106	721106	721106	721106	721106	721106	721106	721106

Choice guide

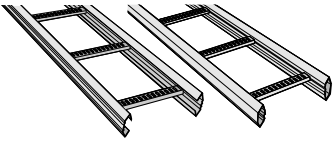



















Pre-galvanised

		Complementary accessories		KHZSP 200	KHZSP 300	KHZSP 400	KHZSP 500	KHZSP 600	
		Profile clamp 42	T-bolt or screw set						
Cable ladders									
L=3 metres				783155	783156	783157	783158	783159	
L=4 metres				718572	718573	718574	718575	718576	
L=6 metres				734488	734489	734490	734491	734492	
Ceiling / floor support									
Cantilever arm 30		721121	M8 734983 M10 734864	727777	727778	727779	727780	727781	
Cantilever arm 50i/81		721121	M8 734983 M10 734864	791413	791414	791415	780162	780163	
Cantilever arm 50 HDG		721121	M8 734983 M10 734864	723434	723436	723437	723438	723439	
Support bracket 3		721121	22S for VP 2/2F 20S for VP 20	721869	721870	721871	721872	721873	
Support bracket 6		721121	Threaded rod M10	727582	727583	727584	727585	727586	
Vertical piece 2Fi-300				792723	792723	792723	792723	792723	
Vertical piece 2Fi-500				792724	792724	792724	792724	792724	
Vertical piece 2Fi-750				792725	792725	792725	792725	792725	
Vertical piece 2Fi-1000				792726	792726	792726	792726	792726	
Vertical piece 2-300 HDG				717191	717191	717191	717191	717191	
Vertical piece 2-400 HDG				717192	717192	717192	717192	717192	
Vertical piece 2-500 HDG				717193	717193	717193	717193	717193	
Vertical piece 2-700 HDG				717194	717194	717194	717194	717194	
Vertical piece 2-1000 HDG				717195	717195	717195	717195	717195	
Vertical piece 2F-280 HDG				717196	717196	717196	717196	717196	
Vertical piece 2F-370 HDG				717197	717197	717197	717197	717197	
Vertical piece 2F-505 HDG				717198	717198	717198	717198	717198	
Vertical piece 2F-640 HDG				CSU794202	CSU794202	CSU794202	CSU794202	CSU794202	
Vertical piece 2F-730 HDG				717199	717199	717199	717199	717199	
Vertical piece 2F-865 HDG				CSU794203	CSU794203	CSU794203	CSU794203	CSU794203	
Vertical piece 2F-1000 HDG				717200	717200	717200	717200	717200	
Longer - see page xx									
Vertical piece 20-280 HDG				CSU794204	CSU794204	CSU794204	CSU794204	CSU794204	
Vertical piece 20-370 HDG				CSU794205	CSU794205	CSU794205	CSU794205	CSU794205	
Vertical piece 20-500 HDG				715723	715723	715723	715723	715723	
Vertical piece 20-640 HDG				CSU794206	CSU794206	CSU794206	CSU794206	CSU794206	
Vertical piece 20-700 HDG				715724	715724	715724	715724	715724	
Vertical piece 20-865 HDG				CSU794207	CSU794207	CSU794207	CSU794207	CSU794207	
Vertical piece 20-1000 HDG				715725	715725	715725	715725	715725	
Longer - see page xx									
Dividers									
Dividing strip 39/24				718835	718835	718835	718835	718835	
Dividing strip 39/55				725785	725785	725785	725785	725785	
Tele-conduit 36-50				725065	725065	725065	725065	725065	
Tele-conduit 36-100				725066	725066	725066	725066	725066	
Tele-conduit 36-200				725067	725067	725067	725067	725067	

	KHZPS 150	KHZPS 200	KHZPS 300	KHZPS 400	KHZPS 500	KHZPS 600	KHZPS 800	KHZPS 1000
	WBES01745	WBES01746	WBES01747	WBES01748	WBES01749	WBES01750	WBES01751	WBES01752
	725350	725351	725352	725353	725354	725355	781099	725356
		791413	791414	791415	780162	780163		
	723433	723434	723436	723437	723438	723439	727126	727128
		721869	721870	721871	721872	721873		
	792723	792723	792723	792723	792723	792723	792723	792723
	792724	792724	792724	792724	792724	792724	792724	792724
	792725	792725	792725	792725	792725	792725	792725	792725
	792726	792726	792726	792726	792726	792726	792726	792726
	717191	717191	717191	717191	717191	717191	717191	717191
	717192	717192	717192	717192	717192	717192	717192	717192
	717193	717193	717193	717193	717193	717193	717193	717193
	717194	717194	717194	717194	717194	717194	717194	717194
	717195	717195	717195	717195	717195	717195	717195	717195
	717196	717196	717196	717196	717196	717196	717196	717196
	717197	717197	717197	717197	717197	717197	717197	717197
	717198	717198	717198	717198	717198	717198	717198	717198
	CSU794202	CSU794202	CSU794202	CSU794202	CSU794202	CSU794202	CSU794202	CSU794202
	717199	717199	717199	717199	717199	717199	717199	717199
	CSU794203	CSU794203	CSU794203	CSU794203	CSU794203	CSU794203	CSU794203	CSU794203
	717200	717200	717200	717200	717200	717200	717200	717200
	CSU794204	CSU794204	CSU794204	CSU794204	CSU794204	CSU794204	CSU794204	CSU794204
	CSU794205	CSU794205	CSU794205	CSU794205	CSU794205	CSU794205	CSU794205	CSU794205
	715723	715723	715723	715723	715723	715723	715723	715723
	CSU794206	CSU794206	CSU794206	CSU794206	CSU794206	CSU794206	CSU794206	CSU794206
	715724	715724	715724	715724	715724	715724	715724	715724
	CSU794207	CSU794207	CSU794207	CSU794207	CSU794207	CSU794207	CSU794207	CSU794207
	715725	715725	715725	715725	715725	715725	715725	715725
	718835	718835	718835	718835	718835	718835	718835	718835
	725785	725785	725785	725785	725785	725785	725785	725785
	725065	725065	725065	725065	725065	725065	725065	725065
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Choice guide







Pre-galvanised





	Complementary accessories		KHZSP 200	KHZSP 300	KHZSP 400	KHZSP 500	KHZSP 600	
	Profile clamp 42	T-bolt or screw set						
Cable ladders								
L=3 metres								
L=4 metres			718572	718573	718574	718575	718576	
L=6 metres			734488	734489	734490	734491	734492	
Cover								
Cover W5			732217	732218	732219	732220	732221	
Cover 90° bend			732323	732324	732325	732326	732327	
Cover T-junction			732346	732347	732348	732349	732350	
Cover joint			712640	712642	712643	712644	712645	
Profile support piece 37			729217	729217	729217	729217	729217	
Cover clamp			712668	712668	712668	712668	712668	
Fixing accessories								
Combi fitting B21			1149159	1149159	1149159	1149159	1149159	
Combi fitting B21 90°			1149191	1149191	1149191	1149191	1149191	
Profile clamp 41			725363	725363	725363	725363	725363	
Angle bracket 5L HDG			731791	731791	731791	731791	731791	
Angle bracket 5LS HDG			709801	709801	709801	709801	709801	
Fixed take-off hook 4								
End connection 10								
Accessories holder								
Junction box plate 35S			711205	711205	711205	711205	711205	
Junction box plate 35S without holes			730245	730245	730245	730245	730245	
Junction box plate 35P			718618	718618	718618	718618	718618	
Cabling support								
Profile protection 28P			732151	732151	732151	732151	732151	
Angle plate 33/1			768733	768733	768733	768733	768733	
Angle plate 33/2			721114	721114	721114	721114	721114	



	KHZPS 150	KHZPS 200	KHZPS 300	KHZPS 400	KHZPS 500	KHZPS 600	KHZPS 800	KHZPS 1000
	WBES01745	WBES01746	WBES01747	WBES01748	WBES01749	WBES01750	WBES01751	WBES01752
	725350	725351	725352	725353	725354	725355	781099	725356
	732216	732217	732218	732219	732220	732221		732222
	732322	732323	732324	732325	732326	732327	781802	732328
	732345	732346	732347	732348	732349	732350	781803	732351
	712639	712640	712642	712643	712644	712645		
	729217	729217	729217	729217	729217	729217		729217
	712668	712668	712668	712668	712668	712668		712668
	1149159	1149159	1149159	1149159	1149159	1149159	1149159	1149159
	1149191	1149191	1149191	1149191	1149191	1149191	1149191	1149191
	725363	725363	725363	725363	725363	725363	725363	725363
	731791	731791	731791	731791	731791	731791	731791	731791
	709801	709801	709801	709801	709801	709801	709801	709801
	709017	709017	709017	709017	709017	709017	709017	709017
	709018	709018	709018	709018	709018	709018	709018	709018
	711205	711205	711205	711205	711205	711205	711205	711205
	730245	730245	730245	730245	730245	730245	730245	730245
	718618	718618	718618	718618	718618	718618	718618	718618
	732151	732151	732151	732151	732151	732151	732151	732151
	768733	768733	768733	768733	768733	768733	768733	768733
	721114	721114	721114	721114	721114	721114	721114	721114





Choice guide

Pre-galvanised

Others		
Screw set 20S HDG		715736
Screw set 2S HDG		715735
Screw set 22S HDG		713694
T-bolt 26F M8 Electro-galv		734983
T-bolt 26F M8 HDG		734744
T-bolt 26F M10 Electro-galv		734864
T-bolt 26F M10 HDG		716794
Cable roller S		718660
Cable roller 38 Rig'n roll		735998

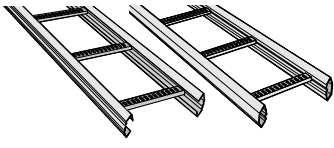

















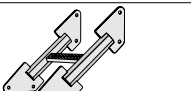




Threaded rod		
Threaded rod W76 M8/1000 electro-galv		725079
Threaded rod W76 M10/2000 electro-galv		716792
Threaded rod W76 M10/3000 electro-galv		716793
Flange nut B43 M8		1149405
Flange nut B43 M10		1149464
Joint nut M8		725083
Joint nut M10		724806
Threaded lock B50 M8		1149456
Threaded lock B50 M10		1149466

Marking identification		
Marking plate 93, Yellow		737704
Marking plate 93, Orange		737705
Marking plate 93, Blue		737706
Marking plate 93, Green		737707
Marking plate 93, Black		737708
Label Potentialutjämning, SE		786860
Label Equipotential Bonding, UK		On request
Label Potentialausgleich, DE		On request

Protection / Stop ends		
Profile protection 28P		732151
End plug 28		709019
End plug 28i		731994
End Plug 28C VP 2 & P/F rail 24/34		789875
End Plug 28D VP 20 & P/F rail 24/20		709020
End Plug 28E VP 2F, 2Fi & P/F rail 24/48		709021
End Plug 28F VP 20FS & P/F rail 24/20FS		789876
End Plug 28J VP 20F & P/F rail 24/20F		CSU794520

Choice guide

Hot-dip galvanised
Perforated rungs

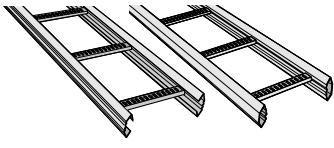

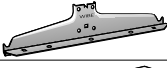
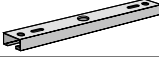
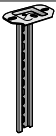


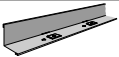
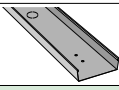



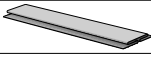


	Complementary accessories		KHZSPZ 200	KHZSPZ 300	KHZSPZ 400	KHZSPZ 500	KHZSPZ 600	
	Profile clamp 42 Profile clamp 43 Profile support piece 46	T-bolt or screw set						
Cable ladders Perforated rungs								
L=3 metres KHZP								
L=6 metres KHZP/SPZ			734494	734495	734496	734497	734498	
L=6 metres KHZPV								
Joints & Couplers								
Joint 21 click ZM 			CSU795050	CSU795050	CSU795050	CSU795050	CSU795050	
Joint 21 ZM 			CSU795051	CSU795051	CSU795051	CSU795051	CSU795051	
Joint 21 HDG 			791199	791199	791199	791199	791199	
Coupler 22 			718409	718409	718409	718409	718409	
Dropper joint 32 HDG 			734713	734713	734713	734713	734713	
Junction coupler 14 			725096	725096	725096	725096	725096	
Screw set M12 for KHZPV 								
Coupler 44 								
Coupler 51 								
Joint 45 								
Bends and Junctions								
90° Bend 15 Interior 			716067	716069	716070	716071	716072	
90° Bend 15 Exterior 			716180	716182	716183	716184	716185	
T-junction 16 			716194	716196	716197	716198	716199	
X-junction 17 			716210	716212	716213	716214	716215	
Riser 18 			718177	718179	718180	718181	718182	
90° Bend 55 Interior 								
T-junction 56 								
Riser coupler 49 								
Wall support								
Cantilever arm 50 	705611		723434	723436	723437	723438	723439	
	707511 708001							
Cantilever arm 50F 	707511 708001							
Wall bracket 11/25 			713204	713204	713204	713204	713204	
Wall bracket 11/75 			713203	713203	713203	713203	713203	

	KHZZP 150	KHZZP 200	KHZZP 300	KHZZP 400	KHZZP 500	KHZZP 600	KHZZP 800	KHZZP 1000
	KHZZPV 150	KHZZPV 200	KHZZPV 300	KHZZPV 400	KHZZPV 500	KHZZPV 600		KHZZPV 1000
	783516	783517	783518	783519	783520	783521	783522	783523
	718562	718563	718564	718565	718566	718567	721960	718568
		717982	717983	717984	717985	717986	-	716400
	CSU795050	CSU795050	CSU795050	CSU795050	CSU795050	CSU795050	CSU795050	CSU795050
	CSU795051	CSU795051	CSU795051	CSU795051	CSU795051	CSU795051	CSU795051	CSU795051
	791199	791199	791199	791199	791199	791199	791199	791199
	718409	718409	718409	718409	718409	718409	718409	718409
	734713	734713	734713	734713	734713	734713	734713	734713
	725096	725096	725096	725096	725096	725096	725096	725096
		706415	706415	706415	706415	706415	-	706415
		720815	720815	720815	720815	720815	-	720815
		731837	731837	731837	731837	731837	-	731837
		707609	707609	707609	707609	707609	-	707609
	716066	716067	716069	716070	716071	716072	721961	716073
	716179	716180	716182	716183	716184	716185	723057	723260
	716193	716194	716196	716197	716198	716199	721962	716200
	716209	716210	716212	716213	716214	716215	721963	716216
	718176	718177	718179	718180	718181	718182	721964	718183
		716241	716243	716244	716245	716246	-	716247
		716255	716257	716258	716259	716260	-	716261
		716389	716390	716391	720517	716392	-	716393
	723433	723434	723436	723437	723438	723439	727126	727128
		723434	723436	723437	723438	723439	-	727128
		718624	718625	718626	718627	718628	-	712465
	713204	713204	713204	713204	713204	713204	713204	713204
	713203	713203	713203	713203	713203	713203	713203	713203

Choice guide

Hot-dip galvanised

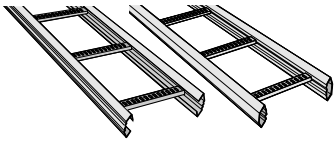













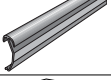

Perforated rungs

	Complementary accessories		KHZSPZ 200	KHZSPZ 300	KHZSPZ 400	KHZSPZ 500	KHZSPZ 600	
	Profile clamp 42	T-bolt or screw set						
Profile clamp 43	Profile support piece 46							
Cable ladders Perforated rungs								
L=3 metres KHZP								
L=6 metres KHZP/SPZ			734494	734495	734496	734497	734498	
L=6 metres KHZPV								
Ceiling / floor support								
Cantilever arm 50 	705611	M8 734744 M10 716794	723434	723436	723437	723438	723439	
	707511 708001							
Cantilever arm 50F	707511 708001	M8 734744 M10 716794						
Support bracket 3 	705611	22S for VP 2/2F 20S for VP 20	720762	720763	720764	720765	720766	
Support bracket HSO 	705611	Threaded rod M10/M16	791064	791065	791066	791067	791068	
Vertical piece 2-300 HDG 			717191	717191	717191	717191	717191	
Vertical piece 2-400 HDG			717192	717192	717192	717192	717192	
Vertical piece 2-500 HDG			717193	717193	717193	717193	717193	
Vertical piece 2-700 HDG			717194	717194	717194	717194	717194	
Vertical piece 2-1000 HDG			717195	717195	717195	717195	717195	
Vertical piece 2F-280 HDG 			717196	717196	717196	717196	717196	
Vertical piece 2F-370 HDG			717197	717197	717197	717197	717197	
Vertical piece 2F-505 HDG			717198	717198	717198	717198	717198	
Vertical piece 2F-640 HDG			CSU794202	CSU794202	CSU794202	CSU794202	CSU794202	
Vertical piece 2F-730 HDG			717199	717199	717199	717199	717199	
Vertical piece 2F-865 HDG			CSU794203	CSU794203	CSU794203	CSU794203	CSU794203	
Vertical piece 2F-1000 HDG			717200	717200	717200	717200	717200	
Longer - see page xx								
Vertical piece 20-280 HDG 			CSU794204	CSU794204	CSU794204	CSU794204	CSU794204	
Vertical piece 20-370 HDG			CSU794205	CSU794205	CSU794205	CSU794205	CSU794205	
Vertical piece 20-500 HDG			715723	715723	715723	715723	715723	
Vertical piece 20-640 HDG			CSU794206	CSU794206	CSU794206	CSU794206	CSU794206	
Vertical piece 20-700 HDG			715724	715724	715724	715724	715724	
Vertical piece 20-865 HDG			CSU794207	CSU794207	CSU794207	CSU794207	CSU794207	
Vertical piece 20-1000 HDG			715725	715725	715725	715725	715725	
Longer - see page xx								
Dividers								
Dividing strip 39/24 			731747	731747	731747	731747	731747	
Dividing strip 39/55			732983	732983	732983	732983	732983	
Tele-conduit 36-50 			731748	731748	731748	731748	731748	
Tele-conduit 36-100			731749	731749	731749	731749	731749	
Tele-conduit 39-200			731750	731750	731750	731750	731750	
Cover								
Cover W5 			732265	732266	732267	732268	732269	
Cover 90° bend 			781434	781435	781436	781437	781438	
Cover T-junction 			781441	781442	781443	781444	781445	
Cover joint 			780453	780454	780455	780456	780457	
Profile support piece 37 			730188	730188	730188	730188	730188	
Cover clamp 			728584	728584	728584	728584	728584	

	KHZP 150	KHZP 200	KHZP 300	KHZP 400	KHZP 500	KHZP 600	KHZP 800	KHZP 1000
	KHZPV 150	KHZPV 200	KHZPV 300	KHZPV 400	KHZPV 500	KHZPV 600		KHZPV 1000
	783516	783517	783518	783519	783520	783521	783522	783523
	718562	718563	718564	718565	718566	718567	721960	718568
		717982	717983	717984	717985	717986	-	716400
	723433	723434	723436	723437	723438	723439	727126	727128
		723434	723436	723437	723438	723439	-	727128
		718624	718625	718626	718627	718628	-	712465
	720761	720762	720763	720764	720765	720766		
	791063	791064	791065	791066	791067	791068		
	717191	717191	717191	717191	717191	717191	717191	717191
	717192	717192	717192	717192	717192	717192	717192	717192
	717193	717193	717193	717193	717193	717193	717193	717193
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	717197	717197	717197	717197	717197	717197	717197	717197
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	CSU794202	CSU794202	CSU794202	CSU794202	CSU794202	CSU794202	CSU794202	CSU794202
	717199	717199	717199	717199	717199	717199	717199	717199
	CSU794203	CSU794203	CSU794203	CSU794203	CSU794203	CSU794203	CSU794203	CSU794203
	717200	717200	717200	717200	717200	717200	717200	717200
	CSU794204	CSU794204	CSU794204	CSU794204	CSU794204	CSU794204	CSU794204	CSU794204
	CSU794205	CSU794205	CSU794205	CSU794205	CSU794205	CSU794205	CSU794205	CSU794205
	715723	715723	715723	715723	715723	715723	715723	715723
	CSU794206	CSU794206	CSU794206	CSU794206	CSU794206	CSU794206	CSU794206	CSU794206
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	732264	732265	732266	732267	732268	732269	782213	732270
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	781440	781441	781442	781443	781444	781445	781796	781446
	780452	780453	780454	780455	780456	780457		
	730188	730188	730188	730188	730188	730188	730188	730188
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Choice guide

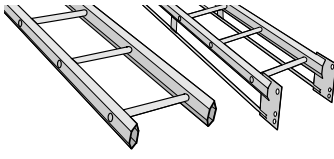












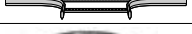



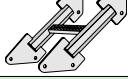


Hot-dip galvanised
Perforated rungs

	Complementary accessories		KHZSPZ 200	KHZSPZ 300	KHZSPZ 400	KHZSPZ 500	KHZSPZ 600		
	Profile clamp 42	T-bolt or screw set							
	Profile clamp 43								
	Profile support piece 46								
Cable ladders Perforated rungs									
L=3 metres KHZP									
L=6 metres KHZP/SPZ			734494	734495	734496	734497	734498		
L=6 metres KHZPV									
Fixing accessories									
Combi fitting B21				1149259	1149259	1149259	1149259	1149259	
Combi fitting B21 90°				1149291	1149291	1149291	1149291	1149291	
Profile clamp 41				720824	720824	720824	720824	720824	
Angle bracket 5L HDG				731791	731791	731791	731791	731791	
Angle bracket 5LS HDG				709801	709801	709801	709801	709801	
Round bar fixing - ceilings HDG				792863	792863	792863	792863	792863	
Round bar fixing - floors HDG				792865	792865	792865	792865	792865	
Round bar fixing - walls HDG				792867	792867	792867	792867	792867	
Fixed take-off hook 4									
End connection 10									
Take-off hook 47									
Accessories holder									
Junction box plate 35S				731746	731746	731746	731746	731746	
Junction box plate 35P				731745	731745	731745	731745	731745	
Cabling support									
Profile protection 28P				732151	732151	732151	732151	732151	
Angle plate 33/2				707748	707748	707748	707748	707748	

	KHZZP 150	KHZZP 200	KHZZP 300	KHZZP 400	KHZZP 500	KHZZP 600	KHZZP 800	KHZZP 1000
	KHZZPV 150	KHZZPV 200	KHZZPV 300	KHZZPV 400	KHZZPV 500	KHZZPV 600		KHZZPV 1000
	783516	783517	783518	783519	783520	783521	783522	783523
	718562	718563	718564	718565	718566	718567	721960	718568
		717982	717983	717984	717985	717986	-	716400
	1149259	1149259	1149259	1149259	1149259	1149259	1149259	1149259
	1149291	1149291	1149291	1149291	1149291	1149291	1149291	1149291
	720824	720824	720824	720824	720824	720824	720824	720824
	731791	731791	731791	731791	731791	731791	731791	731791
	709801	709801	709801	709801	709801	709801	709801	709801
	792863	792863	792863	792863	792863	792863	792863	792863
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	792867	792867	792867	792867	792867	792867	792867	792867
	709017	709017	709017	709017	709017	709017	709017	709017
	709018	709018	709018	709018	709018	709018	709018	709018
		791350	791350	791350	791350	791350	-	791350
	731746	731746	731746	731746	731746	731746	731746	731746
	731745	731745	731745	731745	731745	731745	731745	731745
	732151	732151	732151	732151	732151	732151	732151	732151
	707748	707748	707748	707748	707748	707748	707748	707748

Choice guide

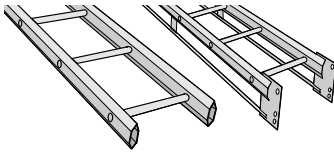

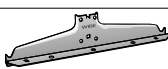
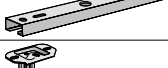




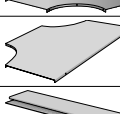


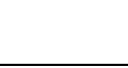

Hot-dip galvanised Round rungs

		Complementary accessories		
		Profile clamp 42 Profile clamp 43 Profile support piece 46	T-bolt or screw set	
Cable ladders Round rungs				
L=6 metres KHZ				
L=6 metres KHZV				
Joints & Couplers				
Joint 21 click ZM				
Joint 21 ZM				
Joint 21 HDG				
Coupler 22				
Dropper joint 32 HDG				
Junction coupler 14				
Screw set M12 for KHZPV				
Coupler 44				
Coupler 51				
Joint 45				
Bends and Junctions				
90° Bend 15 Interior				
90° Bend 15 Exterior				
T-junction 16				
X-junction 17				
Riser 18				
90° Bend 55 Interior				
T-junction 56				
Riser coupler 49				
Wall support				
Cantilever arm 50		705611		
		707511 708001		
Cantilever arm 50F		707511 708001		
Wall bracket 11/25				
Wall bracket 11/75				

	KHZ 150	KHZ 200	KHZ 300	KHZ 400	KHZ 500	KHZ 600
	KHZV 150	KHZV 200	KHZV 300	KHZV 400	KHZV 500	KHZV 600
	768001	768002	768004	768005	768006	768007
		712015	712017	712019	712018	712020
	CSU795050	CSU795050	CSU795050	CSU795050	CSU795050	CSU795050
	CSU795051	CSU795051	CSU795051	CSU795051	CSU795051	CSU795051
	791199	791199	791199	791199	791199	791199
	718409	718409	718409	718409	718409	718409
	734713	734713	734713	734713	734713	734713
	725096	725096	725096	725096	725096	725096
		706415	706415	706415	706415	706415
		720815	720815	720815	720815	720815
		731837	731837	731837	731837	731837
		707609	707609	707609	707609	707609
	716066	716067	716069	716070	716071	716072
	716179	716180	716182	716183	716184	716185
	716193	716194	716196	716197	716198	716199
	716209	716210	716212	716213	716214	716215
	718176	718177	718179	718180	718181	718182
		716241	716243	716244	716245	716246
		716255	716257	716258	716259	716260
		716389	716390	716391	720517	716392
	723433	723434	723436	723437	723438	723439
		723434	723436	723437	723438	723439
		718624	718625	718626	718627	718628
	713204	713204	713204	713204	713204	713204
	713203	713203	713203	713203	713203	713203

Choice guide

Hot-dip galvanised Round rungs

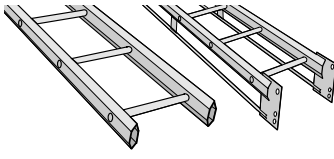













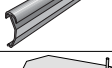

		Complementary accessories	
		Profile clamp 42 Profile clamp 43 Profile support piece 46	T-bolt or screw set
Cable ladders Round rungs			
L=6 metres KHZ			
L=6 metres KHZV			
Ceiling / floor support			
Cantilever arm 50		705611	M8 734744 M10 716794
		707511 708001	
Cantilever arm 50F		707511 708001	M8 734744 M10 716794
Support bracket 3		705611	22S for VP 2/2F 20S for VP 20
Support bracket HSO		705611	Threaded rod M10/M16
Vertical piece 2-300 HDG			
Vertical piece 2-400 HDG			
Vertical piece 2-500 HDG			
Vertical piece 2-700 HDG			
Vertical piece 2-1000 HDG			
Vertical piece 2F-280 HDG			
Vertical piece 2F-370 HDG			
Vertical piece 2F-505 HDG			
Vertical piece 2F-640HDG			
Vertical piece 2F-730HDG			
Vertical piece 2F-865 HDG			
Vertical piece 2F-1000 HDG			
Longer - see page xx			
Vertical piece 20-280 HDG			
Vertical piece 20-370 HDG			
Vertical piece 20-500 HDG			
Vertical piece 20-640 HDG			
Vertical piece 20-700 HDG			
Vertical piece 20-865 HDG			
Vertical piece 20-1000 HDG			
Longer - see page xx			
Dividers			
Dividing strip 39/24			
Dividing strip 39/55			
Tele-conduit 36-50			
Tele-conduit 36-100			
Tele-conduit 39-200			
Cover			
Cover W5			
Cover 90° bend			
Cover T-junction			
Cover joint			
Profile support piece 37			
Cover clamp			

	KHZ 150	KHZ 200	KHZ 300	KHZ 400	KHZ 500	KHZ 600
	KHZV 150	KHZV 200	KHZV 300	KHZV 400	KHZV 500	KHZV 600
	768001	768002	768004	768005	768006	768007
		712015	712017	712019	712018	712020
	723433	723434	723436	723437	723438	723439
		723434	723436	723437	723438	723439
		718624	718625	718626	718627	718628
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	731750	731750	731750	731750	731750	731750
	732264	732265	732266	732267	732268	732269
	781433	781434	781435	781436	781437	781438
	781440	781441	781442	781443	781444	781445
	780452	780453	780454	780455	780456	780457
	730188	730188	730188	730188	730188	730188
	728584	728584	728584	728584	728584	728584

Choice guide

Hot-dip galvanised








Round rungs




	Complementary accessories		
	Profile clamp 42	T-bolt or screw set	
	Profile clamp 43		
	Profile support piece 46		
Cable ladders Round rungs			
L=6 metres KHZ			
L=6 metres KHZV			
Fixing accessories			
Combi fitting B21			
Combi fitting B21 90°			
Profile clamp 41			
Angle bracket 5L HDG			
Angle bracket 5LS HDG			
Round bar fixing - ceilings HDG			
Round bar fixing - floors HDG			
Round bar fixing - walls HDG			
Fixed take-off hook 4			
End connection 10			
Take-off hook 47			
Accessories holder			
Junction box plate 35S			
Junction box plate 35P			
Cabling support			
Profile protection 28P			
Angle plate 33/2			



	KHZ 150	KHZ 200	KHZ 300	KHZ 400	KHZ 500	KHZ 600
	KHZV 150	KHZV 200	KHZV 300	KHZV 400	KHZV 500	KHZV 600
	768001	768002	768004	768005	768006	768007
		712015	712017	712019	712018	712020
	1149259	1149259	1149259	1149259	1149259	1149259
	1149291	1149291	1149291	1149291	1149291	1149291
	720824	720824	720824	720824	720824	720824
	731791	731791	731791	731791	731791	731791
	709801	709801	709801	709801	709801	709801
	792863	792863	792863	792863	792863	792863
	792865	792865	792865	792865	792865	792865
	792867	792867	792867	792867	792867	792867
	709017	709017	709017	709017	709017	709017
	709018	709018	709018	709018	709018	709018
		791350	791350	791350	791350	791350
	731746	731746	731746	731746	731746	731746
	731745	731745	731745	731745	731745	731745
	732151	732151	732151	732151	732151	732151
	707748	707748	707748	707748	707748	707748

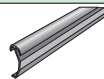



Choice guide

Hot-dip galvanised

Others		
Screw set 20S HDG		715736
Screw set 2S HDG		715735
Screw set 22S HDG		713694
T-bolt 26F M8 30mm		734744
T-bolt 26F M10 30 mm		716794
T-bolt 26F M10 50 mm		716796
Anti-corrosive repair kit		717637
Cable roller S		718660
Cable roller 38 Rig'n roll		735998

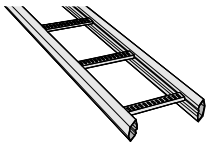










Threaded rod		
Threaded rod W76 M8 8/8/1000		CSU794697
Threaded rod W76 M8 8/8/2000		CSU734698
Flange nut M8		CSU794715
Joint nut M8		CSU794699

Marking identification		
Marking plate 93, Yellow		737704
Marking plate 93, Orange		737705
Marking plate 93, Blue		737706
Marking plate 93, Green		737707
Marking plate 93, Black		737708
Label Potentialutjämning, SE		786860
Label Equipotential Bonding, UK		On request
Label Potentialausgleich, DE		On request

Protection / Stop ends		
Profile protection 28P		732151
End plug 28		709019
End plug 28i		731994
End Plug 28C VP 2 & P/F rail 24/34		789875
End Plug 28D VP 20 & P/F rail 24/20		709020
End Plug 28E VP 2F, 2Fi & P/F rail 24/48		709021
End Plug 28F VP 20FS & P/F rail 24/20FS		789876
End Plug 28J VP 20F & P/F rail 24/20F		CSU794520

Choice guide

Zinkpox Perforated rungs

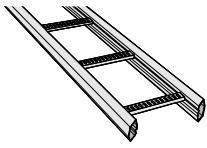

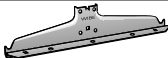





		Complementary accessories		
		Profile clamp 42, 43 Profile support piece 46	T-bolt or screw set	
Cable ladders Perforated rungs				
L=6 metres KHZP				
Joints & Couplers				
Joint 21				
Coupler 22				
Junction coupler 14				
Dropper joint 32				
Bends and Junctions				
90° Bend 15 Interior				
90° Bend 15 Exterior				
T-junction 16				
X-junction 17				
Riser 18				
Wall support				
Cantilever arm 50		714164		
Wall bracket 11/25				
Wall bracket 11/75				

	KHZA 150	KHZA 200	KHZA 300	KHZA 400	KHZA 500	KHZA 600	KHZA 800	KHZA 1000
	718591	718592	718593	718594	718595	718596	728033	718597
	791200	791200	791200	791200	791200	791200	791200	791200
	718410	718410	718410	718410	718410	718410	718410	718410
	790906	790906	790906	790906	790906	790906	790906	790906
	780874	780874	780874	780874	780874	780874	780874	780874
	716074	716075	716077	716078	716079	716080	728043	716081
	716186	716187	716189	716190	716191	716192	728052	728053
	716201	716202	716204	716205	716206	716207	-	716208
	716217	716218	716220	716221	716222	716223	-	716224
	718184	718185	718187	718188	718189	718190	728034	718191
	723441	723442	723444	723445	723446	723447	727783	727785
	713208	713208	713208	713208	713208	713208	713208	713208
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Choice guide

Zinkpox

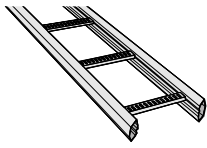







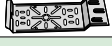
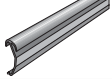

Perforated rungs

	Complementary accessories		
		T-bolt or screw set	
Cable ladders Perforated rungs			
L=6 metres KHZP			
Ceiling / floor support			
Cantilever arm 50 	714164	M8 734744 M10 716794	
Support bracket 3 	714164	22S for VP 2/2F 20S for VP 20	
Vertical piece 2-300			
Vertical piece 2-400			
Vertical piece 2-500			
Vertical piece 2-700			
Vertical piece 2-1000			
Vertical piece 2F-280			
Vertical piece 2F-370			
Vertical piece 2F-505			
Vertical piece 2F-730			
Vertical piece 2F-1000			
Vertical piece 2F-1500			
Vertical piece 20-500			
Vertical piece 20-700			
Vertical piece 20-1000			
Vertical piece 20-1500			
Vertical piece 20-2000			
Vertical piece 20-3000			
Cover			
Cover W5 			
Cover 90° bend 			
Cover T-junction 			
Profile support piece 37 			
Cover clamp 			

	KH2P 150	KH2P 200	KH2P 300	KH2P 400	KH2P 500	KH2P 600	KH2P 800	KH2P 1000
	718591	718592	718593	718594	718595	718596	728033	718597
	723441	723442	723444	723445	723446	723447	727783	727785
	721862	721863	721864	721865	721866	721867	-	-
	716283	716283	716283	716283	716283	716283	716283	716283
	716284	716284	716284	716284	716284	716284	716284	716284
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	781751	781752	781753	781754	781755	781756	781794	781757
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	782382	782382	782382	782382	782382	782382	782382	782382
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Choice guide

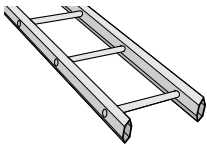










Zinkpox Perforated rungs

	Complementary accessories		
		T-bolt or screw set	
Cable ladders Perforated rungs			
L=6 metres KHZP			
Fixing accessories			
Profile clamp 41			
Angle bracket 5L			
Angle bracket 5LS			
Round bar fixing - ceilings HDG			
Round bar fixing - floors HDG			
Round bar fixing - walls HDG			
Accessories holder			
Junction box plate 35S			
Junction box plate 35P			
Cabling support			
Profile protection 28P			
Angle plate 33/2			

	KHZP 150	KHZP 200	KHZP 300	KHZP 400	KHZP 500	KHZP 600	KHZP 800	KHZP 1000
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	731745	731745	731745	731745	731745	731745	731745	731745
	732151	732151	732151	732151	732151	732151	732151	732151
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Choice guide

Zinkpox
Round rungs

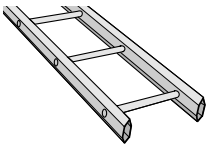

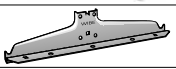
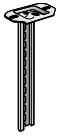







	Complementary accessories		
		T-bolt or screw set	
Cable ladders Round rungs			
L=6 metres KHZ			
Joints & Couplers			
Joint 21			
Coupler 22			
Junction coupler 14			
Dropper joint 32			
Bends and Junctions			
90° Bend 15 Interior			
90° Bend 15 Exterior			
T-junction 16			
X-junction 17			
Riser 18			
Wall support			
Cantilever arm 50		714164	
Wall bracket 11/25			
Wall bracket 11/75			

	KHZ 150	KHZ 200	KHZ 300	KHZ 400	KHZ 500	KHZ 600
	714058	714059	714061	714062	714063	714064
	791200	791200	791200	791200	791200	791200
	718410	718410	718410	718410	718410	718410
	790906	790906	790906	790906	790906	790906
	780874	780874	780874	780874	780874	780874
	716074	716075	716077	716078	716079	716080
	716186	716187	716189	716190	716191	716192
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	723441	734442	723444	723445	723446	723447
	713208	713208	713208	713208	713208	713208
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Choice guide

Zinkpox

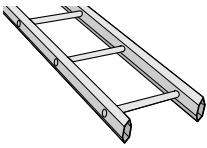








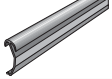

Round rungs

	Complementary accessories	
		T-bolt or screw set
Cable ladders Round rungs		
L=6 meters KHZ		
Ceiling / floor support		
Cantilever arm 50 	714164	M8 734744 M10 716794
Support bracket 3 	714164	22S for VP 2/2F 20S for VP 20
Vertical piece 2-300 Vertical piece 2-400 Vertical piece 2-500 Vertical piece 2-700 Vertical piece 2-1000 		
Vertical piece 2F-280 Vertical piece 2F-370 Vertical piece 2F-505 Vertical piece 2F-730 Vertical piece 2F-1000 Vertical piece 2F-1500 		
Vertical piece 20-500 Vertical piece 20-700 Vertical piece 20-1000 Vertical piece 20-1500 Vertical piece 20-2000 Vertical piece 20-3000 		
Cover		
Cover W5 		
Cover 90° bend 		
Cover T-junction 		
Profile support piece 37 		
Cover clamp 		

	KHZ 150	KHZ 200	KHZ 300	KHZ 400	KHZ 500	KHZ 600
	714058	714059	714061	714062	714063	714064
	723441	723442	723444	723445	723446	723447
	721862	721863	721864	721865	721866	721867
	716283	716283	716283	716283	716283	716283
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	781765	781766	781767	781768	781769	781770
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Choice guide







Zinkpox
Round rungs




	Complementary accessories		
		T-bolt or screw set	
Cable ladders Round rungs			
L=6 metres KHZ			
Fixing accessories			
Profile clamp 41			
Angle bracket 5L			
Angle bracket 5LS			
Round bar fixing - ceilings HDG			
Round bar fixing - floors HDG			
Round bar fixing - walls HDG			
Accessories holder			
Junction box plate 35S			
Junction box plate 35P			
Cabling support			
Profile protection 28P			
Angle plate 33/2			



	KHZ 150	KHZ 200	KHZ 300	KHZ 400	KHZ 500	KHZ 600
	714058	714059	714061	714062	714063	714064
	721945	721945	721945	721945	721945	721945
	731792	731792	731792	731792	731792	731792
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	731745	731745	731745	731745	731745	731745
	732151	732151	732151	732151	732151	732151
	714168	714168	714168	714168	714168	714168





Choice guide

Zinkpox

Others		
Screw set 20S HDG		715736
Screw set 2S HDG		715735
Screw set 22S HDG		713694
T-bolt 26F M8 30mm		734744
T-bolt 26F M10 30 mm		716794
T-bolt 26F M10 50 mm		716796
Cable roller S		718660
Cable roller 38 Rig'n roll		735998

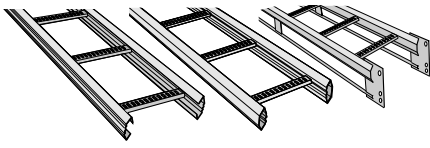
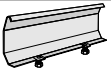




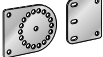








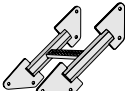



Threaded rod		
Threaded rod B41 M8 316L 1000 mm		1149551
Threaded rod B41 M8 316L 2000 mm		1149552
Threaded rod B41 M10 316L 1000 mm		1149561
Threaded rod B41 M10 316L 2000 mm		1149562
Flange nut B43 M8		1149554
Flange nut B43 M10		1149564
Joint nut M8		725084
Joint nut M10		724807

Marking identification		
Marking plate 93, Yellow		737704
Marking plate 93, Orange		737705
Marking plate 93, Blue		737706
Marking plate 93, Green		737707
Marking plate 93, Black		737708
Label Potentialutjämning, SE		786860
Label Equipotential Bonding, UK		On request
Label Potentialausgleich, DE		On request

Protection / Stop ends		
Profile protection 28P		732151
End plug 28		709019
End plug 28i		731994
End Plug 28C VP 2 & P/F rail 24/34		789875
End Plug 28D VP 20 & P/F rail 24/20		709020
End Plug 28E VP 2F, 2Fi & P/F rail 24/48		709021
End Plug 28F VP 20FS & P/F rail 24/20FS		789876
End Plug 28J VP 20F & P/F rail 24/20F		CSU794520

Choice guide

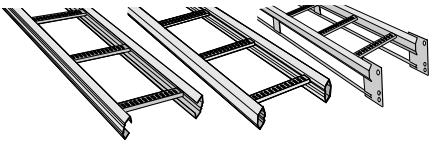

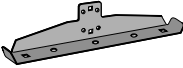
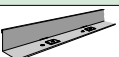





Stainless steel AISI 316L

		Complementary accessories		KHZSP 200	KHZSP 300	KHZSP 400	KHZSPZ 500	KHZSP 600	
		Profile clamp 42 Profile clamp 43 Profile support piece 46	T-bolt or screw set						
Cable ladders									
L=6 metres KHZSP/KHZP				CSU794445	CSU794446	CSU794447	CSU794448	CSU794449	
L=6 metres KHZPV									
Joints & Couplers									
Joint 21				725751	725751	725751	725751	725751	
Coupler 22				725760	725760	725760	725760	725760	
Junction coupler 14				727195	727195	727195	727195	727195	
Screw set M12 for KHZPV									
Coupler 44									
Coupler 51									
Joint 45									
Bends and Junctions									
90° Bend 15 Interior				727347	727348	727349	727350	727351	
90° Bend 15 Exterior				727353	727354	727355	727356	727357	
T-junction 16				727359	727360	727361	727362	727363	
X-junction 17				727365	727366	727367	727368	727369	
Riser 18				727371	727372	727373	727374	727375	
90° Bend 55 Interior									
T-junction 56									
Riser coupler 49									
Wall support									
Cantilever arm 50		725763		725620	725622	725623	725624	725625	
		792893 792877							
Wall bracket 11/25				725774	725774	725774	725774	725774	
Wall bracket 11/75				725775	725775	725775	725775	725775	

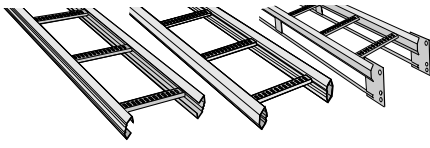










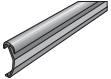


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		KHZZPV 200	KHZZPV 300	KHZZPV 400	KHZZPV 500	KHZZPV 600	KHZZPV 800	KHZZPV 1000
	727382	727383	727384	727385	727386	727387	782128	782129
		784066	784067	784068	784069	784070	784071	784072
	725751	725751	725751	725751	725751	725751	725751	725751
	725760	725760	725760	725760	725760	725760	725760	725760
	727195	727195	727195	727195	727195	727195	727195	727195
		728767	728767	728767	728767	728767	728767	728767
		792880	792880	792880	792880	792880	792880	792880
		731914	731914	731914	731914	731914	731914	731914
		792873	792873	792873	792873	792873	792873	792873
	727346	727347	727348	727349	727350	727351		
	727352	727353	727354	727355	727356	727357		
	727358	727359	727360	727361	727362	727363		
	727364	727365	727366	727367	727368	727369		
	727370	727371	727372	727373	727374	727375		
		792903	792904	792905	792906	792907	792908	792909
		792920	792921	792922	792923	792924	792925	783484
		792880	792881	792882	792883	792884	792885	792886
	725619	725620	725622	725623	725624	725625		
		725620	725622	725623	725624	725625		
	725774	725774	725774	725774	725774	725774	725774	725774
	725775	725775	725775	725775	725775	725775	725775	725775

Choice guide




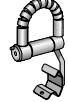
Stainless steel AISI 316L




		Complementary accessories		KHZSP 200	KHZSP 300	KHZSP 400	KHZSPZ 500	KHZSP 600	
		Profile clamp 42 Profile clamp 43 Profile support piece 46	T-bolt or screw set						
Cable ladders									
L=6 metres KHZSP/KHZP				CSU794445	CSU794446	CSU794447	CSU794448	CSU794449	
L=6 metres KHZPV									
Ceiling / floor support									
Cantilever arm 50 	725763	M8 734986 M10 728596	725620	725622	725623	725624	725625		
	792893 792877								
Support bracket 3 	725763	22S for VP 2/2F	726434	726435	726436	726437	726438		
Vertical piece 2-300			725557	725557	725557	725557	725557	725557	
Vertical piece 2-400			725558	725558	725558	725558	725558	725558	
Vertical piece 2-500			725559	725559	725559	725559	725559	725559	
Vertical piece 2-700			725560	725560	725560	725560	725560	725560	
Vertical piece 2-1000			725561	725561	725561	725561	725561	725561	
Vertical piece 2F-280			725562	725562	725562	725562	725562	725562	
Vertical piece 2F-370			725563	725563	725563	725563	725563	725563	
Vertical piece 2F-505			725564	725564	725564	725564	725564	725564	
Vertical piece 2F-730			725565	725565	725565	725565	725565	725565	
Vertical piece 2F-1000			725566	725566	725566	725566	725566	725566	
Vertical piece 2F-1500			725568	725568	725568	725568	725568	725568	
Vertical piece 20-500			725567	725567	725567	725567	725567	725567	
Vertical piece 20-700			725568	725568	725568	725568	725568	725568	
Vertical piece 20-1000			725569	725569	725569	725569	725569	725569	
Vertical piece 20-1500			725570	725570	725570	725570	725570	725570	
Vertical piece 20-2000			725571	725571	725571	725571	725571	725571	
Vertical piece 20-3000			725572	725572	725572	725572	725572	725572	
Dividers									
Dividing strip 39/24 		W34	725593	725593	725593	725593	725593	725593	
Dividing strip 39/55		W34	725594	725594	725594	725594	725594	725594	
Tele-conduit 36-50			725590	725590	725590	725590	725590	725590	
Tele-conduit 36-100		W34	725591	725591	725591	725591	725591	725591	
Tele-conduit 39-200			725592	725592	725592	725592	725592	725592	
Cover									
Cover W5 			732292	732293	732294	732295	732296		
Cover 90° bend 			788640	788641	788642	788643	788644		
Cover T-junction 			788648	788649	788650	788651	788652		
Profile support piece 37 			730190	730190	730190	730190	730190	730190	
Cover clamp 			728586	728586	728586	728586	728586	728586	



	KHZP 150	KHZP 200	KHZP 300	KHZP 400	KHZP 500	KHZP 600	KHZP 800	KHZP 1000
		KHZPV 200	KHZPV 300	KHZPV 400	KHZPV 500	KHZPV 600	KHZPV 800	KHZPV 1000
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		725620	725622	725623	725624	725625		
	726433	726434	726435	726436	726437	726438		
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	725591	725591	725591	725591	725591	725591	725591	725591
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	732291	732292	732293	732294	732295	732296	783375	732297
	788639	788640	788641	788642	788643	788644	788645	788646
	788647	788648	788649	788650	788651	788652	788653	788654
	730190	730190	730190	730190	730190	730190	730190	730190
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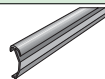



	Complementary accessories		KHZSP 200	KHZSP 300	KHZSP 400	KHZSPZ 500	KHZSP 600	
	Profile clamp 42 Profile clamp 43 Profile support piece 46	T-bolt or screw set						
Cable ladders								
L=6 metres KHZSP/KHZP			CSU794445	CSU794446	CSU794447	CSU794448	CSU794449	
L=6 metres KHZPV								
Fixing accessories								
Combi fitting B21			1149359	1149359	1149359	1149359	1149359	
Combi fitting B21 90°			1149391	1149391	1149391	1149391	1149391	
Angle bracket 5L			731793	731793	731793	731793	731793	
Angle bracket 5LS			725636	725636	725636	725636	725636	
Round bar fixing - ceilings			792864	792864	792864	792864	792864	
Round bar fixing - floors			792866	792866	792866	792866	792866	
Round bar fixing - walls			792868	792868	792868	792868	792868	
Take-off hook 47								
Accessories holder								
Junction box plate 35S			725776	725776	725776	725776	725776	
Junction box plate 35P			725777	725777	725777	725777	725777	
Cabling support								
Profile protection 28P			732151	732151	732151	732151	732151	
Angle plate 33/1			727340	727340	727340	727340	727340	
Angle plate 33/2			727197	727197	727197	727197	727197	

	KHZP 150	KHZP 200	KHZP 300	KHZP 400	KHZP 500	KHZP 600	KHZP 800	KHZP 1000
		KHZPV 200	KHZPV 300	KHZPV 400	KHZPV 500	KHZPV 600	KHZPV 800	KHZPV 1000
	727382	727383	727384	727385	727386	727387	782128	782129
		784066	784067	784068	784069	784070	784071	784072
	1149359	1149359	1149359	1149359	1149359	1149359	1149359	1149359
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	731793	731793	731793	731793	731793	731793	731793	731793
	725636	725636	725636	725636	725636	725636	725636	725636
	792864	792864	792864	792864	792864	792864	792864	792864
	792866	792866	792866	792866	792866	792866	792866	792866
	792868	792868	792868	792868	792868	792868	792868	792868
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	725777	725777	725777	725777	725777	725777	725777	725777
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	727340	727340	727340	727340	727340	727340	727340	727340
	727197	727197	727197	727197	727197	727197	727197	727197

Others		
Screw set 22S		725582
Screw set W34		725589
T-bolt 26F M8 30 mm		734986
T-bolt 26F M10 30 mm		728596
T-bolt 26F M10 50 mm		728598
Cable roller 38 Rig'n roll		735998

Threaded rod		
Threaded rod B41 M8 316L 1000 mm		1149551
Threaded rod B41 M8 316L 2000 mm		1149552
Threaded rod B41 M10 316L 1000 mm		1149561
Threaded rod B41 M10 316L 2000 mm		1149562
Flange nut B43 M8		1149554
Flange nut B43 M10		1149564
Joint nut M8		725084
Joint nut M10		724807


Marking identification		
Marking plate 93, Yellow		737704
Marking plate 93, Orange		737705
Marking plate 93, Blue		737706
Marking plate 93, Green		737707
Marking plate 93, Black		737708
Label Potentialutjämning, SE		786860
Label Equipotential Bonding, UK		On request
Label Potentialausgleich, DE		On request

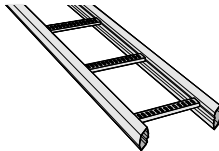
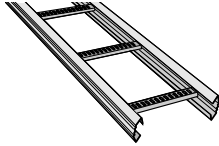
Protection / Stop ends		
Profile protection 28P		732151
End plug 28		709019
End plug 28i		731994
End Plug 28C VP 2 & P/F rail 24/34		789875
End Plug 28E VP 2F, 2Fi & P/F rail 24/48		709021
End Plug 28J VP 20F & P/F rail 24/20F		CSU794520

Steel cable ladders

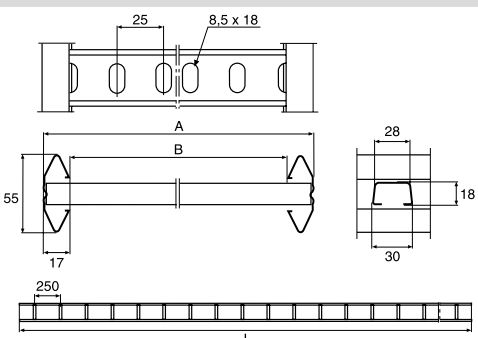
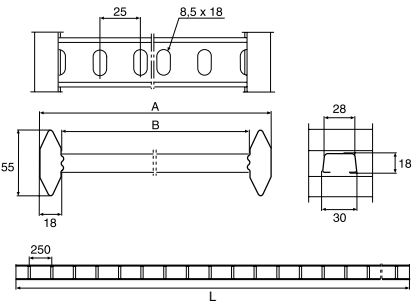
Pre-galvanised
Corrosion class C2

Cable ladders




Type	Dimensions A/B/C mm		Weight kg/100 m	EAN code	Ref. No.
Cable ladders KHZSP					
Cable ladder for indoor applications in dry environments. With open side profiles and profile-shaped rungs. Must not be used as walkway. Material: Steel, pre-galvanised.					
KHZSP-200	55/198/4000 55/198/6000		198	7321677185726 7321677344888	718572 734488
KHZSP-300	55/298/4000 55/298/6000		217	7321677185733 7321677344895	718573 734489
KHZSP-400	55/398/4000 55/398/6000		237	7321677185740 7321677344901	718574 734490
KHZSP-500	55/498/4000 55/498/6000		257	7321677185757 7321677344918	718575 734491
KHZSP-600	55/598/4000 55/598/6000		277	7321677185764 7321677344925	718576 734492
Cable ladders KHZPS					
Cable ladder for indoor applications in dry environments. With closed side profiles and profile-shaped rungs. Must not be used as walkway. Material: Steel, pre-galvanised.					
KHZPS-150	55/147/3000 55/147/6000		225	7321677253500	WBES01745 725350
KHZPS-200	55/197/3000 55/197/6000		235	7321677253517	WBES01746 725351
KHZPS-300	55/297/3000 55/297/6000		255	7321677253524	WBES01747 725352
KHZPS-400	55/397/3000 55/397/6000		275	7321677253531	WBES01748 725353
KHZPS-500	55/497/3000 55/497/6000		300	7321677253548	WBES01749 725354
KHZPS-600	55/597/3000 55/597/6000		315	7321677253555	WBES01750 725355
KHZPS-800	55/797/3000 55/797/6000		410	7321677810994	WBES01751 781099
KHZPS-1000	55/997/3000 55/997/6000		490	7321677253562	WBES01752 725356





Dimension table

Type	A mm	B mm	L mm	Ref. No.	
	KHZSP-200	198	164	4000 6000	718572 734488
	KHZSP-300	298	264	4000 6000	718573 734489
	KHZSP-400	398	364	4000 6000	718574 734490
	KHZSP-500	498	464	4000 6000	718575 734491
	KHZSP-600	598	564	4000 6000	718576 734492
		KHZPS-150	147	111	3000 6000
KHZPS-200		197	161	3000 6000	WBES01746 725351
KHZPS-300		297	261	3000 6000	WBES01747 725352
KHZPS-400		397	361	3000 6000	WBES01748 725353
KHZPS-500		497	461	3000 6000	WBES01749 725354
KHZPS-600		597	561	3000 6000	WBES01750 725355
KHZPS-800		797	761	3000 6000	WBES01751 781099
KHZPS-1000		997	961	3000 6000	WBES01752 725356



Joins

Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Joint 21				
Joint to be used for rigid joining of cable ladders, bends, junctions and risers. Snap-on and fixed by two screws. It also reduces the transition resistance and prevents the ladders from slipping apart. M6 screws included. Material: Steel, ZnAlMg.				
P138809 	21 ZM	64/22/300	46	3606480574856 CSU795051
Joint to be used for rigid joining of cable ladders, bends, junctions and risers. Snap-on and fixed by bending the hooks with a screw driver. It also reduces the transition resistance and prevents the ladders from slipping apart. Material: Steel, ZnAlMg.				
P138810 	21 ZM	64/32/200	33	3606480574849 CSU795050
Joint 9				
Joint to be used for straight joining of cable ladders KHZ, KHZP and KHZPS. The teeth of the joint should face downwards. Under load, the ladders are prevented from slipping apart. If the joint is above a bracket, the teeth should face upwards. Material: Steel, pre-galvanised.				
B22411 	9	52/4/200	16	7321677211159 721115

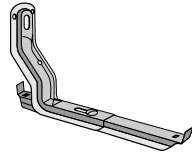


Couplers

Coupler 22				
Coupler to be used for horizontal or vertical branches at any desired angle. M6 screws included. Material: Steel, pre-galvanised.				
P129986 	22	60/24/150	21	7321677211227 721122
Junction coupler 14				
Junction coupler to be used for T- and X-junctions. Suitable for cable ladders KHZ, KHZP, KHZSP and KHZPS, all cable widths. M6 screws included. Material: Steel, pre-galvanised.				
P129985 	14	65/73/350	49	7321677232123 723212


Clamps

Profile clamp 42				
Profile clamp to be used for installations where the cable ladder is to be fixed to cantilever arms, support brackets, etc. Screw M8 and nut included. Material: Steel, pre-galvanised.				
P129989 	42	54/58/30	11	7321677211210 721121
Profile clamp 41				
Profile clamp to be used to install a pendant/fixing rail or mounting plate, etc., on the cable ladder profile. Material: Steel, pre-galvanised.				
B223506 	41	125/30/16	10	7321677253630 725363

Cantilever arms

Cantilever arm 30				
Cantilever arm for installation inside cable ladder KHZSP. Material: Steel, pre-galvanised.				
B223315 	30-200	80/185/184	90	7321677277773 727777
	30-300	80/185/284	110	7321677277780 727778
	30-400	80/185/384	120	7321677277797 727779
	30-500	80/185/484	140	7321677277803 727780
	30-600	80/185/584	160	7321677277810 727781
Cantilever arm 50i and 81				
Cantilever arm to be used for lighter mountings on walls, vertical pieces or pendant/fixing rails. Cantilever arm 81 to be used for widths 500-600 mm. Material: Steel, pre-galvanised.				
P138932 	50i-200	85/43/250	29	7321677914135 791413
	50i-300	110/43/350	46	7321677914142 791414
	50i-400	115/44/450	83	7321677914159 791415
P138933 	81-500	150/40/568	100	7321677801626 780162
	81-600	150/40/658	140	7321677801633 780163

Wall and support brackets

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Wall bracket 11/25 and 11/75					
Wall bracket to be used for vertical or horizontal installations of cable ladders against a wall. Maximum loads for vertical mounting: 300 kg (3 kN). For mounting against a rung the max. load is 500 kg (5 kN) for 11/25. Maximum loads for horizontal mounting: 11/25 250 kg (2.5 kN), 11/75 100 kg (1 kN). Material: Steel, pre-galvanised.					
11/25	85/40/71		24	7321677211050	721105
11/75	135/40/71		30	7321677211067	721106
Support bracket 3					
Support bracket to be used for centre installation of cable ladders on pendant/fixing rails and vertical pieces. Material: Steel, pre-galvanised.					
3-200	92/57/200		33	7321677218691	721869
3-300	92/57/300		58	7321677218707	721870
3-400	92/57/400		78	7321677218714	721871
3-500	92/57/500		120	7321677218721	721872
3-600	92/57/600		145	7321677218738	721873
Support bracket 6					
Support bracket to be used for centre installation of cable ladders KHZSP. Material: Steel, pre-galvanised.					
6-200	37/80/184		27	7321677275823	727582
6-300	37/80/284		45	7321677275830	727583
6-400	37/80/384		63	7321677275847	727584
6-500	37/80/484		81	7321677275854	727585
6-600	37/80/584		99	7321677275861	727586


Vertical pieces

Vertical piece 2Fi					
Vertical piece to be used for lighter mountings with Cantilever arm 50i and Cable ladder KHZSP. Material: Steel, pre-galvanised.					
2Fi-300	272/134/54		97	7321677927234	792723
2Fi-500	497/134/54		137	7321677927241	792724
2Fi-750	722/134/54		177	7321677927258	792725
2Fi-1000	922/134/54		225	7321677927265	792726

Pendant/Fixing rails

Pendant/Fixing rail 24/34					
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc. Material: Steel, pre-galvanised.					
24/34	292.5/16/42		23	7321677253579	725357
24/34	382.5/16/42		31	7321677253586	725358
24/34	495/16/42		40	7321677253593	725359
24/34	697.5/16/42		56	7321677253609	725360
24/34	990/16/42		80	7321677253616	725361
24/34	2970/16/42		240	7321677211029	721102
Pendant/Fixing rail 24/48					
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc. Material: Steel, pre-galvanised.					
24/48	2970/26/48		520	7321677317172	731717
24/48	5940/26/48		1120	7321677317219	731721

Pendant bars

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Pendant bar 1					
Pendant bar to be installed in order to reduce the deflection of heavily loaded vertical pieces. Installed with T-bolt and Expansion bolt. Material: Steel, pre-galvanised.					
1-300	315/161/40		35	7321677927272	792727
1-500	515/166/40		53	7321677927289	792728
1-800	815/246/40		82	7321677927296	792729

Pendant joint

Pendant joint 2J					
Pendant joint to be used for joining pendant/fixing rails and vertical pieces. Screw M8x16 and nuts included. Material: Steel, pre-galvanised.					
2J	200/48/18		43	7321677211197	721119


Ceiling brackets

Ceiling bracket 5					
Ceiling bracket to be used for installations with Pendant/Fixing rails 24/34 and 24/48. Screw not included. Material: Steel, pre-galvanised.					
5	100/135/40		35	7321677211012	721101
Ceiling bracket 5TPA					
Ceiling bracket with telescopic function, to be used for mounting of various sizes of trapezoid plates. Including screw MVBF 8x16 and nut M6MF8. Breaking load: 150 kg without deformation. Material: Steel, pre-galvanised.					
5TPA	50/76/79-118		14	7321677321773	732177
Ceiling bracket 5TP					
Ceiling bracket to be used in trapezoidal sheeting for installations of Pendant/Fixing rail 24/48. Material: Steel, pre-galvanised.					
5TP	71/35/50		12	7321677253623	725362
Ceiling bracket 2Fi					
Ceiling bracket to be used on Pendant/fixing rail 24/48 to achieve the desired length of vertical pieces. Material: Steel, pre-galvanised.					
2Fi	131/134/54		50	7321677925544	792554

Threaded rod

Threaded rod W76					
Threaded rod to be used for installations of cable ladders and lighting trunking. Joint nuts are used for the joining of Threaded rods W76. Material: Steel, electro-galvanised.					
W76 M8-1000	M8/1000		32	7321677250790	725079
W76 M10-2000	M10/2000		100	7321677167920	716792
W76 M10-3000	M10/3000		150	7321677167937	716793
Joint nut M8	40/15/13		5.6	7321677250837	725083
Joint nut M10	40/18.5/16		7.2	7321677248063	724806
Flange nut B43					
Flange nut to be mounted onto Threaded rod W76 in order to lock it to the Support hook and the Ceiling fittings. Package of 50 pcs. Material: Steel, electro-galvanised.					
B43/M8	17/17/8		0.4/bag	7321677888474	1149405
B43/M10	20/20/15		0.56/bag	7332227014649	1149464
Thread lock B50					
Thread lock to be used when joining Threaded rods. Material: Steel, electro-galvanised.					
B50/M8	10/20/35		1	7332227014564	1149456
B50/M10	12/24/35		2	7332227014663	1149466

Take-off hook, end connection

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Fixed take-off hook 4					
Fixed take-off hook to be used for 90° horizontal branches. Material: Aluminium.					
4	71/86/19		8	7321677090174	709017
End connection 10					
End connection to be used for the connection of a ladder vertically to a floor or horizontally to a wall. Material: Aluminium.					
10	60/55/60		8	7321677090181	709018

Fittings for mesh trays

Combi-fittings B21					
Combi-fitting to be used when mounting mesh trays onto cable ladders. Material: Steel, electro-galvanised.					
B21	250/20/50		44	7332227011594	1149159
B21 90 degrees	120/50/135		44	7332227011914	1149191


Installation and box plates

Installation plate 61					
Installation plate to be used on vertical cable ladder installations for mounting of terminal boxes, contact breakers, etc. Material: Steel, pre-galvanised.					
61-200	310/200/70		100	7321677324866	732486
61-300	310/300/70		140	7321677324873	732487
61-400	310/400/70		170	7321677324880	732488
61-500	310/500/70		240	7321677324897	732489
61-600	310/600/70		270	7321677324903	732490
Junction box plate 35S					
Junction box plate, holed or unholed, to be installed upright or hanging from the profile. Locked with locking tabs. For junction boxes, electric light fittings, etc. Material: Steel, pre-galvanised.					
35S holed	164/20/170		22	7321677112050	711205
35S unholed	164/20/170		23	7321677302451	730245
Junction box plate 35P					
Junction box plate with holes, to be installed between rungs. Locked with appropriate locking tabs for each ladder. For junction boxes, electric light fittings, etc. Material: Steel, pre-galvanised.					
35P	21/106/250		28	7321677186181	718618
Box plate 62					
Box plate to be used for mounting of outlets and junction boxes on walls, ceilings or floors. Material: Steel, pre-galvanised.					
62-100	100/15/130		12	7321677834600	783460
62-200	200/15/130		24	7321677834617	783461

Outlet and junction box sets

Outlet					
Outlet, 2-way, enclosed IP44, mounted on a Junction box plate 35S. Material: Steel, pre-galvanised.					
35S	164/64/170		35	7321677342259	734225
Outlet, 2-way, unenclosed IP21, mounted on a Junction box plate 35S. Material: Steel, pre-galvanised.					
35S	164/58/170		33	7321677342266	734226

Outlet and junction box sets

Type	Dimensions A/B/C mm 	Weight kg/100 pcs	EAN code	Ref. No.
Junction box				
Junction box, IP65, mounted on a Junction box plate 35S. Material: Steel, pre-galvanised.				
35S With junction box MP	164/56/170	34	7321677319626	731962
35S With junction box UP	164/56/170	32	7321677319619	731961
Earth clamp W79				
Earth clamp to be used when protective earthing of the junction box plate is required. Material: Steel, pre-galvanised.				
W79	Screw M4/-/4.5	0.2	7321677166404	716640

Bends

90° bend 15, interior				
Interior bend piece to be fitted to the cable ladders by using Joint 21, creating a 90° bend. Inner radius 268 mm. Material: Steel, pre-galvanised.				
15-200	55/597/597	240	7321677230617	723061
15-300	55/697/697	290	7321677230624	723062
15-400	55/797/797	340	7321677230631	723063
15-500	55/897/897	390	7321677230648	723064
15-600	55/997/997	440	7321677230655	723065

Tele-conduits

Tele-conduit 36				
Tele-conduit to be used where a separate tray is required for low-tension cables. Knock-out holes in the bottom of the channel permit the cables to pass through. Material: Steel, pre-galvanised.				
36-50	50/24/2000	94	7321677250653	725065
36-100	100/24/2000	142	7321677250660	725066
36-200	200/24/2000	238	7321677250677	725067


Dividers

Dividing strip 39				
Dividing strip to be used to separate low-tension and high-tension cables. Material: Steel, pre-galvanised.				
39/24	24/24/1760	46	7321677188352	718835
39/55	55/24/1750	73	7321677257850	725785
Distance piece W39				
Distance piece to be used for the joining of Dividing strips 39. Material: Plastic, natural coloured.				
W39	37/-/330	3	7321677168248	716824

Covers/Cover plates

Cover W5				
Cover to be used to protect the cable runs from dust, dirt, liquids, etc. Outdoors, it protects against rain and sun. Suitable for all cable ladders. Material: Steel, pre-galvanised.				
W5-60	11/63/2000	90	7321677322138	732213
W5-70	11/73/2000	100	7321677322145	732214
W5-100	11/103/2000	140	7321677322152	732215
W5-150	11/153/2000	190	7321677322169	732216
W5-200	11/203/2000	250	7321677322176	732217
W5-300	11/303/2000	360	7321677322183	732218
W5-400	11/403/2000	680	7321677322190	732219
W5-500	11/503/2000	840	7321677322206	732220
W5-600	11/603/2000	700	7321677322213	732221
W5-1000	11/1003/2000	1150	7321677322220	732222

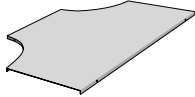
Covers/Cover plates

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Cover 90° interior bend					
Cover to be used for 90° interior bends. To be installed with a Profile support piece 37, Cover clamp and Cover joint. Material: Steel, pre-galvanised.					
150	10/420/420		65	7321677323227	732322
200	10/470/470		91	7321677323234	732323
300	10/570/570		143	7321677323241	732324
400	10/670/670		221	7321677323258	732325
500	10/770/770		299	7321677323265	732326
600	10/870/870		390	7321677323272	732327
800	10/1070/1070		460	7321677818020	781802
1000	10/1270/1270		871	7321677323289	732328
Cover T-junction					
Cover to be used for T-junctions. To be installed with a Profile support piece 37, Cover clamp and Cover joint. Material: Steel, pre-galvanised.					
150	11/400/651		182	7321677323456	732345
200	11/450/701		221	7321677323463	732346
300	11/550/801		312	7321677323470	732347
400	11/650/901		416	7321677323487	732348
500	11/750/1001		533	7321677323494	732349
600	11/850/1101		676	7321677323500	732350
800	11/1050/1301		710	7321677818037	781803
1000	11/1240/1501		1352	7321677323517	732351
Profile support piece 37					
Profile support piece to be used when installing covers. To be mounted on approximately every 0.5 m along both sides of the cable ladder. Used together with cover clamp for locking covers. Material: Steel, pre-galvanised.					
37	136/20/50		6	7321677292172	729217
Cover clamp					
Cover clamps to be used when installing a cover on a Profile support piece 37. Material: Steel, pre-galvanised.					
Cover clamp	32/10.5/20		1.5	7321677126682	712668
Cover joint					
Cover joint to be inserted between covers. Material: Steel, pre-galvanised.					
150	4/100/125		10	7321677126392	712639
200	4/100/175		20	7321677126408	712640
300	4/100/275		30	7321677126422	712642
400	4/100/375		40	7321677126439	712643
500	4/100/475		50	7321677126446	712644
600	4/100/575		60	7321677126453	712645
Protecting cover					
Cover to be used to protect the cable runs against ice and snow. Suitable for all cable ladder widths 300 and 400 respectively. Material: Steel, pre-galvanised.					
300	280/300/1000		880	7321677867387	786738
400	280/400/1000		990	7321677867394	786739
Cover plate 65					
Cover plate to be used on vertical cable ladder installations as protection of cables near the floor. To be mounted in the side profile with self-tapping screw ST4.2. Material: Steel, pre-galvanised.					
65-200	200/120/1000		930	7321677324750	732475
65-300	300/120/1000		1140	7321677324767	732476
65-400	400/120/1000		1350	7321677324774	732477
65-500	500/120/1000		1560	7321677324781	732478
65-600	600/120/1000		1780	7321677324798	732479

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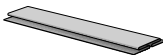
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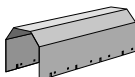
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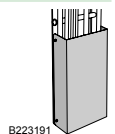
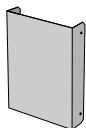
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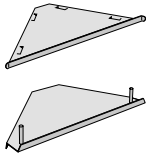
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Angle plates

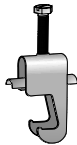
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Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Angle plate 33				
Angle plate to be used together with 90° horizontal T-junctions. Recommended for all cable ladders. Material: Steel, pre-galvanised.				
33/1	28/150/290	50	7321677687336	768733
33/2	25/195/490	90	7321677211142	721114

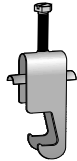
Clamps A and R with accessories

B223223



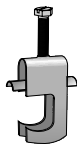
Cable clamp type A				
Cable clamp for fastening of one cable on Pendant/Fixing rail 24/48 and on cable ladders KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV, in combination with Insert piece EM. Material: Steel, pre-galvanised.				
A1-12 for cable -12	81/17/40	3.4	7321677185078	718507
A1-16 for cable 13-16	85/21/40	3.7	7321677185085	718508
A1-22 for cable 17-22	91/27/40	4.6	7321677185092	718509
A1-28 for cable 23-28	97/33/40	5.3	7321677185108	718510
A1-36 for cable 29-36	114/41/40	8.8	7321677185115	718511
A1-44 for cable 37-44	122/49/40	9.9	7321677185122	718512
A1-52 for cable 45-52	130/57/40	11.0	7321677185139	718513
A1-60 for cable 53-60	138/65/40	12.5	7321677185146	718514
A1-70 for cable 61-70	148/75/40	15.4	7321677185153	718515

B223224



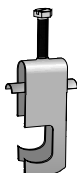
Cable clamp for fastening of two cables on Pendant/Fixing rail 24/48 and on cable ladders KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV, in combination with Insert piece EM. Material: Steel, pre-galvanised.				
A2-12 for cable -12	94/17/40	4.0	7321677185160	718516
A2-16 for cable 13-16	102/21/40	4.6	7321677185177	718517
A2-22 for cable 17-22	114/27/40	5.9	7321677185184	718518
A2-28 for cable 23-28	126/33/40	7.0	7321677185191	718519
A2-36 for cable 29-36	151/41/40	11.2	7321677185207	718520
A2-44 for cable 37-44	167/49/40	13.3	7321677185214	718521

B223225




Cable clamp type R				
Cable clamp for fastening of one cable on on cable ladders KHZ and KHZV, in combination with Insert piece EM. Material: Steel, pre-galvanised.				
R1-12 for cable -12	91/17/40	5.5	7321677690008	769000
R1-16 for cable 13-16	95/21/40	6.3	7321677690015	769001
R1-22 for cable 17-22	101/27/40	7.4	7321677690022	769002
R1-28 for cable 23-28	107/33/40	8.5	7321677690039	769003
R1-36 for cable 29-36	124/41/40	11.1	7321677690046	769004
R1-44 for cable 37-44	132/49/40	12.7	7321677690053	769005
R1-52 for cable 45-52	140/57/40	14.2	7321677690060	769006
R1-60 for cable 53-60	148/65/40	15.5	7321677690077	769007
R1-70 for cable 61-70	160/75/40	18.4	7321677690084	769008

B223226



Cable clamp for fastening of two cables on on cable ladders KHZ and KHZV, in combination with Insert piece EM. Material: Steel, pre-galvanised.				
R2-12 for cable -12	104/17/40	6.8	7321677690091	769009
R2-16 for cable 13-16	112/21/40	7.9	7321677690107	769010
R2-22 for cable 17-22	124/27/40	9.6	7321677690114	769011
R2-28 for cable 23-28	136/33/40	11.3	7321677690121	769012
R2-36 for cable 29-36	161/41/40	14.5	7321677690138	769013
R2-44 for cable 37-44	177/49/40	17.0	7321677690145	769014
R2-52 for cable 45-52	193/57/40	19.2	7321677690152	769015
R2-60 for cable 53-60	209/65/40	21.4	7321677690169	769016

Clamps A and R with accessories

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Insert piece EM					
Insert piece to be used in order to prevent pressure on the cable. The insert piece is placed between the cable and the rung from the same side where the clamp has been fastened to the rung. Material: PE.					
EM-12 for cable -12	5/15/39		0.2	7321677090501	709050
EM-16 for cable 13-16	5/19/39		0.2	7321677090518	709051
EM-22 for cable 17-22	5/25/39		0.3	7321677090525	709052
EM-28 for cable 23-28	5/31/39		0,3	7321677090532	709053
EM-36 for cable 29-36	5/39/39		0.5	7321677090549	709054
EM-44 for cable 37-44	5/46/39		0.7	7321677090556	709055
EM-52 for cable 45-52	5/55/39		0.8	7321677090563	709056
EM-60 for cable 53-60	5/62/39		0.9	7321677090570	709057
EM-70 for cable 61-70	5/72/39		1.0	7321677090587	709058
Lashing wire					
Lashing wire to be used for lashing of wires on cable ladders. Material: Stainless steel, PVC.					
HTR-2303, white PVC	Ø1.25		1.3/100 m	7321677136865	713686
HTR-2313, black PVC	Ø1.25		1.3/100 m	7321677136872	713687
Lashing wire to be used for lashing of wires on cable ladders. Material: PVC.					
HT-2304, white	Ø1.5		1.8/100 m	7321677136841	713684
HT-2314, black	Ø1.5		1.8/100 m	7321677136858	713685



Installation system HT

Carrying sling HT-51					
Carrying sling for cables, to be used in combination with steel wires. Material: Steel, pre-galvanised.					
HT-51	65/15/49		6	7321677136766	713676
Carrying bracket HT-33/34					
Carrying bracket to be used for ceiling installations. To be installed with Expansion bolt or concrete screw. Material: Steel, pre-galvanised.					
HT-33	19.5/15/25		1	7321677136742	713674
HT-34	43.5/15/25		2	7321677136759	713675
Steel wire					
Steel wire to be installed as carrier of one or more cables. Breaking loads, see below. Material: Available in several qualities.					
HT-2309, galvanised, soft, breaking load 700 kg	Ø5.0		15.5/100 m	7321677136797	713679
HT-2311, 7x diam. 1.71=16 mm ² coated, grey, breaking load 970 kg	Ø6.15		13.5/100 m	7321677136889	713688
HTR-2322 stainless, hard, breaking load 450 kg	Ø2.5		3.9/100 m	7321677136810	713681
HTR-2323 stainless, hard, breaking load 700 kg	Ø3.0		5.6/100 m	7321677136827	713682
HTR-2324 stainless, hard, breaking load 1200 kg	Ø4.0		10.0/100 m	7321677136834	713683



Profile protection

Profile protection 28P					
Profile protection to be used to increase the contact surface of the cables, when pulled over the side profile of the ladder. Material: PVC, grey.					
28P	60/28/2000		80	7321677321513	732151



End plugs

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
End plug 28/28i					
End plug to be mounted on ladder ends for sealing or protection. Material: PP/TPE.					
28, red	59/25/22		0.8	7321677090198	709019
28i, white	54/14/19		0.4	7321677354467	735446
28i, red	54/14/19		0.4	7321677319947	731994
End plug 28C, D, E, F and J					
End plug to be mounted on pendant ends to provide protection against personal injury and to make the ends of the profiles more conspicuous. Material: PP/TPE orange.					
28C for Vertical piece 2 and Pendant/fixing rail 24/34	25/19/46		0.5	7321677898756	789875
28D for Vertical piece 20 and Pendant/fixing rail 24/20	25/52/58		1	7321677090204	709020
28E for Vertical piece 2F and Pendant/fixing rail 24/48	24/30/52		0.5	7321677090211	709021
28F for Vertical piece 20FS and Pendant/fixing rail 24/20FS	30/53/110		4	7321677898763	789876
28J for Vertical piece 20F and Pendant/Fixing rail 24/20F	27/53/95		2.1	3606480457531	CSU794520
Cross member plug 27					
Cross member plug to be installed at the ends of the rungs of KHZ and KHZV. Used in premises with a high corrosion risk. Material: PE, grey.					
27	Ø20/10		0.15	7321677266685	726668

Screws and bolts

T-bolt 26F					
T-bolt to be used for mounting with all vertical pieces except Vertical piece 2 and with Pendant/fixing rail 24/48. Material: Steel, electro-galvanised.					
26F M8	43/48/20		4.5	7321677349838	734983
26F M10	43/48/22		7	7321677348640	734864
Screw set W34					
Screw set to be used for fastening of dividing strips on cable ladders KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV. Set including screw MSCS 6x12 and nut M6MF 6. Package of 100 pcs. Material: Steel, electro-galvanised.					
W34	10/10/16		0.8	7321677184736	718473

Marking plate

Marking plate 93					
Marking plates are part of a colour marking system that is easy to use when you want to mark out the type of cable that is placed on the cable ladder. Five different colours are available. Material: Sheet steel.					
93, yellow	103/0.7/100		5	7321677377046	737704
93, orange	103/0.7/100		5	7321677377053	737705
93, blue	103/0.7/100		5	7321677377060	737706
93, green	103/0.7/100		5	7321677377077	737707
93, black	103/0.7/100		5	7321677377084	737708
Marking label, equipotential					
Label to be used to show that a construction is equipotentially bonded. Available in Swedish (other languages on request). Printed on self-adhesive yellow vinyl, 250 labels per roll. Material: Self-adhesive vinyl.					
Marking label	25/-/86		-	7321677868605	786860

Steel cable ladders

Pre-galvanised
Corrosion class C2

Tools

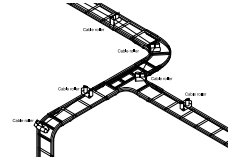
P129877



Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
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Cable roller S

Cable roller used to facilitate the pulling of cables and lines. Easily installed on all Wibe cable ladders except the high-sided WHS ladders (outer mounting hole). Also suitable for external/internal profiles of all 90° bends, T-junctions, X-junctions and risers (inner mounting hole). With a height adjustment of 45 mm to leave room for cables to pass under the roller.
Material: Steel, electro-galvanised.



S	230/80/204	230	7321677186600	718660
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B223235



Cable roller 38 Rig'n roll

Cable roller used for mounting on Wibe cable ladders with belonging junctions and branches.
Material: Stainless steel AISI316L (cable roller).

38 Rig'n roll	220/50/130	48	7321677359981	735998
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B224100



Bag	375/160/460	230	7321677801862	780186
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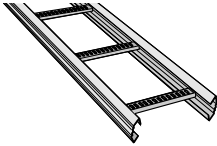
Set 66 (1 bag + 10 Cable rollers 38 Rig'n roll)	375/160/460	710	7321677801879	780187
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Steel cable ladders

Hot-dip galvanised
Corrosion class C3, C4

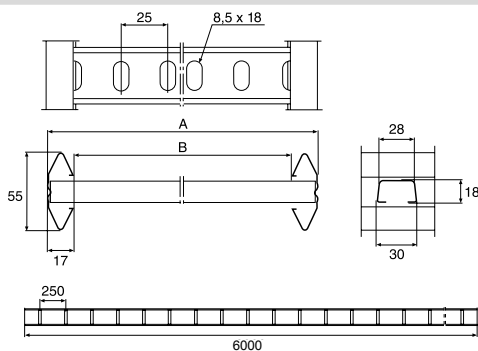
Cable ladders

Type	Dimensions A/B/C mm	Weight kg/100 m	EAN code	Ref. No.
Cable ladders KHZSPZ				
Cable ladder for indoor or outdoor industrial applications. With open side profiles and profile-shaped rungs. Must not be used as walkway. Material: Steel, hot-dip galvanised.				
KHZSPZ-200	55/198/6000	200	7321677344949	734494
KHZSPZ-300	55/298/6000	220	7321677344956	734495
KHZSPZ-400	55/398/6000	240	7321677344963	734496
KHZSPZ-500	55/498/6000	260	7321677344970	734497
KHZSPZ-600	55/598/6000	280	7321677344987	734498



B2233303

Dimension table



Type	A mm	B mm	L mm	Ref. No.
KHZSPZ-200	198	164	6000	734494
KHZSPZ-300	298	264	6000	734495
KHZSPZ-400	398	364	6000	734496
KHZSPZ-500	498	464	6000	734497
KHZSPZ-600	598	564	6000	734498

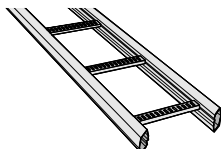
B223676


Steel cable ladders

Hot-dip galvanised
Corrosion class C3, C4

Cable ladders

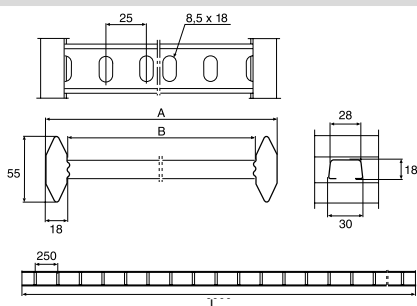
B223295



Type	Dimensions A/B/C mm	 Weight kg/100 m	EAN code	Ref. No.
Cable ladders KHZP				
Cable ladder for indoor or outdoor industrial applications. With closed side profiles and profile-shaped rungs. Must not be used as walkway. Material: Steel, hot-dip galvanised.				
KHZP-150	55/147/3000 55/147/6000	260	7321677835164 7321677185627	783516 718562
KHZP-200	55/197/3000 55/197/6000	270	7321677835171 7321677185634	783517 718563
KHZP-300	55/297/3000 55/297/6000	290	7321677835188 7321677185641	783518 718564
KHZP-400	55/397/3000 55/397/6000	315	7321677835195 7321677185658	783519 718565
KHZP-500	55/497/3000 55/497/6000	340	7321677835201 7321677185665	783520 718566
KHZP-600	55/597/3000 55/597/6000	360	7321677835218 7321677185672	783521 718567
KHZP-800	55/797/3000 55/797/6000	490	7321677835225 7321677219605	783522 721960
KHZP-1000	55/997/3000 55/997/6000	560	3606480535598 7321677185689	783523 718568

Dimension table

B223677



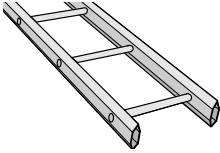
Type	A mm	B mm	L mm	Ref. No.
KHZP-150	147	111	3000 6000	783516 718562
KHZP-200	197	161	3000 6000	783517 718563
KHZP-300	297	261	3000 6000	783518 718564
KHZP-400	397	361	3000 6000	783519 718565
KHZP-500	497	461	3000 6000	783520 718566
KHZP-600	597	561	3000 6000	783521 718567
KHZP-800	797	761	3000 6000	783522 721960
KHZP-1000	997	961	3000 6000	783523 718568

Steel cable ladders

Hot-dip galvanised
Corrosion class C3, C4

Cable ladders

B2223304



Type	Dimensions A/B/C mm	Weight kg/100 m	EAN code	Ref. No.
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Cable ladders KHZ

Cable ladder for indoor or outdoor industrial applications. With closed side profiles and round rungs. Must not be used as walkway.

Material: Steel, hot-dip galvanised.

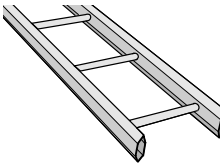
KHZ-150	55/147/6000	270	7321677680016	768001
KHZ-200	55/197/6000	280	7321677680023	768002
KHZ-300	55/297/6000	300	7321677680047	768004
KHZ-400	55/397/6000	320	7321677680054	768005
KHZ-500	55/497/6000	340	7321677680061	768006
KHZ-600	55/597/6000	360	7321677680078	768007

Cable ladder for indoor or outdoor industrial applications. With closed side profiles and round rungs that do not penetrate the outer side of the side profile. Must not be used as walkway.

Material: Steel, hot-dip galvanised.

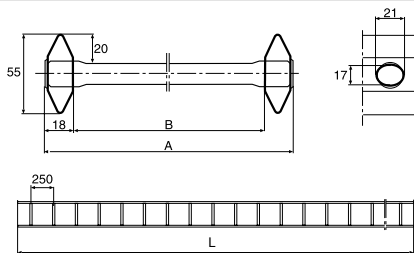
KHZ-150	55/147/6000	270	7321677264162	726416
KHZ-200	55/197/6000	280	7321677264179	726417
KHZ-300	55/297/6000	300	7321677264193	726419
KHZ-400	55/397/6000	320	7321677264209	726420
KHZ-500	55/497/6000	340	7321677264216	726421
KHZ-600	44/597/6000	360	7321677264223	726422

B2223596



Dimension table

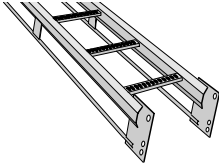
B2223596



Type	A mm	B mm	L mm	Ref. No.
KHZ-150	147	111	6000	768001 726416
KHZ-200	197	161	6000	768002 726416
KHZ-300	297	261	6000	768004 726419
KHZ-400	397	361	6000	768005 726420
KHZ-500	497	461	6000	768006 726421
KHZ-600	597	561	6000	768007 726422

Cable ladders

B224530



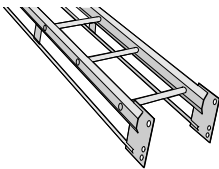
Type	Dimensions A/B/C mm	Weight kg/100 m	EAN code	Ref. No.
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Cable ladders KHZPV

Reinforced cable ladder for indoor or outdoor industrial applications. Designed for extreme support distances and loadings. With closed side profiles and profile-shaped rungs. Must not be used as walkway.
Material: Steel, hot-dip galvanised.

KHZPV-200	134/197/6000	426	7321677179824	717982
KHZPV-300	134/297/6000	448	7321677179831	717983
KHZPV-400	134/397/6000	470	7321677179848	717984
KHZPV-500	134/497/6000	493	7321677179855	717985
KHZPV-600	134/597/6000	515	7321677179862	717986
KHZPV-1000	134/997/6000	703	7321677164004	716400

B224530



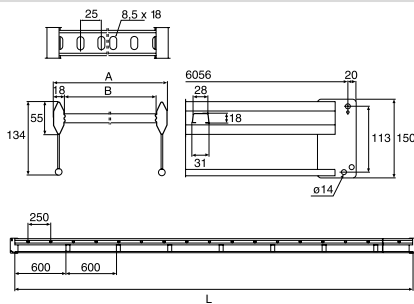
Cable ladders KHZV

Reinforced cable ladder for indoor or outdoor industrial applications. Designed for extreme support distances and loadings. With closed side profiles and round rungs. Must not be used as walkway.
Material: Steel, hot-dip galvanised.

KHZV-200	134/197/6000	440	7321677120154	712015
KHZV-300	134/297/6000	460	7321677120178	712017
KHZV-400	134/397/6000	480	7321677120192	712019
KHZV-500	134/497/6000	500	7321677120185	712018
KHZV-600	134/597/6000	530	7321677120208	712020

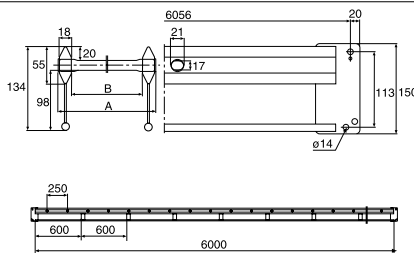
Dimension table

B223376




Type	A mm	B mm	L mm	Ref. No.
KHZPV-200	197	161	6000	717982
KHZPV-300	297	261	6000	717983
KHZPV-400	397	361	6000	717984
KHZPV-500	497	461	6000	717985
KHZPV-600	597	561	6000	717986
KHZPV-1000	997	961	6000	716400

B223563



KHZV-200	197	161	6000	712015
KHZV-300	297	261	6000	712017
KHZV-400	397	361	6000	712019
KHZV-500	497	461	6000	712018
KHZV-600	597	561	6000	712020


Joins

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Joint 21					
Joint to be used for straight, rigid joining of cable ladders, bends, junctions and risers. It also reduces the transition resistance and prevents the ladders from slipping apart. M6 screws included. Material: Steel, hot-dip galvanised.					
21	64/22/300		46	7321677911998	791199
Joint 21 ZM					
Joint to be used for rigid joining of cable ladders, bends, junctions and risers. Snap-on and fixed by two screws. It also reduces the transition resistance and prevents the ladders from slipping apart. M6 screws included. Material: Steel, ZnAlMg.					
21 ZM	64/22/300		46	3606480574856	CSU795051
Joint 21 ZM					
Joint to be used for rigid joining of cable ladders, bends, junctions and risers. Snap-on and fixed by bending the hooks with a screw driver. It also reduces the transition resistance and prevents the ladders from slipping apart. Material: Steel, ZnAlMg.					
21 ZM	64/32/200		33	3606480574849	CSU795050
Joint 9					
Joint to be used for straight joining of cable ladders KHZ, KHZP and KHZPS. The teeth of the joint should face downwards. Under load, the ladders are prevented from slipping apart. If the joint is above a bracket, the teeth should face upwards. Material: Steel, hot-dip galvanised.					
9	52/4/200		16	7321677053049	705304
Dropper joint 32					
Dropper joint used to form vertical branches in centre position under/on top of cable ladders. Screw M6 included. Material: Steel, hot-dip galvanised.					
32	130/22/200		75	7321677347131	734713
Joint 45					
Joint to be fitted as a joining plate in a cut KHZV/KHZPV ladder. Screws M8 and M12 + nuts are included. Material: Steel, hot-dip galvanised.					
45	150/4/95		50	7321677076093	707609

Couplers

Coupler 22					
Coupler to be used for horizontal or vertical branches at any desired angle. M6 screws included. Material: Steel, hot-dip galvanised.					
22	60//24/150		21	7321677184095	718409
Junction coupler 14					
Junction coupler to be used for T- and X-junctions. Suitable for cable ladders KHZ, KHZP, KHZSP and KHZPS, all cable widths. M6 screws included. Material: Steel, hot-dip galvanised.					
14	65/73/350		49	7321677250967	725096
Coupler 44					
Coupler to be used for horizontal coupler of cable ladders KHZV/KHZPV. Also to be used for branches and as an end connection against a wall. Four screws M8x30 and nuts are included. Material: Steel, hot-dip galvanised.					
44	135/-/120		50	7321677208159	720815
Coupler 51					
Coupler to be used as a self-supporting vertical coupler of cable ladders KHZV/KHZPV. Two screws M12 and nuts are included. Material: Steel, hot-dip galvanised.					
51	150/-/193+138		150	7321677318377	731837

Clamps, support piece

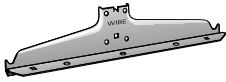
Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Profile clamp 42					
Profile clamp to be used for installations where the cable ladder is to be fixed to cantilever arms, support brackets, etc. Screw M8 and nut included. Material: Steel, hot-dip galvanised.					
42	54/30/57		11	7321677056118	705611
Profile clamp 43					
Profile clamp to be used for installations where the cable ladders KHZV and KHZPV are to be fixed to cantilever arms, support brackets, etc. Screw M8 and nut included. Material: Steel, hot-dip galvanised.					
43	21/30/43		5	7321677075119	707511
Clamp 12					
Clamp to be used on the side profile of the cable ladder for installation of accessories. Material: Steel, hot-dip galvanised.					
12/70	125/40/25		19	7321677286539	728653
12/120	175/40/25		24	7321677286546	728654
Profile clamp 41					
Profile clamp to be used to install a pendant/fixing rail or mounting plate, etc., on the cable ladder profile. Material: Steel, hot-dip galvanised.					
41	125/30/16		10	7321677208241	720824
Profile support piece 46					
Profile support piece to be fitted between the ladder and the vault pipe when a support bracket is positioned between existing profile support pieces. For cable ladders KHZV and KHZPV. Material: Steel, hot-dip galvanised.					
46	72/18/30		15	7321677080014	708001

Cantilever arms

Cantilever arm 50L, 50 and 50F					
Cantilever arm for mounting on walls, pendant/fixing rails or vertical pieces. Material: Steel, hot-dip galvanised.					
50L-100	85/40/150		24	7321677251056	725105
50L-150	85/40/200		28	7321677251063	725106
50L-200	85/40/250		34	7321677251070	725107
50L-250	105/40/298		46	7321677251087	725108
50L-300	105/40/348		54	7321677251094	725109
50L-400	120/50/447		103	7321677251100	725110
50L-500	140/50/548		160	7321677251117	725111
50L-600	150/50/646		191	7321677251124	725112
50-100	85/40/150		24	7321677234325	723432
50-150	85/40/200		28	7321677234332	723433
50-200	85/40/250		34	7321677234349	723434
50-250	105/40/300		52	7321677234356	723435
50-300	105/40/350		60	7321677234363	723436
50-400	120/50/450		228	7321677234370	723437
50-500	140/50/550		172	7321677234387	723438
50-600	150/50/650		215	7321677234394	723439
50-700	150/50/750		270	7321677271252	727125
50-800	160/50/850		310	7321677271269	727126
50-900	160/50/950		350	7321677271276	727127
50-1000	170/50/1050		390	7321677271283	727128
50F-200	148/50/245		95	7321677186242	718624
50F-300	175/50/345		125	7321677186259	718625
50F-400	175/50/445		170	7321677186266	718626
50F-500	180/50/547		220	7321677186273	718627
50F-600	180/50/647		250	7321677186280	718628
50F-1000	240/60/1052		770	7321677124657	712465

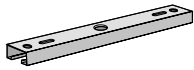
Wall and support brackets

B223333



Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Support bracket 3				
Support bracket to be used for centre installation of cable ladders on pendant/fixing rails and vertical pieces. Material: Steel, hot-dip galvanised.				
3-150	92/57/150	26	7321677207619	720761
3-200	92/57/200	33	7321677207626	720762
3-300	92/57/300	58	7321677207633	720763
3-400	92/57/400	78	7321677207640	720764
3-500	92/57/500	120	7321677207657	720765
3-600	92/57/600	145	7321677207664	720766

B225302



Support bracket HSO				
Support bracket to be mounted together with Threaded rod M10 or M16 for the installation of cable ladders. Material: Steel, hot-dip galvanised.				
HSO-150 M10	26/48/210	39	7321677910632	791063
HSO-200 M10	26/48/260	48	7321677910649	791064
HSO-300 M10	26/48/360	66	7321677910656	791065
HSO-400 M16	26/48/460	84	7321677910663	791066
HSO-500 M16	26/48/560	103	7321677910670	791067
HSO-600 M16	26/48/660	121	7321677910687	791068

B224568



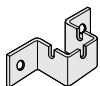
Washer HSO M16				
Washer to be used for centered mounting with Support bracket HSO M16 and Threaded rod M16. Package of 10. Material: Steel, hot-dip galvanised.				
HSO M16	5/50/50	8.7	7321677910922	791092

B223256



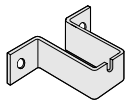
Wall bracket 11/25 and 11/75				
Wall bracket to be used for vertical or horizontal installations of cable ladders against a wall. Maximum loads for vertical mounting: 300 kg (3 kN). For mounting against a rung the max. load is 500 kg (5 kN) for 11/25. Maximum loads for horizontal mounting: 11/25 250 kg (2.5 kN), 11/75 100 kg (1 kN). Material: Steel, hot-dip galvanised.				
11/25	85/40/71	24	7321677132041	713204
11/75	135/40/71	30	7321677132034	713203

B223465



Wall bracket 20				
Wall bracket to be used at installation of Pendant/fixing rail 24/20 to ceiling beam or wall. Material: Steel, hot-dip galvanised.				
20	50/59/154	47	7321677234509	723450

B223454




Wall bracket 20F				
Wall bracket to be used at installation of Pendant/fixing rail 20F to ceiling beam or wall. Material: Steel, hot-dip galvanised.				
20F	50/93/150	69	7321677234516	723451

Steel cable ladders

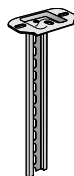
Hot-dip galvanised

Corrosion class C3, C4

Vertical pieces

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Vertical piece 2					
Vertical piece to be used for installation of Support bracket 3, symmetrical loading. Not suitable for cable ladders KHZV and KHZPV. Can be joined to Pendant/fixing rail 24/34 with Pendant joint 2J. Material: Steel, hot-dip galvanised.					
2-300	279/80/135		52	7321677171910	717191
2-400	392/80/135		62	7321677171927	717192
2-500	504/80/135		72	7321677171934	717193
2-700	729/80/135		93	7321677171941	717194
2-1000	1022/80/135		120	7321677171958	717195
Vertical piece 2F					
Vertical piece to be used for installation of Support bracket 3 or Cantilever arm 50. Can be joined to Pendant/fixing rail 24/48 with Pendant joint 2FJ. Material: Steel, hot-dip galvanised.					
2F-280	280/80/135		80	7321677171965	717196
2F-370	370/80/135		100	7321677171972	717197
2F-505	505/80/135		130	7321677171989	717198
2F-640	640/80/135		150	3606480410000	CSU794202
2F-730	730/80/135		170	7321677171996	717199
2F-865	865/80/135		200	3606480410017	CSU794203
2F-1000	1000/80/135		220	7321677172009	717200
2F-1500	1495/80/135		290	7321677872763	787276
Vertical piece 20					
Vertical piece, two-sided, to be used for vertical installation together with Cantilever arm 50, from a ceiling or on a floor. Can also be installed as a cantilever arm on a wall. Material: Steel, hot-dip galvanised.					
20-280	280/155/150		165	3606480409967	CSU794204
20-370	370/155/150		198	3606480409974	CSU794205
20-500	505/155/150		243	7321677157235	715723
20-640	640/155/150		293	3606480409981	CSU794206
20-700	730/155/150		324	7321677157242	715724
20-865	865/155/150		372	3606480409998	CSU794207
20-1000	1000/155/150		458	7321677157259	715725
20-1500	1495/155/150		652	7321677157266	715726
20-2000	1990/155/150		799	7321677157273	715727
20-3000	2980/155/150		1177	7321677157280	715728
Vertical piece 20F					
Vertical piece, two-sided, to be used for mounting from the ceiling or on the floor. Suitable for heavy loads. Material: Steel, hot-dip galvanised.					
20F-1000	995/160/160		590	7321677182497	718249
20F-1500	1490/160/160		790	7321677182503	718250
20F-2000	1985/160/160		990	7321677182510	718251
20F-3000	2980/160/160		1240	7321677097999	709799
Vertical piece 20FS					
Vertical piece, two-sided, to be used for mounting from the ceiling or on the floor. Suitable for very heavy loads. Material: Steel, hot-dip galvanised.					
20FS-1500	1495/270/150		1460	7321677187188	718718
20FS-2000	1990/270/150		1810	7321677187195	718719
20FS-2500	2485/270/150		2160	7321677187201	718720
20FS-3000	2980/270/150		2520	7321677187218	718721

B223804



P129960



P129981



B223374




B223372



Steel cable ladders

Hot-dip galvanised
Corrosion class C3, C4

Pendant/Fixing rails

Type	Dimensions A/B/C mm	 Weight kg/100 pcs	EAN code	Ref. No.
Pendant/Fixing rail 24/34				
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc. Material: Steel, hot-dip galvanised.				
24/34	2970/16/42	240	7321677158799	715879
Pendant/Fixing rail 24/48				
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc. Material: Steel, hot-dip galvanised.				
24/48	2970/26/48	520	7321677050932	705093
24/48	5940/26/48	1120	7321677317196	731719
Pendant/Fixing rail 24/20				
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc. Material: Steel, hot-dip galvanised.				
24/20	2970/55/48	1130	7321677097951	709795
Pendant/Fixing rail 24/20F				
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc. Material: Steel, hot-dip galvanised.				
24/20F-3000	2970/89/48	1160	7321677097982	709798
24/20F-6000	5940/89/48	2370	7321677188086	718808
Pendant/Fixing rail 24/20FS				
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc. Material: Steel, hot-dip galvanised.				
24/20FS	5940/106/48	4200	7321677090310	709031
Fixing rail 24/26x53 for casting-in				
Fixing rail for casting-in in wall and ceilings. Material: Steel, hot-dip galvanised.				
24/26x53	4000/26/48	970	7321677680634	768063

Ceiling and base plates

Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Ceiling plate 20F				
Ceiling plate to be used as a pre-drilled attachment for Vertical piece 20F to a steel member. The ceiling plate is welded in position. Material: Steel, hot-dip galvanised.				
20F	-/160/160	200	7321677188499	718849
Ceiling plate 20FS				
Ceiling plate to be used as a pre-drilled attachment for Vertical piece 20FS to a steel member. The ceiling plate is welded in position. Material: Steel, hot-dip galvanised.				
20FS	-/270/150	310	7321677205363	720536
Pendant base plate 520				
Pendant base plate to be used as a ceiling or floor base plate for Pendant/Fixing rail 24/20 in any desired length. Four screws MVBF 8x80 and nuts included. Material: Steel, hot-dip galvanised.				
520	278/160/160	400	7321677182534	718253

Pendant bar, rail fixing

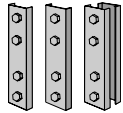
Pendant bar 1				
Pendant bar to be installed in order to reduce the deflection of heavily loaded vertical pieces. Installed with T-bolt and Expansion bolt. Material: Steel, hot-dip galvanised.				
1-300	315/161/40	35	7321677176403	717640
1-500	515/166/40	53	7321677176410	717641
1-800	815/246/40	82	7321677176427	717642
1-1500	1296/35/50	560	7321677189038	718903
Rail fixing support 24/20F, 24/20FS				
Rail fixing support to be used with Pendant/fixing rails 24/20F and 24/20FS respectively, for mounting between floor and ceiling. Material: Steel, hot-dip galvanised.				
24/20F	106/165/80	167	7321677188505	718850
24/20FS	106/185/80	190	7321677188512	718851

Brackets

Angle bracket 5L				
Angle bracket to be used for steel wire installation in ceilings. Also used when assembling pendant/fixing rails to frames for switching cabinets and electrical control centres and for fixing an upright between floor and ceiling. Assembled with a T-bolt. Material: Steel, hot-dip galvanised.				
5L	70/45/49	15	7321677317912	731791
Angle bracket 5LS				
Angle bracket to be used when assembling pendant/fixing rails to frames for switching cabinets and electrical control centres and for fixing an upright between floor and ceiling. Assembled with a T-bolt. Material: Steel, hot-dip galvanised.				
5LS	111/71/60	50	7321677098019	709801
Combi bracket 53				
Combi bracket to be used for the mounting of cable ladders and trays on seamed roofing sheets, etc. To be combined with plastic insulating plate 54. Material: Steel, hot-dip galvanised.				
53 (bracket)	58/52/60	26	7321677823536	782353
54 (plate)	2/70/120	2	7321677872237	787223
Bracket 60/40				
Bracket to be used together with Pendant/fixing rail 24/48 to reduce the deflection of long vertical pieces. Material: Steel, hot-dip galvanised.				
60/40	95/23/40	10	7321677189045	718904
Rod bracket 82				
Rod bracket to be used together with Cantilever arm 50, in combination with threaded rod support. Material: Steel, hot-dip galvanised.				
82	60/158/43	360	7321677867684	786768

Pendant joint

B223400
B223299
B223388



Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Pendant joint 2J, 2FJ and 20J				
Pendant joint to be used for joining pendant/fixing rails and vertical pieces. Screws M8x16 (2J and 2FJ) or M8x70 (20J) and nuts included. Material: Steel, hot-dip galvanised.				
2J	200/18/48	43	7321677131778	713177
2FJ	200/18/55	46	7321677131785	713178
20J	200/36/55	94	7321677131730	713173

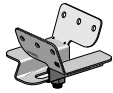
Ceiling brackets

B223762



Ceiling bracket 5				
Ceiling bracket to be used for installations with Pendant/Fixing rails 24/34 and 24/48. Screw not included. Material: Steel, hot-dip galvanised.				
5	100/135/40	35	7321677186402	718640

B223405



Ceiling bracket 5TPA				
Ceiling bracket with telescopic function, to be used for mounting of various sizes of trapezoid plates. Including screw MVBF 8x16 and nut M6MF8. Breaking load: 150 kg without deformation. Material: Steel, hot-dip galvanised.				
5TPA	50/76/79-118	14	7321677334872	733487

B223441



Ceiling bracket 5TP				
Ceiling bracket to be used for installations of Vertical pieces 2, 2F and 20 in ceilings with a trapezoidal sheet profile. Material: Steel, hot-dip galvanised.				
5TP	75/35/50	12	7321677131532	713153

P138938



Ceiling brackets TF-10 and TF-16				
Ceiling bracket to be used for installation with Threaded rods. Nut included. Material: Steel, hot-dip galvanised.				
TF-10 (with nut M10)	55/40/45	15	7321677881642	788164
TF-16 (with nut M16)	75/50/50	30	7321677881659	788165

P138939



Take-off hook, end connection

B224079



Fixed take-off hook 4				
Fixed take-off hook to be used for 90° horizontal branches. Material: Aluminium.				
4	71/86/19	8	7321677090174	709017

B224580



Take-off hook 47				
Take-off hook to be used on cable ladders KHZV and KHZPV to make 90° branches. Screw M12 and nuts are included. Material: Steel, hot-dip galvanised.				
47	155/10/73	27	7321677913503	791350

B224115



End connection 10				
End connection to be used for the connection of a ladder vertically to a floor or horizontally to a wall. Material: Aluminium.				
10	60/55/60	8	7321677090181	709018

Fittings for mesh trays

B224671



Combi-fittings B21				
Combi-fitting to be used when mounting mesh trays onto cable ladders. Material: Steel, HDG.				
B21	250/20/50	48	7332227012591	1149259

B224672




B21 90 degrees	120/50/135	46	7332227012911	1149291
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Beam clamp, hook

B223404



Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Beam clamp 5BK					
Beam clamp to be used for the installation of Vertical pieces 2, 2F or 20 on I-beams. For flange thickness max. 13 mm and 14-30 mm respectively. Material: Steel, hot-dip galvanised.					
5BK-10 (max. 13 mm)	30/50/45		15	7321677156757	715675
5BK-30 (14-30 mm)	50/50/45		18	7321677182435	718243

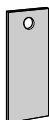
B223232



Hook 8					
Hook to be used for the installation of cables beneath Support bracket 3. Can also be installed in perforated rungs. Material: Steel, hot-dip galvanised.					
8	67/15/40		5	7321677286423	728642

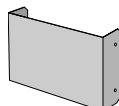
Back, installation and box plates

B223324



Back plate 40					
Back plate to be used for installation behind Cantilever arm 50 to reduce the surface pressure on porous walls. Material: Steel, hot-dip galvanised.					
40	150/-/60		55	7321677687381	768738

B223245



Installation plate 61					
Installation plate to be used on vertical cable ladder installations for mounting of terminal boxes, contact breakers, etc. Material: Steel, hot-dip galvanised.					
61-200	310/200/70		100	7321677324910	732491
61-300	310/300/70		140	7321677324927	732492
61-400	310/400/70		170	7321677324934	732493
61-500	310/500/70		240	7321677324941	732494
61-600	310/600/70		270	7321677324958	732495

P132524



Junction box plate 35S					
Junction box plate, holed or unholed, to be installed upright or hanging from the profile. Locked with locking tabs. For junction boxes, electric light fittings, etc. Material: Steel, hot-dip galvanised.					
35S holed	164/20/170		22	7321677317462	731746

B223214



Junction box plate 35P					
Junction box plate with holes, to be installed between rungs. Locked with appropriate locking tabs for each ladder. For junction boxes, electric light fittings, etc. Material: Steel, hot-dip galvanised.					
35P	-/106/250		28	7321677317455	731745

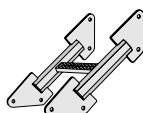
Bends

P120990



Riser 18					
Riser piece to be fitted to the cable ladders by using Joint 21. Material: Steel, hot-dip galvanised.					
18-150	452/147/452		180	7321677181766	718176
18-200	452/197/452		190	7321677181773	718177
18-300	452/297/452		210	7321677181797	718179
18-400	452/397/452		230	7321677181803	718180
18-500	452/497/452		250	7321677181810	718181
18-600	452/597/452		270	7321677181827	718182
18-800	452/897/452		310	7321677219643	721964
18-1000	452/1097/452		350	7321677181834	718183

B223178



Riser coupler 49					
Coupler to be used as a self-supporting vertical coupler of cable ladders KHZV/KHZPV. Two screws M12 and nuts are included. Material: Steel, hot-dip galvanised.					
49-200	120/197/483		220	7321677163892	716389
49-300	120/297/483		230	7321677163908	716390
49-400	120/397/483		240	7321677163915	716391
49-500	120/497/483		245	7321677205172	720517
49-600	120/597/483		250	7321677163922	716392
49-1000	120/997/483		280	7321677163939	716393

Bends

B223467



Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
90° bend 15, interior				
Interior bend piece to be fitted to the cable ladders by using Joint 21, creating a 90° bend. Inner radius 268 mm. Material: Steel, hot-dip galvanised.				
15-150	55/547/547	220	7321677160662	716066
15-200	55/597/597	240	7321677160679	716067
15-300	55/697/697	290	7321677160693	716069
15-400	55/797/797	340	7321677160709	716070
15-500	55/897/897	390	7321677160716	716071
15-600	55/997/997	440	7321677160723	716072
15-800	55/1197/1197	640	7321677219612	721961
15-1000	55/1397/1397	760	7321677160730	716073

90° bend 15, exterior				
Exterior bend piece to be fitted to the cable ladders by using Joint 21, creating a 90° bend. Material: Steel, hot-dip galvanised.				
15-150	55/703/703	320	7321677161799	716179
15-200	55/933/933	370	7321677161805	716180
15-300	55/1133/1133	460	7321677161829	716182
15-400	55/1333/1333	550	7321677161836	716183
15-500	55/1533/1533	640	7321677161843	716184
15-600	55/1733/1733	760	7321677161850	716185
15-800	55/2133/2133	1060	7321677230570	723057
15-1000	55/2533/2533	1280	7321677232604	723260

B223174



90° bend 55, interior				
Interior bend piece to be fitted to cable ladders KHZV and KHZPV, creating a 90° horizontal bend. Material: Steel, hot-dip galvanised.				
55-200	150/625/625	510	7321677162413	716241
55-300	150/725/725	560	7321677162437	716243
55-400	150/825/825	620	7321677162444	716244
55-500	150/925/925	680	7321677162451	716245
55-600	150/1025/1025	750	7321677162468	716246
55-1000	150/1425/1425	1110	7321677162475	716247

B223513




T-junction 16				
T-junction piece to be fitted to the cable ladders by using Joint 21. Material: Steel, hot-dip galvanised.				
16-150	55/944/547	300	7321677161935	716193
16-200	55/997/597	320	7321677161942	716194
16-300	55/1097/697	390	7321677161966	716196
16-400	55/1197/797	440	7321677161973	716197
16-500	55/1297/897	530	7321677161980	716198
16-600	55/1397/997	600	7321677161997	716199
16-800	55/1597/1197	750	7321677219629	721962
16-1000	55/1797/1397	860	7321677162000	716200

B223196



T-junction 56				
T-junction piece to be fitted to the cable ladders by using Joint 21. Material: Steel, hot-dip galvanised.				
56-200	150/1050/625	710	7321677162550	716255
56-300	150/1150/725	790	7321677162574	716257
56-400	150/1250/825	840	7321677162581	716258
56-500	150/1350/925	940	7321677162598	716259
56-600	150/1450/1025	1010	7321677162604	716260
56-1000	150/1850/1425	1300	7321677162611	716261

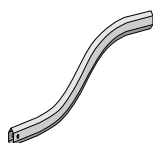
Bends

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
X-junction 17					
X-junction piece to be fitted to the cable ladders by using Joint 21. Material: Steel, hot-dip galvanised.					
17-150	55/547/547		380	7321677162093	716209
17-200	55/997/997		400	7321677162109	716210
17-300	55/1097/1097		500	7321677162123	716212
17-400	55/1197/1197		550	7321677162130	716213
17-500	55/1297/1297		600	7321677162147	716214
17-600	55/1397/1397		860	7321677162154	716215
17-800	55/1597/1597		1070	7321677219636	721963
17-1000	55/1797/1797		1220	7321677162161	716216

B223514



B224499



S-bend 67

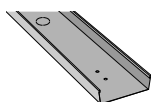
S-bend piece to be used as a transition between cable ladders mounted on different levels. Can be mounted both vertically and horizontally.
Material: Steel, hot-dip galvanised.

67	250/-/893		90	7321677886388	788638
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Tele-conduits

Tele-conduit 36					
Tele-conduit to be used where a separate tray is required for low-tension cables. Knock-out holes in the bottom of the channel permit the cables to pass through. Material: Steel, hot-dip galvanised.					
36-50	24/50/2000		94	7321677317486	731748
36-100	24/100/2000		142	7321677317493	731749
36-200	24/200/2000		238	7321677317509	731750

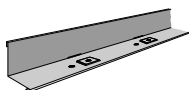
B223846



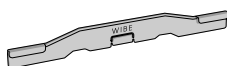
Dividers

Dividing strip 39					
Dividing strip to be used to separate low-tension and high-tension cables. Material: Steel, hot-dip galvanised.					
39/24	24/24/1760		46	7321677317479	731747
39/55	55/24/1750		73	7321677329830	732983

B223208



B224309



Distance piece W39

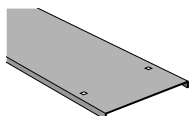
Distance piece to be used for the joining of Dividing strips 39.
Material: Plastic, natural coloured.

W39	37/-/330		3	7321677168248	716824
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Covers/Cover plates

Cover 64					
Cover to be used for vertically mounted cable ladders. Material: Steel, hot-dip galvanised.					
64-150	10/2000/151		290	7321677825615	782561
64-200	10/2000/201		370	7321677825622	782562
64-300	10/2000/301		540	7321677825639	782563
64-400	10/2000/401		710	7321677825646	782564
64-500	10/2000/501		1020	7321677825653	782565
64-600	10/2000/601		1210	7321677825660	782566
64-800	10/2000/801		1660	7321677825677	782567
64-1000	10/2000/1001		2000	7321677825684	782568

B224495




Steel cable ladders

Hot-dip galvanised

Corrosion class C3, C4

Covers/Cover plates

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
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Cover

Cover to be used to protect the cable runs from dust, dirt, liquids, etc. Outdoors, it protects against rain and sun. Suitable for all cable ladders.
Material: Steel, hot-dip galvanised.

W5-150	10/2000/151		190	7321677322640	732264
W5-200	10/2000/201		250	7321677322657	732265
W5-300	10/2000/301		360	3606480535734	732266
W5-400	10/2000/401		680	7321677322671	732267
W5-500	10/2000/501		880	7321677322688	732268
W5-600	10/2000/601		1050	7321677322695	732269
W5-800	10/2000/801		1420	7321677822133	782213
W5-1000	10/2000/1001		1730	7321677322701	732270

Cover 90° bend

Cover to be used for 90° interior bends. To be installed with a Profile support piece 37, Cover clamp and Cover joint.
Material: Steel, hot-dip galvanised.

150	10/420/420		65	7321677814336	781433
200	10/470/470		91	7321677814343	781434
300	10/570/570		143	7321677814350	781435
400	10/670/670		221	7321677814367	781436
500	10/770/770		299	7321677814374	781437
600	10/870/870		390	7321677814381	781438
800	10/1070/1070		460	7321677817931	781793
1000	10/1270/1270		871	7321677814398	781439

Cover T-junction

Cover to be used for T-junctions. To be installed with a Profile support piece 37, Cover clamp and Cover joint.
Material: Steel, hot-dip galvanised.

150	10/400/651		182	7321677814404	781440
200	10/450/701		221	7321677814411	781441
300	10/550/801		312	7321677814428	781442
400	10/650/901		416	7321677814435	781443
500	10/750/1001		533	7321677814442	781444
600	10/850/1101		676	7321677814459	781445
800	10/1050/1301		710	7321677817962	781796
1000	10/1240/1501		1352	7321677814466	781446

Profile support piece 37

Profile support piece to be used when installing covers. To be mounted on approximately every 0.5 m along both sides of the cable ladder. Used together with cover clamp for locking covers.
Material: Steel, hot-dip galvanised.

37	136/20/50		6	7321677301881	730188
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Cover clamp

Cover clamps to be used when installing a cover on a Profile support piece 37.
Material: Steel, hot-dip galvanised.

Cover clamp	32/10.5/20		1.5	7321677285846	728584
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Cover joint

Cover joint to be inserted between covers.
Material: Steel, hot-dip galvanised.

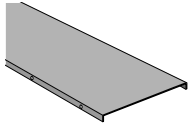
150	4/100/125		10	7321677804528	780452
200	4/100/175		20	7321677804535	780453
300	4/100/275		30	7321677804542	780454
400	4/100/375		40	7321677804559	780455
500	4/100/475		50	7321677804566	780456
600	4/100/575		60	7321677804573	780457

Protecting cover

Cover to be used to protect the cable runs against ice and snow. Suitable for all cable ladder widths 300 and 400 respectively.
Material: Steel, hot-dip galvanised.

300	280/300/1000		880	7321677867462	786746
400	280/400/1000		990	7321677867479	786747

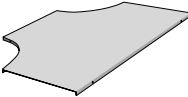
B223238



B224087



B224453



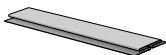
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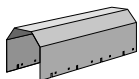
B223237



B224225



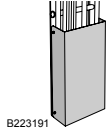
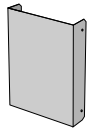
B224058



Covers/Cover plates

Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Cover plate 65				
Cover plate to be used on vertical cable ladder installations as protection of cables near the floor. To be mounted in the side profile with self-tapping screw ST4.2. Material: Steel, hot-dip galvanised.				
65-200	1000/200/120	930	7321677301928	730192
65-300	1000/300/120	1140	7321677301935	730193
65-400	1000/400/120	1350	7321677301942	730194
65-500	1000/500/120	1560	7321677301959	730195
65-600	1000/600/120	1780	7321677301966	730196

B223248

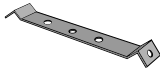


B223191

Lighting bracket

Lighting bracket 200				
Lighting bracket to be used for the installation of lighting fittings beneath cable ladders KHZV and KHZPV 200. Material: Steel, hot-dip galvanised.				
200	24/25/215	16	7321677186433	718643

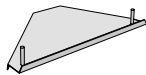
B223175



Angle plate

Angle plate 33				
Angle plate to be used together with 90° horizontal T-junctions. Recommended for all cable ladders. Material: Steel, hot-dip galvanised.				
33/2	25/195/490	90	7321677077489	707748

B223401



Installation system HT

Wall bracket HT-14				
Bracket to be used for wall installations. To be installed with Expansion bolt or concrete screw. Material: Steel, hot-dip galvanised.				
HT-14	30/104/30	18	7321677136711	713671

B223203



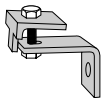
Carrying bracket HT-31				
Carrying bracket to be used for ceiling installations. To be installed with Expansion bolt or concrete screw. Material: Steel, hot-dip galvanised.				
HT-31	115/4.5/23	2	7321677136728	713672

B223211



Carrying bracket HT-152				
Carrying bracket to be used for easy I-beam installations. Material: Steel, hot-dip galvanised.				
HT-152	49/15/65	38	7321677176366	717636

B223209



End bracket HT-11				
End bracket to be used for ceiling beam installations. To be installed with Expansion bolt or concrete screw. Material: Steel, hot-dip galvanised.				
HT-11	155/40/40	41	7321677176182	717618

B224108



Tightening loop HT				
Tightening loop to be installed at the ends of steel wires. Material: Steel, hot-dip galvanised.				
HT-611	22/22/125	10	7321677136896	713689
HT-621	50/50/270	18	7321677136902	713690
HT-631	50/50/400	29	7321677136919	713691

B223250




Pipe HT-68				
Pipe for easy locking of wires. Material: Steel, hot-dip galvanised.				
HT-68	Ø15/25	1.3	7321677136773	713677

B223248



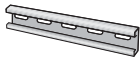
Installation system HT

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Steel wire HT					
Steel wire to be installed as carrier of one or more cables. Breaking loads, see below. Material: Available in several qualities.					
HT-2309, galvanised, soft, breaking load 700 kg	Ø5.0		15.5/100 m	7321677136797	713679
HT-2311, 7x diam. 1.71=16 mm ² coated, grey, breaking load 970 kg	Ø6.15		13.5/100 m	7321677136889	713688
HTR-2322 stainless, hard, breaking load 450 kg	Ø2.5		3.9/100 m	7321677136810	713681
HTR-2323 stainless, hard, breaking load 700 kg	Ø3.0		5.6/100 m	7321677136827	713682
HTR-2324 stainless, hard, breaking load 1200 kg	Ø4.0		10.0/100 m	7321677136834	713683



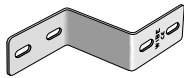
Mounting rail

Mounting rail 40					
Mounting rail to be used for wall installation of cantilever arms on porous walls to reduce the surface pressure or to enable height adjustment of cantilever arms. Material: Steel, hot-dip galvanised.					
40	48/270/26		56	7321677170012	717001



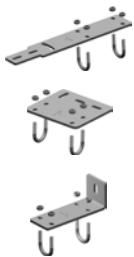
Reducers

Reducer 31					
Reducer to be used for transition joining from a wide to a narrower cable ladder. Material: Steel, hot-dip galvanised.					
31-100	48/100/200		43	7321677341719	734171
31-200	48/200/200		59	7321677341726	734172
31-300	48/300/200		74	7321677341733	734173
31-400	48/400/200		89	7321677341740	734174



Bar fixings

Round bar fixing					
Round bar fixing to be used for mounting in underground cavities and tunnels. Material: Steel, hot-dip galvanised.					
For ceilings	6/60/325		90	7321677928637	792863
For floors	6/140/130		91	7321677928651	792865
For walls	61/60/161		68	7321677928675	792867



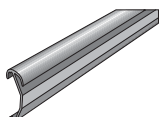
Lashing wire

Lashing wire					
Lashing wire to be used for lashing of wires on cable ladders. Material: Stainless steel, PVC.					
HTR-2303, white PVC	Ø1.25		1.3/100 m	7321677136865	713686
HTR-2313, black PVC	Ø1.25		1.3/100 m	7321677136872	713687
Lashing wire to be used for lashing of wires on cable ladders. Material: PVC.					
HT-2304, white	Ø1.5		1.8/100 m	7321677136841	713684
HT-2314, black	Ø1.5		1.8/100 m	7321677136858	713685




Profile protection

Profile protection 28P					
Profile protection to be used to increase the contact surface of the cables, when pulled over the side profile of the ladder. Material: PVC, grey.					
28P	60/28/2000		80	7321677321513	732151



End plugs

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
End plug 28/28i					
End plug to be mounted on ladder ends for sealing or protection. Material: PP/TPE.					
28, red	59/25/22		0.8	7321677090198	709019
28i, white	54/14/19		0.4	7321677354467	735446
28i, red	54/14/19		0.4	7321677319947	731994
End plug 28C, D, E, F and J					
End plug to be mounted on pendant ends to provide protection against personal injury and to make the ends of the profiles more conspicuous. Material: PP/TPE orange.					
28C for Vertical piece 2 and Pendant/fixing rail 24/34	25/19/46		0.5	7321677898756	789875
28D for Vertical piece 20 and Pendant/fixing rail 24/20	25/52/58		1	7321677090204	709020
28E for Vertical piece 2F and Pendant/fixing rail 24/48	24/30/52		0.5	7321677090211	709021
28F for Vertical piece 20FS and 30/53/110 Pendant/fixing rail 24/20FS	27/53/95		4	7321677898763	789876
28J for Vertical piece 20F and Pendant/fixing rail 24/20F	27/53/95		2.1	3606480457531	CSU794520
Cross member plug 27					
Cross member plug to be installed at the ends of the rungs of KHZ and KHZV. Used in premises with a high corrosion risk. Material: PE, grey.					
27	Ø20/10		0.15	7321677266685	726668

Screws, bolts and nuts

T-bolt 26F					
T-bolt to be used for mounting with all vertical pieces except Vertical piece 2 and with Pendant/fixing rail 24/48. Material: Steel, hot-dip galvanised.					
26F M8	M8x30		4.5	7321677347445	734744
26F M10	M10x30		7	7321677167944	716794
26F M10	M10x40		7.5	7321677167951	716795
26F M10	M10x50		8	7321677167968	716796
Screw set M12					
Screw set to be used for all joints with cable ladders KHZV and KHZPV. Set including four bolts M6S 12x25 and four nuts M6M 12. Material: Steel, hot-dip galvanised.					
M12	—		20	7321677064151	706415
Screw set 2S					
Screw set to be used for fastening of Support bracket 3 on Pendant/fixing rail 24/20F and Angle bracket 5L to the opening on Pendant rail 24/34 and 24/48. Set including screw MVBF 8x40 and nut M6MF8. Material: Steel, hot-dip galvanised.					
2S	—		2.9	7321677157358	715735
Screw set 20S					
Screw set to be used for installation of Support bracket 3 on Pendant/fixing rail 24/20 and Vertical piece 20, Angle bracket 5L to the opening on Pendant rail 24/48 and 24/20. Set including screw MVBF 8x60 and nut M6MF8. Material: Steel, hot-dip galvanised.					
20S	—		3,7	7321677157365	715736
Screw set 22S					
Screw set to be used for installation of Support bracket 3 on Vertical piece 2 and 2F, Support bracket 3 and Ceiling bracket 5 on Pendant/fixing rails 24/34 and 24/48, Angle bracket 5L against the back of Pendant/fixing rails, Pendant/fixing rails back to back. Set including screw MVBF 8x16 and nut M6MF8. Material: Steel, hot-dip galvanised.					
22S	—		1.9	7321677136940	713694
Spring nut M8/M10					
Spring nut to be used for fastening of accessories (control panels, etc.) on Pendant/fixing rail 24/48. Material: Steel, hot-dip galvanised.					
M8	—		2.7	7321677164073	716407

Screws, bolts and nuts

Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Back nut M8				
Back nut to be used for fastening of vertical pieces, etc., in the rungs of cable ladders KHZSP, KHZSPZ, KHZP, KHZPS and KHZPV. Material: Steel, hot-dip galvanised.				
M8	—	2.5	7321677186327	718632
Intermediate connection bolt 29				
Intermediate connection bolt to be used at the transition from a broad to a narrower cable ladder KHZ. Material: Steel, hot-dip galvanised.				
29-200	M10x235 (length)	14	7321677053926	705392
29-300	M10x335 (length)	19	7321677053940	705394
29-400	M10x435 (length)	24	7321677053957	705395
29-500	M10x535 (length)	29	7321677053964	705396
29-600	M10x635 (length)	34	7321677053971	705397

Marking plate

Marking plate 93				
Marking plates are part of a colour marking system that is easy to use when you want to mark out the type of cable that is placed on the cable ladder. Five different colours are available.				
93, yellow	103/0.7/100	5	7321677377046	737704
93 orange	103/0.7/100	5	7321677377053	737705
93, blue	103/0.7/100	5	7321677377060	737706
93, green	103/0.7/100	5	7321677377077	737707
93, black	103/0.7/100	5	7321677377084	737708
Marking label, equipotential				
Label to be used to show that a construction is equipotentially bonded. Available in Swedish (other languages on request). Printed on self-adhesive yellow vinyl, 250 labels per roll. Material: Self-adhesive vinyl.				
Marking label	25/-/86	—	7321677868605	786860

Mounting accessories

Mounting rail WMS15				
Mounting rail to be used for installation directly on wall for lashing of cables. Material: Steel, hot-dip galvanised.				
WMS15	3/15/2500	88	7321677928958	792895
Mounting rail WMS25				
Mounting rail to be used for installation directly on wall for lashing of cables. Material: Steel, hot-dip galvanised.				
WMS25	3/25/2500	141	7321677250004	725000
Threaded rod W76				
Threaded rod for M8 ceiling mounting of cable support. For fixing, use Flange Nut M8 and for extension, Distance nut M8. Material: Steel, HDG.				
W76/M8	8/8/1000	32	3606480483783	CSU794697
	8/8/2000	64	3606480483776	CSU734698
Flange nut				
Flange Nut M8 to be mounted on Threaded rod W76. Intended for ceiling mounting of cable support. Material: Steel, HDG.				
Flange nut M8	17/17/8	1	3606480483806	CSU794715
Joint/distance nut				
Joint nut M8 to be used as an extension and a coupler of Threaded rod W76. Intended for ceiling mounting of cable support. Material: Steel, HDG.				
Joint nut M8	15/15/30	4	3606480483790	CSU794699

Paint

Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Anti-corrosive repair paint				
Anti-corrosive repair paint Galvafruid for the repair of damages on pre-galvanised or hot-dip galvanised ladders and accessories.				
Galvafruid, 0.4 litre tin	—	104	7321677176373	717637

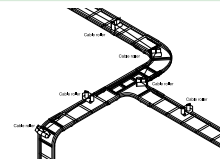
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Tools

Cable roller S				
Cable roller used to facilitate the pulling of cables and lines. Easily installed on all Wibe cable ladders except the high-sided WHS ladders (outer mounting hole). Also suitable for external/internal profiles of all 90° bends, T-junctions, X-junctions and risers (inner mounting hole). With a height adjustment of 45 mm to leave room for cables to pass under the roller. Material: Steel, electro-galvanised.				
S	230/80/204	230	7321677186600	718660
Cable roller 38 Rig'n roll				
Cable roller used for mounting on Wibe cable ladders with belonging junctions and branches. Material: Stainless steel AISI316L (cable roller).				
38 Rig'n roll	220/50/130	48	7321677359981	735998
Bag	375/160/460	230	7321677801862	780186
Set 66 (1 bag + 10 Cable rollers 38 Rig'n roll)	375/160/460	710	7321677801879	780187

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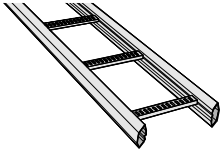


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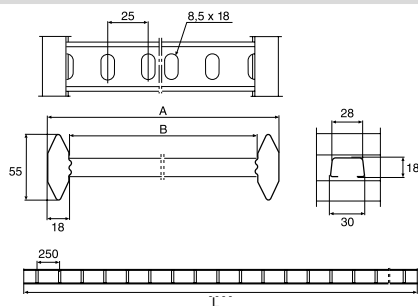
Cable ladders

Type	Dimensions A/B/C mm	 Weight kg/100 m	EAN code	Ref. No.
Cable ladders KHZP				
Cable ladder for indoor or outdoor industrial applications. With closed side profiles and profile-shaped rungs. Must not be used as walkway. Material: Steel, Zinkpox coated white.				
KHZP-150	55/147/6000	260	7321677185917	718591
KHZP-200	55/197/6000	270	7321677185924	718592
KHZP-300	55/297/6000	290	7321677185931	718593
KHZP-400	55/397/6000	315	7321677185948	718594
KHZP-500	55/497/6000	340	7321677185955	718595
KHZP-600	55/597/6000	360	7321677185962	718596
KHZP-800	55/797/6000	490	7321677280339	728033
KHZP-1000	55/997/6000	560	7321677185979	718597



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Dimension table

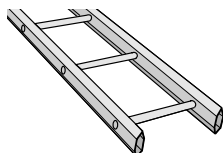



Type	A mm	B mm	L mm	Ref. No.
KHZP-150	147	111	6000	718591
KHZP-200	197	161	6000	718592
KHZP-300	297	261	6000	718593
KHZP-400	397	361	6000	718594
KHZP-500	497	461	6000	718595
KHZP-600	597	561	6000	718596
KHZP-800	797	761	6000	728033
KHZP-1000	997	961	6000	718597

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Cable ladders

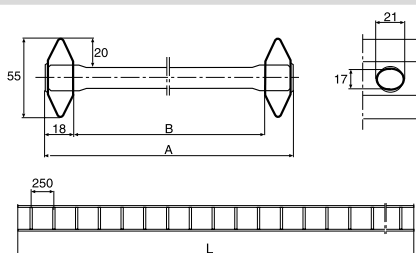
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Type	Dimensions A/B/C mm	 Weight kg/100 m	EAN code	Ref. No.
Cable ladders KHZ				
Cable ladder for indoor or outdoor industrial applications. With closed side profiles and round rungs. Must not be used as walkway. Material: Steel, Zinkpox coated white.				
KHZ-150	55/147/6000	270	7321677140589	714058
KHZ-200	55/197/6000	280	7321677140596	714059
KHZ-300	55/297/6000	300	7321677140619	714061
KHZ-400	55/397/6000	320	7321677140626	714062
KHZ-500	55/497/6000	340	7321677140633	714063
KHZ-600	55/597/6000	360	7321677140640	714064

Dimension table

B223699



Type	A mm	B mm	L mm	Ref. No.
KHZ-150	147	111	6000	714058
KHZ-200	197	161	6000	714059
KHZ-300	297	261	6000	714061
KHZ-400	397	361	6000	714062
KHZ-500	497	461	6000	714063
KHZ-600	597	561	6000	714064

Joins

Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Joint 21				
Joint to be used for straight, rigid joining of cable ladders, bends, junctions and risers. It also reduced the transition resistance and prevents the ladders from slipping apart. M6 screws included. Material: Steel, Zinkpox coated white.				
21	64/22/300	46	7321677912001	791200
Joint 9				
Joint to be used for straight joining of cable ladders KHZ, KHZP and KHZPS. The teeth of the joint should face downwards. Under load, the ladders are prevented from slipping apart. If the joint is above a bracket, the teeth should face upwards. Material: Steel, Zinkpox coated white.				
9	52/4/200	16	7321677140664	714066
Dropper joint 32				
Dropper joint used to form vertical branches in centre position under/on top of cable ladders. Screw M6 included. Material: Steel, Zinkpox coated white.				
32	130/22/200	75	7321677808748	780874
Joint 45				
Joint to be fitted as a joining plate in a cut KHZV/KHZPV ladder. Screws M8 and M12 + nuts are included. Material: Steel, Zinkpox coated white.				
45	150/4/95	50	7321677142279	714227


Couplers

Coupler 22				
Coupler to be used for horizontal or vertical branches at any desired angle. M6 screws included. Material: Steel, Zinkpox coated white.				
22	60/24/150	21	7321677184101	718410
Junction coupler 14				
Junction coupler to be used for T- and X-junctions. Suitable for cable ladders KHZ, KHZP, KHZSP and KHZPS, all cable widths. M6 screws included. Material: Steel, Zinkpox coated white.				
14	65/73/350	49	7321677909063	790906
Coupler 44				
Coupler to be used for horizontal coupler of cable ladders KHZV/KHZPV. Also to be used for branches and as an end connection against a wall. Four screws M8x30 and nuts are included. Material: Steel, Zinkpox coated white.				
44	135/-/120	50	7321677208166	720816
Coupler 51				
Coupler to be used as a self-supporting vertical coupler of cable ladders KHZV/KHZPV. Two screws M12 and nuts are included. Material: Steel, Zinkpox coated white.				
51	150/-/193+138	150	7321677319114	731911

Clamps

Profile clamp 42				
Profile clamp to be used for installations where the cable ladder is to be fixed to cantilever arms, support brackets, etc. Screw M8 and nut included. Material: Steel, Zinkpox coated white.				
42	54/30/57	11	7321677141647	714164
Profile clamp 43				
Profile clamp to be used for installations where the cable ladders KHZV and KHZPV are to be fixed to cantilever arms, support brackets, etc. Screw M8 and nut included. Material: Steel, Zinkpox coated white.				
43	21/30/43	5	7321677141654	714165
Clamp 12				
Clamp to be used on the side profile of the cable ladder for installation of accessories. Material: Steel, Zinkpox coated white.				
12/70	125/40/25	19	7321677329779	732977
12/120	175/40/25	24	7321677329786	732978

Clamps

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Profile clamp 41					
Profile clamp to be used to install a pendant/fixing rail or mounting plate, etc., on the cable ladder profile. Material: Steel, Zinkpox coated white.					
41	125/30/16		10	7321677219452	721945
Profile support piece 46					
Profile support piece to be fitted between the ladder and the vault pipe when a support bracket is positioned between existing profile support pieces. For cable ladders KHZV and KHZPV. Material: Steel, Zinkpox coated white.					
46	72/18/30		15	7321677141791	714179


Cantilever arms

Cantilever arm 50L, 50					
Cantilever arm for mounting on walls, pendant/fixing rails or vertical pieces. Material: Steel, Zinkpox coated white.					
50L-100	85/40/150		24	7321677251131	725113
50L-150	85/40/200		28	7321677251148	725114
50L-200	85/40/250		34	7321677251155	725115
50L-250	105/40/298		46	7321677251162	725116
50L-300	105/40/348		54	7321677251179	725117
50L-400	120/50/447		103	7321677251186	725118
50L-500	140/50/548		160	7321677251193	725119
50L-600	150/50/646		191	7321677251209	725120
50-100	85/40/150		24	7321677234400	723440
50-150	85/40/200		28	7321677234417	723441
50-200	85/40/250		34	7321677234424	723442
50-250	105/40/300		52	7321677234431	723443
50-300	105/40/350		60	7321677234448	723444
50-400	120/50/450		228	7321677234455	723445
50-500	140/50/550		172	7321677234462	723446
50-600	150/50/650		215	7321677234479	723447
50-700	150/50/750		270	7321677277827	727782
50-800	160/50/850		310	7321677277834	727783
50-900	160/50/950		350	7321677277841	727784
50-1000	170/50/1050		390	7321677277858	727785

Wall and support brackets

Support bracket 3					
Support bracket to be used for centre installation of cable ladders on pendant/fixing rails and vertical pieces. Material: Steel, Zinkpox coated white.					
3-150	92/57/150		26	7321677218622	721862
3-200	92/57/200		33	7321677218639	721863
3-300	92/57/300		58	7321677218646	721864
3-400	92/57/400		78	7321677218653	721865
3-500	92/57/500		120	7321677218660	721866
3-600	92/57/600		145	7321677218677	721867
Wall bracket 11/25 and 11/75					
Wall bracket to be used for vertical or horizontal installations of cable ladders against a wall. Maximum loads for vertical mounting: 300 kg (3 kN). For mounting against a rung the max. load is 500 kg (5 kN) for 11/25. Maximum loads for horizontal mounting: 11/25 250 kg (2.5 kN), 11/75 100 kg (1 kN). Material: Steel, Zinkpox coated white.					
11/25	85/40/71		24	7321677132089	713208
11/75	135/40/71		30	7321677132072	713207

Vertical pieces

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
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Vertical piece 2

Vertical piece to be used for installation of Support bracket 3, symmetrical loading. Not suitable for cable ladders KHZV and KHZPV. Can be joined to Pendant/fixing rail 24/34 with Pendant joint 2J.
Material: Steel, Zinkpox coated white.

2-300	279/80/135		52	7321677162833	716283
2-400	392/80/135		62	7321677162840	716284
2-500	504/80/135		72	7321677162857	716285
2-700	729/80/135		93	7321677162864	716286
2-1000	1022/80/135		120	7321677162871	716287

Vertical piece 2F

Vertical piece to be used for installation of Support bracket 3 or Cantilever arm 50. Can be joined to Pendant/fixing rail 24/48 with Pendant joint 2FJ.
Material: Steel, Zinkpox coated white.

2F-280	280/80/135		80	7321677172016	717201
2F-370	370/80/135		100	7321677172023	717202
2F-505	505/80/135		130	7321677172030	717203
2F-730	730/80/135		170	7321677172047	717204
2F-1000	1000/80/135		220	7321677172054	717205
2F-1500	1495/80/135		290	7321677872770	787277

Vertical piece 20

Vertical piece, two-sided, to be used for vertical installation together with Cantilever arm 50, from a ceiling or on a floor. Can also be installed as a cantilever arm on a wall.
Material: Steel, Zinkpox coated white.

20-500	505/155/150		243	7321677162765	716276
20-700	730/155/150		324	7321677162772	716277
20-1000	1000/155/150		458	7321677162789	716278
20-1500	1495/155/150		652	7321677162796	716279
20-2000	1990/155/150		799	7321677162802	716280
20-3000	2980/155/150		1177	7321677162819	716281

Vertical piece 20F

Vertical piece, two-sided, to be used for mounting from the ceiling or on the floor. Suitable for rather heavy loads.
Material: Steel, Zinkpox coated white.

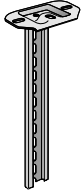
20F-1000	995/160/160		590	7321677184842	718484
20F-1500	1490/160/160		790	7321677184859	718485
20F-2000	1985/160/160		990	7321677184866	718486
20F-3000	2980/160/160		1240	7321677162826	716282

Vertical piece 20FS

Vertical piece, two-sided, to be used for mounting from the ceiling or on the floor. Suitable for very heavy loads.
Material: Steel, Zinkpox coated white.

20FS-1500	1495/270/150		1460	7321677205219	720521
20FS-2000	1990/270/150		1810	7321677205226	720522
20FS-2500	2485/270/150		2160	7321677205233	720523
20FS-3000	2980/270/150		2520	7321677205240	720524

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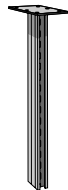
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B223374



B223372




Pendant/Fixing rails

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Pendant/Fixing rail 24/34					
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc. Material: Steel, Zinkpox coated white.					
24/34	2970/16/42		240	7321677163090	716309
Pendant/Fixing rail 24/48					
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc. Material: Steel, Zinkpox coated white.					
24/48	2970/26/48		520	7321677163069	716306
24/48	5940/26/48		1120	7321677317240	731724
Pendant/Fixing rail 24/20					
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc. Material: Steel, Zinkpox coated white.					
24/20	2970/55/48		1130	7321677163076	716307
Pendant/Fixing rail 24/20F					
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc. Material: Steel, Zinkpox coated white.					
24/20F-3000	2970/89/48		1160	7321677163083	716308
24/20F-6000	5940/89/48		2370	7321677205257	720525
Pendant/Fixing rail 24/20FS					
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc. Material: Steel, Zinkpox coated white.					
24/20FS	5940/106/48		4200	7321677205264	720526

Base plate

Pendant base plate 520					
Pendant base plate to be used as a ceiling or floor base plate for Pendant/Fixing rail 24/20 in any desired length. Four screws MVBf 8x80 and nuts included. Material: Steel, Zinkpox coated white.					
520	278/160/160		400	7321677184880	718488

Pendant bar, rail fixing

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Pendant bar 1					
Pendant bar to be installed in order to reduce the deflection of heavily loaded vertical pieces. Installed with T-bolt and Expansion bolt. Material: Steel, Zinkpox coated white.					
1-300	315/161/40		35	7321677176434	717643
1-500	515/166/40		53	7321677176441	717644
1-800	815/246/40		82	7321677176458	717645
1-1500	1296/35/50		560	7321677205301	720530
Rail fixing support 24/20F, 24/20FS					
Rail fixing support to be used with Pendant/fixing rails 24/20F and 24/20FS respectively, for mounting between floor and ceiling. Material: Steel, Zinkpox coated white.					
24/20F	106/165/80		167	7321677205271	720527
24/20FS	106/185/80		190	7321677205288	720528

Brackets, pendant joint

Angle bracket 5L					
Angle bracket to be used for steel wire installation in ceilings. Also used when assembling pendant/fixing rails to frames for switching cabinets and electrical control centres and for fixing an upright between floor and ceiling. Assembled with a T-bolt. Material: Steel, Zinkpox coated white.					
5L	70/45/49		15	7321677317929	731792
Angle bracket 5LS					
Angle bracket to be used when assembling pendant/fixing rails to frames for switching cabinets and electrical control centres and for fixing an upright between floor and ceiling. Assembled with a T-bolt. Material: Steel, Zinkpox coated white.					
5LS	111/71/60		50	7321677205295	720529
Bracket 60/40					
Bracket to be used together with Pendant/fixing rail 24/48 to reduce the deflection of long vertical pieces. Material: Steel, Zinkpox coated white.					
60/40	95/23/40		10	7321677205318	720531
Pendant joint 2J, 2FJ and 20J					
Pendant joint to be used for joining pendant/fixing rails and vertical pieces. Screws M8x16 (2J and 2FJ) or M8x70 (20J) and nuts included. Material: Steel, Zinkpox coated white.					
2J	200/18/48		43	7321677163038	716303
2FJ	200/18/55		46	7321677163045	716304
20J	200/36/55		94	7321677163021	716302

Ceiling brackets

Ceiling bracket 5					
Ceiling bracket to be used for installations with Pendant/fixing rails 24/34 and 24/48. Screw not included. Material: Steel, Zinkpox coated white.					
5	100/135/40		35	7321677162932	716293
Ceiling bracket 5TP					
Ceiling bracket to be used for installations of Vertical pieces 2, 2F and 20 in ceilings with a trapezoidal sheet profile. Material: Steel, Zinkpox coated white.					
5TP	75/35/50		12	7321677162956	716295

Take-off hook

Fixed take-off hook 4					
Fixed take-off hook to be used for 90° horizontal branches. Material: Aluminium.					
4	71/86/19		8	7321677140671	714067
Take-off hook 47					
Take-off hook to be used on cable ladders KHZV and KHZPV to make 90° branches. Screw M12 nd nuts are included. Material: Steel, Zinkpox coated white.					
47	155/10/73		27	7321677914012	791401

End connection

Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
End connection 10				
End connection to be used for the connection of a ladder vertically to a floor or horizontally to a wall. Material: Aluminium.				
10	60/55/60	8	7321677140855	714085

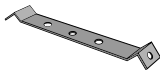
B224115



Lighting bracket

Lighting bracket 200				
Lighting bracket to be used for the installation of lighting fittings beneath cable ladders KHZV and KHZPV 200. Material: Steel, Zinkpox coated white.				
200	24/25/215	16	7321677186440	718644

B223175



Beam clamp

Beam clamp 5BK				
Beam clamp to be used for the installation of Vertical pieces 2, 2F or 20 on I-beams. For flange thickness max. 13 mm and 14-30 mm respectively. Material: Steel, Zinkpox coated white.				
5BK-10 (max. 13 mm)	30/50/45	15	7321677162949	716294
5BK-30 (14-30 mm)	50/50/45	18	7321677184873	718487

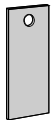
B223404



Back plate

Back plate 40				
Back plate to be used for installation behind Cantilever arm 50 to reduce the surface pressure on porous walls. Material: Steel, Zinkpox coated white.				
40	150/-/60	55	7321677140299	714029

B223324



Bends

Riser 18				
Riser piece to be fitted to the cable ladders by using Joint 21. Material: Steel, Zinkpox coated white.				
18-150	452/147/452	180	7321677181841	718184
18-200	452/197/452	190	7321677181858	718185
18-300	452/297/452	210	7321677181872	718187
18-400	452/397/452	230	7321677181889	718188
18-500	452/497/452	250	7321677181896	718189
18-600	452/597/452	270	7321677181902	718190
18-800	452/897/452	310	7321677280346	728034
18-1000	452/1097/452	350	7321677181919	718191

P128960







90° bend 15, interior				
Interior bend piece to be fitted to the cable ladders by using Joint 21, creating a 90° bend. Inner radius 268 mm. Material: Steel, Zinkpox coated white.				
15-150	55/547/547	220	7321677160747	716074
15-200	55/597/597	240	7321677160754	716075
15-300	55/697/697	290	7321677160778	716077
15-400	55/797/797	340	7321677160785	716078
15-500	55/897/897	390	7321677160792	716079
15-600	55/997/997	440	7321677160808	716080
15-800	55/1197/1197	640	7321677280438	728043
15-1000	55/1397/1397	760	7321677160815	716081


B224487



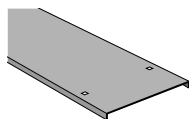
Bends

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
90° bend 15, exterior					
Exterior bend piece to be fitted to the cable ladders by using Joint 21, creating a 90° bend. Material: Steel, Zinkpox coated white.					
 B223467	15-150	55/703/703	320	7321677161867	716186
	15-200	55/933/933	370	7321677161874	716187
	15-300	55/1133/1133	460	7321677161898	716189
	15-400	55/1333/1333	550	7321677161904	716190
	15-500	55/1533/1533	640	7321677161911	716191
	15-600	55/1733/1733	760	7321677161928	716192
	15-800	55/2133/2133	1060	7321677280520	728052
	15-1000	55/2533/2533	1280	7321677280537	728053
T-junction 16					
T-junction piece to be fitted to the cable ladders by using Joint 21. Material: Steel, Zinkpox coated white.					
 B223513	16-150	55/944/547	300	7321677162017	716201
	16-200	55/997/597	320	7321677162024	716202
	16-300	55/1097/697	390	7321677162048	716204
	16-400	55/1197/797	440	7321677162055	716205
	16-500	55/1297/897	530	7321677162062	716206
	16-600	55/1397/997	600	7321677162079	716207
	16-1000	55/1797/1397	860	7321677162086	716208
	X-junction 17				
X-junction piece to be fitted to the cable ladders by using Joint 21. Material: Steel, Zinkpox coated white.					
 B223514	17-150	55/547/547	380	7321677162178	716217
	17-200	55/997/997	400	7321677162185	716218
	17-300	55/1097/1097	500	7321677162208	716220
	17-400	55/1197/1197	550	7321677162215	716221
	17-500	55/1297/1297	600	7321677162222	716222
	17-600	55/1397/1397	860	7321677162239	716223
	17-1000	55/1797/1797	1220	7321677162246	716224

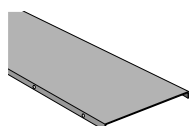
Covers/Cover plates

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Cover 64					
Cover to be used for vertically mounted cable ladders. Material: Steel, Zinkpox coated white.					
64-150	10/2000/151		290	7321677825691	782569
64-200	10/2000/201		370	7321677825707	782570
64-300	10/2000/301		540	7321677825714	782571
64-400	10/2000/401		710	7321677825721	782572
64-500	10/2000/501		1020	7321677825738	782573
64-600	10/2000/601		1210	7321677825745	782574
64-800	10/2000/801		1660	7321677825752	782575
64-1000	10/2000/1001		2000	7321677825769	782576
Cover W5					
Cover to be used to protect the cable runs from dust, dirt, liquids, etc. Outdoors, it protects against rain and sun. Suitable for all cable ladders. Material: Steel, Zinkpox coated white.					
W5-150	10/2000/151		190	7321677823659	782365
W5-200	10/2000/201		250	7321677823666	782366
W5-300	10/2000/301		360	7321677823673	782367
W5-400	10/2000/401		680	7321677823680	782368
W5-500	10/2000/501		880	7321677823697	782369
W5-600	10/2000/601		1050	7321677823703	782370
W5-800	10/2000/801		1420	7321677822140	782214
W5-1000	10/2000/1001		1730	7321677823710	782371
Cover 90° interior bend					
Cover to be used for 90° interior bends. To be installed with a Profile support piece 37, Cover clamp and Cover joint. Material: Steel, Zinkpox coated white.					
150	10/420/420		65	7321677817511	781751
200	10/470/470		91	7321677817528	781752
300	10/570/570		143	7321677817535	781753
400	10/670/670		221	7321677817542	781754
500	10/770/770		299	7321677817559	781755
600	10/870/870		390	7321677817566	781756
800	10/1070/1070		460	7321677817948	781794
1000	10/1270/1270		871	7321677817573	781757
Cover T-junction					
Cover to be used for T-junctions. To be installed with a Profile support piece 37, Cover clamp and Cover joint. Material: Steel, Zinkpox coated white.					
150	10/400/651		182	7321677817658	781765
200	10/450/701		221	7321677817665	781766
300	10/550/801		312	7321677817672	781767
400	10/650/901		416	7321677817689	781768
500	10/750/1001		533	7321677817696	781769
600	10/850/1101		676	7321677817702	781770
800	10/1050/1301		710	7321677817979	781797
1000	10/1240/1501		1352	7321677817719	781771
Profile support piece 37					
Profile support piece to be used when installing covers. To be mounted on approximately every 0.5 m along both sides of the cable ladder. Used together with cover clamp for locking covers. Material: Steel, Zinkpox coated white.					
37	136/20/50		6	7321677823826	782382
Cover clamp					
Cover clamps to be used when installing a cover on a Profile support piece 37. Material: Steel, Zinkpox coated white.					
Cover clamp	32/10.5/20		1.5	7321677823840	782384

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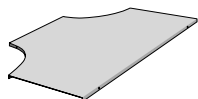
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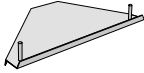


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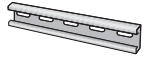
Angle plate

Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Angle plate 33				
Angle plate to be used together with 90° horizontal T-junctions. Recommended for all cable ladders. Material: Steel, Zinkpox coated white.				
33/2	25/195/490	90	7321677141685	714168



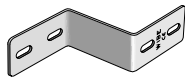
Mounting rail

Mounting rail 40				
Mounting rail to be used for wall installation of cantilever arms on porous walls to reduce the surface pressure or to enable height adjustment of cantilever arms. Material: Steel, Zinkpox coated white.				
40	48/270/26	56	7321677290451	729045



Reducers

Reducer 31				
Reducer to be used for transition joining from a wide to a narrower cable ladder. Material: Steel, Zinkpox coated white.				
31-100	48/100/200	43	7321677354337	735433
31-200	48/200/200	59	7321677354344	735434
31-300	48/300/200	74	7321677354351	735435
31-400	48/400/200	89	7321677354368	735436



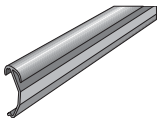
Lashing wire

Lashing wire				
Lashing wire to be used for lashing of wires on cable ladders. Material: Stainless steel, PVC.				
HTR-2303, white PVC	Ø1.25	1.3/100 m	7321677136865	713686
HTR-2313, black PVC	Ø1.25	1.3/100 m	7321677136872	713687
Lashing wire to be used for lashing of wires on cable ladders. Material: PVC.				
HT-2304, white	Ø1.5	1.8/100 m	7321677136841	713684
HT-2314, black	Ø1.5	1.8/100 m	7321677136858	713685



Profile protection

Profile protection 28P				
Profile protection to be used to increase the contact surface of the cables, when pulled over the side profile of the ladder. Material: PVC, grey.				
28P	60/28/2000	80	7321677321513	732151



End plugs

End plug 28/28i				
End plug to be mounted on ladder ends for sealing or protection. Material: PP/TPE.				
28, red	59/25/22	0.8	7321677090198	709019
28i, white	54/14/19	0.4	7321677354467	735446
28i, red	54/14/19	0.4	7321677319947	731994



End plug 28C, D, E, F and J				
End plug to be mounted on pendant ends to provide protection against personal injury and to make the ends of the profiles more conspicuous. Material: PP/TPE orange.				
28C for Vertical piece 2 and Pendant/fixing rail 24/34	25/19/46	0.5	7321677898756	789875
28D for Vertical piece 20 and Pendant/fixing rail 24/20	25/52/58	1	7321677090204	709020
28E for Vertical piece 2F and Pendant/fixing rail 24/48	24/30/52	0.5	7321677090211	709021
28F for Vertical piece 20FS and 30/53/110 Pendant/fixing rail 24/20FS		4	7321677898763	789876
28J for Vertical piece 20F and Pendant/Fixing rail 24/20F	27/53/95	2.1	3606480457531	CSU794520



End plugs

Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Cross member plug 27				
Cross member plug to be installed at the ends of the rungs of KHZ and KHZV. Used in premises with a high corrosion risk. Material: PE, grey.				
27	Ø20/10	0.15	7321677266685	726668

B223512



Marking plates

Marking plate 93				
Marking plates are part of a colour marking system that is easy to use when you want to mark out the type of cable that is placed on the cable ladder. Five different colours are available.				
93, yellow	103/0.7/100	5	7321677377046	737704
93 orange	103/0.7/100	5	7321677377053	737705
93, blue	103/0.7/100	5	7321677377060	737706
93, green	103/0.7/100	5	7321677377077	737707
93, black	103/0.7/100	5	7321677377084	737708
Marking label, equipotential				
Label to be used to show that a construction is equipotentially bonded. Available in Swedish (other languages on request). Printed on self-adhesive yellow vinyl, 250 labels per roll.				
Marking label	25/-/86	-	7321677868605	786860

B223240



P138944



Paint

Repair paint				
Repair paint for the repair of minor damages of powder-coated products. Colour white RAL 9003, gloss 30.				
Spray bottle, 0.4 litres	—	60	7321677397136	739713

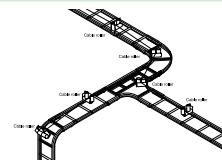
B224228



Tools

Cable roller S				
Cable roller used to facilitate the pulling of cables and lines. Easily installed on all Wibe cable ladders except the high-sided WHS ladders (outer mounting hole). Also suitable for external/internal profiles of all 90° bends, T-junctions, X-junctions and risers (inner mounting hole). With a height adjustment of 45 mm to leave room for cables to pass under the roller. Material: Steel, electro-galvanised.				
S	230/80/204	230	7321677186600	718660
Cable roller 38 Rig'n roll				
Cable roller used for mounting on Wibe cable ladders with belonging junctions and branches. Material: Stainless steel AISI316L (cable roller).				
38 Rig'n roll	220/50/130	48	7321677359981	735998
Bag	375/160/460	230	7321677801862	780186
Set 66 (1 bag + 10 Cable rollers 38 Rig'n roll)	375/160/460	710	7321677801879	780187

P129877



B223235



B224100

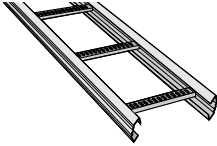


Steel cable ladders

Stainless steel AISI 316L
Corrosion class C5-M

Cable ladders

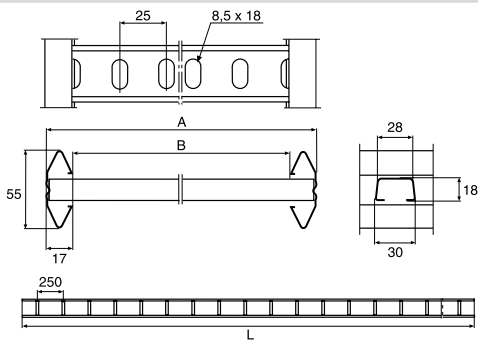
B223303



Type	Dimensions A/B/C mm	Weight kg/100 m	EAN code	Ref. No.
Cable ladder KHZSP				
Cable ladder for both indoor and outdoor applications having high demands on corrosion resistance. With open side profiles provided with draining holes and profile-shaped rungs. Material: Stainless steel, AISI316L.				
KHZSP-200	198/164/5995	198	3606480446856	CSU794445
KHZSP-300	298/264/5995	217	3606480446863	CSU794446
KHZSP-400	398/364/5995	237	3606480446870	CSU794447
KHZSP-500	498/464/5995	257	3606480446887	CSU794448
KHZSP-600	598/564/5995	277	3606480446894	CSU794449

Dimension table

B224475



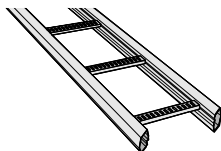
Type	A mm	B mm	L mm	Ref. No.
KHZSP-200	198	164	5995	CSU794445
KHZSP-300	298	264	5995	CSU794446
KHZSP-400	398	364	5995	CSU794447
KHZSP-500	498	464	5995	CSU794448
KHZSP-600	598	564	5995	CSU794449

Steel cable ladders

Stainless steel AISI 316L
Corrosion class C5-M

Cable ladders

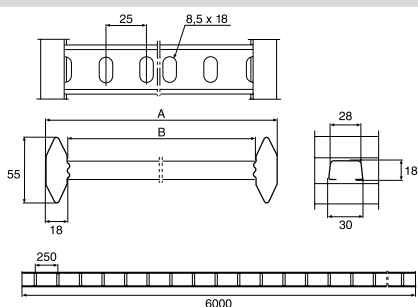
B223295



Type	Dimensions A/B/C mm	Weight kg/100 m	EAN code	Ref. No.
Cable ladders KHZP				
Cable ladder for indoor or outdoor industrial applications. With closed side profiles and profile-shaped rungs. Must not be used as walkway. Material: Stainless steel AISI316L.				
KHZP-150	55/147/6000	260	7321677273829	727382
KHZP-200	55/197/6000	270	7321677273836	727383
KHZP-300	55/297/6000	290	7321677273843	727384
KHZP-400	55/397/6000	315	7321677273850	727385
KHZP-500	55/497/6000	340	7321677273867	727386
KHZP-600	55/597/6000	360	7321677273874	727387
KHZP-800	55/797/6000	490	7321677821280	782128
KHZP-1000	55/997/6000	560	7321677821297	782129

Dimension table

B223877



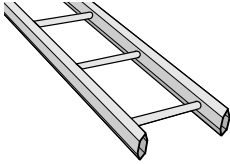
Type	A mm	B mm	L mm	Ref. No.
KHZP-150	147	111	6000	727382
KHZP-200	197	161	6000	727383
KHZP-300	297	261	6000	727384
KHZP-400	397	361	6000	727385
KHZP-500	497	461	6000	727386
KHZP-600	597	561	6000	727387
KHZP-800	797	761	6000	782128
KHZP-1000	997	961	6000	782129


Steel cable ladders

Stainless steel AISI 316L
Corrosion class C5-M

Cable ladders

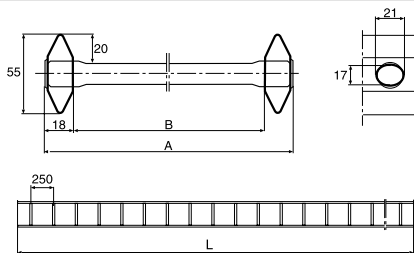
B223596



Type	Dimensions A/B/C mm		Weight kg/100 m	EAN code	Ref. No.
Cable ladder KHZ					
Cable ladder for indoor or outdoor industrial applications. With closed side profiles and round rungs that do not penetrate the outer side of the side profile. Must not be used as walkway. Material: Stainless steel AISI316L.					
KHZ-150	55/147/6000		270	7321677273768	727376
KHZ-200	55/197/6000		280	7321677273775	727377
KHZ-300	55/297/6000		300	7321677273782	727378
KHZ-400	55/397/6000		320	7321677273799	727379
KHZ-500	55/497/6000		340	7321677273805	727380
KHZ-600	44/597/6000		360	7321677273812	727381

Dimension table

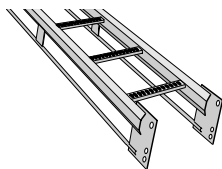
B223589



Type	A mm	B mm	L mm	Ref. No.
KHZ-150	147	111	6000	727376
KHZ-200	197	161	6000	727377
KHZ-300	297	261	6000	727378
KHZ-400	397	361	6000	727379
KHZ-500	497	461	6000	727380
KHZ-600	597	561	6000	727381

Cable ladders

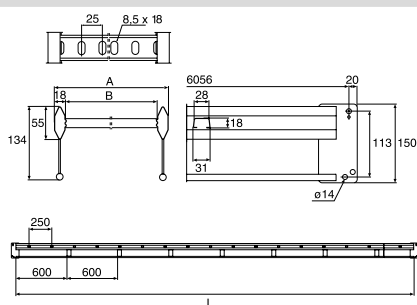
B2224529



Type	Dimensions A/B/C mm	Weight kg/100 m	EAN code	Ref. No.
Cable ladders KHZPV				
Reinforced cable ladder for indoor or outdoor industrial applications. Designed for extreme support distances and loadings. With closed side profiles and profile-shaped rungs. Must not be used as walkway. Material: Stainless steel AISI316L.				
KHZPV-200	150/197/6000	426	7321677840663	784066
KHZPV-300	150/297/6000	448	7321677840670	784067
KHZPV-400	150/397/6000	470	7321677840687	784068
KHZPV-500	150/497/6000	493	7321677840694	784069
KHZPV-600	150/597/6000	515	7321677840700	784070
KHZPV-800	150/797/6000	587	7321677840717	784071
KHZPV-1000	150/997/6000	703	7321677840724	784072


Dimension table

B2223676



Type	A mm	B mm	L mm	Ref. No.
KHZPV-200	197	161	6000	784066
KHZPV-300	297	261	6000	784067
KHZPV-400	397	361	6000	784068
KHZPV-500	497	461	6000	784069
KHZPV-600	597	561	6000	784070
KHZPV-800	797	761	6000	784071
KHZPV-1000	997	961	6000	784072

Joints

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Joint 21					
Joint to be used for straight, rigid joining of cable ladders, bends, junctions and risers. It also reduces the transition resistance and prevents the ladders from slipping apart. M6 screws included. Material: Stainless steel AISI316L.					
21	64/22/200		37	7321677257515	725751
Joint 45					
Joint to be fitted as a joining plate in a cut KHZPV ladder. Screws M8 and M12 + nuts are included. Material: Stainless steel AISI316L.					
45	150/4/95		50	7321677928736	792873

Couplers

Coupler 22					
Coupler to be used for horizontal or vertical branches at any desired angle. M6 screws included. Material: Stainless steel AISI316L.					
22	60//24/150		21	7321677257607	725760
Junction coupler 14					
Junction coupler to be used for T- and X-junctions. Suitable for cable ladders KHZ, KHZP, KHZSP and KHZPS, all cable widths. M6 screws included. Material: Stainless steel AISI316L.					
14	65/73/350		49	7321677271955	727195
Coupler 44					
Coupler to be used for horizontal coupler of cable ladders KHZV/KHZPV. Also to be used for branches and as an end connection against a wall. Four screws M8x30 and nuts are included. Material: Stainless steel AISI316L.					
44	135/-/120		50	7321677928880	792888
Coupler 51					
Coupler to be used as a self-supporting vertical coupler of cable ladders KHZV/KHZPV. Two screws M12 and nuts are included. Material: Stainless steel AISI316L.					
51	150/-/193+138		150	7321677319145	731914

Clamps, support piece

Profile clamp 42					
Profile clamp to be used for installations where the cable ladder is to be fixed to cantilever arms, support brackets, etc. Screw M8 and nut included. Material: Stainless steel AISI316L.					
42	54/30/57		11	7321677257638	725763
Profile clamp 43					
Profile clamp to be used for installations where the cable ladders KHZV and KHZPV are to be fixed to cantilever arms, support brackets, etc. Screw M8 and nut included. Material: Stainless steel AISI316L.					
43	21/30/43		5	7321677928934	792893
Clamp 12					
Clamp to be used on the side profile of the cable ladder for installation of accessories. Material: Stainless steel AISI316L.					
12/70	125/40/25		19	7321677286515	728651
12/120	175/40/25		24	7321677286522	728652
Profile clamp 41					
Profile clamp to be used to install a pendant/fixing rail or mounting plate, etc., on the cable ladder profile. Material: Stainless steel AISI316L.					
41	125/30/16		10	7321677833740	783374
Profile support piece 46					
Profile support piece to be fitted between the ladder and the vault pipe when a support bracket is positioned between existing profile support pieces. For cable ladders KHZV and KHZPV. Material: Stainless steel AISI316L.					
46	72/18/30		15	7321677928774	792877

Cantilever arms

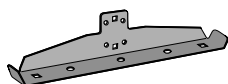
P123978



Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Cantilever arm 50				
Cantilever arm for mounting on walls, pendant/fixing rails or vertical pieces. Material: Stainless steel AISI316L.				
50-100	85/40/150	24	7321677256181	725618
50-150	85/40/200	28	7321677256198	725619
50-200	85/40/250	34	7321677256204	725620
50-250	105/40/300	52	7321677256211	725621
50-300	105/40/350	60	7321677256228	725622
50-400	120/50/450	228	7321677256235	725623
50-500	140/50/550	172	7321677256242	725624
50-600	150/50/650	215	7321677256259	725625

Wall and support brackets

B223325



Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Support bracket 3				
Support bracket to be used for centre installation of cable ladders on pendant/fixing rails and vertical pieces. Material: Stainless steel AISI316L.				
3-150	70/39/154	15	7321677264339	726433
3-200	70/39/204	20	7321677264346	726434
3-300	70/40/306	47	7321677264353	726435
3-400	70/40/406	62	7321677264360	726436
3-500	70/40/506	103	7321677264377	726437
3-600	70/40/606	123	7321677264384	726438

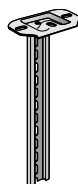
B223256



Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Wall bracket 11/25 and 11/75				
Wall bracket to be used for vertical or horizontal installations of cable ladders against a wall. Maximum loads for vertical mounting: 300 kg (3 kN). For mounting against a rung the max. load is 500 kg (5 kN) for 11/25. Maximum loads for horizontal mounting: 11/25 250 kg (2.5 kN), 11/75 100 kg (1 kN). Material: Stainless steel AISI316L.				
11/25	85/40/71	24	7321677257744	725774
11/75	135/40/71	30	7321677257751	725775

Vertical pieces

B223804



Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Vertical piece 2				
Vertical piece to be used for installation of Support bracket 3, symmetrical loading. Not suitable for cable ladders KHZV and KHZPV. Can be joined to Pendant/fixing rail 24/34 with Pendant joint 2J. Material: Stainless steel AISI316L.				
2-300	279/80/135	52	7321677255573	725557
2-400	392/80/135	62	7321677255580	725558
2-500	504/80/135	72	7321677255597	725559
2-700	729/80/135	93	7321677255603	725560
2-1000	1022/80/135	120	7321677255610	725561

P123980




Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Vertical piece 2F				
Vertical piece to be used for installation of Support bracket 3 or Cantilever arm 50. Can be joined to Pendant/fixing rail 24/48 with Pendant joint 2FJ. Material: Stainless steel AISI316L.				
2F-280	280/80/135	80	7321677255627	725562
2F-370	370/80/135	100	7321677255634	725563
2F-505	505/80/135	130	7321677255641	725564
2F-730	730/80/135	170	7321677255658	725565
2F-1000	1000/80/135	220	7321677255665	725566
2F-1500	1495/80/135	290	7321677872787	787278

P123981



Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Vertical piece 20				
Vertical piece, two-sided, to be used for vertical installation together with Cantilever arm 50, from a ceiling or on a floor. Can also be installed as a cantilever arm on a wall. Material: Stainless steel AISI316L.				
20-500	505/155/150	243	7321677255672	725567
20-700	730/155/150	324	7321677255689	725568
20-1000	1000/155/150	458	7321677255696	725569
20-1500	1495/155/150	652	7321677255702	725570
20-2000	1990/155/150	799	7321677255719	725571
20-3000	2980/155/150	1177	7321677255726	725572

Pendant/Fixing rails

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Pendant/Fixing rail 24/34					
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc. Material: Stainless steel AISI316L.					
24/34	292.5/16/42		23	7321677255740	725574
24/34	382.5/16/42		31	7321677255757	725575
24/34	495/16/42		40	7321677255764	725576
24/34	697.5/16/42		56	7321677255771	725577
24/34	990/16/42		80	7321677255788	725578
24/34	2970/16/42		240	7321677255795	725579
Pendant/Fixing rail 24/48					
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc. Material: Stainless steel AISI316L.					
24/48	2970/26/48		520	7321677285952	728595
24/48	5940/26/48		1120	7321677317271	731727

Brackets

Angle bracket 5L					
Angle bracket to be used for steel wire installation in ceilings. Also used when assembling pendant/fixing rails to frames for switching cabinets and electrical control centres and for fixing an upright between floor and ceiling. Assembled with a T-bolt. Material: Stainless steel AISI316L.					
5L	70/45/49		15	7321677317936	731793
Angle bracket 5LS					
Angle bracket to be used when assembling pendant/fixing rails to frames for switching cabinets and electrical control centres and for fixing an upright between floor and ceiling. Assembled with a T-bolt. Material: Stainless steel AISI316L.					
5LS	111/71/60		50	7321677256365	725636
Pendant joint 2J and 2FJ					
Pendant joint to be used for joining pendant/fixing rails and vertical pieces. Screws M8x16 (2J and 2FJ) or M8x70 (20J) and nuts included. Material: Stainless steel AISI316L.					
2J	200/18/48		43	7321677264841	726484
2FJ	200/18/55		46	7321677264858	726485


Ceiling bracket

Ceiling bracket 5					
Ceiling bracket to be used for installations with Pendant/Fixing rails 24/34 and 24/48. Screw not included. Material: Stainless steel AISI316L.					
5	100/135/40		35	7321677255733	725573

Take-off hook

Take-off hook 47					
Take-off hook to be used on cable ladders KHZV and KHZPV to make 90° branches. Screw M12 nd nuts are included. Material: Stainless steel AISI316L.					
47	155/10/73		27	7321677928750	792875

Threaded rod

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Threaded rod B41					
Threaded rod according to metric standard 6G. Material: Stainless steel AISI316L.					
B41/M8	8/8/1000 8/8/2000		63	7332227015516 7332227015523	1149551 1149552
B41/M10	10/10/1000 10/10/2000		99	7332227015615 7332227015622	1149561 1149562
Flange nut B43					
Flange nut to be mounted onto Threaded rod B41 in order to lock it to the Support hook and the Ceiling fittings. Package of 50 pcs. Material: Stainless steel AISI316L.					
B43/M8	17/17/8		34	7332227015547	1149554
B43/M10	20/20/15		56	7332227015646	1149564
Joint nut M8/M10					
Joint nut to be used when joining Threaded rods. Material: Stainless steel AISI316L.					
M8	15/15/30		1	7321677250844	725084
M10	20/20/40		2	7321677248070	724807

Clamps, hooks

Hook 8					
Hook to be used for the installation of cables beneath Support bracket 3. Can also be installed in perforated rungs. Material: Stainless steel AISI316L.					
8	67/15/40		5	7321677286430	728643
Cable clamp ER					
Cable clamp for the installation of cables on cable ladders with round or perforated rungs. Material: Stainless steel AISI316.					
ER for cable 23-28 mm	74/50/80		44	7321677364404	736440
ER for cable 27-32 mm	81/50/82		45	7321677364411	736441
ER for cable 39-35 mm	88/50/82		46	7321677364428	736442
ER for cable 33-38 mm	94/50/85		47	3303432467883	736443
ER for cable 36-42 mm	101/50/113		60	3303432467586	736444
ER for cable 40-46 mm	108/50/115		62	3303437364453	736445
ER for cable 44-50 mm	115/50/117		63	3303437364460	736446
ER for cable 48-55 mm	129/50/120		64	7321677364473	736447
ER for cable 51-58 mm	130/50/121		66	7321677364480	736448
ER for cable 55-62 mm	138/50/156		78	7321677364497	736449
ER for cable 59-66 mm	146/50/158		79	7321677364503	736450
ER for cable 63-70 mm	150/50/160		80	7321677364510	736451
ER for cable 67-74 mm	161/50/163		81	7321677364527	736452
ER for cable 71-78 mm	168/50/165		85	7321677364534	736453
ER for cable 74-82 mm	176/50/167		86	7321677364541	736454
ER for cable 77-85 mm	181/50/169		87	7321677364558	736455
Oval rung adaptor, screw set included, to be used when mounting Cable clamp ER on oval rungs on the KHZ range. Material: PP.					
Adaptor	29.5/48/47		12	7321677364565	736456
Screw set 74S to be used for the installation of cable clamp ER on perforated rungs. Two screws screw sets are required. Material: Stainless steel AISI316.					
74S	20/19/8		2	7321677371983	737198
Clamp set M6					
Clamp set to be used for the installation of Support bracket 3 directly on a roof bolt. The set includes two clamps and four locking nuts. M6-25 must be used for Support bracket 3 in hot-dip and pre-galvanised surface finish, whereas M6-20 must be used for Support bracket 3 in stainless steel and Installation plate 60 in all surface treatments. Material: Stainless steel AISI316L.					
M6-25	Ø29/M8		5	7321677207862	720786
M6-20	Ø24/M6		4	7321677255870	725587

Box plates

P132524



Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
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Junction box plate 35S

Junction box plate, holed or unholed, to be installed upright or hanging from the profile. Locked with locking tabs. For junction boxes, electric light fittings, etc.
Material: Stainless steel AISI316L.

35S holed	164/20/170		22	7321677257768	725776
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B22213



Junction box plate 35P

Junction box plate with holes, to be installed between rungs. Locked with appropriate locking tabs for each ladder. For junction boxes, electric light fittings, etc.
Material: Stainless steel AISI316L.

35P unholed	21/106/250		28	7321677257775	725777
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Bends

P129890

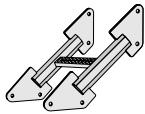


Riser 18

Riser piece to be fitted to the cable ladders by using Joint 21.
Material: Stainless steel AISI316L.

18-150	452/147/452		180	7321677273706	727370
18-200	452/197/452		190	7321677273713	727371
18-300	452/297/452		210	7321677273720	727372
18-400	452/397/452		230	7321677273737	727373
18-500	452/497/452		250	7321677273744	727374
18-600	452/597/452		270	7321677273751	727375

B223178



Riser coupler 49

Coupler to be used as a self-supporting vertical coupler of cable ladders KHZV/KHZPV. Two screws M12 and nuts are included.
Material: Stainless steel AISI316L.

49-200	120/197/483		220	7321677928804	792880
49-300	120/297/483		230	7321677928811	792881
49-400	120/397/483		240	7321677928828	792882
49-500	120/497/483		245	7321677928835	792883
49-600	120/597/483		250	7321677928842	792884
49-800	120/797/483		265	7321677928859	792885
49-1000	120/997/483		280	7321677928866	792886

B223497



90° bend 15, interior

Interior bend piece to be fitted to the cable ladders by using Joint 21, creating a 90° bend.
Material: Stainless steel AISI316L.


15-150	55/547/547		220	7321677273461	727346
15-200	55/597/597		240	7321677273478	727347
15-300	55/697/697		290	7321677273485	727348
15-400	55/797/797		340	7321677273492	727349
15-500	55/897/897		390	7321677273508	727350
15-600	55/997/997		440	7321677273515	727351

90° bend 15, exterior

Exterior bend piece to be fitted to the cable ladders by using Joint 21, creating a 90° bend.
Material: Stainless steel AISI316L.

15-150	55/703/703		320	7321677273522	727352
15-200	55/933/933		370	7321677273539	727353
15-300	55/1133/1133		460	7321677273546	727354
15-400	55/1333/1333		550	7321677273553	727355
15-500	55/1533/1533		640	7321677273560	727356
15-600	55/1733/1733		760	7321677273577	727357

Bends

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
90° bend 55, interior					
Interior bend piece to be fitted to cable ladders KHZV and KHZPV, creating a 90° horizontal bend. Material: Stainless steel AISI316L.					
55-200	150/625/625		510	7321677929030	792903
55-300	150/725/725		560	7321677929047	792904
55-400	150/825/825		620	7321677929054	792905
55-500	150/925/925		680	7321677929061	792906
55-600	150/1025/1025		750	7321677929078	792907
55-800	150/1225/1225		830	7321677929081	792908
55-1000	150/1425/1425		1110	7321677929092	792909
T-junction 16					
T-junction piece to be fitted to the cable ladders by using Joint 21. Material: Stainless steel AISI316L.					
16-150	55/944/547		300	7321677273584	727358
16-200	55/997/597		320	7321677273591	727359
16-300	55/1097/697		390	7321677273607	727360
16-400	55/1197/797		440	7321677273614	727361
16-500	55/1297/897		530	7321677273621	727362
16-600	55/1397/997		600	7321677273638	727363
T-junction 56					
T-junction piece to be fitted to the cable ladders by using Joint 21. Material: Stainless steel AISI316L.					
56-200	150/1050/625		640	7321677929207	792920
56-300	150/1150/725		710	7321677929214	792921
56-400	150/1250/825		760	7321677929221	792922
56-500	150/1350/925		850	7321677929238	792923
56-600	150/1450/1025		910	7321677929245	792924
56-800	150/1650/1225		1050	7321677929252	792925
56-1000	150/1850/1425		1170	7321677834846	783484
X-junction 17					
X-junction piece to be fitted to the cable ladders by using Joint 21. Material: Stainless steel AISI316L.					
17-150	55/547/547		380	7321677273645	727364
17-200	55/997/997		400	7321677273652	727365
17-300	55/1097/1097		500	7321677273669	727366
17-400	55/1197/1197		550	7321677273676	727367
17-500	55/1297/1297		600	7321677273683	727368
17-600	55/1397/1397		860	7321677273690	727369


Tele-conduits

Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Tele-conduit 36				
Tele-conduit to be used where a separate tray is required for low-tension cables. Knock-out holes in the bottom of the channel permit the cables to pass through. Material: Stainless steel AISI316L.				
36-50	24/50/2000	94	7321677255900	725590
36-100	24/100/2000	142	7321677255917	725591
36-200	24/200/2000	238	7321677255924	725592

Dividers

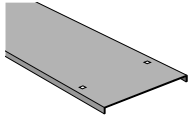
Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Dividing strip 39				
Dividing strip to be used to separate low-tension and high-tension cables. Material: Stainless steel AISI316L.				
39/24	24/24/1760	46	7321677255931	725593
39/55	55/24/1750	73	7321677255948	725594
Distance piece W39				
Distance piece to be used for the joining of Dividing strips 39. Material: Plastic, natural coloured.				
W39	37-1/330	3	7321677168248	716824

Covers/Cover plates

Type	Dimensions A/B/C mm 	Weight kg/100 pcs	EAN code	Ref. No.
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Cover 64

Cover to be used for vertically mounted cable ladders.
Material: Stainless steel AISI316L.

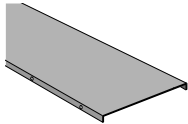


64-150	10/2000/151	290	7321677825851	782585
64-200	10/2000/201	370	7321677825868	782586
64-300	10/2000/301	540	7321677825875	782587
64-400	10/2000/401	710	7321677825882	782588
64-500	10/2000/501	1020	7321677825899	782589
64-600	10/2000/601	1210	7321677825905	782590
64-800	10/2000/801	1660	7321677825912	782591
64-1000	10/2000/1001	2000	7321677825929	782592

Cover W5

Cover to be used to protect the cable runs from dust, dirt, liquids, etc. Outdoors, it protects against rain and sun. Suitable for all cable ladders.

Material: Stainless steel AISI316L.

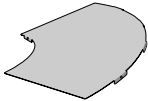


W5-150	10/2000/151	190	7321677322916	732291
W5-200	10/2000/201	250	7321677322923	732292
W5-300	10/2000/301	360	7321677322930	732293
W5-400	10/2000/401	680	7321677322947	732294
W5-500	10/2000/501	840	7321677322954	732295
W5-600	10/2000/601	700	7321677322961	732296
W5-800	10/2000/801	1420	7321677833757	783375
W5-1000	10/2000/1001	1730	7321677322978	732297

Cover 90° interior bend

Cover to be used for 90° interior bends. To be installed with a Profile support piece 37, Cover clamp and Cover joint.

Material: Stainless steel AISI316L.

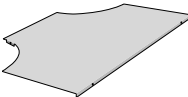


150	10/420/420	44	7321677886395	788639
200	10/470/470	62	7321677886401	788640
300	10/570/570	105	7321677886418	788641
400	10/670/670	223	7321677886425	788642
500	10/770/770	310	7321677886432	788643
600	10/870/870	408	7321677886449	788644
800	10/1070/1070	643	7321677886456	788645
1000	10/1270/1270	926	7321677886463	788646

Cover T-junction

Cover to be used for T-junctions. To be installed with a Profile support piece 37, Cover clamp and Cover joint.

Material: Stainless steel AISI316L.



150	10/400/651	95	7321677886470	788647
200	10/450/701	126	7321677886487	788648
300	10/550/801	196	7321677886494	788649
400	10/650/901	394	7321677886500	788650
500	10/750/1001	525	7321677886517	788651
600	10/850/1101	672	7321677886524	788652
800	10/1050/1301	1011	7321677886531	788653
1000	10/1240/1501	1414	7321677886548	788654

Profile support piece 37

Profile support piece to be used when installing covers. To be mounted on approximately every 0.5 m along both sides of the cable ladder. Used together with cover clamp for locking covers.

Material: Stainless steel AISI316L.



37	136/20/50	6	7321677301904	730190
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Cover clamp

Cover clamps to be used when installing a cover on a Profile support piece 37.

Material: Stainless steel AISI316L.



Cover clamp	32/10.5/20	1.5	7321677285860	728586
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B224465

B223238

B224451

B224452

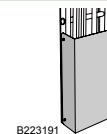
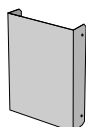
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B223237

Covers/Cover plates

Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Cover plate 65				
Cover plate to be used on vertical cable ladder installations as protection of cables near the floor. To be mounted in the side profile with self-tapping screw ST4.2. Material: Stainless steel AISI316L.				
65-200	1000/200/120	930	7321677324811	732481
65-300	1000/300/120	1140	7321677324828	732482
65-400	1000/400/120	1350	7321677324835	732483
65-500	1000/500/120	1560	7321677324842	732484
65-600	1000/600/120	1780	7321677324859	732485

B223249

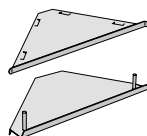


B223191

Angle plates

Angle plate 33				
Angle plate to be used together with 90° horizontal T-junctions. Recommended for all cable ladders. Material: Stainless steel AISI316L.				
33/1	28/150/290	50	7321677273409	727340
33/2	25/195/490	90	7321677271979	727197

B223902



B223801

Fittings for mesh trays

Combi-fittings B21				
Combi-fitting to be used when mounting mesh trays onto cable ladders. Material: Stainless steel AISI316L.				
B21	250/20/50	45	7332227013598	1149359
B21 90 degrees	120/50/135	45	7332227013918	1149391

B224671



B224672



Installation system HT

Pipe HTR-68				
Pipe for easy locking of wires. Material: Stainless steel AISI316L.				
HTR-68	Ø15/25	1.3	7321677136780	713678
Steel wire HT-2309				
Hard steel wire to be installed as carrier of one or more cables. Breaking loads, see below. Material: Stainless steel.				
HT-2322 Breaking load 450 kg	Dim. 2.5	3.9/100 m	7321677136810	713681
HT-2323 Breaking load 700 kg	Dim. 3.0	5.6/100 m	7321677136827	713682
HT-2324 Breaking load 1200 kg	Dim. 4.0	10.0/100 m	7321677136834	713683

B223248



B224091



Bar fixings

Round bar fixing				
Round bar fixing to be used for mounting in underground cavities and tunnels. Material: Stainless steel AISI316L.				
For ceilings	6/60/325	90	7321677928644	792864
For floors	6/140/130	91	7321677928668	792866
For walls	61/60/161	68	7321677928682	792868

P131546



P131551




P131555



Lashing wire

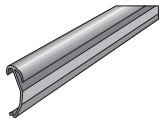
B223247



Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Lashing wire					
Lashing wire to be used for lashing of wires on cable ladders. Material: Stainless steel, PVC.					
HTR-2303, white PVC	Ø1.25		1.3/100 m	7321677136865	713686
HTR-2313, black PVC	Ø1.25		1.3/100 m	7321677136872	713687
Lashing wire to be used for lashing of wires on cable ladders. Material: PVC.					
HT-2304, white	Ø1.5		1.8/100 m	7321677136841	713684
HT-2314, black	Ø1.5		1.8/100 m	7321677136858	713685

Profile protection

B224136



Profile protection 28P					
Profile protection to be used to increase the contact surface of the cables, when pulled over the side profile of the ladder. Material: PVC, grey.					
28P	60/28/2000		80	7321677321513	732151

End plugs

B223499



B223488



End plug 28/28i					
End plug to be mounted on ladder ends for sealing or protection. Material: PP/TPE.					
28, red	59/25/22		0.8	7321677090198	709019
28i, white	54/14/19		0.4	7321677354467	735446
28i, red	54/14/19		0.4	7321677319947	731994

P129687



P135758



B223512



End plug 28C, D, E, F and J					
End plug to be mounted on pendant ends to provide protection against personal injury and to make the ends of the profiles more conspicuous. Material: PP/TPE orange.					
28C for Vertical piece 2 and Pendant/fixing rail 24/34	25/19/46		0.5	7321677898756	789875
28D for Vertical piece 20 and Pendant/fixing rail 24/20	25/52/58		1	7321677090204	709020
28E for Vertical piece 2F and Pendant/fixing rail 24/48	24/30/52		0.5	7321677090211	709021
28F for Vertical piece 20FS and Pendant/fixing rail 24/20FS	30/53/110		4	7321677898763	789876
28J for Vertical piece 20F and Pendant/Fixing rail 24/20F	27/53/95		2.1	3606480457531	CSU794520

Cross member plug 27					
Cross member plug to be installed at the ends of the rungs of KHZ and KHZV. Used in premises with a high corrosion risk. Material: PE, grey.					
27	Ø20/10		0.15	7321677266685	726668

Screws, bolts and nuts

B224078



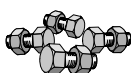
T-bolt 26F					
T-bolt to be used for the mounting of Cantilever arm 50 on Pendant/Fixing rail 24/48 and all vertical pieces except Vertical piece 2. Material: Stainless steel AISI316.					
26F M8	M8x30		4.5	7321677349869	734986
26F M10	M10x30		7	7321677285969	728596
26F M10	M10x50		8	7321677285983	728598

B223265




Screw set W34					
Screw set to be used for the fastening of dividing strips on cable ladders KHZSP, KHZSPZ, KHZPS and KHZPV. Set including screw MSCS 6x12 and nut M6MF 6. Material: Stainless steel AISI316.					
W34	—		0.8	7321677255894	725589

B223259



Screw set M12					
Screw set to be used for all joints with cable ladders KHZPV. Set including four bolts M6S 12x25 and four nuts M6M 12. Material: Stainless steel AISI316.					
M12	—		20	7321677287673	728767

Screws, bolts and nuts

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Screw set 22S					
Screw set to be used for installation of Support bracket 3 on Vertical piece 2, Support bracket 3 and Ceiling bracket 5 on Pendant/fixing rails 24/34 and 24/48, Angle bracket 5L against the back of Pendant/fixing rails, Pendant/fixing rails back to back. Set including screw MVBF 8x16 and nut M6MF8. Material: Stainless steel AISI316.					
22S	—		1.9	7321677255825	725582
Spring nut M8/M10					
Spring nut to be used for fastening of accessories (control panels, etc.) on Pendant/fixing rail 24/48. Material: Stainless steel AISI316.					
M10	—		3.9	7321677286225	728622
Screw M10x20					
Screw to be used with Spring nut M10 for the installation of Cantilever arm 50 on Pendant/fixing rail 24/48. Material: Stainless steel AISI316.					
M6S	—		2.2	7321677286492	728649

Marking plate

Marking plate 93					
Marking plates are part of a colour marking system that is easy to use when you want to mark out the type of cable that is placed on the cable ladder. Five different colours are available.					
93, yellow	103/0.7/100		5	7321677377046	737704
93 orange	103/0.7/100		5	7321677377053	737705
93, blue	103/0.7/100		5	7321677377060	737706
93, green	103/0.7/100		5	7321677377077	737707
93, black	103/0.7/100		5	7321677377084	737708
Marking label, equipotential					
Label to be used to show that a construction is equipotentially bonded. Available in Swedish (other languages on request). Printed on self-adhesive yellow vinyl, 250 labels per roll. Material: Self-adhesive vinyl.					
Marking label	25/-/86		—	7321677868605	786860

Tools

Cable roller 38 Rig'n roll					
Cable roller used for mounting on Wibe cable ladders with belonging junctions and branches. Material: Stainless steel AISI316L (cable roller).					
38 Rig'n roll	220/50/130		48	7321677359981	735998
Bag	375/160/460		230	7321677801862	780186
Set 66 (1 bag + 10 Cable rollers 38 Rig'n roll)	375/160/460		710	7321677801879	780187

The right surface treatment

– crucial for a successful outcome

A cable support installation is considered to be a long-lasting solution and the life expectancy is dependent on the environment in which it is placed. A thorough investigation of the setting in terms of corrosion, pollution, humidity, salt, sanitary regulations etc will help you make the best choice. Our range of cable ladders and accessories covers all types of surface treatments, enabling a reliable, cost-efficient and long-lasting cable support solution.

C1 Electro-galvanised

Indoor environments: Schools, shops, hotels, offices, sports halls etc.

- Very low environmental corrosion.
- Heated areas.
- Arid atmosphere.
- Insignificant quantities of pollutant.
- DIN 50961/ISO 2081.



C2 Pre-galvanised

Partly outdoor environments: Industries, sports halls, warehouses, shops, rural outdoor areas etc.

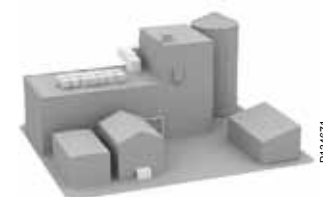
- Low environmental corrosion.
- Non-heated areas with fluctuating levels of temperature and humidity.
- Few instances of condensation and low levels of airborne pollution.
- SS-EN 10327:2004.



C3 Hot-dip galvanised

Indoor- and outdoor environments: Urban and light industrial areas, breweries, dairies, laundries etc.

- Average environmental corrosion.
- Areas with average levels of humidity and some airborne pollution caused by production processes.
- Atmospheres containing some salt or average levels of airborne pollution.
- EN-ISO1461:2009



C4 Hot-dip galvanised

Indoor- and outdoor environments: Chemical plants, industrial and coastal areas, swimming pools, farms, dockyards etc.

- High environmental corrosion.
- Areas with high levels of humidity and considerable airborne pollution.
- Atmospheres with average salt content or discernible levels of airborne pollution.
- EN-ISO1461:2009.



P134672

C5-I Zinkpox® (Hot dip galv. + powder coated) Stainless steel AISI 304

Indoor- and outdoor environments: Chemical and heavy industries, tunnels, swimming pools, dockyards etc.

- Very high (industrial) environmental corrosion.
- Areas with almost permanent condensation, large quantities of airborne pollution, high levels of humidity and aggressive atmospheres
- AISI 304



P134675

C5-M Stainless steel, AISI 316L

Indoor- and outdoor environments: Heavy industries, coastal and offshore areas, purifying plants etc.

- Very high (marine) environmental corrosion.
- Areas with almost permanent condensation and large quantities of airborne pollution. Atmospheres with high salt content.
- AISI 316L



P134676

The life expectancy of a cable support system is dependent on the environment in which it is placed. Therefore, it is important to establish the corrosive properties of an environment to ensure that the right treatment and the right material are chosen. The table below shows various corrosion classes. As a guide, we have included the surface treatment recommended by Schneider Electric for the different classes.

On the next page, we briefly outline the various surface treatments and materials.

As regards environmental corrosion, a steel design component can usually be assigned to one of the corrosion classes (C1 to C5-M) as shown in table A. Reference values for the average level of corrosion in steel and zinc are given in table B. The corrosion classes comply with those stipulated in SS-EN ISO 12944-2.

Table A

Corrosion classes as stipulated by SS-EN ISO 12944-2 with atmospheric corrosion levels and examples of the environment in which they are most suitable for use.

Corrosion class	Environmental corrosion	Examples of typical environments in temperate climates (informative)		Schneider Electric designation	
		Outdoors	Indoors		
C1	Very low	–	Heated areas with arid atmosphere and insignificant quantities of pollutant, e.g. offices, shops, schools and hotels.	Electro-galvanised DIN 50961/ISO 2081	
C2	Low	Atmospheres with low levels of airborne pollution. Rural areas.	Non-heated areas with fluctuating levels of temperature and humidity. Few instances of condensation and low levels of airborne pollution, e.g. sports halls and warehouses.	Pre-galvanised Z 275 in accordance with SS-EN 10327:2004	
C3	Average	Atmospheres containing some salt or average levels of airborne pollution. Urban and light industrial areas. Areas affected by coastal conditions.	Areas with average levels of humidity and some airborne pollution resulting from production processes, e.g. breweries, dairies, laundries.	Hot-dip galvanised after manufacture in accordance with EN-ISO 1461:2009	Zinc+ coating
C4	High	Atmospheres with average salt content or discernible levels of airborne pollution. Industrial and coastal areas.	Areas of high humidity and considerable airborne pollution as the result of production processes, e.g. chemical plants, swimming pools and dockyards.		
C5-I	Very high (industrial)	Industrial areas with high levels of humidity and aggressive atmospheres.	Areas with almost permanent condensation and large quantities of airborne pollution.	Zinkpox® HDG+powder coating	Thermoplastic coating
C5-M	Very high (marine)	Coastal and offshore areas with high salt content.	Areas with almost permanent condensation and large quantities of airborne pollution.	Stainless steel SS2333 AISI 304	
				Stainless steel SS2348 AISI 316L	

Table B

Mass losses for steel and zinc in various corrosion classes

Corrosion class	Mass loss per surface unit and thickness reduction (1 year of exposure) ¹			
	Steel		Zinc	
	Mass loss (g/m ²)	Thickness reduction (µm)	Mass loss (g/m ²)	Thickness reduction (µm)
C1	≤ 10	≤ 1.3	≤ 0.7	≤ 0.1
C2	> 10 to 200	> 1.3 to 25	> 0.7 to 5	> 0.1 to 0.7
C3	> 200 to 400	> 25 to 50	> 5 to 15	> 0.7 to 2.1
C4	> 400 to 650	> 50 to 80	> 15 to 30	> 2.1 to 4.2
C5-I	> 650 to 1500	> 80 to 200	> 30 to 60	> 4.2 to 8.4
C5-M	> 650 to 1500	> 80 to 200	> 30 to 60	> 4.2 to 8.4

¹ Corrosion speed is generally higher when the material is first exposed

Wibe cable ladders - Technical and material data

Specification	
Cold formed steel:	DX5xD acc. to EN 10346, DC0x acc. to EN 10130, DD1x acc. to EN 10111
Structural steels:	S235 and S355 acc. to EN 10025-2 AISI 316L acc. to EN ISO10088-2
Density:	7.7-7.85 kg/m ³
Surface treatment:	<ul style="list-style-type: none"> • Pre galvanised (>20 µm): EN 10346 • Hot-dip galvanised (55-70 µm): EN ISO 1461 • Zinc+ (>25 µm): EN 10346 • Zinkpox, hot-dip galvanised (55-70 µm) + polyester coating, white RAL9010 • Passivated (Stainless steel), except KHZSP ladder range
Resistance to impact:	20 J (IEC 61537)
Temperature range:	From -40°C to +120°C. From -40°C to +65°C for the thermoplastic range

Electro-galvanised

Products are manufactured in accordance with DIN 50961/ISO 2081. Such products are intended for use only in warm, dry areas with negligible pollutant levels.

Pre-galvanised

Products are manufactured from Z 275 pre-galvanised sheet steel in accordance with SS-EN 10327:2004. Under normal conditions, surface sections created during cutting and drilling will repair themselves, providing superb anti-corrosion protection.

Hot-dip galvanised

Schneider Electric has one of the most modern hot-dip galvanisation plants in the Nordic countries. The hot-dip process is continuous, guaranteeing a high and even quality. The manufactured products are hot-dip galvanised in accordance with EN-ISO 1461:2009 whilst nuts and bolts are hot-dip galvanised in accordance with SS-EN ISO 10684:2004. This form of galvanisation affords very good value-for-money anti-corrosion protection in atmospheres with a pH value of between 6 and 13. However, in acidic environments where pH levels fall below 6 and in alkaline environments where the pH value exceeds 13, the protective zinc layer breaks down relatively quickly.

Zinc+

Zinc+ surface treatment for some accessories (EN 10346) with a metallic Zinc-based coating containing aluminium and magnesium that offers ultimate corrosion resistance in aggressive environments (e.g. chloride & highly alkaline). In many cases a good alternative to hot-dip galvanisation. Excellent surface finish with self-repairing protection of cut edges (galvanic protection).

Zinkpox®

The Zinkpox® method involves applying a homogenous polyester coating to the zinc layer. Besides resisting light-initiated degeneration and weathering, this powder coating has excellent mechanical properties as regards impact resistance and adhesion. It is also resistant to most chemicals. Compared to hot-dip galvanising, applying a polyester coating to the zinc layer more than doubles the service life of treated components. The zinc layer prevents the development of filiform corrosion. This might otherwise degrade the coating. Consequently, the polyester coating is subject only to atmospheric attack and thus protects the zinc layer. The certified coating plant that treats our components uses a modern and environment-friendly process. Before powder coating, the galvanised components undergo meticulous pre-treatment. This ensures superb adhesion. In addition to extremely good corrosion protection, the Zinkpox® method also offers a choice of colours. Powder coating is a very environment-friendly way of achieving a coloured surface. Because the coating contains no solvents, it has largely replaced solventbased liquid coatings. Where installations are visible, cable ladders and fittings can be finished in a coating that matches the surrounding décor.

Stainless steel

Products manufactured in accordance with SS 2333/AISI 304 or SS 2348/AISI 316L are designed for use in highly aggressive environments, either indoors or outdoors, on industrial sites where there are high levels of potent airborne pollution such as in certain chemical industries, cellulose-related industries, refineries or artificial fertilizer factories, high humidity tunnels, etc. Stainless steel products are also ideal for use in environments where special hygiene requirements are in force, such as dairies, abattoirs, other food industries and pharmaceutical factories.

Stainless steel AISI 304 or AISI 316L

The deciding factor in choosing between stainless steel AISI 304 or AISI 316L is the aggressiveness of the environment in which it is to be used and for this atmospheric chlorine content plays a significant role. Environments with a high chlorine content, coastal areas being a prime example, are aggressive and usually require the use of AISI 316L materials. When assessing the needs of factories, consideration should be given to the materials previously used to suspend equipment such as pipe tubing and from this determine whether stainless steel AISI 304 or AISI 316L material is required.

To consider when installing Stainless Steel Cable Ladders

- 1. Transport/handling:** Make sure that no iron objects come into contact with the stainless steel products.
- 2. Storing:** Never store stainless steel products close to where iron products are machined, for example close to cutting and grinding operations
- 3. Welding:** Welding during installation should be avoided where possible. If welding must be performed, make sure that only methods suitable for stainless steel are used.
- 4. Tools:** When cutting or grinding, always use cutting wheels and grinding tools which are free from iron. Do not use tools that have been previously used for cutting or grinding products containing iron. When drilling, use an HSS-drill. To maximise the useful life of the drill, employ a cooling fluid during drilling. When installing, conventional assembly tools can be used. However, when using a nut tightener, ensure that the thread is first lubricated to prevent jamming.

Never mix untreated or galvanised products with stainless steel.

- 5. Measures:** If a blue annealing appears when cutting, grinding or drilling, remove it with pickling paste, making sure that the paste is then carefully washed away with water. If selective corrosion appears it can be removed by:
 - a) Washing away with water (high-pressure if possible).
 - b) Polishing with a cleaning cloth or a fine emery paper (wet or dry) and washing with water.
 - c) Grinding with a fine-grained wheel and washing with water.
 - d) Pickling with pickling paste, making sure that the pickling paste is then carefully washed away with water.
- 6.** When using pickling paste or similar products, always study the safety code for the product prior to use.

Installation regulations

Current load of cables

Installation of cables on a cable ladder

The installation of cables on cable ladders lies within the IEC 60634 standard for power cable installation only. Because Wibe cable ladders have rungs which occupy less than 10% of the plan area under the cables, the installation is defined as cables in "free air". Cable spaces do not require any de-rating factor for installation. Cables touching must be de-rated in accordance with the table below.

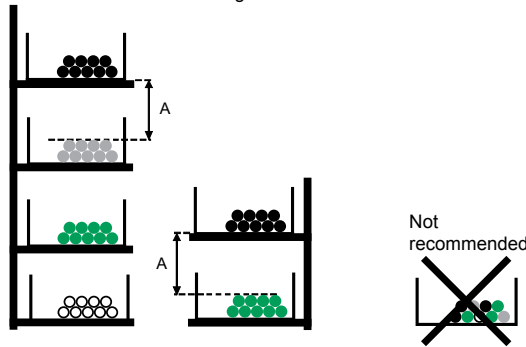
Method of installation	Correction Factor Cg							
	Number of circuits of multicore cables							
	2	3	4	5	6	7	8	9
Single layer multicore touching on ladder supports	0,87	0,82	0,80	0,80	0,79	0,79	0,78	0,78

For installation of a combination of power and communication cables on a cable ladder the separating distances should be according to EN 50174-2, see table below.

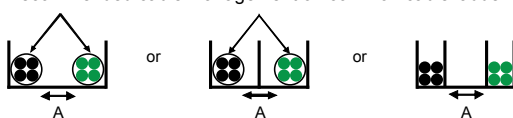
Communication cable type	Number of power circuits (1-phase 20A, 230V)									
	1-3	4-6	7-9	10-12	13-15	16-30	31-45	46-60	61-75	>75
	Minimum separation distance (mm), see figure A below this table									
Category 5e/6 unshielded	20	40	60	80	100	200	300	400	500	600
Category 5e/6 _A shielded	10	20	30	40	50	100	150	200	250	300
Category 7 _A shielded	2	4	6	8	10	20	30	40	50	60

Minimum separation distance (mm), figure A

Recommended cable management



Recommended cable management on common cable ladder



The cables need to be fixed to the ladder or bundled

- Power cables
- Data cables
- Control cables
- Sensitive cables like instrumentation cables
- A Separation distance

No fixing or bundling needed.

Installation of cable ladder

Full design data is given according to EN 61537 in the Range part in this catalogue showing all maximum and recommended loadings. Graphs are given in this catalogue to show the deflection against loading for various support distances. Any support system which is supported at intervals and loaded will deflect between the support intervals. Test model II is used for all ladder ranges except the reinforced models which are tested according to Test model IV, longer than 4 metres spans.

Installation recommendations for cable ladders

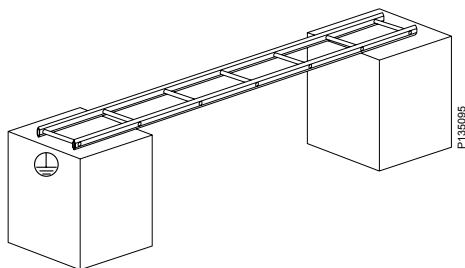
The cable ladders should be installed in such a way that, as often as possible, the cables can be laid directly in place rather than being pulled through. Ladders for current carrying cables along the ceiling should be installed in such a way that the distance from the top of the ladder to the ceiling is not less than 300 mm. The free vertical distance between parallel ladders shall be at least 200 mm. Ladders near walls should be installed with a minimum free distance of 50 mm to the wall, so that cables can pass between the ladders and the wall. Ladders along partition walls should be installed with a minimum free distance of 100 mm to the wall. Sharp edges and screw ends on ladders should be removed before the cables can be installed. Expansion bolts for the installation of brackets/fixings should be installed with such a distance between them, that the designated load for ladders will not be exceeded. When selecting the distance between cantilever arms or brackets/fixings, the bearing strength and designated load of the ladders must be taken into consideration.

Electromagnetic Compatibility

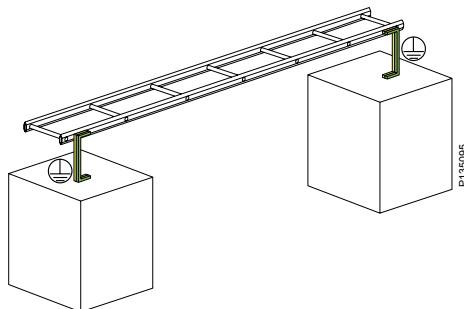
Schneider Electric has performed measurements at EMC Services in Gothenburg regarding EMC requirements, report RE-10273-17181. The results show that the shielding performance of both incoming and emitted fields is good concerning Wibe cable ladders.

When correctly installed Wibe cable ladders products work as a protective earth structure. This means that Schneider Electric products can be used to achieve good engineering practice in accordance with the EMC directive 2004/108/EG.

Recommended installation examples

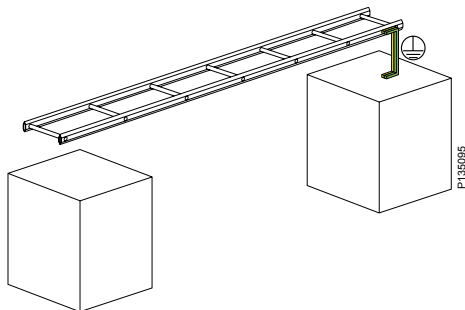


Metal against metal connection
- the ultimate installation

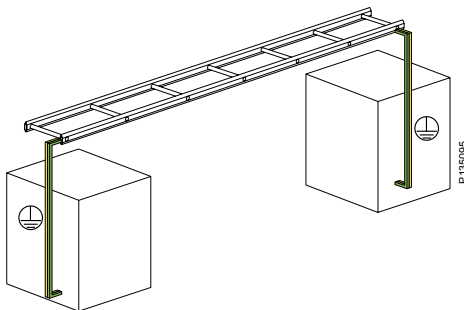


Short double connection
- realistic installation

Not recommended installation examples



Single connection
- poor installation



Long double connection
- in best case EMC neutral

Electrical continuity and earthing

The standard EN 61537 establishes that for cable ladders with electrical continuity characteristics (metal), this continuity should be guaranteed by means of an equipotential connection and one or several connections to earth in accordance with the use of the ladder system.

- The impedance must not exceed:
- 50 mΩ through the joint.
 - 5 mΩ x metre of cable ladders. (*)








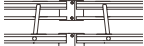



(*) Currently this value is studied through document IEC/SC23A/WG12, CLC/TC213/WG-5 – 765. It will be changed to 50 mΩ x metre.

The metre length and joining systems for the different sections that Schneider Electric has, as well as the joints of the different accessories supplied, comply with

the electrical continuity test established in the aforementioned standard, guaranteeing the impedance established. To guarantee these impedance values tightening torque values of no less than 5 Nm are recommended, always using the joints recommended for each ladder type and taking sizes into account.

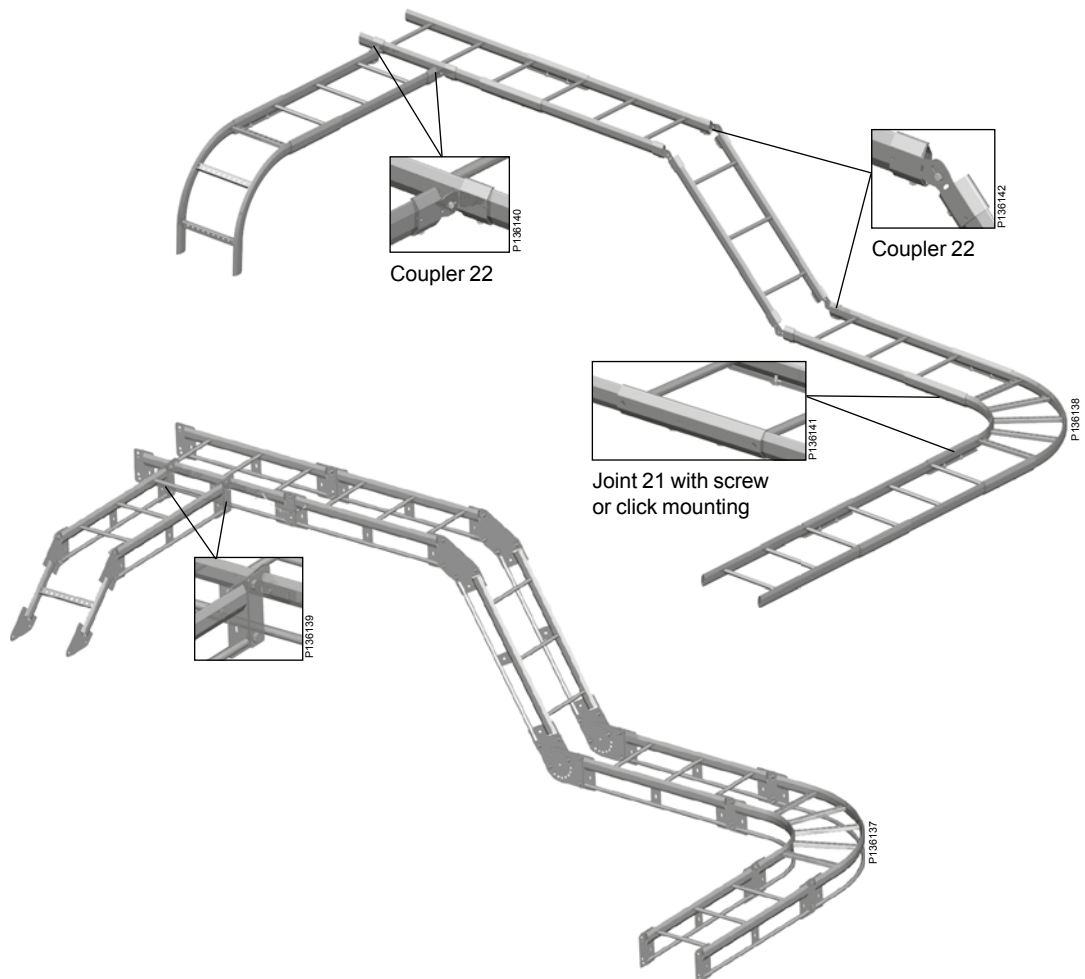
To guarantee a safe installation, Schneider Electric recommends a proper earthing of all the elements that make up the system (sections and accessories), using the accessories designed specifically for this purpose.

SCHNEIDER ELECTRIC RECOMMENDS NOT TO USE THE LADDER AS EARTH OR NEUTRAL CONDUCTORS. SCHNEIDER ELECTRIC IS NOT RESPONSIBLE OF ANY DAMAGE IF YOU USE ACCESSORIES FROM OTHER MANUFACTURERS.

Product		Ohm/m
Cable Ladder KHZSP without joint, pre-galvanised		0.00089
Cable Ladder KHZSP with Joint 21, pre-galvanised		0.00100
Cable Ladder KHZSP with Coupler 22, pre-galvanised		0.00160
Cable Ladder KHZ/KHZP without joint, hot-dip galvanised		0.00050
Cable Ladder KHZ/KHZP with Joint 21, hot-dip galvanised		0.00040
Cable Ladder KHZ/KHZP with Coupler 22, hot-dip galvanised		0.00073
Cable Ladder KHZV without joint, hot-dip galvanised		0.00038
Cable Ladder KHZV joined with Screw set M12, hot-dip galvanised		0.00039
Cable Ladder KHZV with Joint 45, against welded joint, hot-dip galvanised		0.00057
Cable Ladder KHZV with Joint 45, (without welded joint), hot-dip galvanised		0.00083
Cable Ladder KHZV with Coupler 44, hot-dip galvanised		0.00043

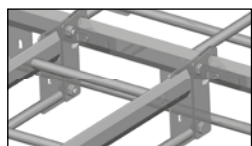
For pre-galv, hot-dip galv and stainless steel AISI 316L

Resistance testing of Wibe cable ladders has been performed and approved according to norm IEC61537 for cable ladders in pre-galv, Hot-dip galv and Stainless steel AISI 316L.

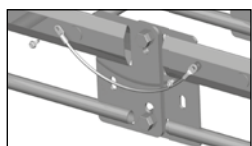


For Zinkpox coating

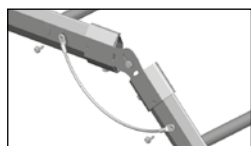
Installation of cable ladders with Zinkpox coating



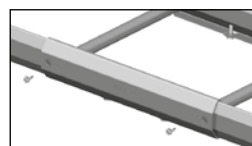
Take-off hook 47 is mounted with self-drilling screw 4.8x13



For installation of joints, couplers, junctions and bends self-drilling screw 4.8x13 and ground wire, cable area $\geq 10 \text{ mm}^2$, must be used.



Self-drilling screw 4.8x13 and ground wire, cable area $\geq 10 \text{ mm}^2$, are used for installation of Coupler 22.



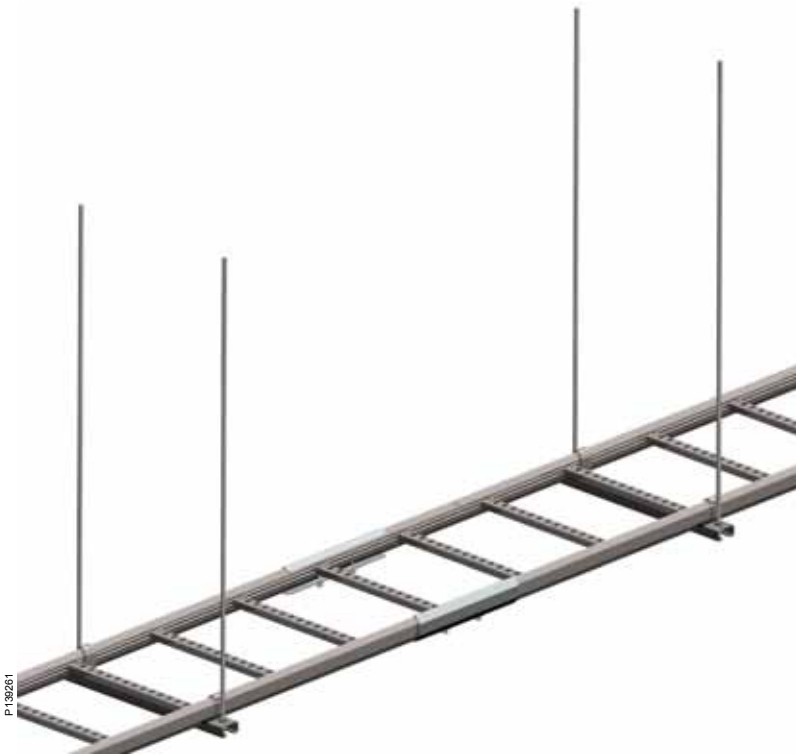
Joint 21 is mounted with self-drilling screw 4.8x13 in the grounding holes. When joining KHZ ladders Joint 21 must be moved approx. 20 mm from centre.



P1330260

Ceiling suspended, vertical piece, cantilver arm

Cable ladder KHZPS-150, 6 m	725350
Cable ladder KHZPS-200, 6 m	725351
Cable ladder KHZPS-300, 6 m	725352
Cable ladder KHZPS-400, 6 m	725353
Joint 21	791196
Joint 21 ZM	CSU795051
Cantilever arm 50-150	723433
Cantilever arm 50-200	723434
Cantilever arm 50-300	723436
Cantilever arm 50-400	723437
Profile clamp 42	721121
Vertical piece 2F-280	797196
Vertical piece 2F-370	797197
Vertical piece 2F-505	797198
Vertical piece 2F-640	CSU794202
Vertical piece 2F-730	797199
Rod bracket 82	786768
Threded rod W76-1000	725079
Threded rod W76-2000	716792
Nut M10	723938
Nut M10	1149464
Screw set 22S	713694
Bolt MVBF M8-50	
Nut M6MF M8	



Ceiling suspended, support bracket, threaded rod

Cable ladder KHZPS-150, 6 m	725350
Cable ladder KHZPS-200, 6 m	725351
Cable ladder KHZPS-300, 6 m	725352
Cable ladder KHZPS-400, 6 m	725353
Joint 21	791196
Joint 21 ZM	CSU795051
Support bracket HSO-150	791063
Support bracket HSO-200	791064
Support bracket HSO-300	791065
Support bracket HSO-400	791066
Profile clamp 42	721121
Threaded rod W76-1000	725079
Threaded rod W76-2000	716792
Nut M10	723938
Nut M10	1149464



Test conditions

- E30 and E90 according to DIN 4102-12
- IBMB test institute
- Dätwyler Pyrofil KERAM cables
- Load 20 kg/m
- Support distance 1,5 m



Wibe cable ladder system meets the following standards:

- IEC 61537
- UNE EN 50102
- UNE EN ISO 9227
- DIN 4102-12 for fire resistance

Tests and Certificates	Test made by
Test concerning fire resistance according to E30-E90.	IBMB, Germany
Wibe cable ladder as conductor of equipotential bonding according to IEC 61537,11:1.	SP, Sweden
Wibe cable ladder is approved for use in USA and Canada according to Underwriters Laboratories, UL E-80034.	UL, USA
Wibe cable ladder is approved by Det Norske Veritas (DNV) for offshore and ship-yard use.	DNV, Norway
Wibe cable ladder is approved by Russian Maritime Register of Shipping, RS type approval certificate 10.02103.011.	Russian Maritime Register of Shipping, Russia

Management system - Quality and Environment
 Schneider Electric has a third-party certified management system for quality and environment in accordance with ISO 9001:2008 and ISO 14001:2004.

CE-marking of products
 The CE-marking of products is placed on the product or on the packing according to "Declaration of Conformity" (DOC), applicable to Schneider Electric Cable Support System.

EMC directive 89/336 EEC
 The Cable Support System is neutral according to the EMC directive 89/336 EEC.

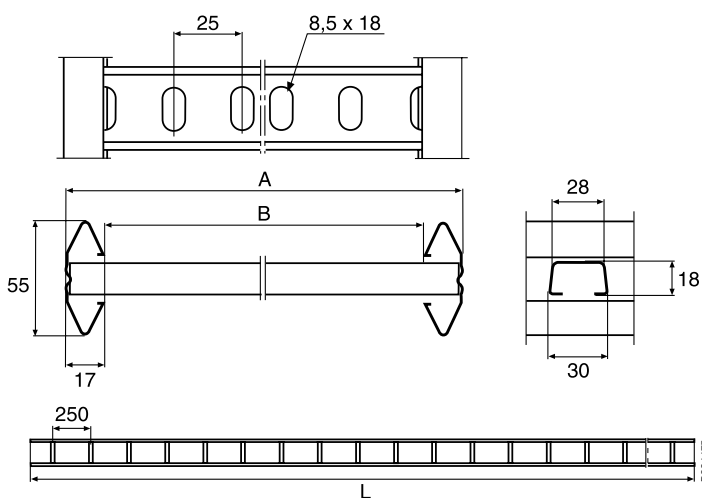
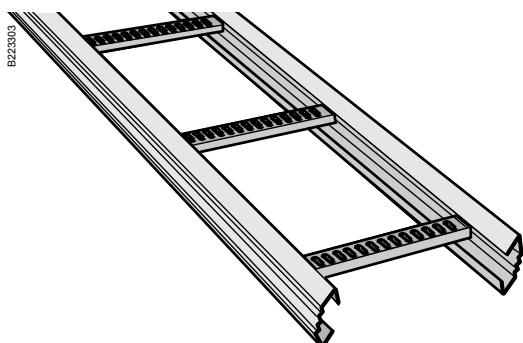
Low voltage directive 73/23 EEC
 According to the low voltage directive we refer to: SFS 1993:1068 Regulations concerning electrical material.
 SFS 1993:1068 General obligations regarding electrical material.
 Schneider Electric fulfills the demands according to the harmonized standard SS-EN 6153 Edition 1:2002.

Installation instructions

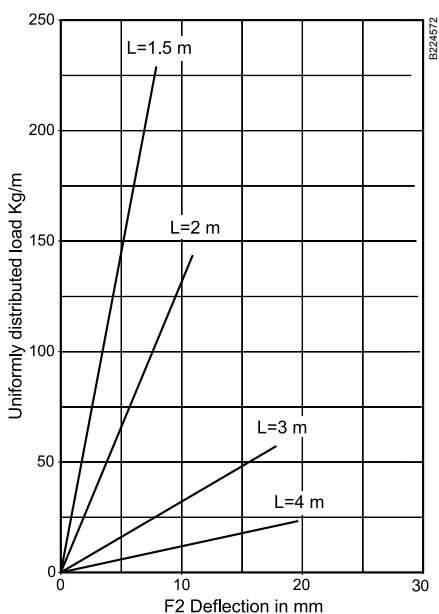
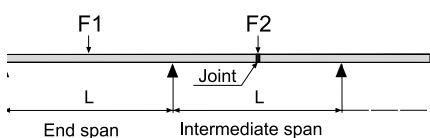
Use and Installation

90° bend 15, interior and exterior ..	189	Joint 21P.....	150	Thread lock B50 M8, M10.....	209
90° bend 55 interior.....	190	Joint 21, with screws or screwless..	150	Tightening loop HT.....	199
Angle bracket 5L and 5LS.....	182	Joint 45.....	151	T-junction 16.....	190
Angle plate 33/1 and 33/2.....	197	Joint nut M8, M10.....	166	T-junction 56.....	190
Back nut M8.....	209	Junction box plate 35P.....	188	Wall bracket 11/25 and 11/75.....	167
Back plate 40.....	161	Junction box plate 35S.....	187	Wall bracket 20.....	167
Beam clamp 5BK.....	211	Junction coupler 14.....	152	Wall bracket 20F.....	167
Bracket 60/40.....	183	KHZ.....	148	Wall bracket HT-14.....	197
Cable clamp ER.....	205	KHZP / KHZPS.....	146	Washer HSO M16.....	165
Cable clamp type A.....	203	KHZPV.....	147	Vertical piece 2.....	168
Cable clamp type R.....	203	KHZSP/ KHZSPZ.....	145	Vertical piece 2F.....	170
Cable roller 38 Rig'n roll.....	213	KHZV.....	149	Vertical piece 2Fi.....	169
Cable roller S.....	212	Lashing wire.....	204	Vertical piece 20.....	172
Cantilever arm 30.....	156	Lighting bracket 200.....	197	Vertical piece 20F.....	174
Cantilever arm 50i.....	157	Marking plate 93.....	207	Vertical piece 20FS.....	175
Cantilever arm 50L, 50 and 50F.....	159	Mounting rail 40.....	161	X-junction 17.....	191
Cantilever arm 81.....	158	Mounting rail WMS15.....	206		
Carrying bracket HT-31.....	198	Mounting rail WMS25.....	206		
Carrying bracket HT-33/34.....	198	Pendant bar 1.....	181		
Carrying bracket HT-152.....	198	Pendant base plate 520.....	180		
Carrying sling HT-51.....	198	Pendant/Fixing rail 24/20.....	177		
Ceiling bracket 2Fi.....	180	Pendant/Fixing rail 24/20F.....	178		
Ceiling bracket 5.....	184	Pendant/Fixing rail 24/20FS.....	178		
Ceiling bracket 5TP.....	185	Pendant/Fixing rail 24/34.....	176		
Ceiling bracket 5TPA.....	185	Pendant/Fixing rail 24/48.....	176		
Ceiling bracket TF-10 and TF-16.....	166	Pendant joint 2J, 2FJ and 20J.....	181		
Ceiling plate 20F.....	179	Pipe HT-68 and HTR-68.....	199		
Ceiling plate 20FS.....	179	Profile clamp 41.....	155		
Clamp 12.....	155	Profile clamp 42.....	154		
Clamp set M6.....	202	Profile clamp 43.....	154		
Combi bracket 53.....	183	Profile protection 28P.....	206		
Combi Fitting B21.....	187	Profile support piece 37.....	195		
Combi Fitting B21 90 degree.....	187	Profile support piece 46.....	155		
Coupler 22.....	152	Protecting cover.....	196		
Coupler 22P.....	151	Rail fixing support			
Coupler 44.....	153	24/20F, 24/20FS.....	180		
Coupler 51.....	153	Reducer 31.....	200		
Cover 64.....	196	Riser 18.....	189		
Cover 90° bend.....	194	Riser coupler 49.....	189		
Cover clamp.....	195	Rod bracket 82.....	184		
Cover joint.....	195	Round bar fixing for ceilings.....	201		
Cover plate 65.....	196	Round bar fixing for floors.....	202		
Cover T-junction.....	194	Round bar fixing for walls.....	202		
Cover W5.....	193	S-bend 67.....	191		
Cross member plug 27.....	207	Screw set 22S.....	209		
Distance piece W39.....	193	Screw set 2S.....	209		
Dividing strip 39.....	192	Screw set 20S.....	209		
Dropper joint 32.....	151	Screw set M10 x 20.....	209		
Earth clamp W79.....	188	Screw set M12.....	208		
End bracket HT-11.....	199	Screw set W34.....	209		
End connection 10.....	189	Screw set W37.....	209		
End plug 28 and 28i.....	207	Spring nut M8/M10.....	209		
End plug 28C, D, E, F and J.....	207	Steel wire.....	200		
Fixed take-off hook 4.....	186	Support bracket 3.....	162		
Fixing rail 24/26x53 for casting-in.....	189	Support bracket 6.....	164		
Flange nut B43 M8, M10.....	166	Support bracket HSO.....	165		
Flange nut B43 M8, M10.....	209	Take-off hook 47.....	186		
Hook 8.....	211	T-bolt 26F.....	208		
Insert piece EM.....	204	Tele-conduit 36 with			
Installation plate 61.....	188	knock-out holes.....	192		
Intermediate connection bolt 29.....	210	Threaded rod B41 and W76 M8, M10... ..	166		
Joint 9.....	150	Thread lock B50 M8, M10.....	166		

KHZSP/ KHZSPZ



Test model II



Type	L m	A mm	B mm
KHZSP 200	3, 4, 6	198	164
KHZSP 300	3, 4, 6	298	264
KHZSP 400	3, 4, 6	398	364
KHZSP 500	3, 4, 6	498	464
KHZSP 600	3, 4, 6	598	564
KHZSPZ 200	6	198	164
KHZSPZ 300	6	298	264
KHZSPZ 400	6	398	364
KHZSPZ 500	6	498	464
KHZSPZ 600	6	598	564

Loadings

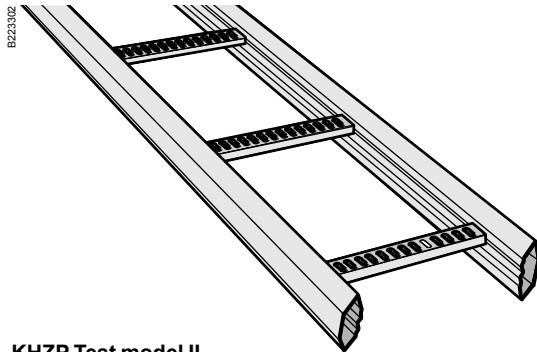
The ladders are tested according to IEC 61537, test model II - a joint in the intermediate span (F2).

Guaranteed load

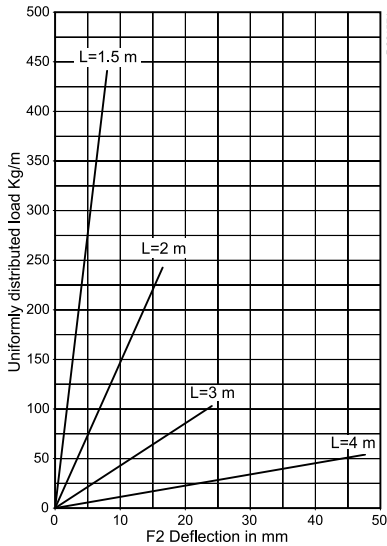
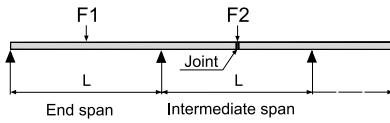
Guaranteed uniformly distributed load includes a minimum safety factor of 1.7 towards rupture. The diagram shows the deflection with Joint 21 for ladder widths up to 600 mm.

The cable ladders must not be used as walkways.

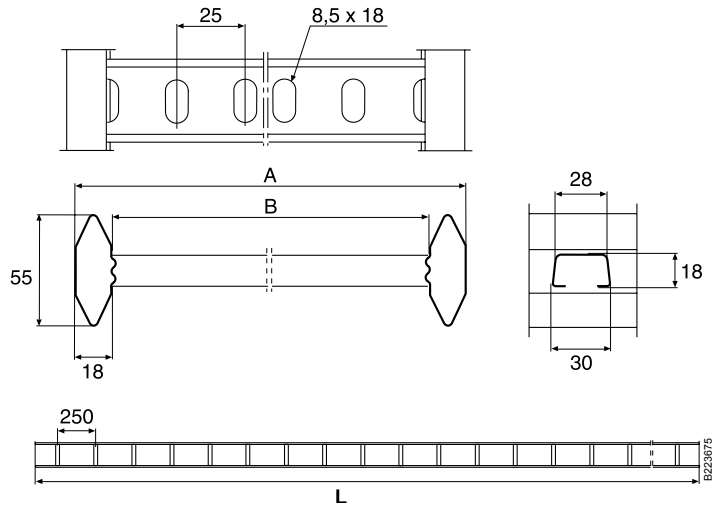
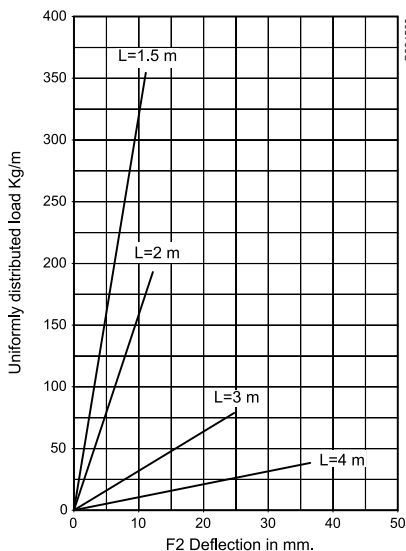
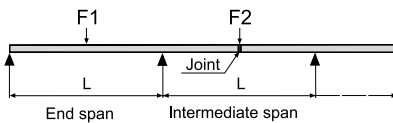
KHZP / KHZPS



KHZP Test model II



KHZPS Test model II



Type	L m	A mm	B mm
KHZP/KHZPS 150	6	147	111
KHZP/KHZPS 200	6	197	161
KHZP/KHZPS 300	6	297	261
KHZP/KHZPS 400	6	397	361
KHZP/KHZPS 500	6	497	461
KHZP/KHZPS 600	6	597	561
KHZP/KHZPS 800	6	797	761
KHZP/KHZPS 1000	6	997	961
KHZP 150	3	147	111
KHZP 200	3	197	161
KHZP 300	3	297	261
KHZP 400	3	397	361
KHZP 500	3	497	461
KHZP 600	3	597	561
KHZP 800	3	797	761
KHZP 1000	3	997	961

Loadings

The ladders are tested according to IEC 61537, test model II - a joint in the intermediate span (F2).

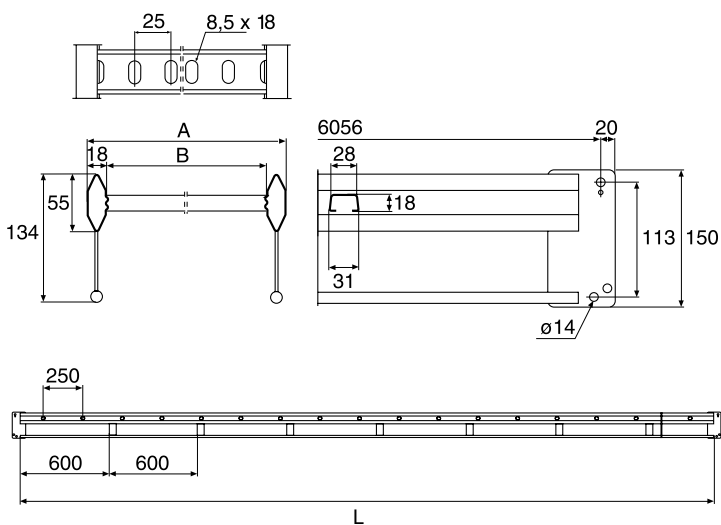
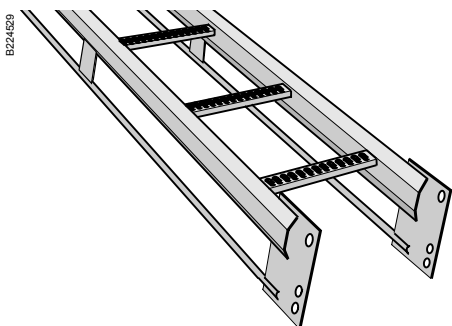
Guaranteed load

Guaranteed uniformly distributed load includes a minimum safety factor of 1.7 towards rupture.

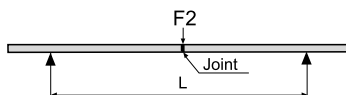
The diagrams shows the deflection with Joint 21 for cable ladder widths up to 600 mm.

The cable ladders must not be used as walkways.

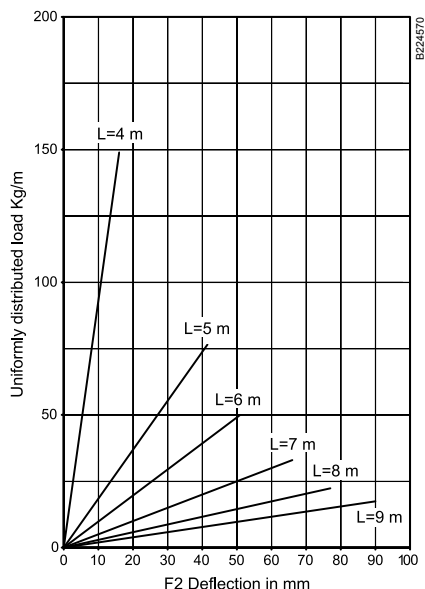
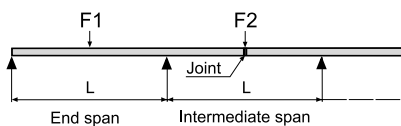
KHZPV



Test model V



Test model II



Type	L m	A mm	B mm
KHZPV 200	6	197	161
KHZPV 300	6	297	261
KHZPV 400	6	397	361
KHZPV 500	6	497	461
KHZPV 600	6	597	561
KHZPV 1000	6	997	961

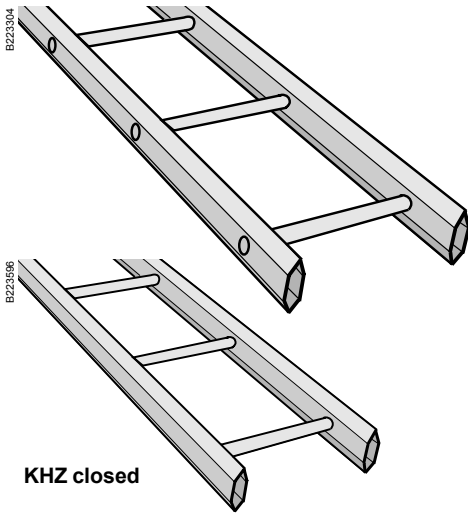
Loadings

The ladders are tested according to IEC 61537, test model II for bracket distance up to and including 4 m, test type V for bracket distance more than 4 m.

Guaranteed load

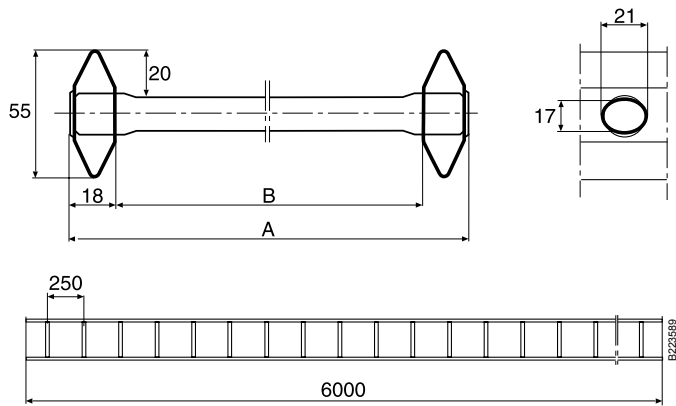
Guaranteed uniformly distributed load supported includes a minimum safety factor of 1.7 towards rupture. The diagram shows the deflection for cable ladder widths up to 600 mm.

The cable ladders must not be used as walkways.



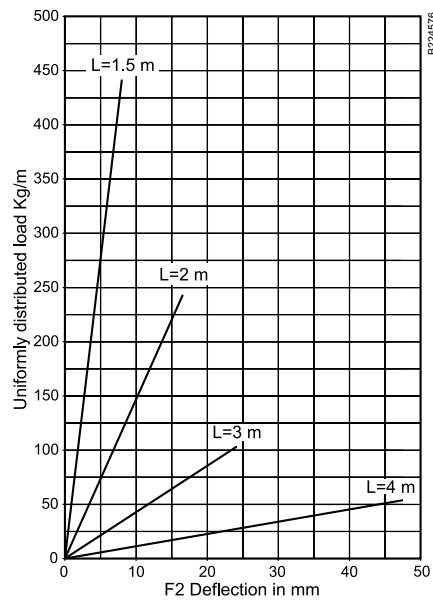
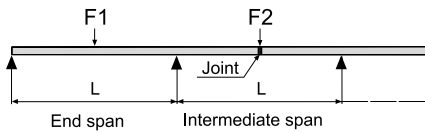
KHZ closed

KHZ



Type	L m	A mm	B mm
KHZ 150	6	147	111
KHZ 200	6	197	161
KHZ 300	6	297	261
KHZ 400	6	397	361
KHZ 500	6	497	461
KHZ 600	6	597	561

Test model II



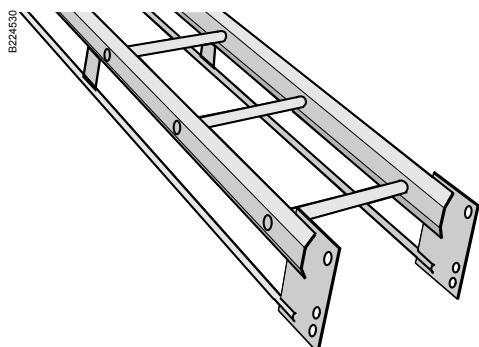
Loadings

The ladders are tested according to IEC 61537, test model II - a joint in the intermediate span (F2).

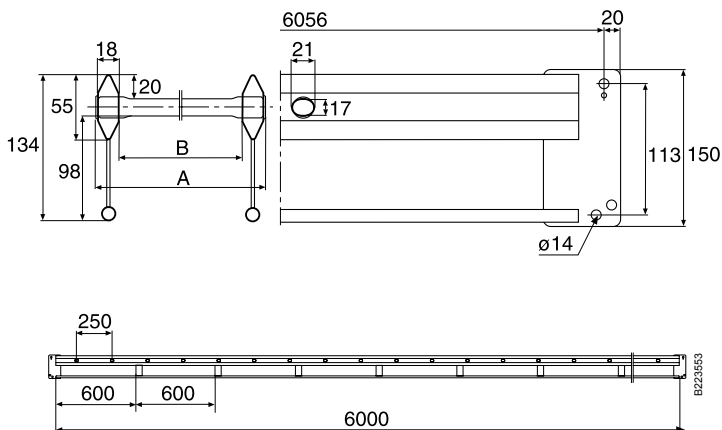
Guaranteed load

Guaranteed uniformly distributed load supported includes a minimum safety factor of 1.7 towards rupture. The diagram shows the deflection with Joint 21 for cable ladder widths up to 600 mm.

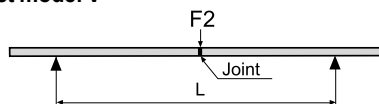
The cable ladders must not be used as walkways.



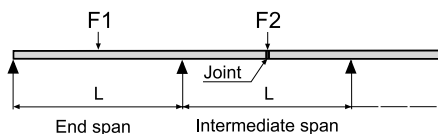
KHZV



Test model V



Test model II



Type	L m	A mm	B mm
KHZV 200	6	197	161
KHZV 300	6	297	261
KHZV 400	6	397	361
KHZV 500	6	497	461
KHZV 600	6	597	561

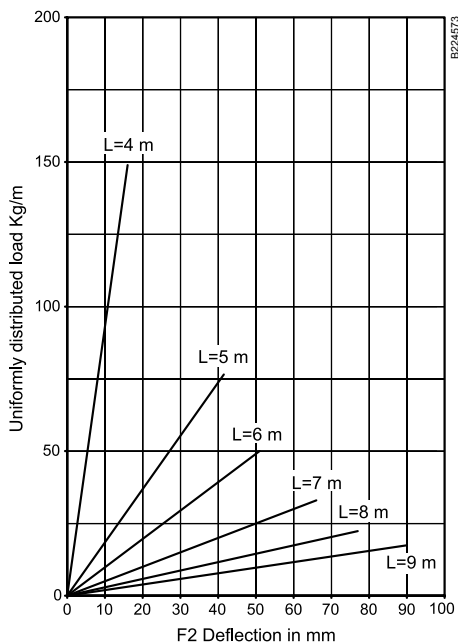
Loadings

The ladders are tested according to IEC 61537, test model II for bracket distance up to and including 4 m, test type V for bracket distance more than 4 m.

Guaranteed load

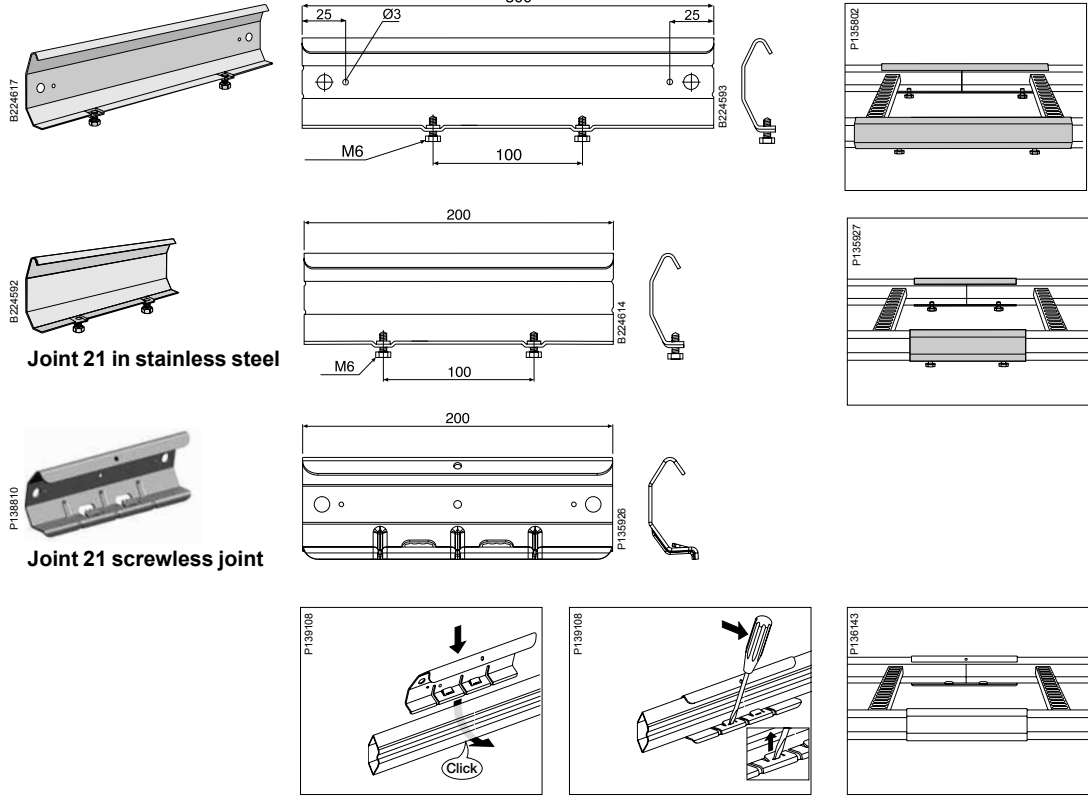
Guaranteed uniformly distributed load supported includes a minimum safety factor of 1.7 towards rupture. The diagram shows the deflection for ladder widths up to 600 mm.

The cable ladders must not be used as walkways.



Joint 21, with screws or screwless

Joint to be used for straight, rigid joining of cable ladders, bends, junctions and risers. No extra earthing needed.

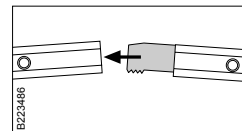
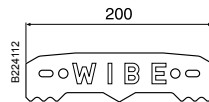


Joint 21 in stainless steel

Joint 21 screwless joint

Joint 9

Joint to be used for straight joining of cable ladders KHZ, KHZP and KHZPS. The teeth of the joint should face downwards. Under load, the ladders are prevented from slipping apart. If the joint is above a bracket, the teeth should face upwards.

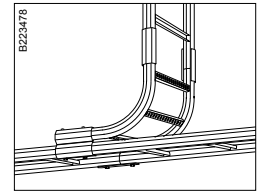
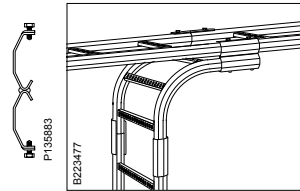
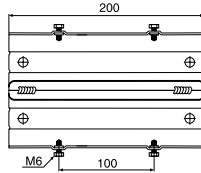
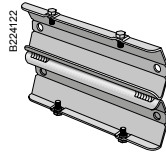


Joint 9 is used in straight joints of KHZ, KHZP and KHZPS.

NOTE! The teeth shall face downwards as shown in the figure. Under load, the ladders are prevented from slipping apart. If the joint is above a bracket, the teeth should face upwards.

Dropper joint 32

Dropper joint used to form vertical branches in centre position under/on top of cable ladders.

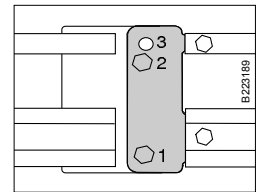
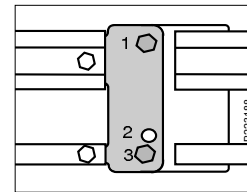
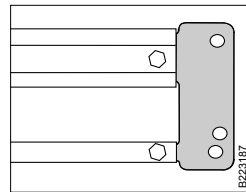
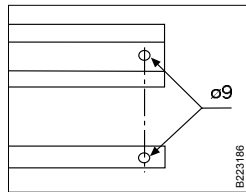
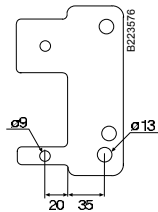
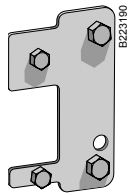


To be used together with Riser 18 to form vertical branches under Cable ladder KHZ, KHZP, KHZSP, KHZSPZ and KHZPS.

May also be used together with Riser 18 to form vertical branches on top of Cable ladder KHZ, KHZP, KHZSP, KHZSPZ and KHZPS.

Joint 45

Joint to be fitted as a joining plate in a cut KHZV/KHZPV ladder.



Cable ladders can be joined using separate joints.
 - Cut the ends clean.
 - Place the joints outside the ladders and mark where the holes shall be drilled.
 - Drill 9 mm dia. holes.

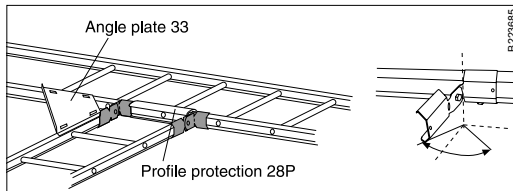
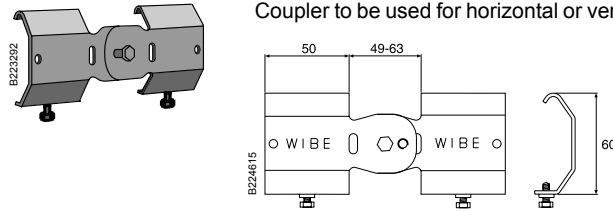
- Insert the joint plates into the ladders and bolt them fast.

The holes are laterally displaced to avoid play in joints. If the ladders are mounted with arch pipes facing downwards, use holes 1 and 3.

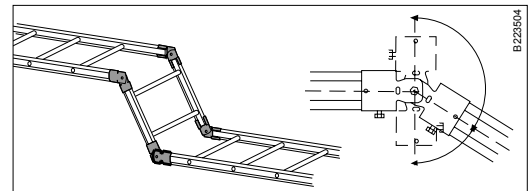
If the ladders are mounted with arch pipes facing upwards, use holes 1 and 2.

Coupler 22

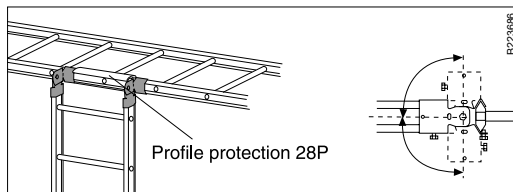
Coupler to be used for horizontal or vertical branches at any desired angle.



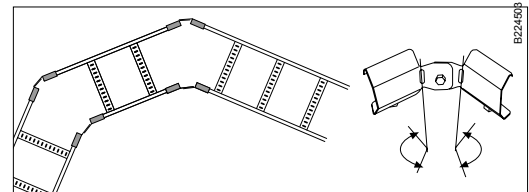
Coupler 22 is used for horizontal branching to the required angle. The cut length of the ladder ends determines the angle. Angle plate 33 is always recommended for horizontal branches. Use Profile protection 28P.



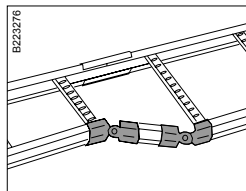
Coupler 22 is used to form vertical angles of the required size.



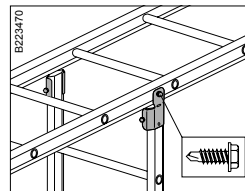
Coupler 22 is used to form vertical branches of the required angle. Mount Profile protection 28P. To be cut when required.



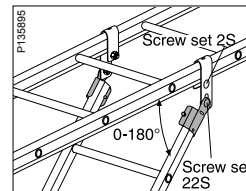
Use 4 Couplers 22 to form a horizontal bend in different angles. The cut lengths of the ladder ends determine the angle.



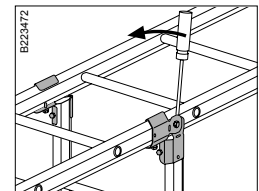
As an alternative at transition joining of KHZSP, KHZPS, KHZ and KHZP use 1 Joint 21 and 2 Couplers 22.



Vertical branching under the cable ladder with one part of Coupler 22 and plate screw.



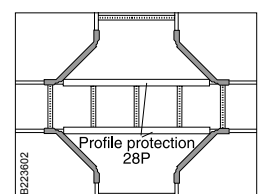
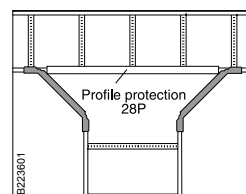
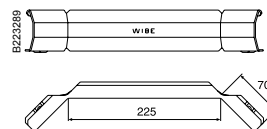
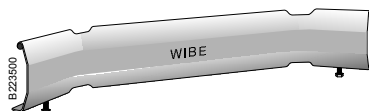
Clamp 12 and one part of Coupler 22 can be used for branching under the cable ladder – allowing angles from 0 – 180°.



Use 2 Coupler 22 for vertical branching under the cable ladder. **Note!** The screw of Coupler 22 must be turned so that its head will be placed against the side profile of the cable ladder. Bend the coupler with a screwdriver.

Junction coupler 14

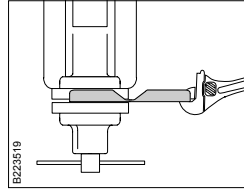
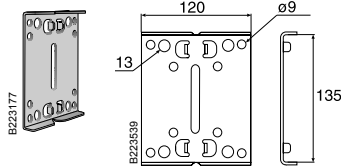
Junction coupler to be used for T- and X-junctions. Suitable for cable ladders KHZ, KHZP, KHZSP and KHZPS, all cable widths.



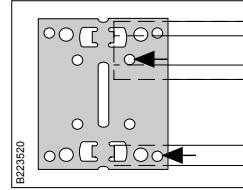
For T-junctions, use 2 Junction couplers 14. For X-junctions, use 4 Junction couplers 14. A bracket should be placed under the connecting ladder close to the connection. Profile protection 28P is recommended. To be cut to required length.

Coupler 44

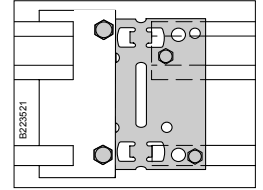
Coupler to be used for horizontal coupler of cable ladders KHZV/KHZPV. Also to be used for branches and as an end connection against a wall.



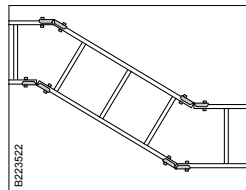
Coupler 44 may be bent to the required angle in a vice, using an adjustable spanner or similar.



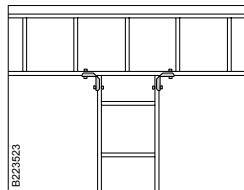
Use Coupler 44 as a drilling pattern on the cut ladder. Drill 9 mm dia. holes.



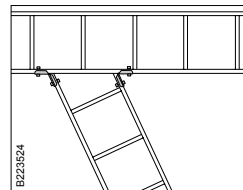
Assemble the cut and drilled ladders using M8x30 mm bolts. If the angle unit is mounted against a fixed joint plate use Screw set M12.



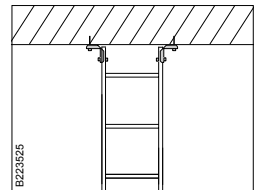
Angled cutting of the ladder ends determines the angle.



Straight branch.



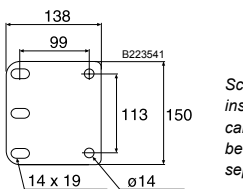
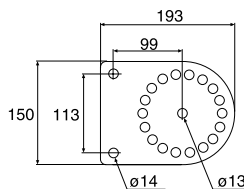
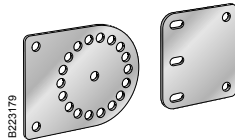
Angled branch.



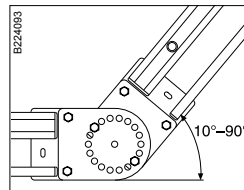
Use Coupler 44 as an end attachment for mounting ladders against walls or floors.

Coupler 51

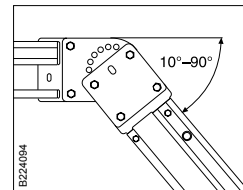
Coupler to be used as a self-supporting vertical coupler of cable ladders KHZV/ KHZPV.



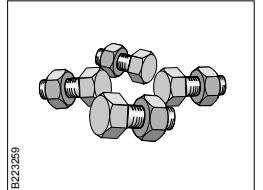
Screw set M12 for installation on the cable ladder is to be ordered separately.



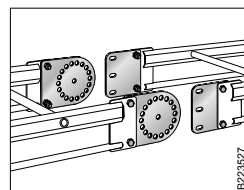
Rising. Adjustable from 10° to 90° gradually in steps of 20°.



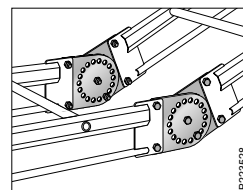
Sloping. Adjustable from 10° to 90° gradually in steps of 20°.



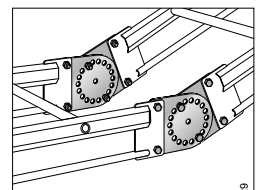
Screw set to be used for all joints with cable ladders KHZV and KHZPV.



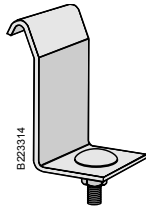
1. Install the plates on the ladder with Screw set M12.



2. Assemble the ladders in the centre hole with one of the included screws/nuts. Adjust to desired angle and fix the installation in one of the outer holes with screw/nut.

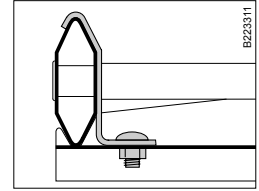
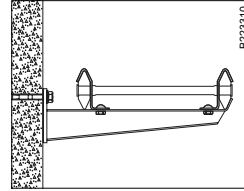
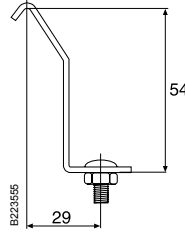


3. Move the nut in the centre hole to the opposite outer hole and tighten.



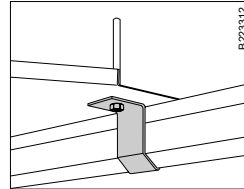
Profile clamp 42

Profile clamp to be used for installations where the cable ladder is to be fixed to cantilever arms, support brackets, etc.

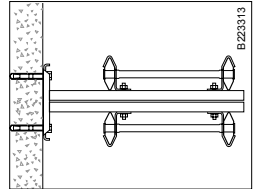


Use Profile clamp 42 for attaching KHZSP, KHZPS, KHZ and KHZP to Cantilever arm 50 and Support bracket 3. For small loads, mount the ladder with a clamp on each cantilever arm, alternately right side and left side.

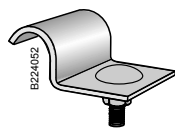
For installation of KHZSP, KHZPS, KHZ and KHZP on Support bracket 3, Profile clamp 42 is used.



To lock Angle plate 33/2, fit 2 Profile clamp 42.

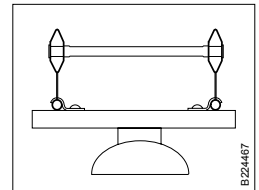
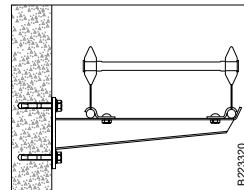
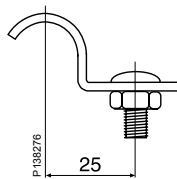


Cable ladders can be mounted directly on Vertical piece 20 or 20F with Profile clamp 42. Use T-bolt for mounting. Convenient at vertical installations in shafts.



Profile clamp 43

Profile clamp to be used for installations where the cable ladders KHZV and KHZPV are to be fixed to cantilever arms, support brackets, etc.

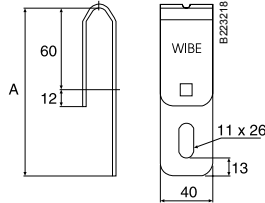
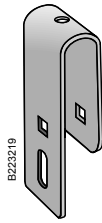


Use Profile clamp 43 to attach KHZV/KHZPV to Cantilever arm 50. For small loads, mount the ladder with a clamp on each cantilever arm, alternating right side and left side.

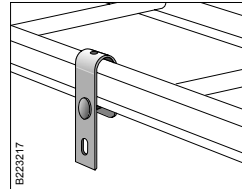
Pendant/Fixing rail 24/48, mounted under Cable ladder KHZV with Profile clamp 43, here used as carrier of lighting fittings.

Clamp 12

Clamp to be used on the side profile of the cable ladder for installation of accessories.



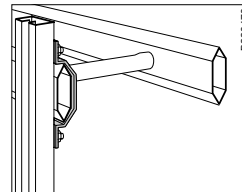
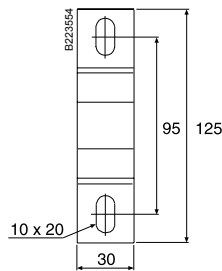
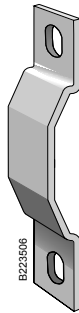
Type	A mm
Clamp12/70	125
Clamp 12/120	175



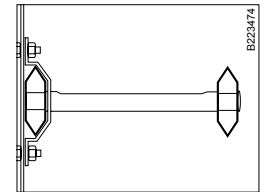
Clamp 12 can be used for installation of antenna brackets, junction boxes and so on. Use Screw set 2S for hot dip clamp or Screw set W37 or stainless steel clamp.

Profile clamp 41

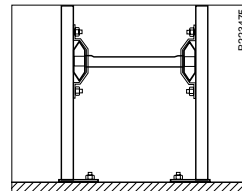
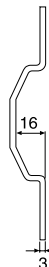
Profile clamp to be used to install a pendant/fixing rail or mounting plate, etc., on the cable ladder profile.



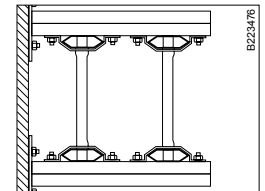
Mounting of pendant/fixing rail on ladder profile. Use Screw set 22S.



Installation of mounting plate for apparatuses. Use Screw set 22S.



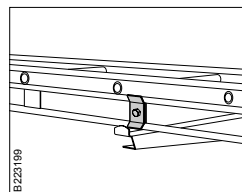
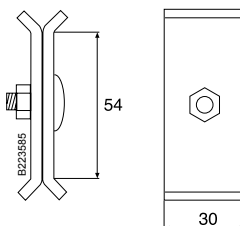
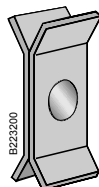
Mounting of cable ladder on floor pendants. Use T-bolts against the opening of the fixing rail.



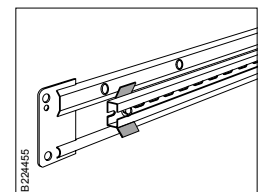
Mounting of cable ladders on wall pendants, such as in shafts. Use T-bolts against the opening of the fixing rail.

Profile support piece 46

To be fitted between the ladder and the vault pipe when a support bracket is positioned between existing profile support pieces. For cable ladders KHZV and KHZPV.



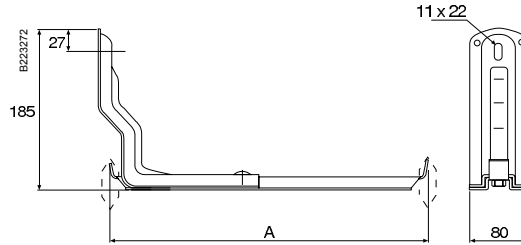
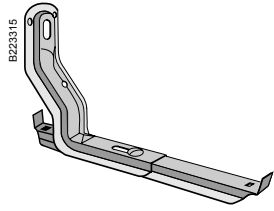
If a support bracket is placed between two profile support pieces, a Profile support piece 46 must be mounted between the arch pipes and the ladder. If the load is half the permitted load, exclude the Profile support piece 46.



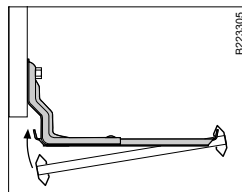
Profile support piece 46 can be installed as a fixing for different applications.

Cantilever arm 30

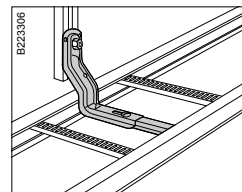
Cantilever arm for installation inside cable ladder KHZSP.



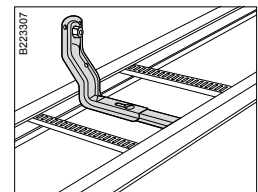
Cantilever arm type	A mm
30/200	184
30/300	284
30/400	384
30/500	484
30/600	584



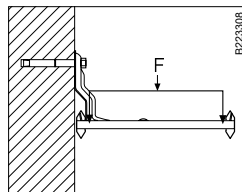
Installation of cable ladder KHZSP. Place the ladder on the outer tab and press it over the inner tab. When necessary, the ladder can be locked with a Profile clamp 43.



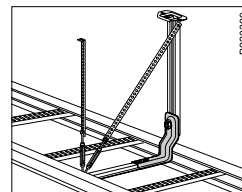
Installation on Vertical piece 2F. Cable ladder KHZSP can be adjusted max 40 mm.



Installation direct on wall. Cable ladder KHZSP is adjustable from 0–15 mm to the wall.



Breaking load for cantilever arm on wall, see table below.



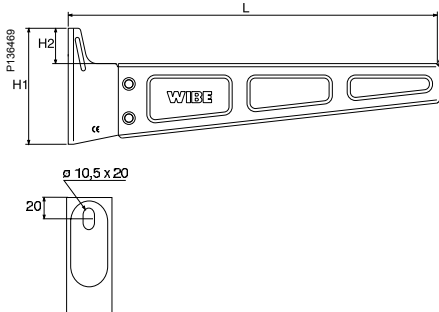
When you mount cable ladders that are 500-600 mm wide it might be necessary with a reinforcement of the outer edge of the cantilever arm. Installation band and stretching screw can be used for mounting in the ceiling or on a vertical piece.

Breaking load

Cantilever arm type	Max. load F on cantilever arm at a deflection of 3°		Deflection at 3° deflection of cantilever arm mm	Breaking load	
	kN	kg		kN	kg
30/200	2.0	200	10	2.3	230
30/300	1.9	190	15	3.5	350
30/400	1.2	120	20	3.0	300
30/500	0.8	80	26	2.4	240
30/600	0.6	60	31	2.0	200

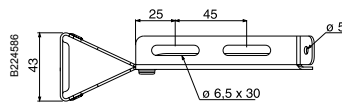
Cantilever arm 50i

Cantilever arm to be used for lighter mountings on walls, vertical pieces or pendant/ fixing rails.

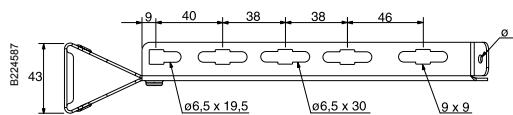


Cantilever arm type	Size		
	L mm	H1 mm	H2 mm
50i-200	250	85	28.5
50i-300	350	110	33.5
50i-400	450	115	31.0

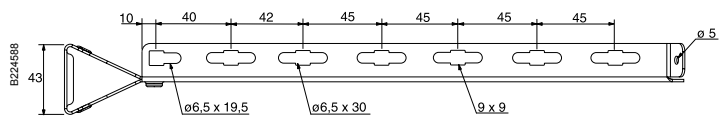
Widths = 100



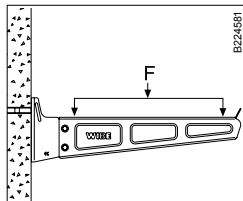
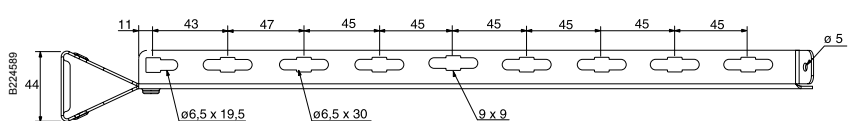
Widths = 200



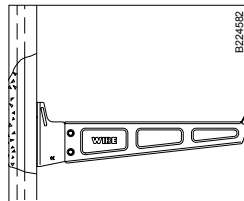
Widths = 300



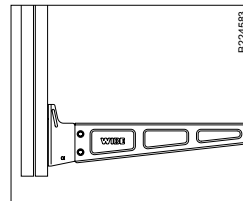
Widths = 400



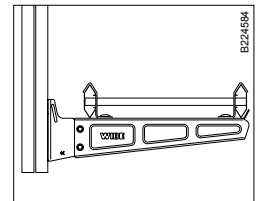
Installation of cantilever arm mounted to wall using Expansion bolt M8. Breaking load - See table below.



Installation of cantilever arm using T-bolt M8 on Fixing rail 24/26 x 53 for casting-in or Pendant/ Fixing rail wall mounted.



Installation of cantilever arm using T-bolt M8 on vertical piece. Check breaking load of the vertical piece.

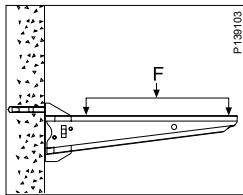
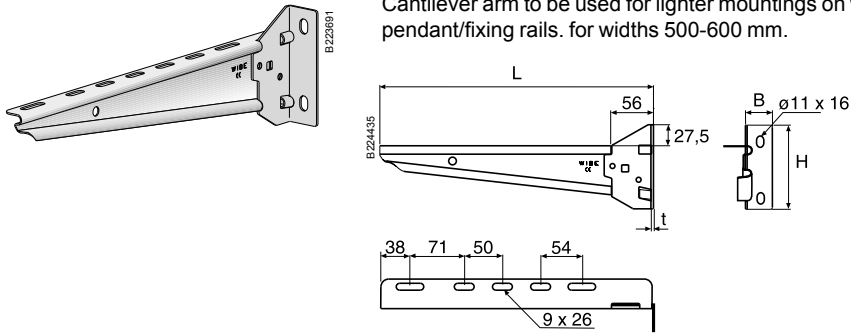


Cable ladder KHZSP mounted on Cantilever arm 50i, Profile clamp 42 is used.

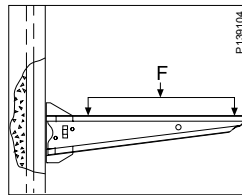
Breaking load F - Mounted on wall		
Type of cantilever arm	kN	kg
50i-100	2.30	230
50i-200	2.15	215
50i-300	2.20	220
50i-400	2.35	235

Cantilever arm 81

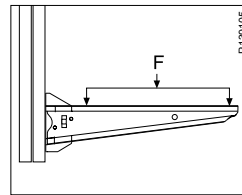
Cantilever arm to be used for lighter mountings on walls, vertical pieces or pendant/fixing rails. for widths 500-600 mm.



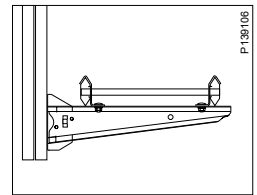
Installation of a cantilever arm to a wall using an Expansion bolt. Breaking load - see below.



Installation of a cantilever arm using a T-bolt on a Fixing rail 24/26 x 53 for casting-in or Pendant/Fixing rails mounted on the wall.

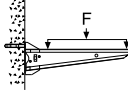
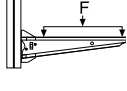


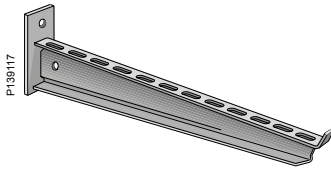
Installation of cantilever arm using T-bolt with vertical pieces. Breaking load - see below. Also check breaking load of the vertical piece.



Cable ladder KHZSP mounted on Cantilever arm 81, Profile clamp 42 is used.

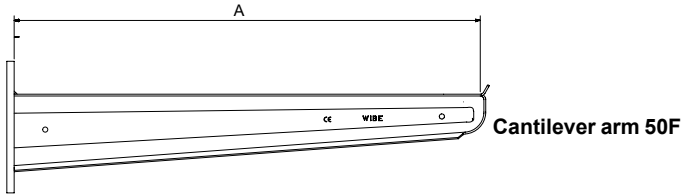
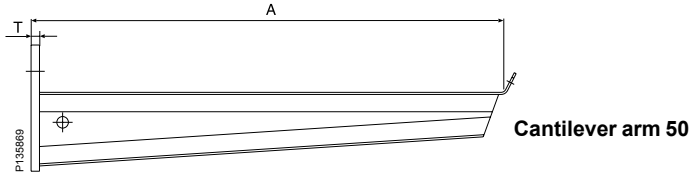
Size and Breaking load F

Type	Size							
	L mm	B mm	H mm	t mm	Mounted on wall kN	kg	Mounted on P/F rail 24/48 with T-bolt 26 kN	kg
Cantilever arm 81/500	568	40	150	3.0	1.9	190	1.9	190
Cantilever arm 81/600	658	40	150	3.0	1.9	190	1.9	190

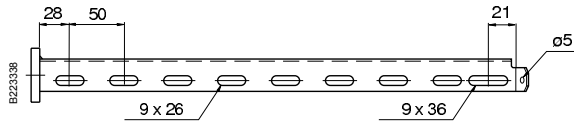


Cantilever arm 50L, 50 and 50F

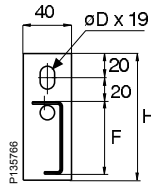
Cantilever arm for mounting on walls, pendant/fixing rails or vertical pieces.



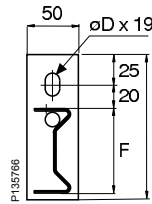
Cantilever arm 50L and 50



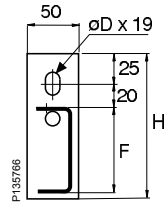
50L,50/100-300



50L,50/400-600



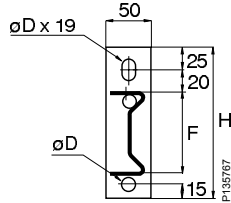
50/700-1000



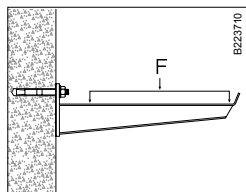
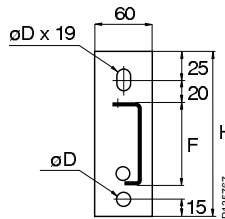
Cantilever arm 50F



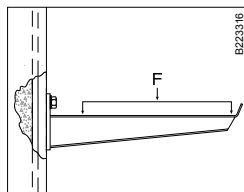
50F/200-600



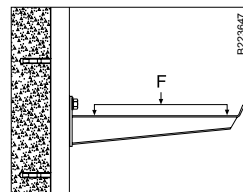
50F/1000



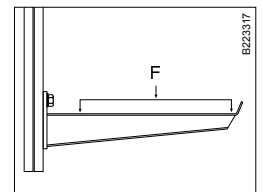
Installation of a cantilever arm to a wall using an Expansion bolt. Breaking load—see on next page.



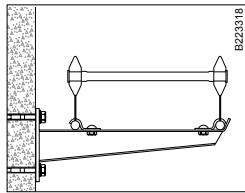
Installation of a cantilever arm using a T-bolt on a Fixing rail 24/26x53 rail for casting-in or Pendant/Fixing rails mounted on the wall. Breaking load—see on next page.



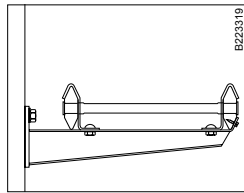
Mounting a cantilever arm using a T-bolt on a Pendant/Fixing rail mounted on a wall.



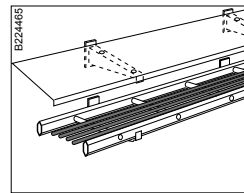
Installation of cantilever arm using T-bolt with vertical pieces. Breaking load—see on next page. Also check breaking load of the vertical piece.



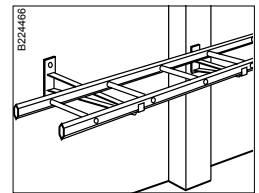
Profile clamp 43 is used for attaching a KHZV onto a Cantilever arm 50F.



For attaching a KHZSP, KHZ, KHZPS or KHZP cable ladder, mount Profile clamp 42. If it is only necessary to fix the cable ladder at the outer end of the bracket, use self-tapping sheet screws or suchlike with 5 mm dia. holes in the bracket and in the side section.



Cantilever arm 50F mounted upside down can be used for installation of tilted protective roofs.



Use Cantilever arm 50/700-1000 as support when cable ladders have to pass columns etc.

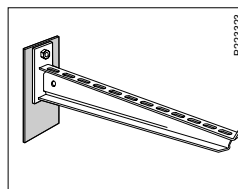
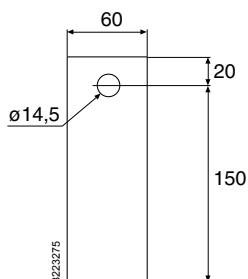
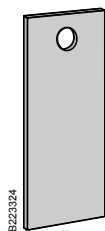
Size and Breaking load F

Type	A mm	D mm	F mm	H mm	T mm	Mounted on wall		Mounted on P/F rail 24/48 with T-bolt 26F	
						kN	kg	kN	kg
50L/100	150	12	34	85	4	1.5	150	1.5	150
50L/150	200	12	36	85	4	1.5	150	1.5	150
50L/200	250	12	39	85	4	1.5	150	1.5	150
50L/250	298	12	56	105	4	2.0	200	2.0	200
50L/300	348	12	60	105	4	2.0	200	2.0	200
50L/400	447	12	70	120	5	3.0	300	3.0	300
50L/500	548	12	77	140	6	3.0	300	3.0	300
50L/600	646	12	84	150	6	3.0	300	3.0	300
50/100	150	12	34	85	4	3.0	300	3.0	300
50/150	200	12	36	85	4	3.0	300	3.0	300
50/200	250	12	39	85	4	2.5	250	2.5	250
50/250	300	12	56	105	6*	4.0	400	4.0	400
50/300	350	12	60	105	6*	4.0	400	4.0	400
50/400	450	12	70	120	8*	6.5	650	6.5	650
50/500	550	12	77	140	8*	7.0	700	7.0	700
50/600	650	12	84	150	10*	7.0	700	7.0	700
50/700	750	12	90	150	10	6.0	600	5.5	550
50/800	850	12	95	160	10	5.5	550	5.2	520
50/900	950	12	100	160	10	5.3	530	4.8	480
50/1000	1050	12	105	170	10	5.0	500	4.2	420
50F/200	245	12	72	148	8	10.0	1000	10.0	1000
50F/300	345	12	79	175	8	10.0	1000	10.0	1000
50F/400	445	12	86	175	8	11.0	1100	9.0	900
50F/500	547	14	93	180	10	10.0	1000	8.0	800
50F/600	647	14	100	180	10	10.0	1000	8.0	800
50F/1000	1052	14	160	240	12	11.0	1100	8.0	800

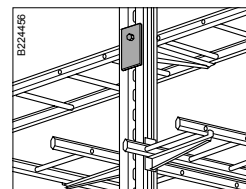
* Stainless steel: 50/250-300 T=4mm, 50/400-600 T=5mm.

Back plate 40

Back plate to be used for installation behind Cantilever arm 50 to reduce the surface pressure on porous walls.



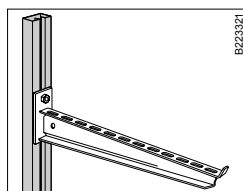
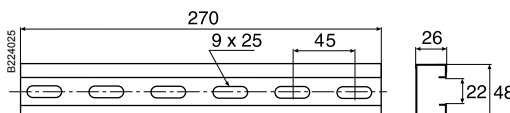
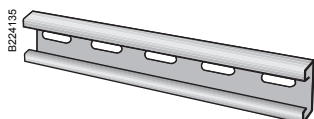
Mount Back plate 40 as shown in the illustration to reduce the surface stress on porous walls.



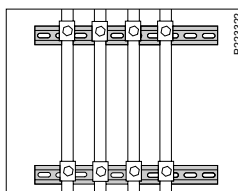
By using Back plate 40, a cantilever arm can be mounted on the side of Vertical piece 20F.

Mounting rail 40

Mounting rail to be used for wall installation of cantilever arms on porous walls to reduce the surface pressure or to enable height adjustment of cantilever arms.



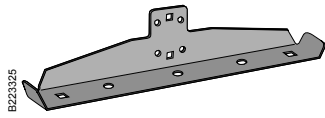
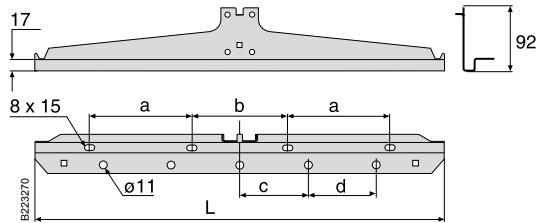
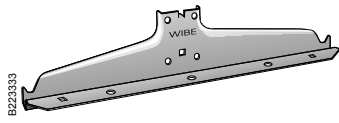
Mounting rails reduce the surface stress on porous walls. Mount the cantilever arm using T-bolt, which permits height adjustment.



Cables may be mounted on walls using Mounting rail 40 and a suitable Cable clamp Type A.

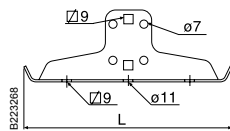
Support bracket 3

Support bracket to be used for centre installation of cable ladders on pendant/fixing rails and vertical pieces.

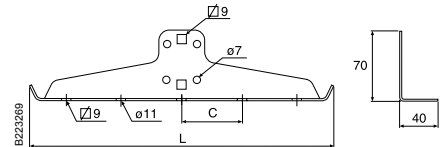


Stainless steel AISI 316L

3/150-200



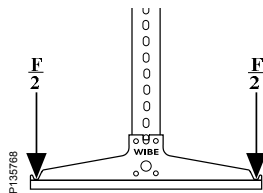
3/300-600



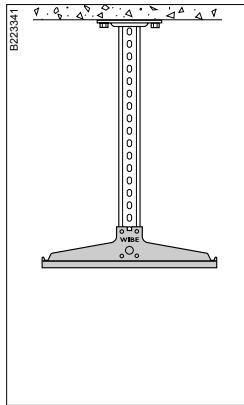
Size

Type	L mm	Stainless steel L mm	a mm	b mm	c mm	d mm
Support bracket 3/150	150	154	–	100	–	–
Support bracket 3/200	200	204	–	100	–	–
Support bracket 3/300	300	306	70	100	–	–
Support bracket 3/400	400	406	70	100	100	–
Support bracket 3/500	500	506	100	140	100	–
Support bracket 3/600	600	606	150	140	100	100

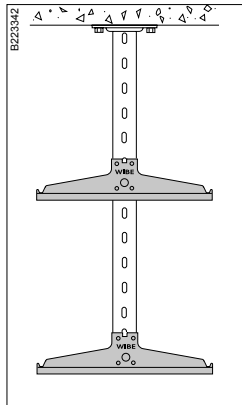
Breaking load for support bracket with symmetrical loading



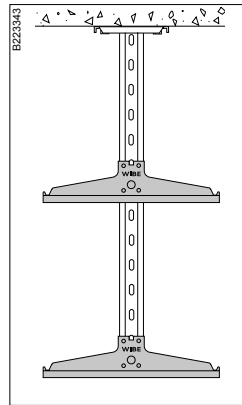
Type	Breaking load F	
	kN	kg
Support bracket 3/150	16	1600
Support bracket 3/200	16	1600
Support bracket 3/300	16	1600
Support bracket 3/400	12	1200
Support bracket 3/500	12	1200
Support bracket 3/600	10	1000



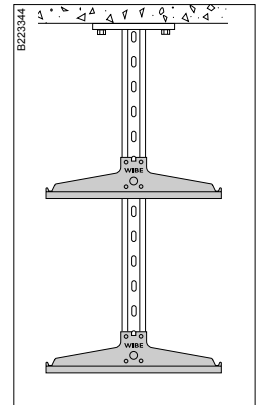
Mount Support bracket 3 on Vertical piece 2 with Screw set 22S.



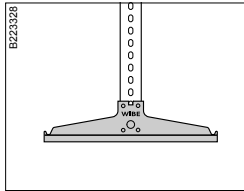
Mount Support bracket 3 on Vertical piece 2F with Screw set 22S.



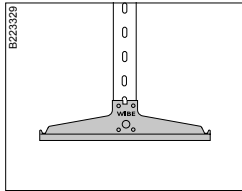
Mount Support bracket 3 on Vertical piece 20 with Screw set 20S.



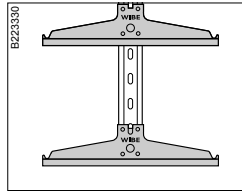
Mount Support bracket 3 on Vertical piece 20F with Screw set 2S.



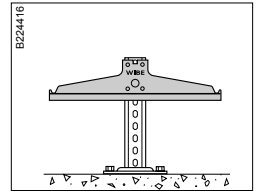
Mount Support bracket 3 on Pendant/Fixing rail 24/34 with Screw set 22S.



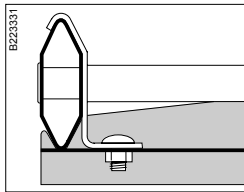
Mount Support bracket 3 on Pendant/Fixing rail 24/20 or 24/48 with Screw set 22S.



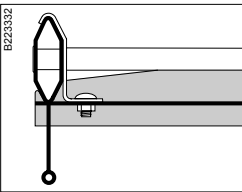
Support bracket 3 installed on Pendant/Fixing rail 24/20F with Screw set 2S.



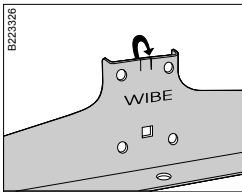
Support bracket 3 can be mounted on floor or under data floor with a suitable vertical piece.



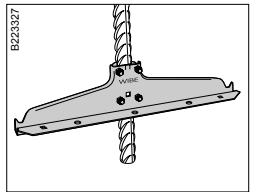
For installation of KHZSP, KHZ, KHZP and KHZPS on Support bracket 3 Profile clamp 42 is used.



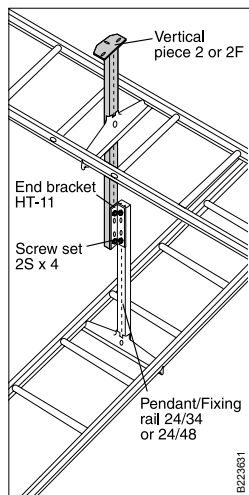
When attaching KHZV/ KHZPV to Support bracket 3, use Profile clamp 42.



When attaching Support bracket 3 using clamp set M6 the tab must be bent up using a hammer or pair of pliers.



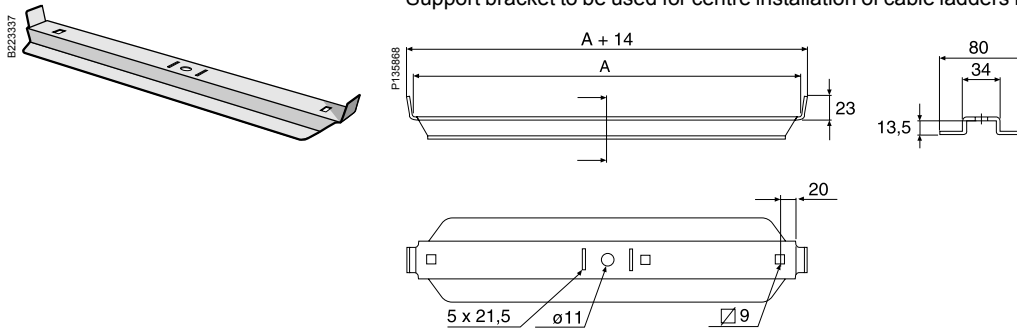
Support bracket 3 mounted on a rock bolt with Clamp set M6.



End bracket HT-11 permits the mounting of crossing cable ladders at different levels on the same pendant/fixing rail.

Support bracket 6

Support bracket to be used for centre installation of cable ladders KHZSP.

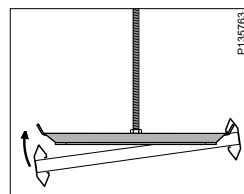


Size

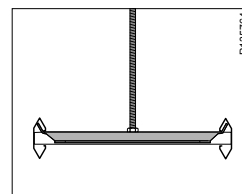
Type	A mm
Support bracket 6/200	170
Support bracket 6/300	270
Support bracket 6/400	370
Support bracket 6/500	470
Support bracket 6/600	570

Breaking load for Support bracket 6 – symmetrical loading

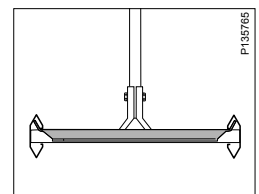
Support bracket	Breaking load with Threaded rod W76 M10		Breaking load with Pendant attachment W21	
	kN	kg	kN	kg
6/200	5.0	500	3.4	340
6/300	4.8	480	3.4	340
6/400	3.0	300	3.0	300
6/500	2.2	220	2.2	220
6/600	1.7	170	1.7	170



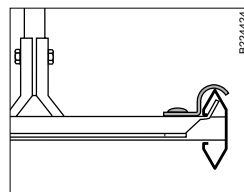
Support bracket 6 must be mounted inside cable ladder KHZSP.



Support bracket 6 mounted with Threaded rod W76 M10. Nut M10 must be used.



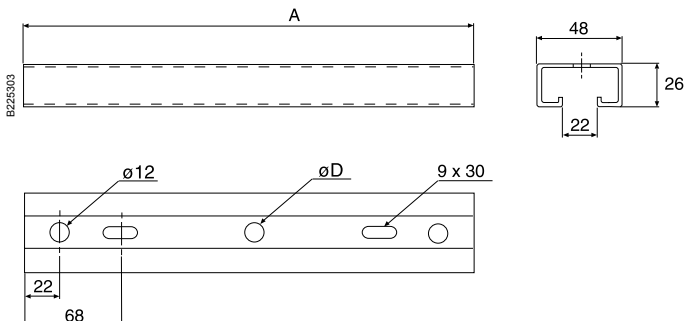
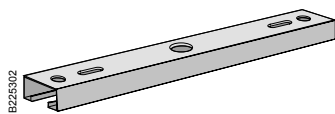
Support bracket 6 mounted with Pendant rail W32, Pendant attachment W21 and Screw set W37 from the Wibe cable Tray range.



Profile clamp 43 can be used to fix the cable ladder to the support bracket.

Support bracket HSO

Support bracket to be mounted together with Threaded rod M10 or M16 for the installation of cable ladders.

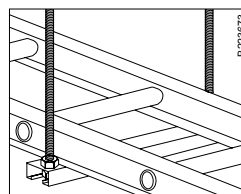
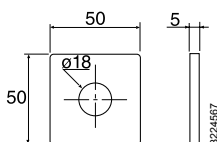
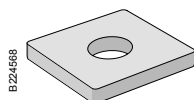


Size

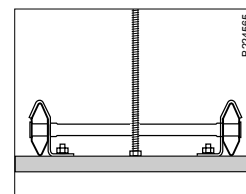
Type	A mm	D mm
Support bracket HSO/150 M10	210	12
Support bracket HSO/200 M10	260	12
Support bracket HSO/300 M10	360	12
Support bracket HSO/400 M16	460	18
Support bracket HSO/500 M16	560	18
Support bracket HSO/600 M16	660	18

Washer HSO M16

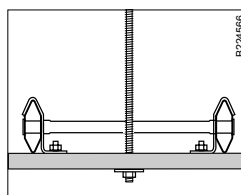
Washer to be used for centered mounting with Support bracket HSO M16 and Threaded rod M16.



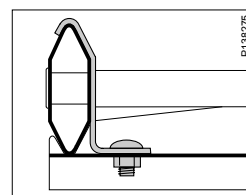
Support bracket HSO M10 installed with Threaded rod W76 M10.



Centered installation with Support bracket HSO M10, widths 150-300, Threaded rod W76 M10 and 2 Nuts M10.



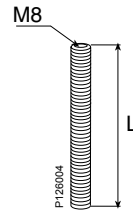
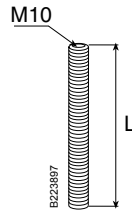
Centered installation with Support bracket HSO M16, widths 400-600, Threaded rod M16, 2 Nuts M16 and Washer HSO M16.



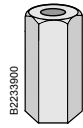
Profile clamp 42 is used to attach the cable ladder to the support bracket.

Threaded rod B41 and W76 M8, M10

Used for installation of light cable ladders.

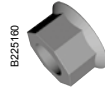


Diametre and Surface treatment	L= 1000mm	L= 2000mm	L= 3000mm
M8 EZ	W76	-	-
M10 EZ	-	W76	W76
M8 HDG	W76	W76	-
M8 AISI	B41	B41	-
M10 AISI	B41	B41	-



Joint nut M8, M10

Used for joining of threaded rod.



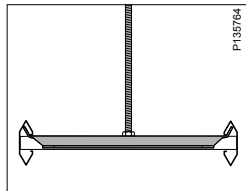
Flange nut B43 M8, M10

Flange nut is mounted onto threaded rods in order to lock support brackets and ceiling brackets.

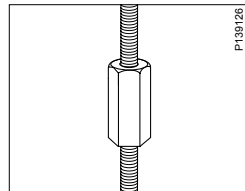


Thread lock B50 M8, M10

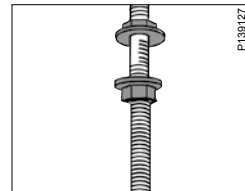
Used for joining of threaded rod.



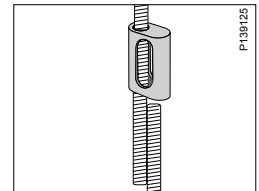
Support bracket 6 mounted with Threaded rod. Flange Nut B43 must be used.



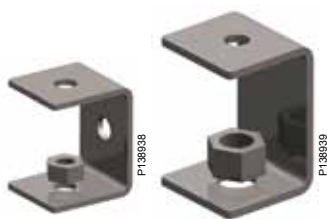
Use Joint nut when joining 2 pieces of Threaded rod.



Flange nut B43 is mounted onto Threaded rod in order to lock support brackets and ceiling brackets.

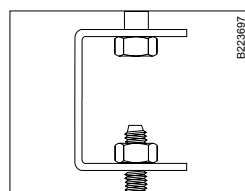
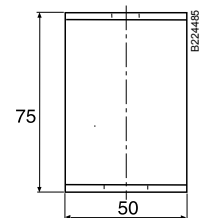
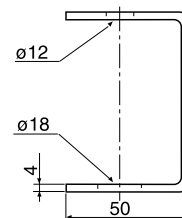
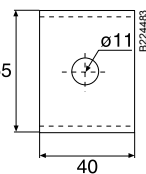
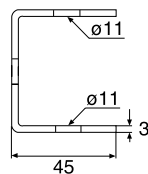


Thread lock B50 is used for the joining of threaded rod. Max. permitted load=80kg.



Ceiling bracket TF-10 and TF-16

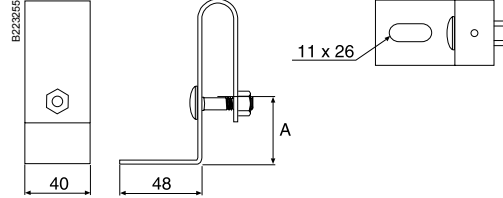
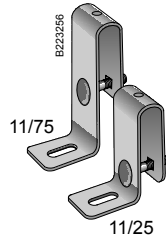
Ceiling bracket to be used for installation with threaded rods.



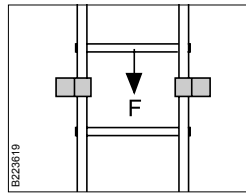
Ceiling bracket TF-10 or TF-16 installed with Threaded rod M10 or M16.

Wall bracket 11/25 and 11/75

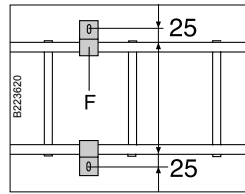
To be used for vertical or horizontal installations of cable ladders against a wall.



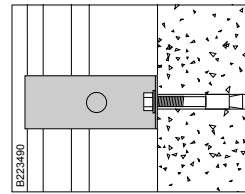
Type	A mm
Wall bracket 11/25	25
Wall bracket 11/75	75



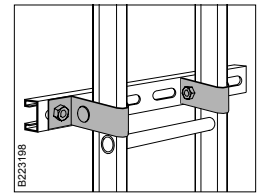
Vertical mounting
(max. load - F)
Wall bracket 11/25:
300 kg (3 kN)
Wall bracket 11/75:
300 kg (3 kN)
When mounting against a
rung the max load is 500
kg (5 kN) for wall bracket
11/25.



Horizontal mounting
(max. load - F)
Wall bracket 11/25:
250 kg (2.5 kN)
Wall bracket 11/75:
100 kg (1.0 kN)



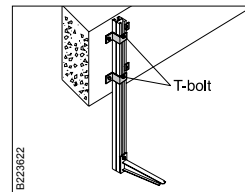
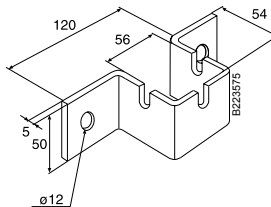
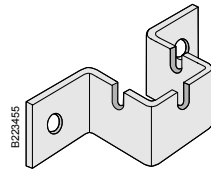
Mount wall brackets
against walls using
Expansion bolts.



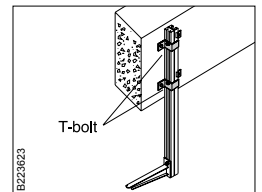
Pendant/fixing rails can
be mounted on cable
ladders using wall
brackets for mounting
equipment cubicles etc.
Mount wall brackets on
Pendant/fixing rails using
Screw set 22S.

Wall bracket 20

To be used at installation of Pendant/fixing rail 24/20 to ceiling beam or wall.



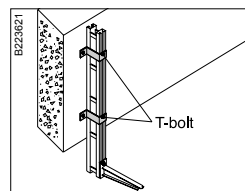
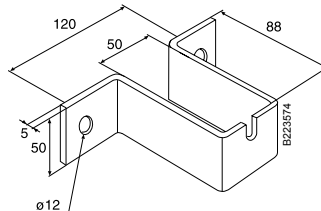
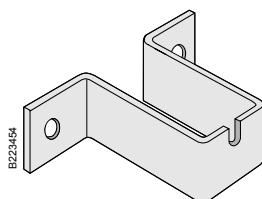
For cable ladder
installations along a
beam. Pendant/Fixing rail
24/20 must be mounted
with 2 Wall brackets 20
and 2 T-bolts 26F-30
placed in the centre outlet.
This installation is also
used for fixing to wall. Max
vertical load
700 kg (7 kN).



For cable ladder
installations across a
beam. Pendant/Fixing rail
24/20 shall be mounted
with 2 Wall brackets 20
and 2 T-bolts 26F-30 in
the side-outlets.

Wall bracket 20F

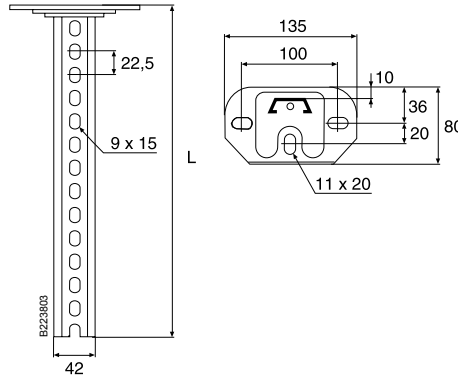
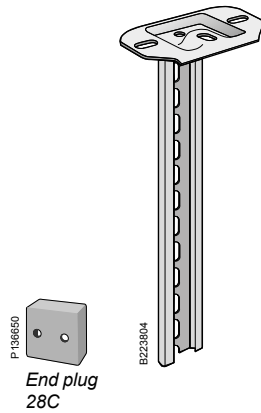
To be used at installation of Pendant/Fixing rail 20F to ceiling beam or wall.



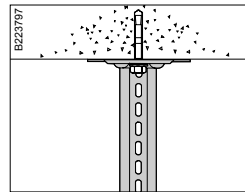
Pendant/Fixing rail
24/20F must be mounted
with 2 Wall brackets 20F
and 2 T-bolts 26F-30 for
cable ladders along
beams. This installation is
also used for fixing to
wall. Max. vertical load
700 kg (7 kN).

Vertical piece 2

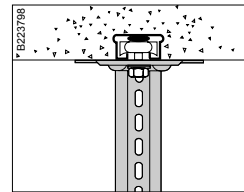
Vertical piece to be used for installation of Support bracket 3, symmetrical loading. Not suitable for cable ladders KHZV and KHZPV. Can be joined to Pendant/fixing rail 24/34 with Pendant joint 2J.



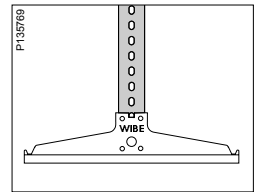
Type	L mm
Vertical piece 2/300	279
Vertical piece 2/400	392
Vertical piece 2/500	504
Vertical piece 2/700	729
Vertical piece 2/1000	1022



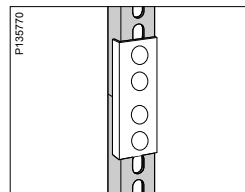
Mount Vertical piece 2 using an Expansion bolt or a concrete screw.



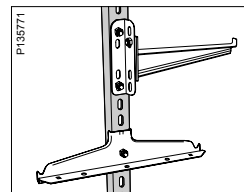
Mount Vertical piece 2 on a Fixing rail 24/26x53 for casting-in using T-bolt 26F.



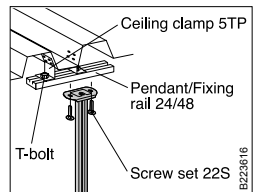
On Vertical piece 2, mount Support bracket 3 using Screw set 22S.



Vertical piece 2 can be joined to achieve the required length using Pendant/fixing rail 24/34 and Pendant joint 2J.

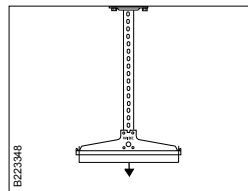


Cantilever arm 50 can, using End bracket HT-11, be mounted at 90° to the pendant/fixing rail. Only for lightweight mounting, such as data cables.

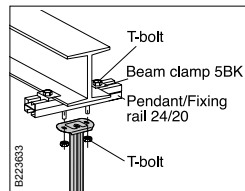


In ceilings with trapezoidal profile sheeting, mount Vertical piece 2 as shown above.

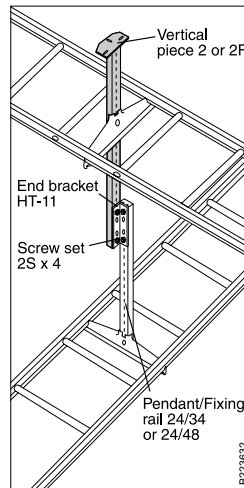
Breaking load



Breaking load for Vertical piece 2 with a symmetrical loading = 1400 kg (14 kN). See also breaking load for support bracket 3.



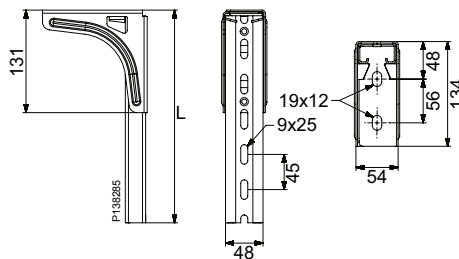
On beams in ceilings. When the beam flange thickness does not exceed 13 mm, use Beam clamp 5BK-10 and T-bolt 26F/40. For flange thicknesses not exceeding 30 mm use Beam clamp 5BK-30 and T-bolt 26F/50.



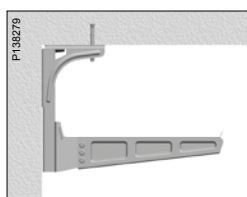
End bracket HT-11 permits the mounting of crossing cable ladders at different levels on the same pendant/fixing rail.

Vertical piece 2Fi

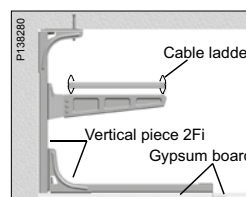
Vertical piece to be used for lighter mountings with Cantilever arm 50i and Cable ladder KHZSP.



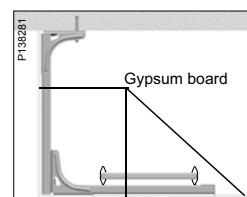
Type	L mm
Vertical piece 2Fi-300	272
Vertical piece 2Fi-500	497
Vertical piece 2Fi-750	722
Vertical piece 2Fi-1000	992



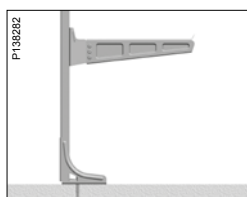
Vertical piece 2Fi can be mounted in ceiling close to wall.



Vertical piece 2Fi can be mounted horizontally on wall and on vertical piece as carrier of gypsum board.

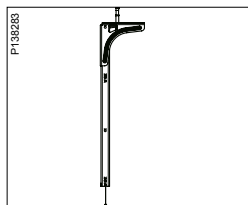


Vertical piece 2Fi can be used as carrier of gypsum boards in order to build in cable ladder passages.

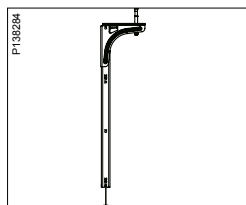


Vertical piece 2Fi is suitable for floor mounting.

Breaking load



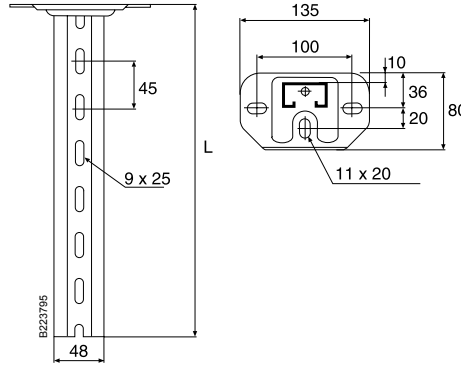
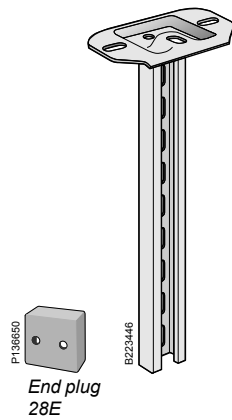
Vertical piece 2Fi mounted in the inner hole. Breaking load=500 kg (5 kN) at symmetrical loading.



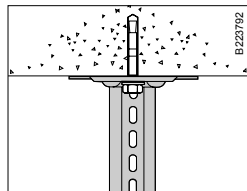
Vertical piece 2Fi mounted in the outer hole. Breaking load=100 kg (1 kN) at symmetrical loading.

Vertical piece 2F

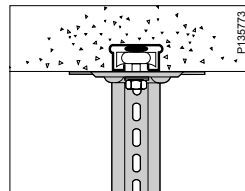
Vertical piece to be used for installation of Support bracket 3 or Cantilever arm 50. Can be joined to Pendant/fixing rail 24/48 with Pendant joint 2FJ. Can be mounted from the ceiling or on the floor. Can also be installed as a cantilever arm on a wall.



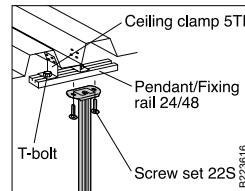
Type	L mm
Vertical piece 2F/280	280
Vertical piece 2F/370	370
Vertical piece 2F/505	505
Vertical piece 2F/640	640
Vertical piece 2F/730	730
Vertical piece 2F/865	865
Vertical piece 2F/1000	1000
Vertical piece 2F/1500	1495



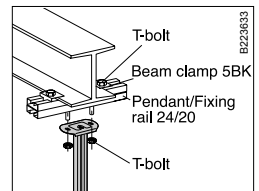
Mount Vertical piece 2F using Expansion bolt alt. Concrete screw.



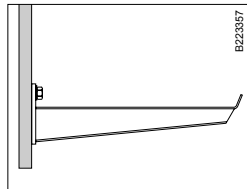
On Fixing rail forecasting-in, mount Vertical piece 2F using T-bolt.



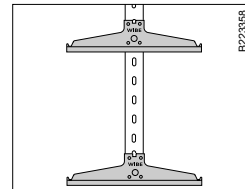
In ceilings with trapezoidal sheeting, mount Vertical piece 2F as shown above.



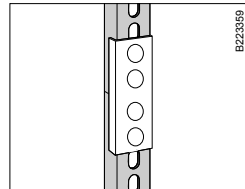
On beams in ceilings, mount Vertical piece 2F as shown in the figure above. When the beam flange thickness does not exceed 13 mm, use Beam clamp 5BK-10 and T-bolt 26F/40. For flange thicknesses not exceeding 30 mm use Beam clamp 5BK-30 and T-bolt 26F/50.



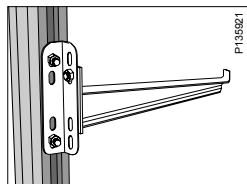
On Vertical piece 2F, mount Cantilever arm 50 using T-bolt.



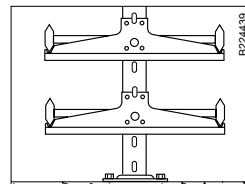
On Vertical piece 2F, mount Support bracket 3 using Screw set 22S.



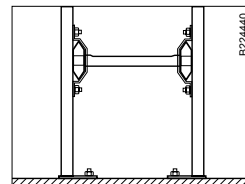
Vertical piece 2F can be joined to achieve the required length using Pendant/fixing rail 24/48 and Pendant joint 2FJ.



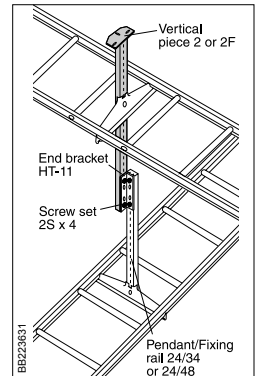
Cantilever arm 50 can, using End bracket HT-11, be mounted at 90° to the pendant/fixing rail. Only for lightweight installation of data cable type and suchlike.



Cable ladders mounted on Vertical piece 2F and Support bracket 3 can be used for cable installations in raised access floors.

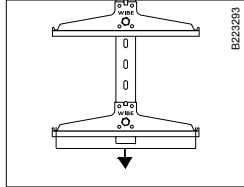


For installation on floor the cable ladders can be mounted with Vertical piece 2F, Profile clamp 41 and T-bolt.



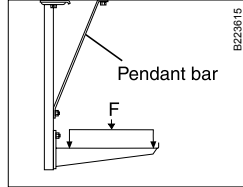
End bracket HT-11 permits mounting of crossing cable ladders on different levels on the same pendant/fixing rail.

Breaking load symmetrical loading*



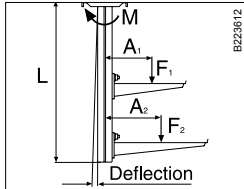
Breaking load for Vertical piece 2F (VP) = 2300 kg (23 kN) at symmetrical loading.

VP + Pendant bar for reduction of deflection

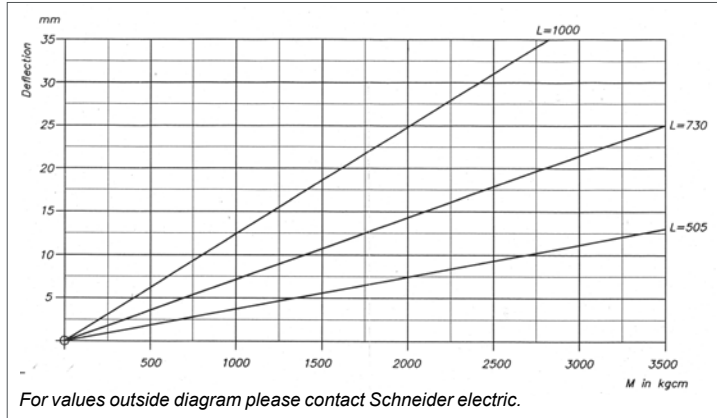


Deflection of Vertical piece 2F is reduced by installing Pendant bar 1 or Pendant/Fixing rail and Bracket 60/40. Loadings in accordance with chart below.

Breaking load asymmetrical loading



$M = \sum F \times A$
See also max loading for Cantilever arm 50 installed on pendant/fixing rail, page Cantilever arm 50L, 50 and 50F.



Example

- Conditions:
- 2 m support distance.
 - 10 kg/m ladder
 - Two ladders, 200 and 300 mm
 - One-side loading
 - VP 2F/730
 - Bending?

$$M = \sum F \times A \text{ (kgcm)}$$

$$M = 10 \times 2 \times \frac{(20 + 6.5)}{2} + 10 \times 2 \times \frac{(30 + 6.5)}{2}$$

$$(F_1) \quad (A_1) \quad (F_2) \quad (A_2)$$

M = 760 kgcm - bending as per diagram, about 5.5 mm.

- Bending torque M is total sum of F x A (kgcm).
 F = Cantilever arm loading (kg)
 F = Loading (kg/m) x support distance (m).
 A = Distance between loading and VP centre line (cm)
 $A = \frac{\text{Ladder width}}{2} + 6.5 \text{ cm}$
 L = VP length
 Break load torque 6 000 (kgcm)

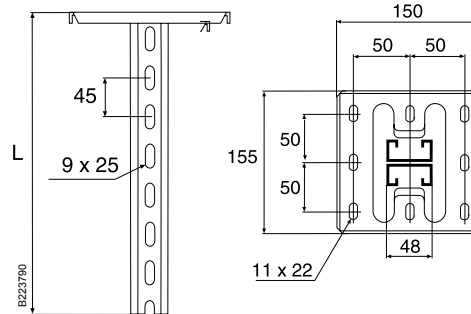
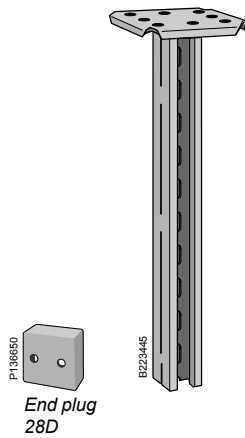
Loading table for Vertical piece 2F installed as a cantilever arm

Pendant type	2F/700	2F/1000
Ladder width	Breaking load	Breaking load
150	120	75
200	125	80
300	135	90
400	140	100
600	—	120

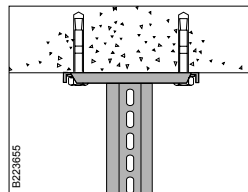
*Safe working load according to IEC 61537 is breaking load divided by 1,7.

Vertical piece 20

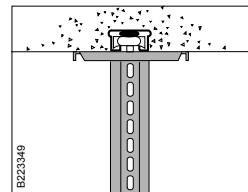
Vertical piece, two-sided, to be used for vertical installation together with Cantilever arm 50, from a ceiling or on a floor. Can also be installed as a cantilever arm on a wall.



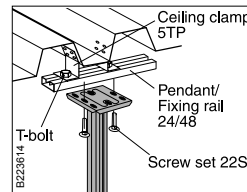
Type	L mm
Vertical piece 20/280	280
Vertical piece 20/370	370
Vertical piece 20/500	505
Vertical piece 20/640	640
Vertical piece 20/700	730
Vertical piece 20/865	865
Vertical piece 20/1000	1000
Vertical piece 20/1500	1495
Vertical piece 20/2000	1990
Vertical piece 20/3000	2980



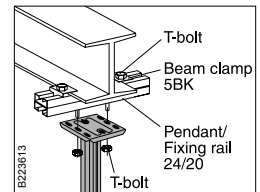
Mount Vertical piece 20 using Expansion bolt.



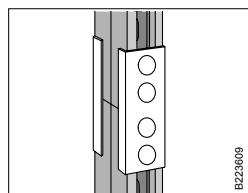
On fixing rail for casting-in, mount Vertical piece 20 using T-bolts.



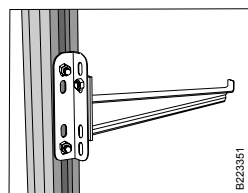
In ceilings with trapezoidal profile sheeting, mount Vertical piece 20 as shown above



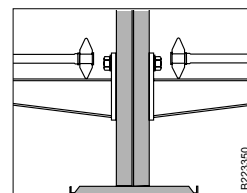
On beams in ceilings, mount Vertical piece 20 as shown in the figure above. When the beam flange thickness does not exceed 13 mm, use Beam clamp 5BK-10 and T-bolt 26F/40. For flange thicknesses not exceeding 30 mm use Beam clamp 5BK-30 and T-bolt 26F/50.



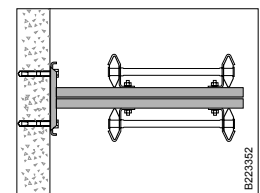
Vertical piece 20 can be joined to achieve the required length using Pendant/fixing rail 24/40 and Pendant joint 20J.



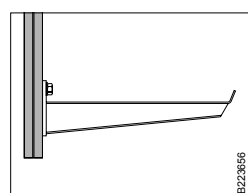
Using End bracket HT-11, Cantilever arm 50 can be mounted at 90° to the pendant/fixing rail. Only for lightweight mounting of data cable type and suchlike



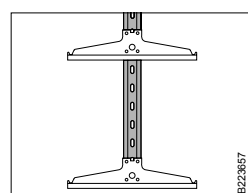
Vertical piece 20 is also suitable for floor mounting



Vertical piece 20 may be used for vertical mounting in a shaft, for example. Mount Wall bracket 11 or Profile clamp 42 using T-bolts. The vertical piece may also be mounted horizontally as a cantilever arm, such as when passing columns.

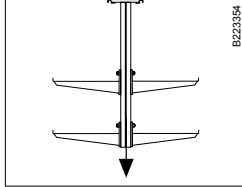


On vertical piece, mount Cantilever arm 50 using T-bolt. For loadings see Cantilever arm 50



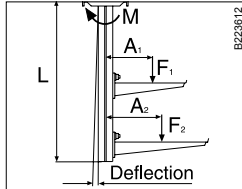
On Vertical piece 20, mount Support bracket 3 using Screw set 20S.

Breaking load symmetrical loading*

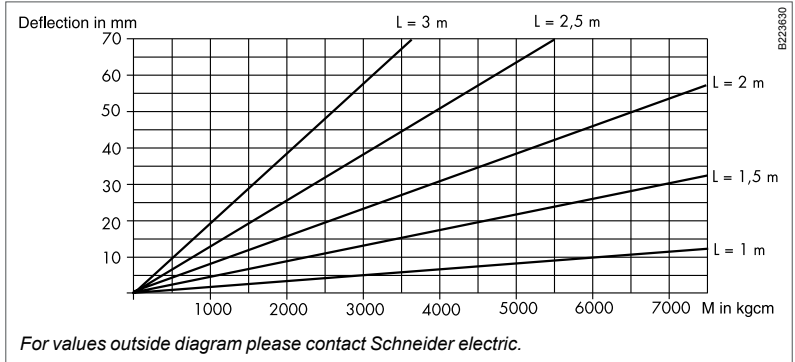


Breaking load for vertical piece (VP) = 3000 kg (30 kN).

Breaking load asymmetrical loading



$M = \sum F \times A$
 See also max loading for Cantilever arm 50 installed on pendant/fixing rail, page Cantilever arm 50L, 50 and 50F.



Example

- Conditions:
- 2 m support distance.
 - 30 kg/m ladder
 - Two ladders, 400 and 600 mm
 - One-side loading
 - VP 20/1000
 - Bending?

$$M = \sum F \times A \text{ (kgcm)}$$

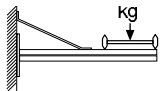
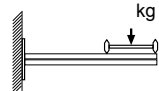
$$M = 30 \times 2 \times \frac{(40 + 7.7)}{2} + 30 \times 2 \times \frac{(60 + 7.7)}{2}$$

$(F_1) \quad (A_1) \quad (F_2) \quad (A_2)$

M = 3924 kgcm - bendingas per diagram, about 6 mm.

- Bending torque M is total sum of $F \times A$ (kgcm).
 F = Cantilever arm loading (kg)
 F = Loading (kg/m) x support distance (m).
 A = Distance between loading and VP centre line (cm)
 $A = \frac{\text{Ladder width} + 7.7}{2}$ cm
 L = VP length
 Break load torque 19 000 (kgcm)

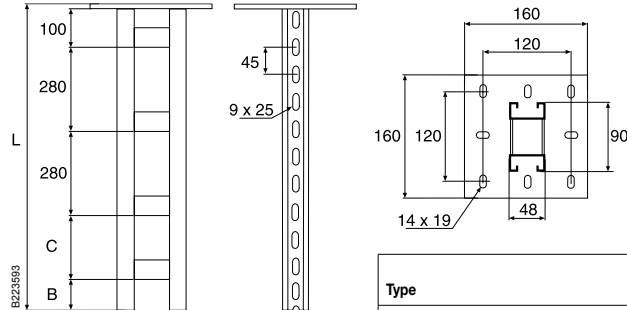
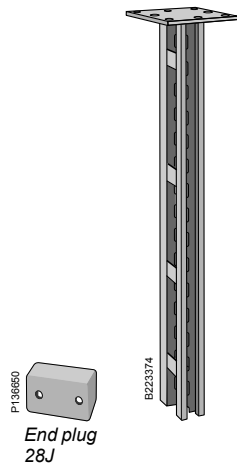
Loading table for Vertical piece 20 installed as a cantilever arm

						
Pendant type	20/700	20/1000	20/1500	20/700	20/1000	20/1500
Width Ladder type	Breaking load	Breaking load	Breaking load	Breaking load	Breaking load	Breaking load
150	380	210	155	230	165	115
200	400	240	160	250	170	115
300	425	270	165	280	175	120
400	450	300	170	310	180	125
600	280	130	280	170	90	—

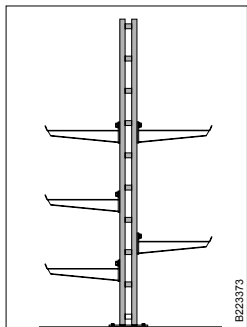
*Safe working load according to IEC 61537 is breaking load divided by 1,7.

Vertical piece 20F

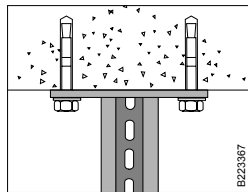
Vertical piece, two-sided, to be used for mounting from the ceiling or on the floor. Suitable for rather heavy loads.



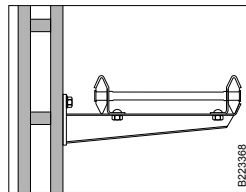
Type	B mm	C mm	L mm
Vertical piece 20F/1000	50	280	995
Vertical piece 20F/1500	70	195	1490
Vertical piece 20F/2000	5	195	1985
Vertical piece 20F/3000	70	280	2980



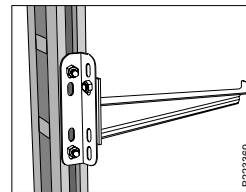
Floor mounting example.



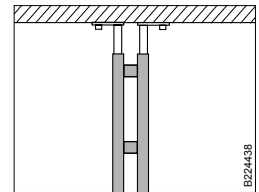
Mount Vertical piece 20F using Expansion bolt alt. Concrete screw.



Cantilever arm 50 can be mounted using T-bolt. For loads on Cantilever arm 50, see Cantilever arm 50L, 50 and 50F.

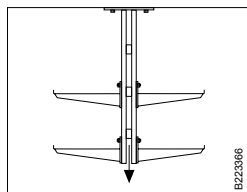


Using End bracket HT-11, Cantilever arm 50 can be mounted at 90° to the vertical piece. Only for lightweight mounting of data cable type or similar.



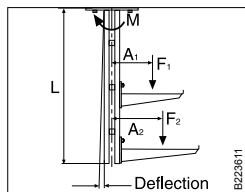
Vertical piece 20F mounted on floor can be fixed using Vertical piece 2 as ceiling bracket, adjustable in the pendant.

Breaking load Symmetrical loading*

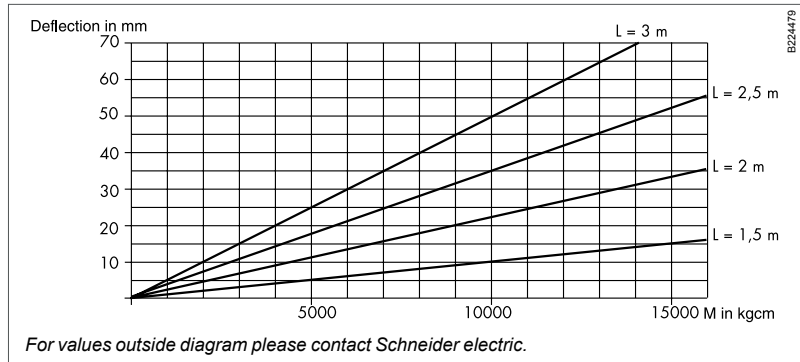


Breaking load for Vertical piece (VP) 20F = 5000 kg (50kN)

Breaking load asymmetrical loading



$M = \sum F \times A$
Vertical piece 20F mounted in ceiling, see diagram.



Example

- Conditions:
- 2 m support distance 50 kg/m ladder
 - Two ladders, 400 and 600 mm
 - One-side loading
 - VP 20F/1500
 - Bending?

$$M = \sum F \times A \text{ (kgcm)}$$

$$M = 50 \times 2 \times \frac{(40 + 9.4)}{2} + 50 \times 2 \times \frac{(60 + 9.4)}{2}$$

$$(F_1) \quad (A_1) \quad (F_2) \quad (A_2)$$

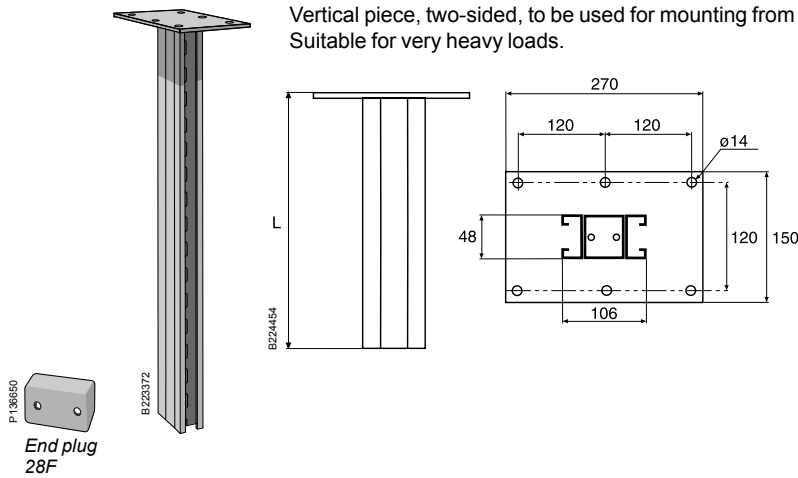
M = 6880 kgcm - bending as per diagram, about 6 mm.

- Bending torque M is total sum of F x A (kgcm).
- F = Cantilever arm loading (kg)
 - F = Loading (kg/m) x support distance (m).
 - A = Distance between loading and VP centre line (cm)
 - A = $\frac{\text{Ladder width} + 9.4}{2}$
 - L = VP length
 - Break load torque 30 000 (kgcm)

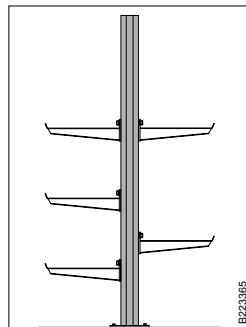
*Safe working load according to IEC 61537 is breaking load divided by 1,7.

Vertical piece 20FS

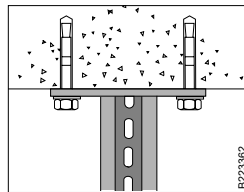
Vertical piece, two-sided, to be used for mounting from the ceiling or on the floor. Suitable for very heavy loads.



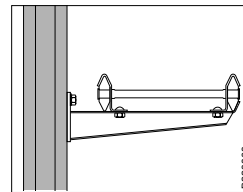
Type	L mm
VP 20FS/1500	1495
VP 20FS/2000	1990
VP 20FS/2500	2485
VP 20FS/3000	2980



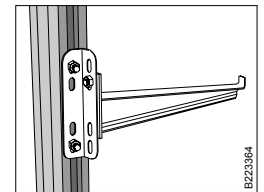
Vertical piece 20FS is suitable for floor mounting.



Mount Vertical piece 20FS using Expansion bolt and Concrete screw.

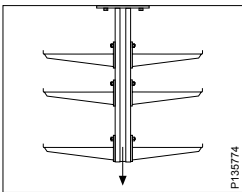


Mount Cantilever arm 50 using T-bolt. For loads on Cantilever arm 50, see Cantilever arm 50L, 50 and 50F.



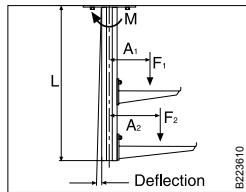
Using End bracket HT-11, Cantilever arm 50 can be mounted at 90° to the vertical piece. Only for lightweight mounting of data cable type or similar.

Breaking load Symmetrical loading

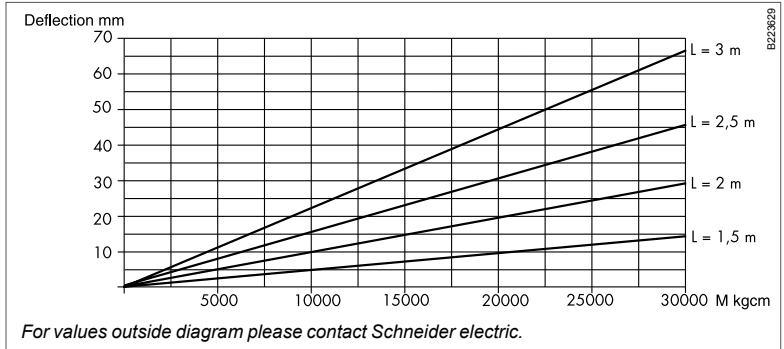


Symmetrical loading
Breaking load for Vertical piece (VP) 20FS = 5000 kg (50 kN)

Breaking load asymmetrical loading



Asymmetrical loading
 $M = \sum F \times A$ Vertical piece 20FS mounted in ceiling, see diagram.



Example

- Conditions:
- 2 m support distance 75 kg/m ladder
 - Two ladders, 400 and 600 mm
 - One-side loading
 - VP 20FS/1500
 - Bending?

$$M = \sum F \times A \text{ (kgcm)}$$

$$M = 75 \times 2 \times \frac{(40 + 10.4)}{2} + 75 \times 2 \times \frac{(60 + 10.4)}{2}$$

$$(F_1) \quad (A_1) \quad (F_2) \quad (A_2)$$

Bending torque M is total sum of $F \times A$ (kgcm).

F = Cantilever arm loading (kg)

F = Loading (kg/m) x support distance (m).

A = Distance between loading and VP centre line (cm)

A = $\frac{\text{Ladder width} + 10.4}{2}$ cm

L = VP length

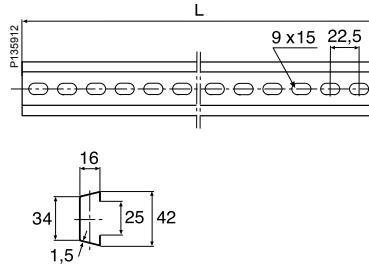
Break load torque 60 000 (kgcm)

*Safe working load according to IEC 61537 is breaking load divided by 1,7.

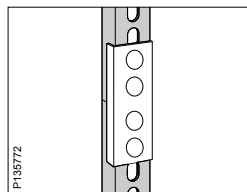
M = 10620 kgcm - bendingas per diagram, about 5 mm.

Pendant/Fixing rail 24/34

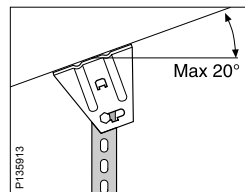
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc.



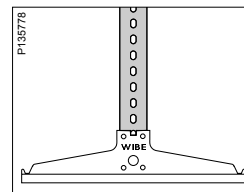
Type	L mm
Pendant/Fixing rail 24/34	292.5
Pendant/Fixing rail 24/34	382.5
Pendant/Fixing rail 24/34	495.0
Pendant/Fixing rail 24/34	697.5
Pendant/Fixing rail 24/34	990.0
Pendant/Fixing rail 24/34	2970.0



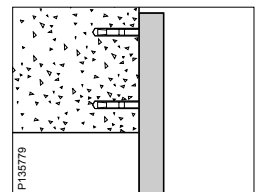
Vertical piece 2 may be joined to Pendant/Fixing rail 24/34 and Pendant joint 2J to achieve a suitable length.



Ceiling bracket 5 and 1 Screw set 22S together provide a vertical piece that can be mounted with up to 20° slope.



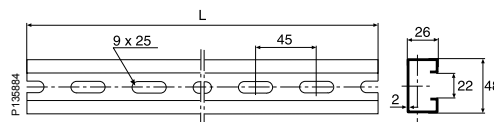
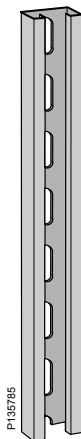
Mount Support bracket 3 using Screw set 22S.



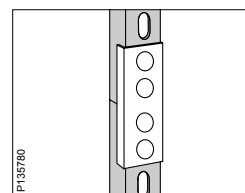
Side mounting of pendant/fixing rails may be done using 2 Expansion bolts alt. 2 Concrete screws.

Pendant/Fixing rail 24/48

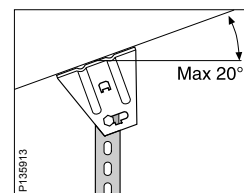
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc.



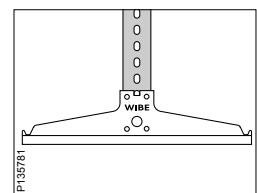
Type	L mm
Pendant/Fix. rail 24/48	2970
Pendant/Fix. rail 24/48	5940



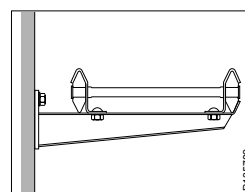
Vertical piece 2F may be joined using Pendant/Fixing rail 24/48 and Pendant joint 2FJ to achieve the required length.



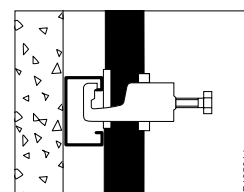
Ceiling bracket 5 and 1 Screw set 22S together provide a vertical piece that can be mounted with up to 20° slope. Only for mounting support brackets.



Mount Support bracket 3 using Screw set 22S.



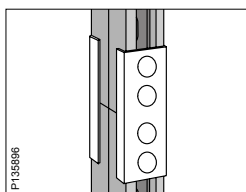
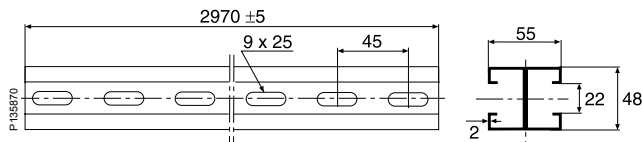
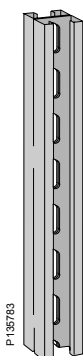
Mount Cantilever arm 50 using T-bolt.



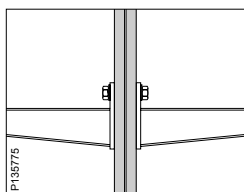
Cables are mounted on a Pendant/Fixing rail 24/48 using cable clamps of type A.

Pendant/Fixing rail 24/20

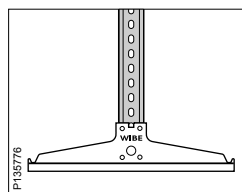
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc.



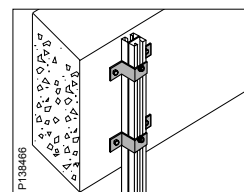
Vertical piece 20 may be joined using Pendant/Fixing rail 24/20 and Pendant joint 20J. Only for symmetrical loading.



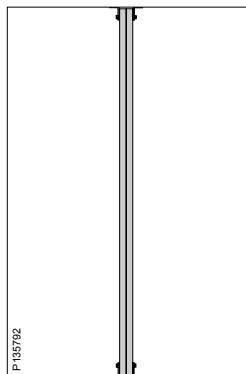
Mount Cantilever arm 50 using T-bolts.



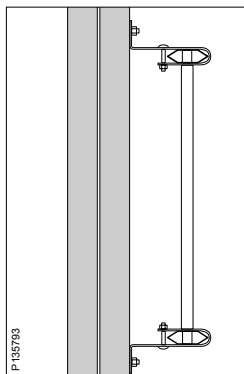
Mount Support bracket 3 using Screw set 20S.



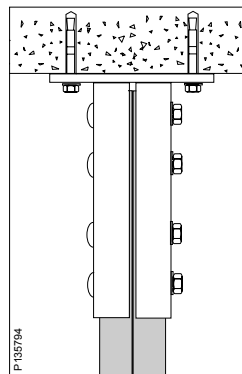
Pendant/Fixing rail can be mounted on beam or wall with Wall bracket 20.



Pendant/Fixing rail 24/20 may be mounted as a riser between the floor and ceiling using 4 Angle brackets 5L and 4 T-bolts.



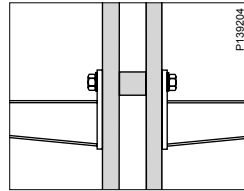
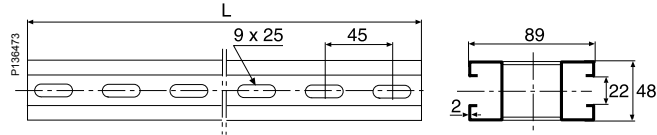
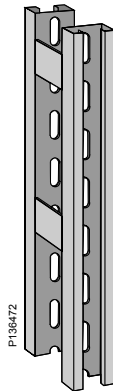
Cable ladder may be mounted vertically or horizontally on Pendant/Fixing rail 24/20 using Wall bracket 11/25 or 11/75 and T-bolt.



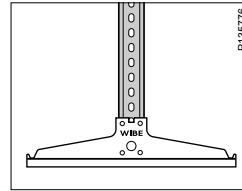
Pendant base plate 520 can be mounted as a ceiling or floor attachment.

Pendant/Fixing rail 24/20F

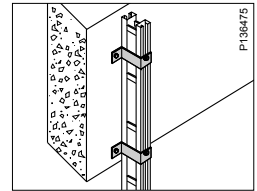
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc.



Mount Cantilever arm 50 using T-bolts.

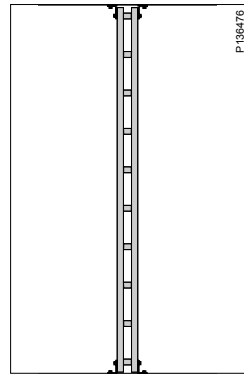


Mount Support bracket 3 using Screw set 2S.

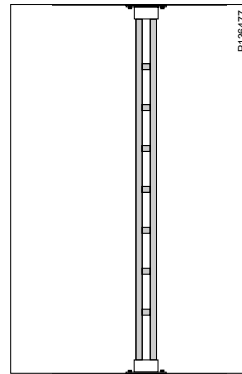


Pendant/Fixing rail 24/20F can be mounted on beam or wall with Wall bracket 20F

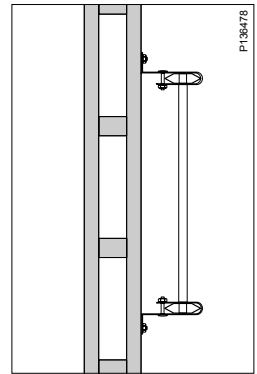
Type	L mm
Pendant/Fixing rail 24/20F-3000	2970
Pendant/Fixing rail 24/20F-6000	5940



Pendant/Fixing rail 24/20F can be mounted as a riser between the ceiling and floor using 4 Angle brackets 5L and 4 T-bolts.



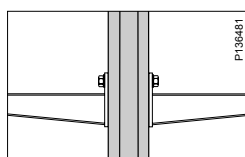
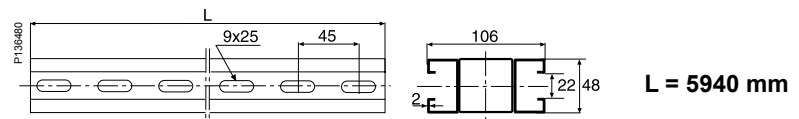
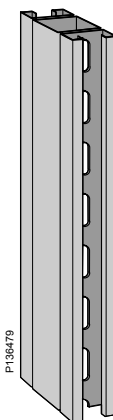
Mount Pendant/Fixing rail 24/20F between a floor and ceiling using 2 Rail fixing supports.



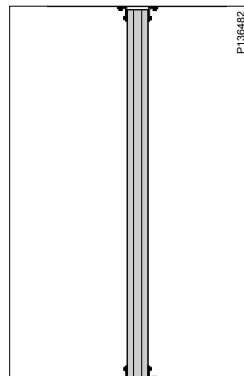
Cable ladder can be mounted vertically or horizontally on Pendant/Fixing rail 24/20F using Wall bracket 11/25 or 11/75.

Pendant/Fixing rail 24/20FS

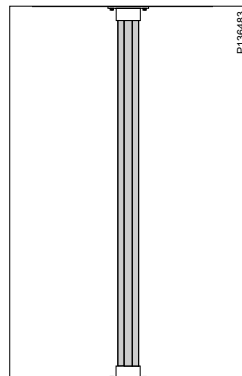
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc.



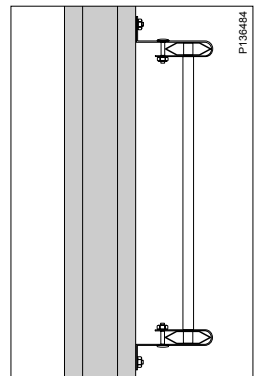
Mount Cantilever arm 50 using T-bolts.



Pendant/Fixing rail 24/20FS can be mounted as a riser between the ceiling and floor using 4 Angle brackets 5L and 4 T-bolts.



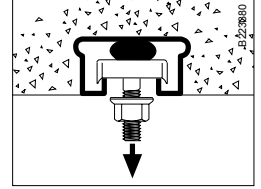
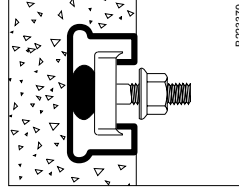
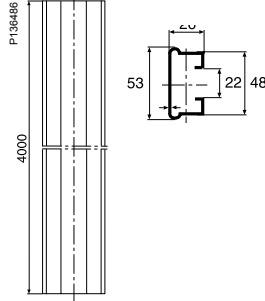
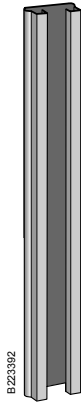
Mount Pendant/Fixing rail 24/20FS between floor and ceiling using 2 Rail fixing supports.



Cable ladders can be mounted vertically or horizontally on Pendant/Fixing rail 24/20FS using Wall bracket 11/25 or 11/75 and T-bolt.

Fixing rail 24/26x53 for casting-in

Fixing rail for casting-in in wall and ceilings.

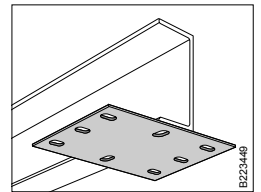
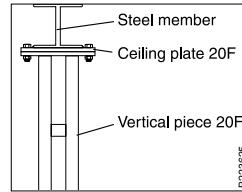
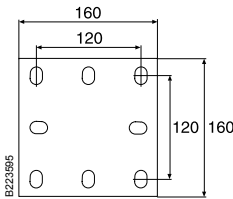
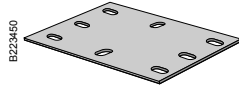


Fixing rail 24/26 x 53 for casting-in in walls and ceilings. Mount cantilever arms with T-bolt 26F.

Max. pull-out load: 1000 kg/0.5 m of casting-in fixing rail (Concrete class K200).

Ceiling plate 20F

Ceiling plate to be used as a pre-drilled attachment for Vertical piece 20F to a steel member. The ceiling plate is welded in position.

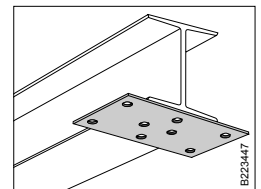
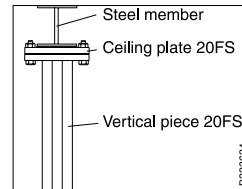
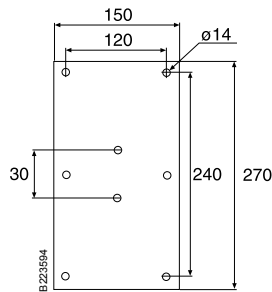
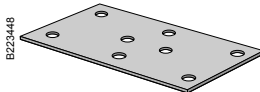


The ceiling plate is welded to the steel member. Permission to weld on the steel member is required. Remove all zinc at the weld. Post-treat using Galvafruid.

Use Ceiling plate 20F as a fully drilled attachment for Vertical piece 20F against a steel member. Secure the ceiling plate by welding. Remove all zinc at the weld. Post-treat using Galvafruid.

Ceiling plate 20FS

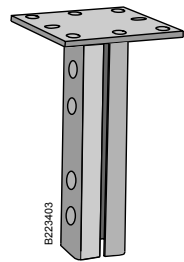
Ceiling plate 20F is used as a pre-drilled attachment for Vertical piece 20F to a steel member. The ceiling plate is welded in position.



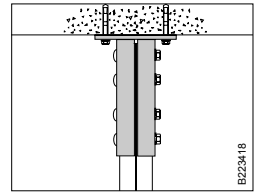
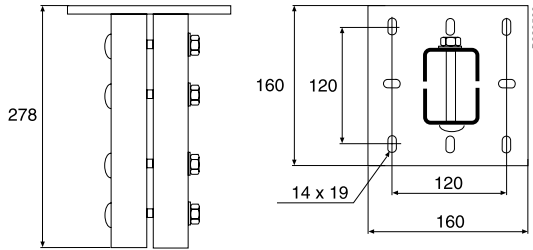
The ceiling plate is welded to the steel member. Permission to weld on the steel member is required. Remove all zinc at the weld. Post-treat using Galvafruid.

Use Ceiling plate 20FS as a fully drilled attachment for Vertical piece 20FS against a steel member. Secure the ceiling plate by welding. Remove all zinc at the weld. Post-treat using Galvafruid.

Pendant base plate 520

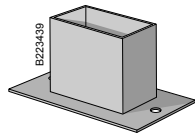


Pendant base plate to be used as a ceiling or floor base plate for Pendant/Fixing rail 24/20 in any desired length.

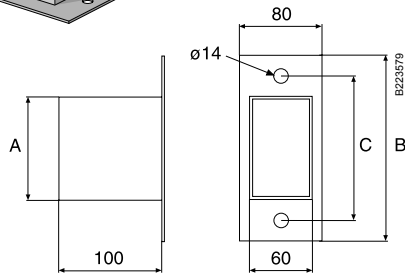


Vertical pieces of the required length can be mounted using Pendant base plate 520 and Pendant/Fixing rail 24/20.

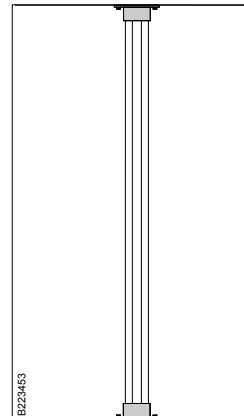
Rail fixing support 24/20F, 24/20FS



Rail fixing support to be used with Pendant/fixing rails 24/20F and 24/20FS respectively, for mounting between floor and ceiling.



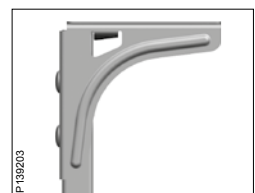
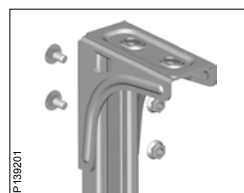
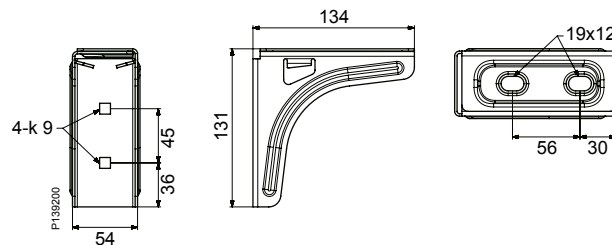
Type	A mm	B mm	C mm
Rail fix. support 24/20F	100	165	135
Rail fix. support 24/20FS	120	185	155



1. Mount one of the rail fixing supports in the ceiling.
2. Adjust the pendant length.
3. Mount the rail fixing support for floor mounting on the pendant.
4. Insert the pendant in the rail fixing support in the ceiling.
5. Attach the bottom rail fixing support securely to the floor.

Ceiling bracket 2Fi

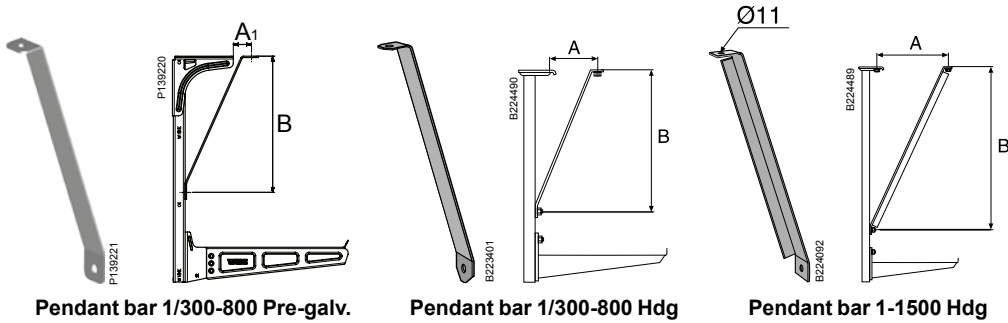
Ceiling bracket to be used on Pendant/fixing rail 24/48 to achieve the desired length of vertical pieces.



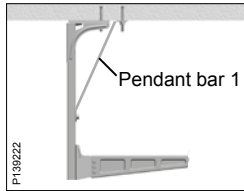
Ceiling bracket 2Fi and Pendant/Fixing rail 24/48, mounted together with 2 Screw sets 22S, are used when other lengths are required than those available for Vertical piece 2Fi.

Pendant bar 1

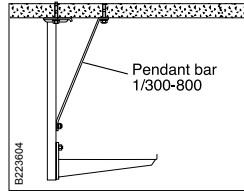
Pendant bar to be installed in order to reduce the deflection of heavily loaded vertical pieces. Installed with T-bolt and Expansion bolt.



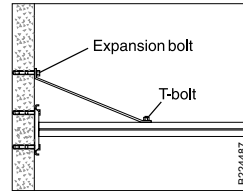
Type	A mm ¹	A mm	B mm
1/300	40	80	300
1/500	40	130	500
1/800	125	215	800
1/1500	Varies	Varies	Varies



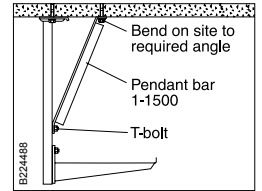
To reduce deflection of Vertical piece 2Fi at heavy loads on Cantilever arm 50i the Pendant bar 1 can be used. Install with T-bolt and Expansion bolt.



To reduce deflection of Vertical piece 2F at heavy loads on Cantilever arm 50 the Pendant bar 1 can be used. Install with T-bolt and Expansion bolt.



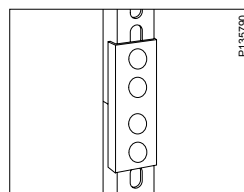
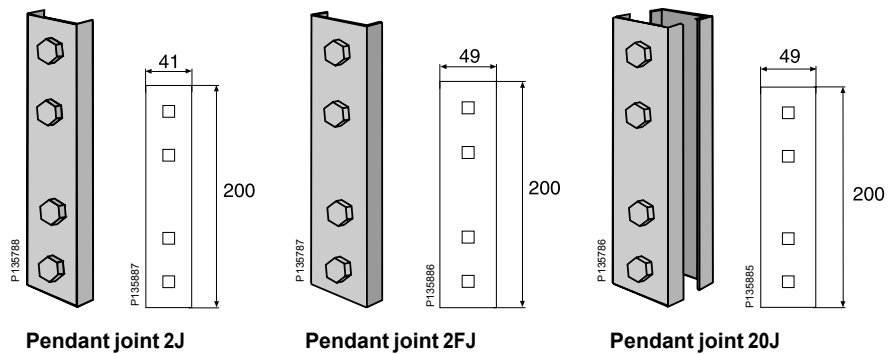
To be mounted to strengthen Vertical piece 20 when mounted horizontally. Use T-bolt and Expansion bolt.



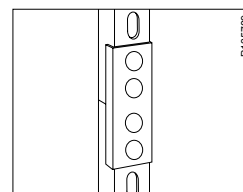
Mount this stay to reduce deflection of long Vertical pieces 2F, 20 and 20F.

Pendant joint 2J, 2FJ and 20J

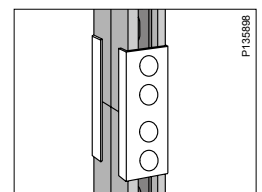
Pendant joint to be used for joining pendant/fixing rails and vertical pieces.



Pendant joint 2J, used for joining of Vertical piece 2 and Pendant/ Fixing rail 24/34.



Pendant joint 2FJ, used for joining of Vertical piece 2F and Pendant/ Fixing rail 24/48.

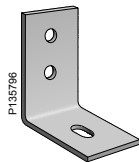


Pendant joint 20J, used for joining of Vertical piece 20 and Pendant/ Fixing rail 24/20. Only for symmetrical loading.

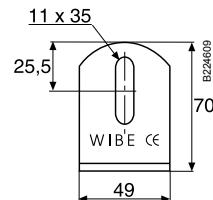
Angle bracket 5L and 5LS



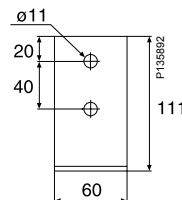
Angle bracket 5L



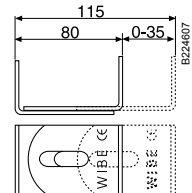
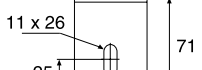
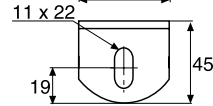
Angle bracket 5LS



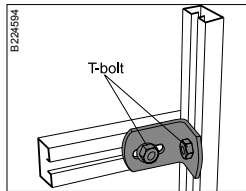
Angle bracket 5L



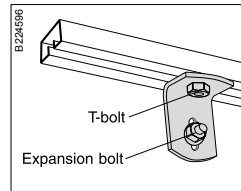
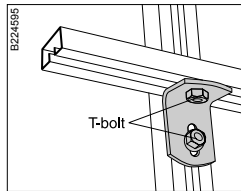
Angle bracket 5LS



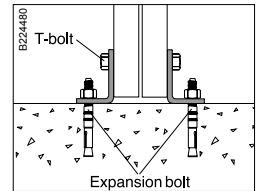
Adjustability 5L



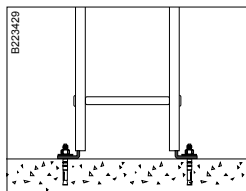
Installation examples for installation of pendant/fixing rails to different frameworks for installation of control panels, electric distribution boards, etc. Angle bracket 5L is used.



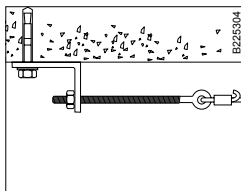
Mounting of a pendant/fixing rail on a wall. Use Angle bracket 5L or 5LS.



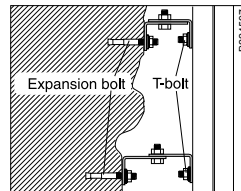
Mounting of a pendant/fixing rail against floor with Angle bracket 5L or 5LS.



Angle bracket 5L can be mounted inside the ladder profile and thus be used as an end connection against wall or floor.



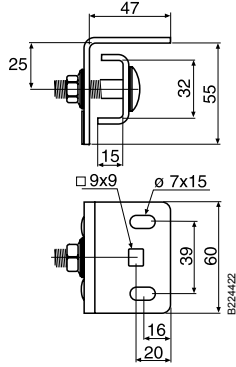
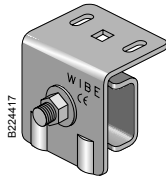
Angle bracket 5L is installed in ceiling with Expansion bolt or concrete screw. Max. permitted loading 600 kg (6 kN).



5LS can also be mounted as support behind pendant/fixing rails to compensate for irregularities in, for example, concrete walls.

Combi bracket 53

Combi bracket to be used for the mounting of cable ladders and trays on seamed roofing sheets, etc. To be combined with plastic insulating plate 54.



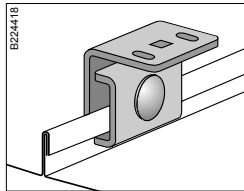
Breaking load*

	Type of roofing sheet	Insulating plate	Permitted load
	Bandsheet Prelac	No	F1=100 kg
	Copper sheeting	Yes	F2=50 kg
	Bandsheet Prelac	No	F3=100 kg
	Copper sheeting	Yes	F4=50 kg

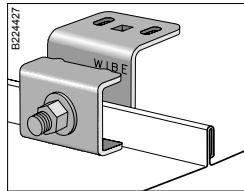
* Loading values and fixing of roof sheet - follow the supplier's recommendations

Test have been made of:

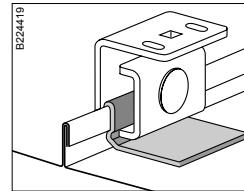
Bandsheet Prelac BLX t=0.6 SSAB tunnplåt Copper sheeting annealed SS 5015-80 t=0.6 Tightening torque at test=60Nm



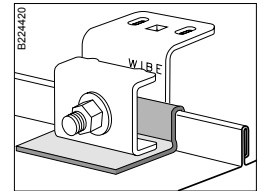
Combi bracket 53 mounted on seamed roofing sheet.



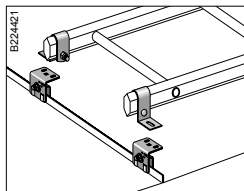
Alternative mounting of Combi bracket 53.



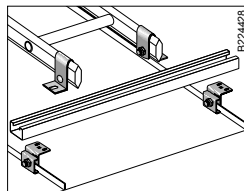
In order to avoid contact between Combi bracket 53 and copper sheeting, Insulating plate 54 must be used.



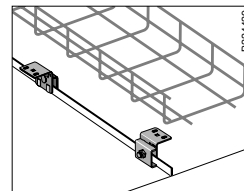
Alternative mounting of Combi bracket 53 and Insulating plate 54.



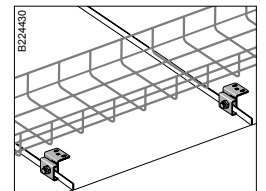
Cable ladder mounted across the seams of the roofing sheets with Combi bracket 53, Wall bracket 11/25 and Screw set 22S.



Cable ladder mounted along the seams of the roofing sheets with Combi bracket 53, Wall bracket 11/25, Screw set 22S, Pendant/ Fixing rail 24/48 and T-bolt 26F.



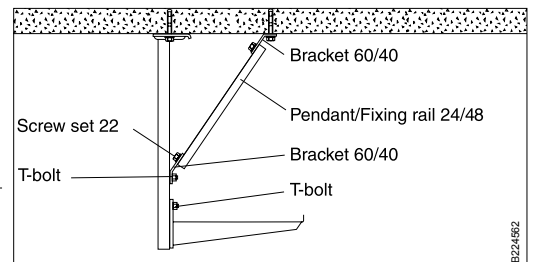
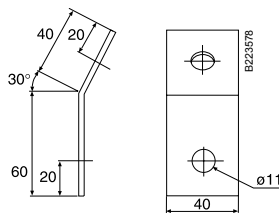
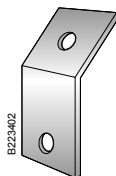
Mesh tray mounted along the seams of the roofing sheets with Combi bracket 53 and accessories from the Mesh tray programme.



Mesh tray mounted across the seams of the roofing sheets with Combi bracket 53 and accessories from the Mesh tray programme.

Bracket 60/40

Bracket to be used together with Pendant/fixing rail 24/48 to reduce the deflection of long vertical pieces.

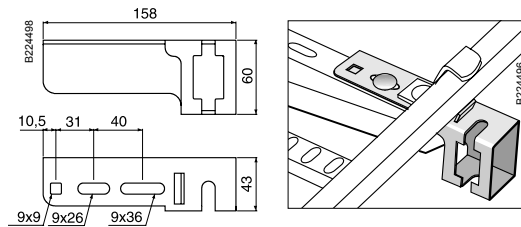


Use Bracket 60/40 together with Pendant/Fixing rail 24/48 to reduce the deflection of long Vertical pieces 2F, 20, 20F or 20FS. Cut the pendant/fixing rail to a suitable length on site.

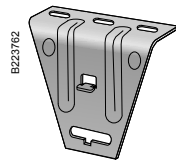


Rod bracket 82

Rod bracket to be used together with Cantilever arm 50, in combination with threaded rod support.

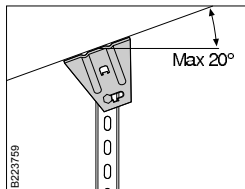
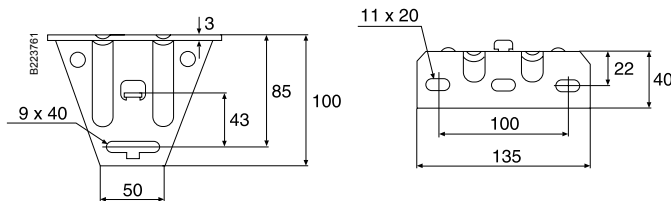


Rod bracket 82 mounted on Cantilever arm 50. Screw set 22S and Profile clamp 42 are to be used.

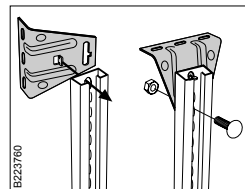


Ceiling bracket 5

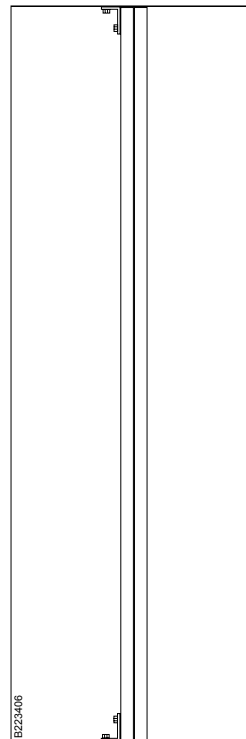
Ceiling bracket to be used for installations with Pendant/Fixing rails 24/34 and 24/48.



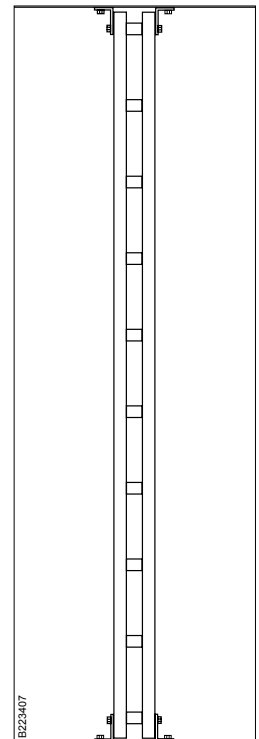
Using Pendant/Fixing rail 24/34 or 24/48, 1 Ceiling bracket 5 and 1 Screw set 22S it is possible to make a vertical piece that can be installed at an angle of up to 20°. Breaking load for rail 34 = 1000 kg (10 kN). Breaking load for rail 48 = 1200 kg (12 kN).



Mount Ceiling bracket 5 to the back of the pendant/fixing rail by turning the ceiling bracket 90° and inserting the tab into the hole in the rail. Then turn the ceiling bracket back and lock it in the required position using 1 Screw set 22S. When mounting it at a horizontal ceiling, lock the screw in the slot recess for better lateral stability. Ceiling bracket 5 can be tilted max. 20°.



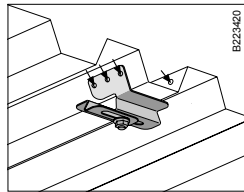
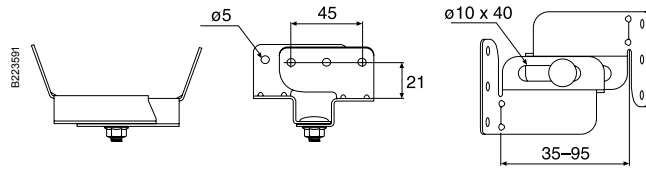
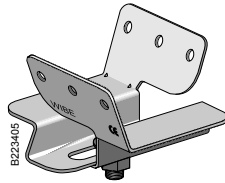
Pendant/Fixing rail 24/20 can, using 2 Ceiling brackets 5 and 2 T-bolts, be mounted between floor and ceiling (see also Angle bracket 5L).



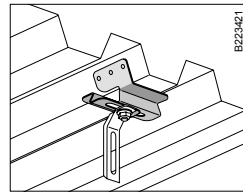
Pendant/Fixing rail 24/20F can, using 4 Ceiling brackets 5 and 4 T-bolts, be mounted between floor and ceiling (see also Angle bracket 5L).

Ceiling bracket 5TPA

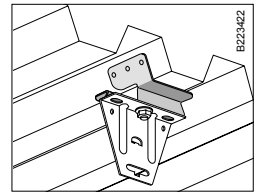
Ceiling bracket with telescopic function, to be used for mounting of various sizes of trapezoid plates.



Ceiling bracket 5TPA can be mounted in trapezoid plate with blind rivets or suitable screws. The bracket is adjustable from 35 to 95 mm.

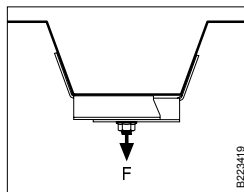


Pendant attachment W21 or Tube pendant attachment W73 (Wibe cable Tray) can be mounted in Ceiling bracket 5TPA with the existing screw.

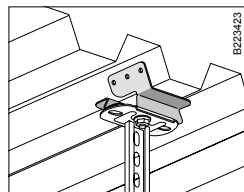


Ceiling bracket 5 or Ceiling attachment W31 can be mounted with the existing screw.

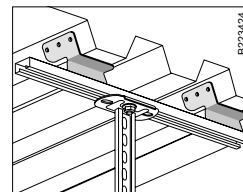
Breaking load



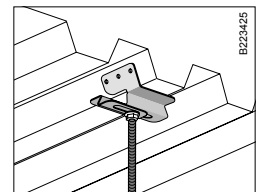
Ceiling bracket 5TPA can be loaded with $F=150$ kg without deformation. For loading figures for thin plate or fixing elements, follow suppliers recommendations.



Vertical piece 2 or 2F can be mounted with the existing screw.



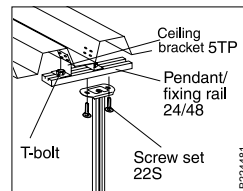
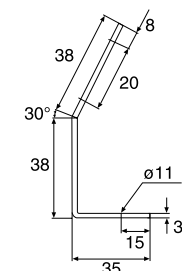
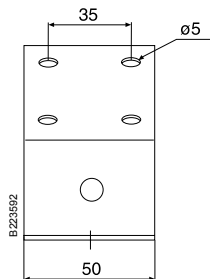
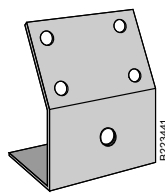
Install Mounting rail 40 between 2 Ceiling brackets 5TPA if the vertical piece must be adjusted sideways.



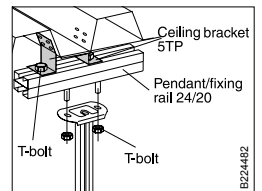
Pendant W76 M8 or M10 installed in Ceiling bracket 5TPA.

Ceiling bracket 5TP

Ceiling bracket to be used in trapezoidal sheeting for installations of Pendant/Fixing rail 24/48.



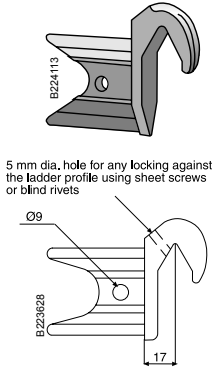
In ceilings with trapezoidal sheeting, mount Vertical piece 2, 2F or 20 using 2 Ceiling brackets 5TP, Pendant/Fixing rail 24/48, 2 T-bolts and Screw set 22S.



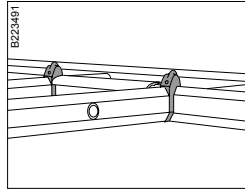
Alternatively Pendant/Fixing rail 24/20 may be used. This will require the use of 4 T-bolts.

Fixed take-off hook 4

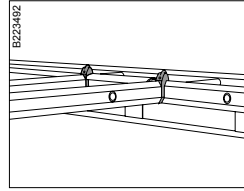
Fixed take-off hook to be used for 90° horizontal branches.



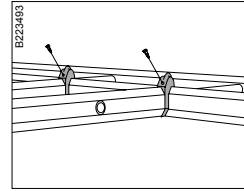
5 mm dia. hole for any locking against the ladder profile using sheet screws or blind rivets



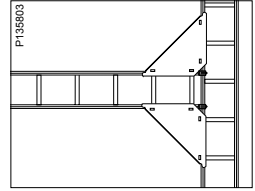
Fixed take-off hook 4 is used at 90° horizontal branches. Coupler 22 can also be used for straight angle formation.



KHZSP, KHZSPZ, KHZPS, KHZ and KHZP can also be used to form 90° angles from KHZV/ KHZPV using Fixed take-off hook 4. Mount Profile protection 28P.



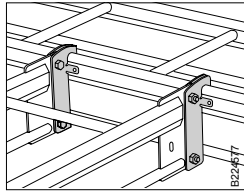
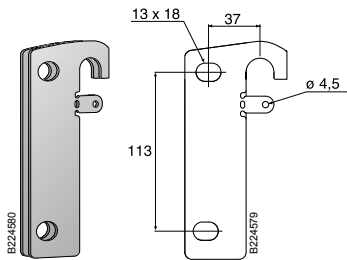
5 mm dia. hole for any locking against the section using sheet screws or blind rivets.



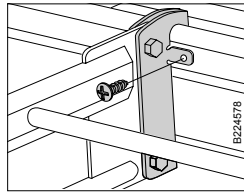
Angle plate 33 is always recommended at horizontal branches.

Take-off hook 47

Take-off hook to be used on cable ladders KHZV and KHZPV to make 90° branches.



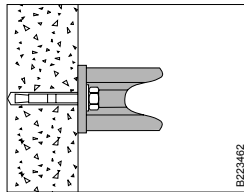
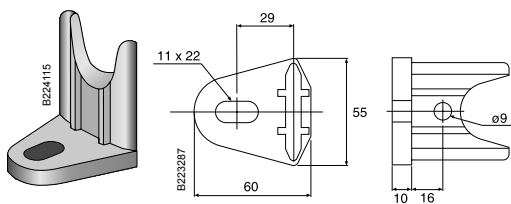
Use Take-off hook 47 to make 90° branches.



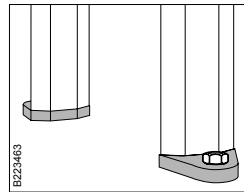
The extra hole, Ø 4.5, is to be used when earthing is demanded or if vertical locking of the ladder is needed. A self-drilling screw must be used.

End connection 10

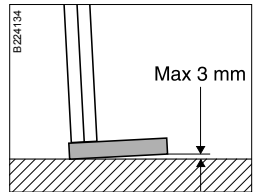
End connection to be used for the connection of a ladder vertically to a floor or horizontally to a wall.



The End connection 10 is mounted at the ladder end vertically against floors or horizontally against walls.



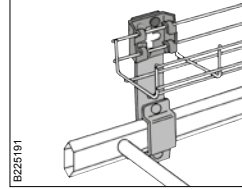
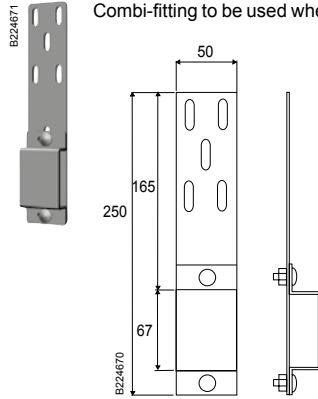
Mount the End connection 10 using Expansion bolts.



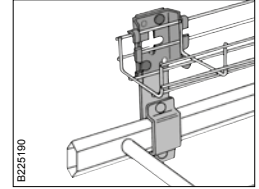
Max. tilt permitted = 3 mm before tightening the screw.

Combi Fitting B21

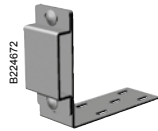
Combi-fitting to be used when mounting mesh trays onto cable ladders.



Defem Mesh tray 53 and 75 is mounted onto Combi Fitting B21 with Bracket B4 mini Bolt and Nut B13.

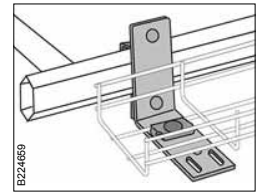
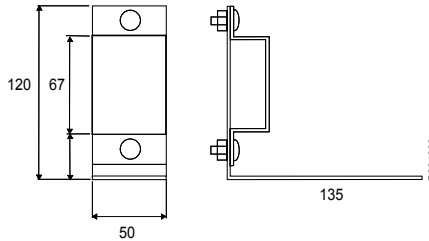


Defem Mesh tray 120 is mounted onto Combi Fitting B21 with Bracket B4 Bolt and Nut B13.



Combi Fitting B21 90 degree

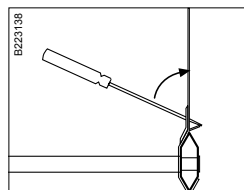
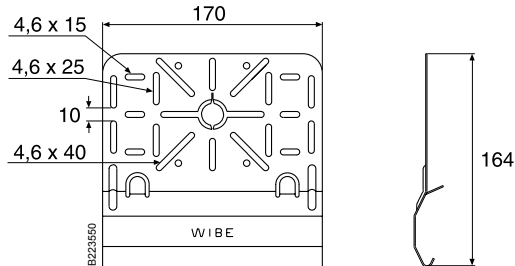
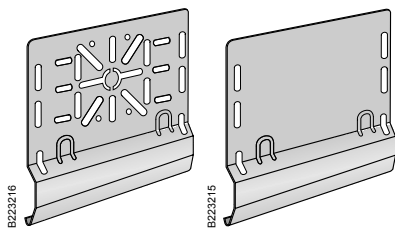
Combi-fitting to be used when mounting mesh trays onto cable ladders.



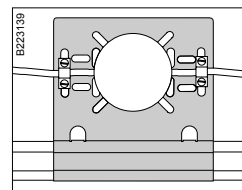
Defem Mesh tray 53, 75 and 120 is mounted onto Combi Fitting B21 90° with 1 Fitting B2, 1 Bolt and Nut B13.

Junction box plate 35S

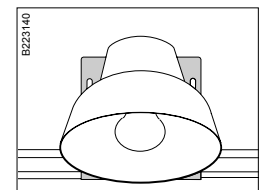
Installed upright or hanging from the profile. Locked with locking tabs.



Bend the tab towards the ladder section by using a screwdriver as a lever for mounting junction box plates.



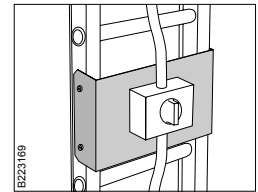
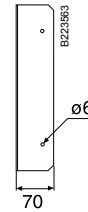
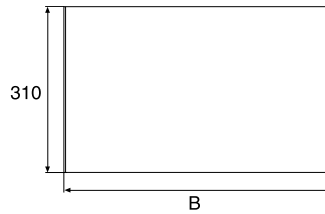
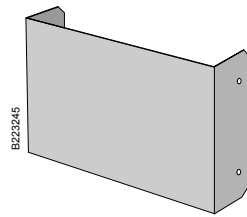
Junction box plates can be mounted in standing or hanging positions on the side sections. Strain-relief may be provided using the outermost holes and clamps or strips.



Light fittings can also be mounted on junction box plates.

Installation plate 61

Installation plate to be used on vertical cable ladder installations for mounting of terminal boxes, contact breakers, etc.

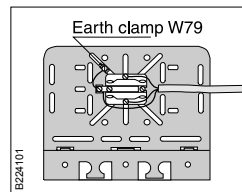
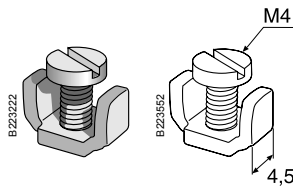


Used on vertical cable ladder installations for mounting of terminal boxes, contact breakers etc. Mount with self-tapping screw ST4.2 in the side profile.

Type	B mm
Installation plate 61-200	200
Installation plate 61-300	300
Installation plate 61-400	400
Installation plate 61-500	500
Installation plate 61-600	600

Earth clamp W79

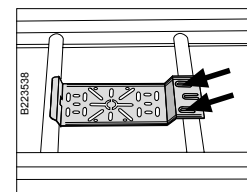
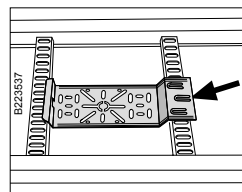
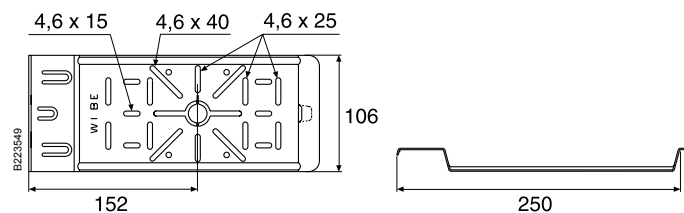
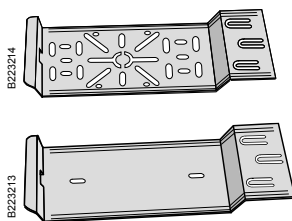
The earth clamp is used when protective earthing of the junction box plate is required.



Earth clamps are designed for use when protective earthing of the mounting plate is required for mounting apparatuses as per relevant heavy current directives. The oblong holes in the junction box plate (mounting plate) permit movement of the earth clamp so that it always comes under the casing of the apparatus. If the apparatus's earth clamp is not approved for joining protective earth conductors, it must pass unbroken through the apparatus's earth clamp to the junction box earth clamp (see the fig.).

Junction box plate 35P

Junction box plate with holes, to be installed between rungs. Locked with appropriate locking tabs for each ladder. For junction boxes, electric light fittings, etc.

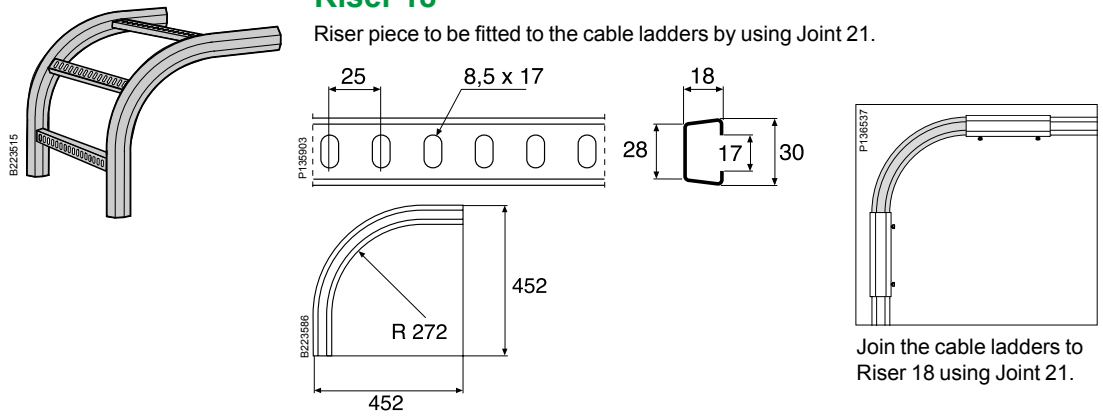


Mount junction box plates between the ladder rungs. On KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV attach junction box plates by bending the central tab into the rung perforation using a screwdriver or suchlike.

Mount junction box plates on KHZ and KHZV by bending the two outer tabs towards the round rung using a screwdriver or suchlike

Riser 18

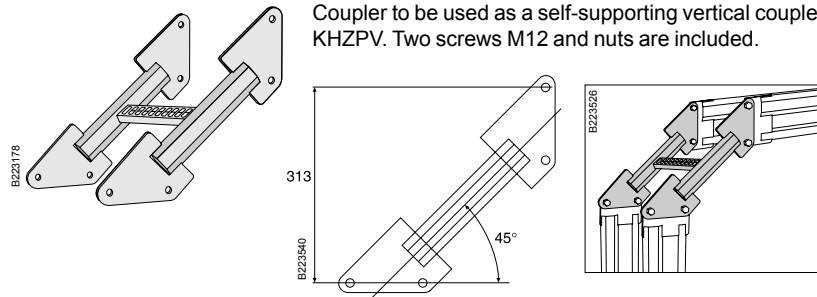
Riser piece to be fitted to the cable ladders by using Joint 21.



Join the cable ladders to Riser 18 using Joint 21.

Riser coupler 49

Coupler to be used as a self-supporting vertical coupler of cable ladders KHZV/ KHZPV. Two screws M12 and nuts are included.

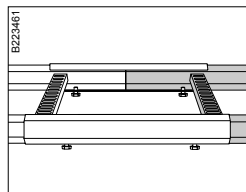
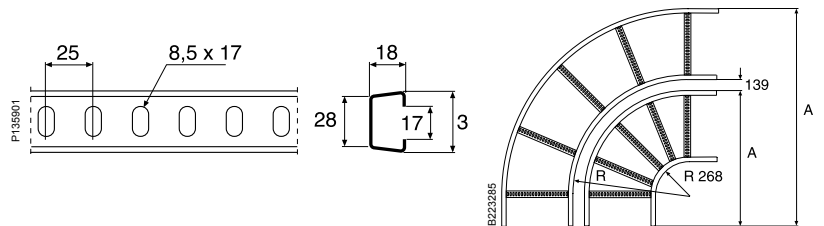
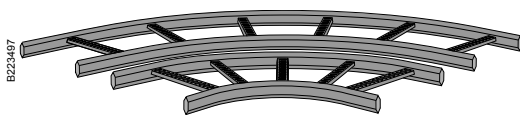


Mount Riser coupler 49 to form a 90° branch on KHZV/KHZPV using 2 Screw sets M12. This provides a large radius for cables.

90° bend 15, interior and exterior

Interior bend piece to be fitted to the cable ladders by using Joint 21, creating a 90° bend. Inner radius 268 mm.

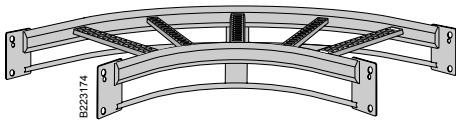
Exterior bend piece to be fitted to the cable ladders by using Joint 21, creating a 90° bend.



Join cable ladders to 90° bend using Joint 21.

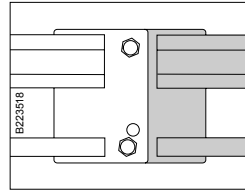
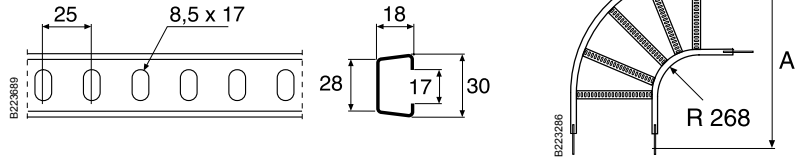
Type	R mm	A mm
Interior		
90° bend 15/150	268	547
90° bend 15/200	268	597
90° bend 15/300	268	697
90° bend 15/400	268	797
90° bend 15/500	268	897
90° bend 15/600	268	997
90° bend 15/800	268	1197
90° bend 15/1000	268	1397

Type	R mm	A mm
Exterior		
90° bend 15/150	554	703
90° bend 15/200	604	933
90° bend 15/300	704	1133
90° bend 15/400	804	1333
90° bend 15/500	904	1533
90° bend 15/600	1004	1733
90° bend 15/800	1204	2133
90° bend 15/1000	1404	2533



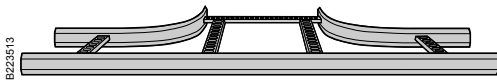
90° bend 55 interior

Interior bend piece to be fitted to cable ladders KHZV and KHZPV, creating a 90° horizontal bend.



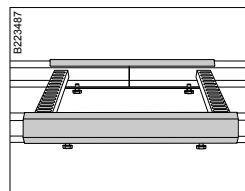
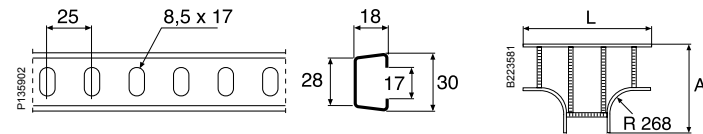
For joining to KHZV and KHZPV, use Screw set M12

Type	A mm
90° bend 55/200	625
90° bend 55/300	725
90° bend 55/400	825
90° bend 55/500	925
90° bend 55/600	1025
90° bend 55/1000	1425



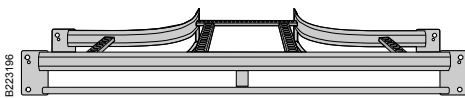
T-junction 16

T-junction piece to be fitted to the cable ladders by using Joint 21.



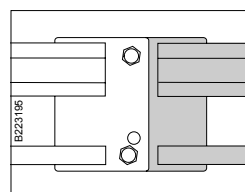
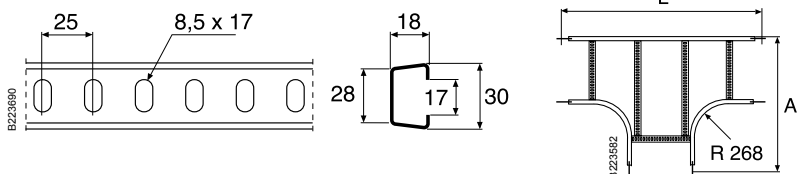
Join the cable ladders to T-junction 16 using Joint 21.

Type	A mm	L mm
T-junction 16/150	547	944
T-junction 16/200	597	997
T-junction 16/300	697	1097
T-junction 16/400	797	1197
T-junction 16/500	897	1297
T-junction 16/600	997	1397
T-junction 16/800	1197	1597
T-junction 16/1000	1397	1797



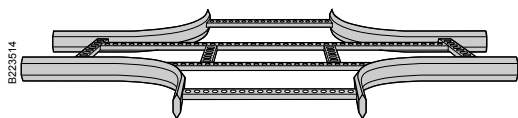
T-junction 56

T-junction piece to be fitted to the cable ladders by using Joint 21.



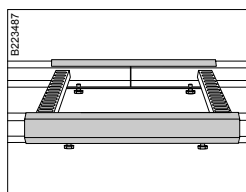
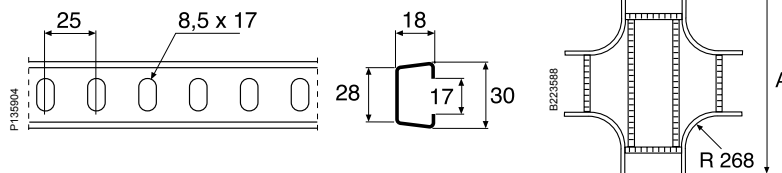
For joining to KHZV and KHZPV, use Screw set M12.

Type	A mm	L mm
T-junction 56/200	625	1050
T-junction 56/300	725	1150
T-junction 56/400	825	1250
T-junction 56/500	925	1350
T-junction 56/600	1025	1450
90° bend 55/800	1225	1650
T-junction 56/1000	1425	1850



X-junction 17

X-junction piece to be fitted to the cable ladders by using Joint 21.

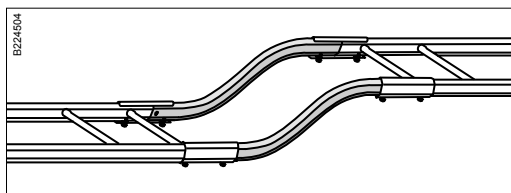
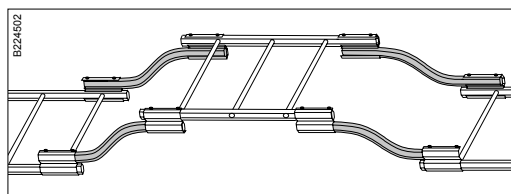
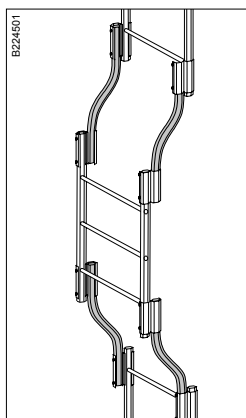
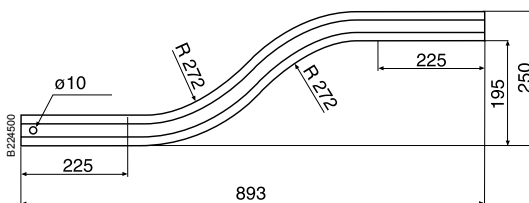
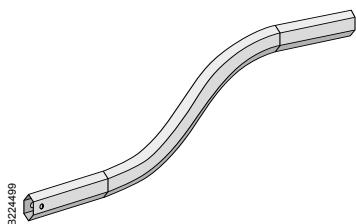


Join the cable ladders to X-junction 17 using Joint 21.

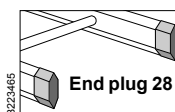
Type	A mm
X-junction 17/150	547
X-junction 17/200	997
X-junction 17/300	1097
X-junction 17/400	1197
X-junction 17/500	1297
X-junction 17/600	1397
X-junction 17/800	1597
X-junction 17/1000	1797

S-bend 67

S-bend piece to be used as a transition between cable ladders mounted on different levels. Can be mounted both vertically and horizontally.

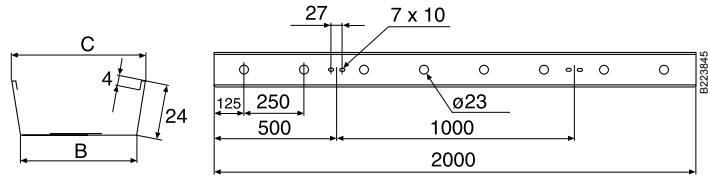
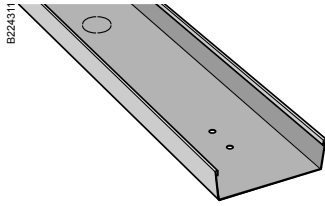


S-bend 67 can be mounted vertically or horizontally between cable ladders by using Dropper joint 32 or Joint 21.

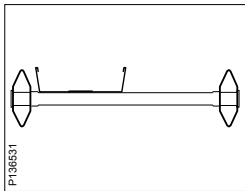


Tele-conduit 36 with knock-out holes

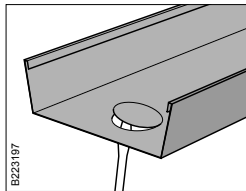
Tele-conduit to be used where a separate tray is required for low-tension cables. Knock-out holes in the bottom of the channel permit the cables to pass through.



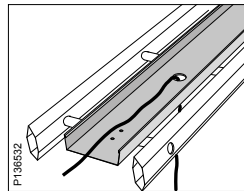
Type	B mm	C mm
Tele-conduit 36/50	42	50
Tele-conduit 36/100	92	100
Tele-conduit 36/200	192	200



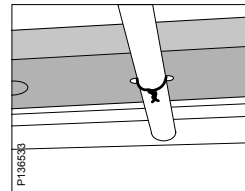
Mount Tele-conduit 36 whenever a special channel is required for low tension lines.



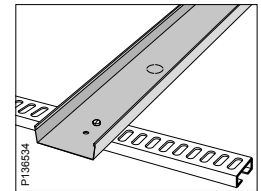
Whenever you wish to make a hole to let a cable through, press the knock-out piece from below using a screw-driver or suchlike



In the event of special needs, a sealing sleeve 22.5 or corresponding may be mounted in the hole.



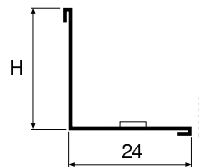
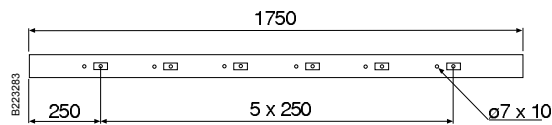
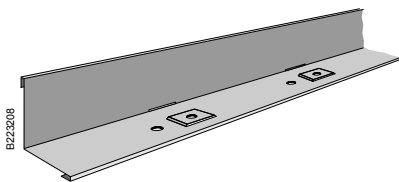
Attach Tele-conduit 36 onto KHZ and KHZV by tying with wire round rungs.



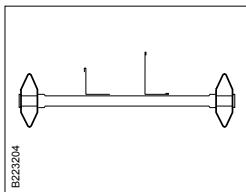
Attach Tele-conduit 36 to KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV using Screw set W34 through the rung perforations.

Dividing strip 39

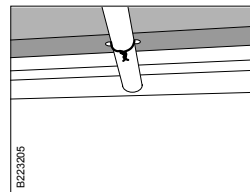
Dividing strip to be used to separate low-tension and high-tension cables.



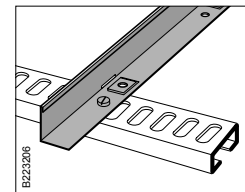
Type	H mm
Dividing strip 39/24	24
Dividing strip 39/55	55



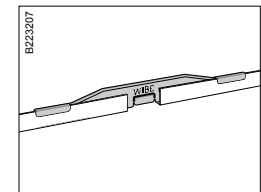
Mount one or more Dividing strips 39 to separate low and high tension cables.



Attach Dividing strip 39 to KHZ and KHZV by lashing around the rungs.



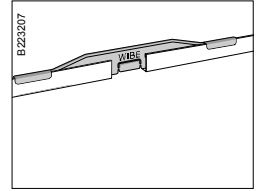
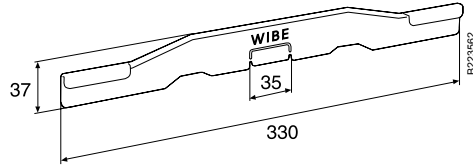
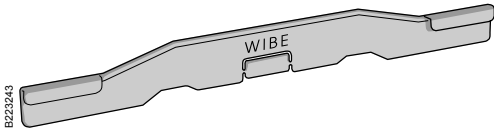
Attach Dividing strip 39 to KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV using Screw set W34 through the rung perforations.



It is advisable to join dividing strips using Distance piece W39.

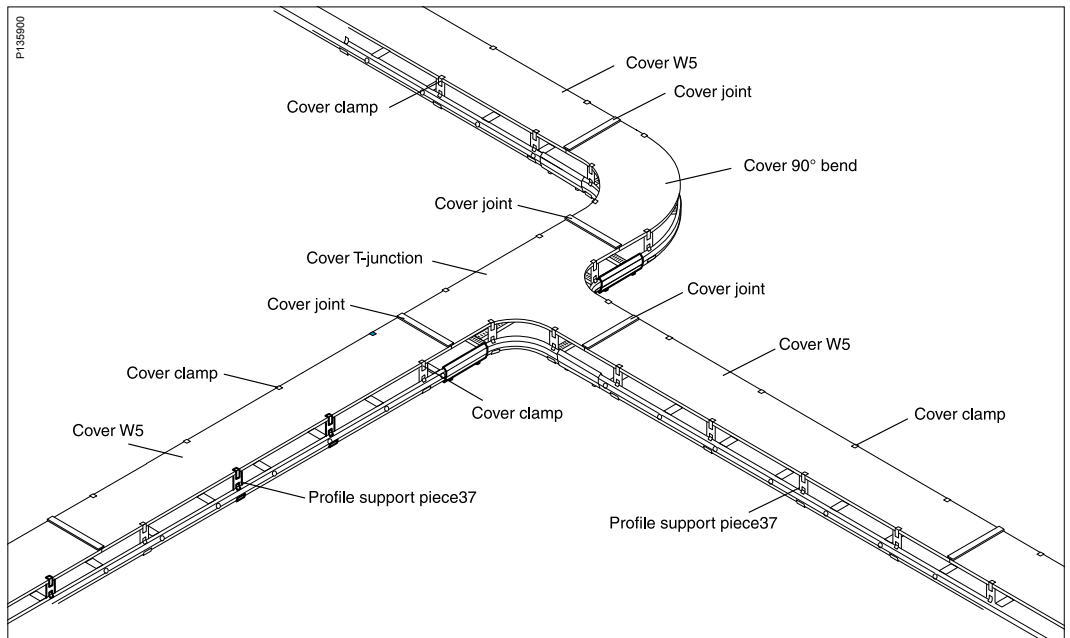
Distance piece W39

Distance piece to be used for the joining of Dividing strips 39.

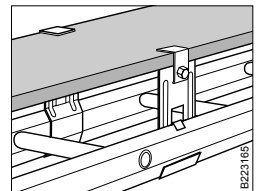
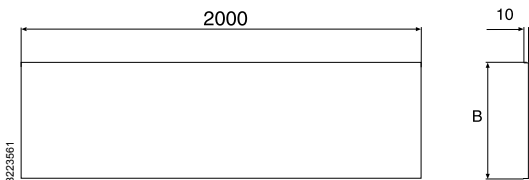
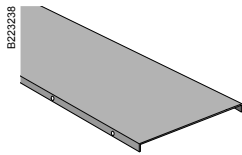


Mount one or more Dividing strips 39 to separate low and high tension cables.

Cover W5

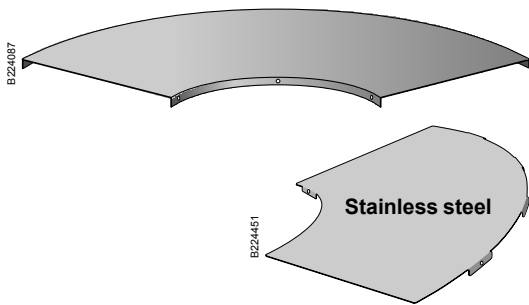


Cover to be used to protect the cable runs from dust, dirt, liquids, etc. Outdoors, it protects against rain and sun. Suitable for all cable ladders.



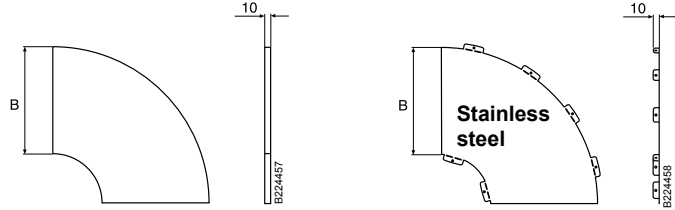
Type	Ladder width mm	B mm
Cover W5 - 150	150	151
Cover W5 - 200	200	201
Cover W5 - 300	300	301
Cover W5 - 400	400	401
Cover W5 - 500	500	501
Cover W5 - 600	600	601
Cover W5 - 800	800	801
Cover W5 - 1000	1000	1001

Mount covers to protect the cable routes from dust, waste, liquids, etc. Outdoors, covers protect against rain and sun. All Wibe cable ladders can be fitted with covers. Mount covers using Profile support piece 37 and Cover clamp.



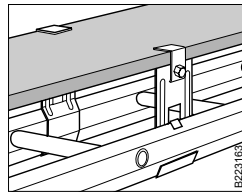
Cover 90° bend

Cover to be used for 90° interior bends. To be installed with a Profile support piece 37, Cover clamp and Cover joint.

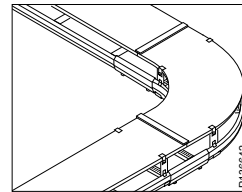


Type	Ladder width mm	B mm
90° bend - 150	150	151
90° bend - 200	200	201
90° bend - 300	300	301
90° bend - 400	400	401
90° bend - 500	500	501
90° bend - 600	600	601
90° bend - 800	800	801
90° bend - 1000	1000	1001

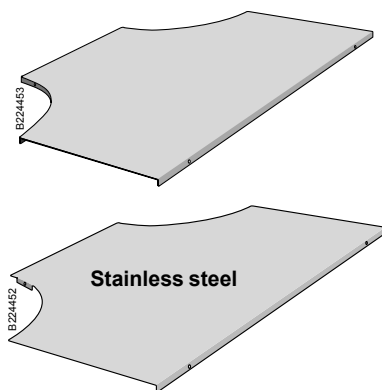
Stainless steel Type	Ladder width mm	B mm
90° bend - 150	150	147
90° bend - 200	200	197
90° bend - 300	300	297
90° bend - 400	400	397
90° bend - 500	500	497
90° bend - 600	600	597
90° bend - 800	800	797
90° bend - 1000	1000	997



Fasten cover to Profile support piece 37 using Cover clamp.

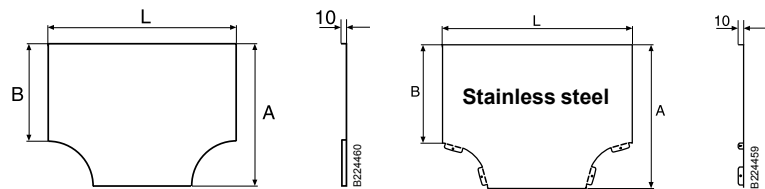


Mount with Profile support pieces 37, Cover clamps and Cover joints.



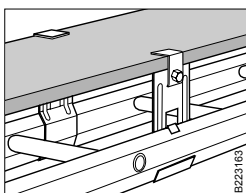
Cover T-junction

Cover to be used for T-junctions. To be installed with a Profile support piece 37, Cover clamp and Cover joint.

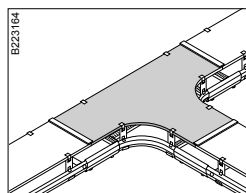


Type + ladder width	A mm	B mm	L mm
T-junction - 150	400	151	651
T-junction - 200	450	201	701
T-junction - 300	550	301	801
T-junction - 400	650	401	901
T-junction - 500	750	501	1001
T-junction - 600	850	601	1101
T-junction - 800	1050	801	1301
T-junction - 1000	1240	1001	1501

Type + ladder width Stainless steel	A mm	B mm	L mm
T-junction - 150	402	147	657
T-junction - 200	452	197	707
T-junction - 300	552	297	807
T-junction - 400	652	397	907
T-junction - 500	752	497	1007
T-junction - 600	852	597	1107
T-junction - 800	1052	797	1307
T-junction - 1000	1242	997	1507



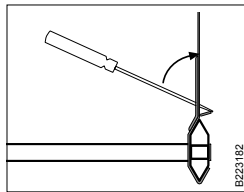
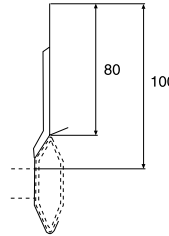
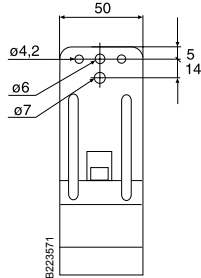
Fasten cover to Profile support piece 37 using Cover clamp.



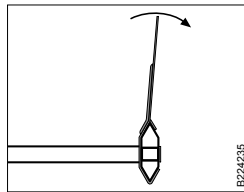
Mount with Profile support pieces 37, Cover clamps and Cover joints.

Profile support piece 37

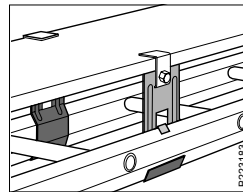
Profile support piece to be used when installing covers. To be mounted on approximately every 0.5 m along both sides of the cable ladder. Used together with cover clamp for locking covers.



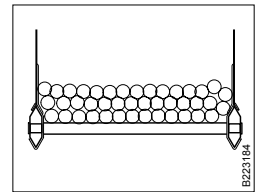
Mount Profile support piece 37 on the inside of the hexagonal section. Bend the tab towards the ladder section using a screwdriver as a lever.



Profile support piece 37 can be bent to fit the cover width.



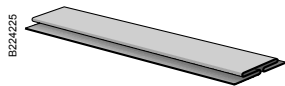
Lock the cover on the Profile support piece 37 using Cover clamps.



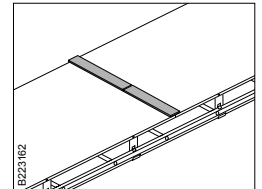
Profile support pieces 37 can be mounted as cable supports. Mount the attachments at about 0.5 m centres on both sides of the ladder.

Cover joint

Cover joint to be inserted between covers.



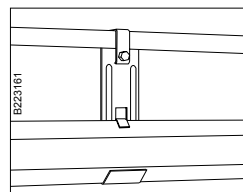
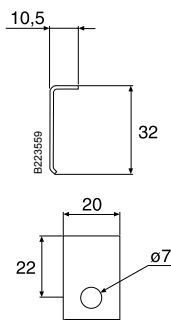
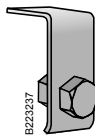
Type	Ladder width	
	mm	B mm
Cover joint 150	10	125
Cover joint 200	200	175
Cover joint 300	300	275
Cover joint 400	400	375
Cover joint 500	500	475
Cover joint 600	600	575



For width 800 or 1000 mm, use a combination of two smaller joints (e.g. 400+600 mm). Insert joints between covers.

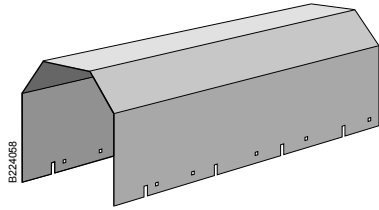
Cover clamp

Cover clamps to be used when installing a cover on a Profile support piece 37.

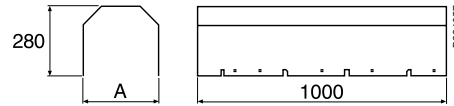


Cover clamps are required for mounting covers on Profile support piece 37.

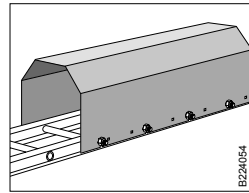
Protecting cover



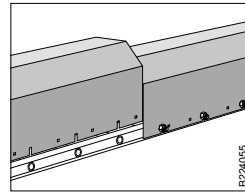
Cover to be used to protect the cable runs against ice and snow. Suitable for all cable ladder widths 300 and 400 respectively.



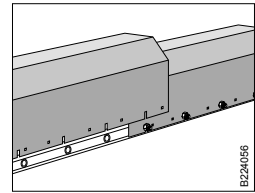
Type	A mm
Protecting cover 300	300
Protecting cover 400	400



To be mounted on ladder KHZ with Intermediate connection bolt 29. When mounted on other ladders or when needed, drilling screw $\text{Æ} 4.2$ is used.



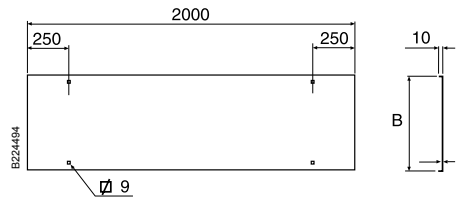
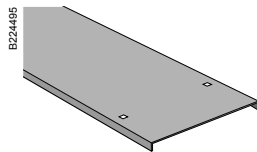
The covers can be mounted edge to edge.



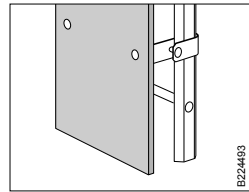
The covers can be mounted with overlap. The asymmetric hole pattern can be used to achieve a good fit.

Cover 64

Cover to be used for vertically mounted cable ladders.



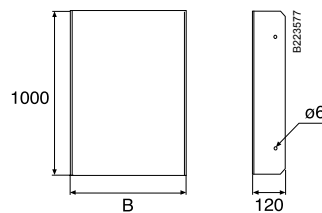
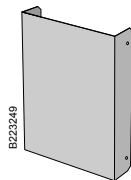
Type	B mm
Cover 64-150	151
Cover 64-200	201
Cover 64-300	301
Cover 64-400	401
Cover 64-500	501
Cover 64-600	601
Cover 64-800	801
Cover 64-1000	1001



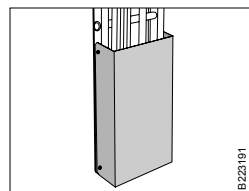
Cover 64 is to be mounted on the cable ladder with Wall bracket 11/25 or Wall bracket 11/75 and Screw set 22S. The covers are to be joined with Cover joints.

Cover plate 65

Cover plate to be used on vertical cable ladder installations as protection of cables near the floor. To be mounted in the side profile with self-tapping screw ST4.2.

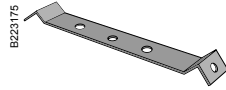


Type	B mm
Cover 65-200	200
Cover 65-300	300
Cover 65-400	400
Cover 65-500	500
Cover 65-600	600

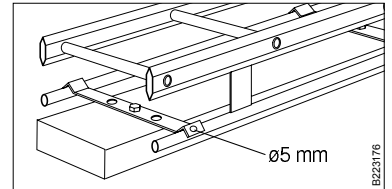
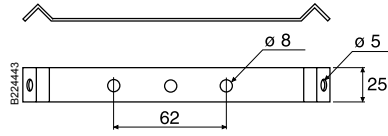


Used on vertical cable ladder installations as protection of cables near the floor. Mounted in the side profile with self-tapping screw ST4.2.

Lighting bracket 200



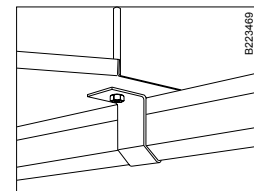
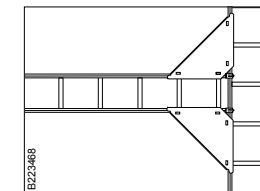
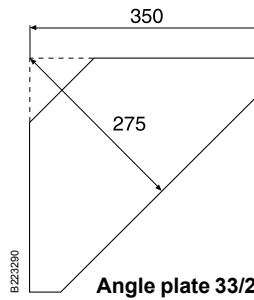
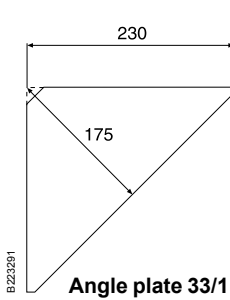
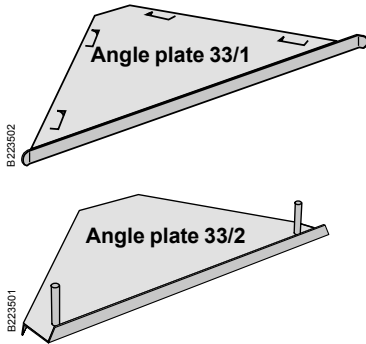
Lighting bracket to be used for the installation of lighting fittings beneath cable ladders KHZV and KHZPV 200.



Mount Lighting bracket 200 for KHZV/ KHZPV between the two lower tubes. If necessary, 5 mm dia. holes can be used for locking against the arch tube by means of blind rivets or sheet screws.

Angle plate 33/1 and 33/2

Angle plate to be used together with 90° horizontal T-junctions. Recommended for all cable ladders.

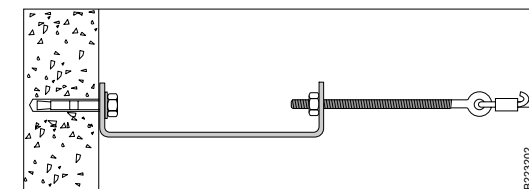
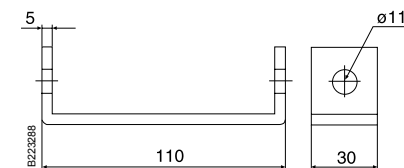


Angle plates are always recommended at 90° horizontal junctions.

To lock Angle plate 33/2, fit Profile clamp 42.

Wall bracket HT-14

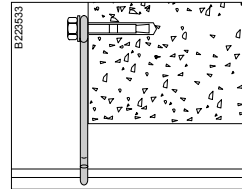
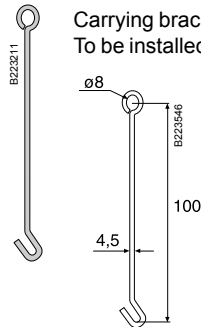
Bracket for wall installation



Wall bracket HT-14 is installed on wall with Expansion bolt or concrete screw.

Carrying bracket HT-31

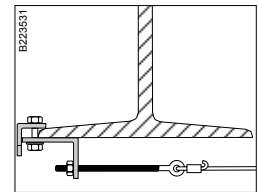
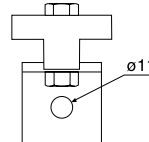
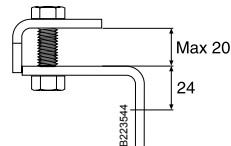
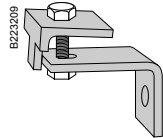
Carrying bracket to be used for ceiling installations.
To be installed with Expansion bolt or concrete screw.



Carrying bracket HT-31 is installed on ceiling beam with Expansion bolt or concrete screw .

Carrying bracket HT-152

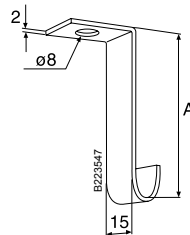
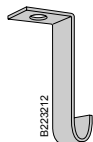
Carrying bracket to be used for easy I-beam installations.



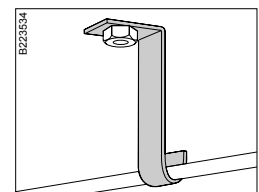
Carrying bracket is easily installed on I-beam.

Carrying bracket HT-33/34

Carrying bracket to be used for ceiling installations.
To be installed with Expansion bolt or concrete screw.



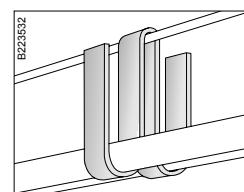
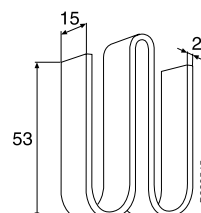
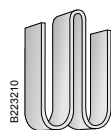
Type	A mm
HT-33	14
HT-34	38



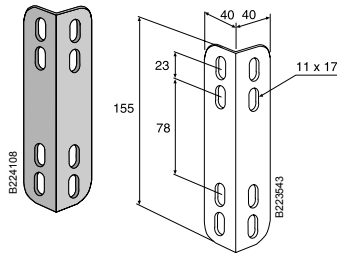
Carrying bracket is installed in ceiling with Expansion bolt or concrete screw.

Carrying sling HT-51

Carrying slings for cables.

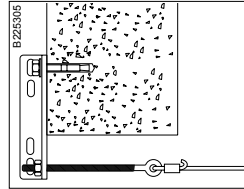


Carrying sling with space for 6 cables max. diam. 16 mm.

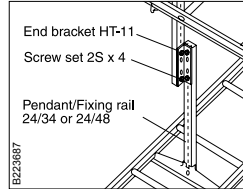


End bracket HT-11

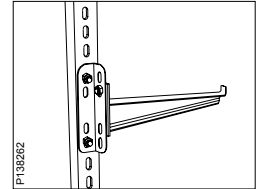
Used for assembling pendant/fixing rails to frames for switching cabinets and electrical control centres. Also suitable for assembling pendant rails for crossing cable runs. Also used as End Bracket for ceiling beam installation.



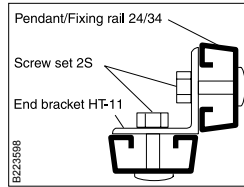
End bracket HT-11 is installed on ceiling beam with Expansion bolt or concrete screw.



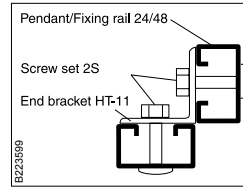
End bracket HT-11 permits mounting of crossing cable ladders in various planes on the same vertical piece.



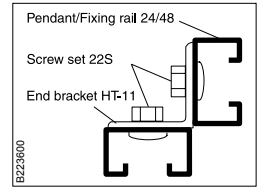
Cantilever arm 50 may, using End bracket HT-11, be mounted at 90° to the vertical piece. Only for lightweight mounting of data cable type or suchlike.



The HT-11 can be used when mounting together 2 Pendant/ Fixing rail 24/34, for example when assembling a stand.

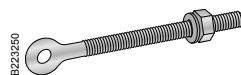


The HT-11 can be used when mounting together 2 Pendant/ Fixing rail 24/48 with the opening towards the attachment, for example when assembling a stand.

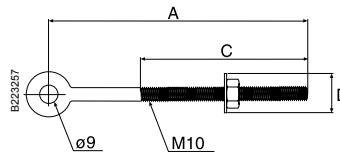


The HT-11 can be used when mounting together 2 Pendant/ Fixing rail 24/48, with the rear towards the attachment.

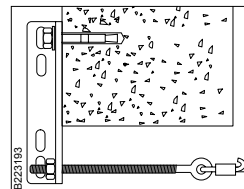
Tightening loop HT



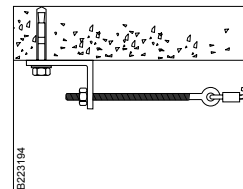
Tightening loop to be installed at the ends of steel wires.



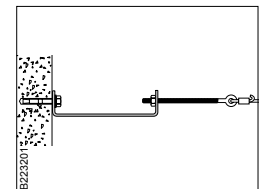
Type	A mm	C mm	D mm
Tightening loop HT-611	125	100	22
Tightening loop HT-621	270	100	50
Tightening loop HT-631	400	150	50



Tightening loop is installed in End bracket HT-11 for installation on ceiling beam.



Tightening loop is installed in Angle bracket 5L for installation in ceiling.

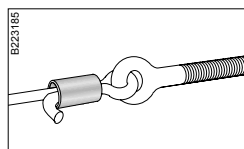


Tightening loop is installed in Wall bracket HT-14 for installation on wall.



Pipe HT-68 and HTR-68

Pipe for easy locking of wires. Ø 15 mm Length 25 mm.



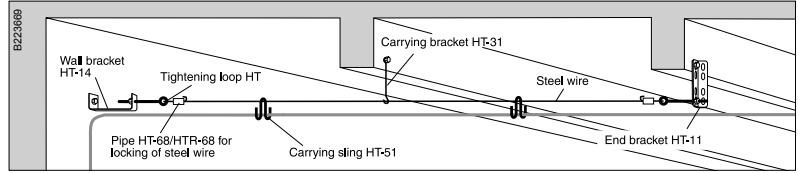
The steel cable is easily locked with the pipe.



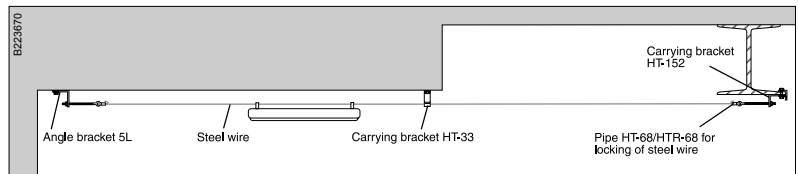
Type	Diam. mm	Breaking load kg
HT-2309	5.00	700
HT-2311	6.15	970
HTR-2322	2.50	450
HTR-2323	3.00	700
HTR-2324	4.00	1200

Steel wire

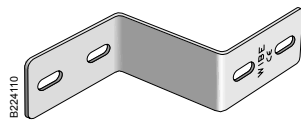
Steel wire to be installed as carrier of one or more cables.



Steel wire installed in ceiling with beams.

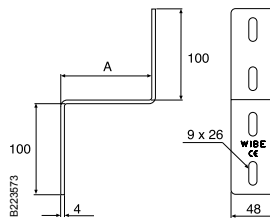


Steel wire installed in ceiling.

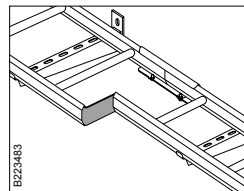


Reducer 31

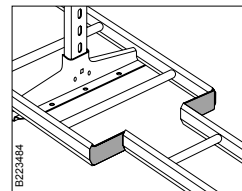
Reducer to be used for transition joining from a wide to a narrower cable ladder.



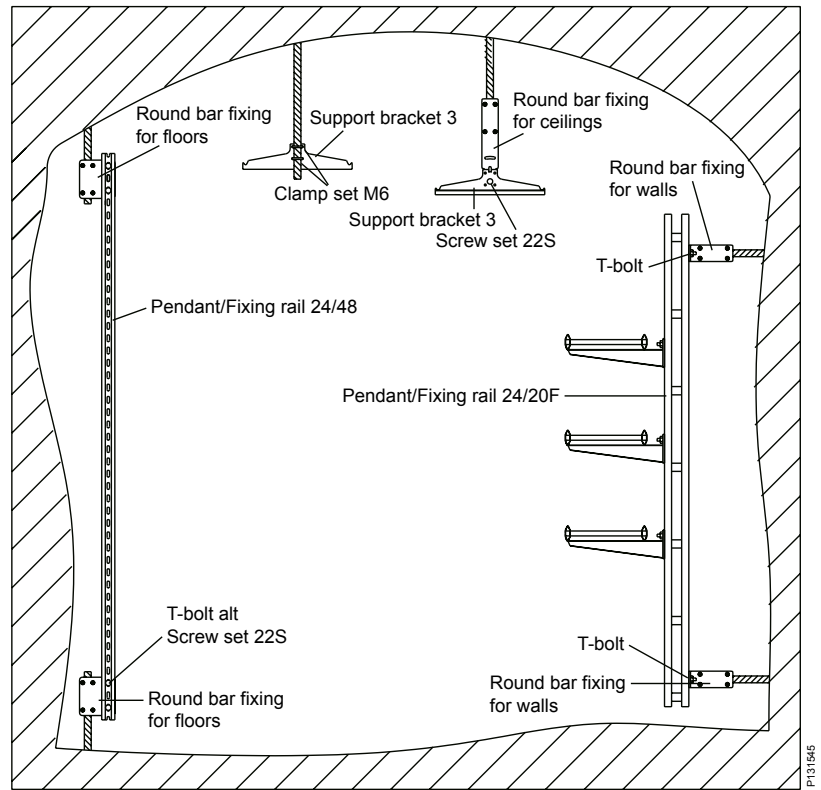
Type	A mm
Reducer 31/100	100
Reducer 31/200	200
Reducer 31/300	300
Reducer 31/400	400



Reducer to be used for transition joining from a wide to a narrower cable ladder.

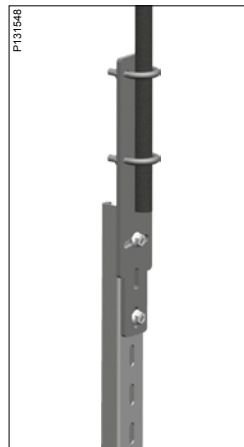
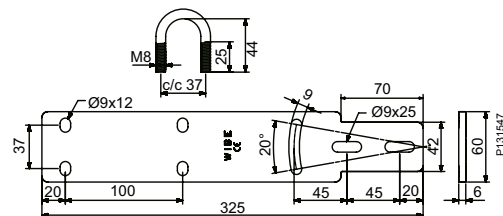


May also be used at centred transition joining



Round bar fixing for ceilings

Round bar fixing to be used for mounting in underground cavities and tunnels.



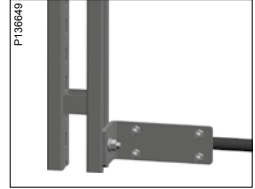
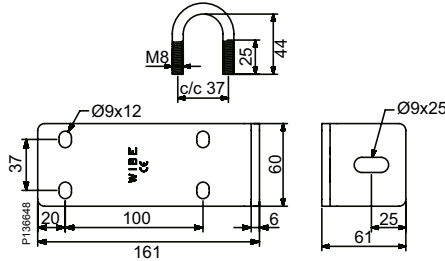
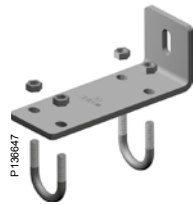
Round bar fixing for ceilings is mounted on pendant/fixing rail 24/48 with screw set 22S. Support bracket 3 is mounted directly on the fixing with Screw set 22S.



Using round bar fixing for ceilings, pendant/fixing rail 24/48 and screw set 22S it is possible to make a vertical piece that can be installed at an angle of up to 10°.

Round bar fixing for walls

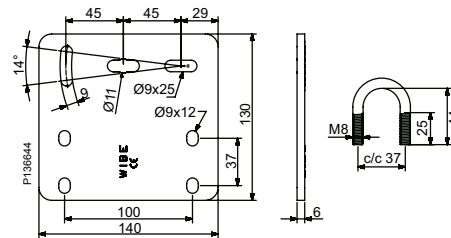
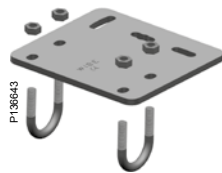
Round bar fixing to be used for mounting in underground cavities and tunnels.



Round bar fixing for walls mounted on Pendant/fixing rail 24/20F with T-bolt 26F.

Round bar fixing for floors

Round bar fixing to be used for mounting in underground cavities and tunnels.



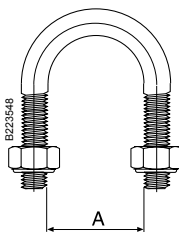
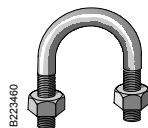
Round bar fixing for floors mounted on Pendant/fixing rail 24/48 with Screw set 22S.



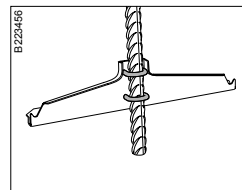
Round bar fixing for floors mounted on Pendant/fixing rail 24/48 with T-bolt 26F

Clamp set M6

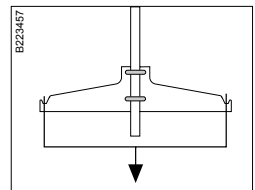
Clamp set to be used for the installation of Support bracket 3 directly on a roof bolt. The set includes two clamps and four locking nuts. M6-25 must be used for Support bracket 3 in hot-dip and pre-galvanised surface finish, whereas M6-20 must be used for Support bracket 3 in stainless steel and Installation plate 60 in all surface treatments.



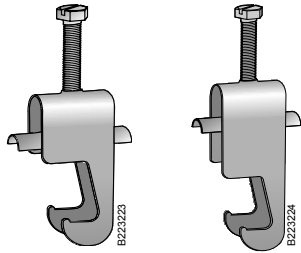
Type	Ø
M6-25	29
M6-20	24



For installation of Support bracket 3 directly on ribbed bar 16-25 or fully threaded bar M16-M27.



Max. symmetrical loading 300 kg. Make sure the clamps grip the bar in a correct manner.



Cable clamp for 1 cable

Cable clamp for 2 cables

Cable clamp type A

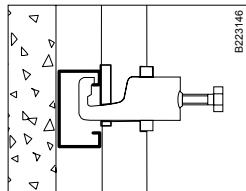
Cable clamp for fastening of cable on Pendant/Fixing rail 24/48 and on cable ladders KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV, in combination with Insert piece EM.

Cable clamp A for 1 cable

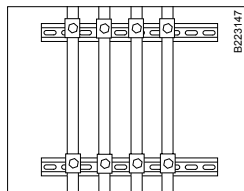
Type	For cable mm
Cable clamp A1-12	- 12
Cable clamp A1-16	13 - 16
Cable clamp A1-22	17 - 22
Cable clamp A1-28	23 - 28
Cable clamp A1-36	29 - 36
Cable clamp A1-44	37 - 44
Cable clamp A1-52	45 - 52
Cable clamp A1-60	53 - 60
Cable clamp A1-70	61 - 70

Cable clamp A for 2 cables

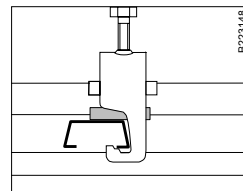
Type	For cable mm
Cable clamp A2-12	- 12
Cable clamp A2-16	13 - 16
Cable clamp A2-22	17 - 22
Cable clamp A2-28	23 - 28
Cable clamp A2-36	29 - 36
Cable clamp A2-44	37 - 44



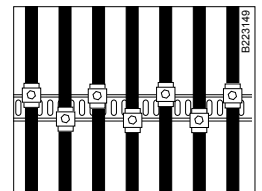
Use Cable clamp type A to attach cables to Pendant/Fixing rail 24/48. Use Insert piece EM.



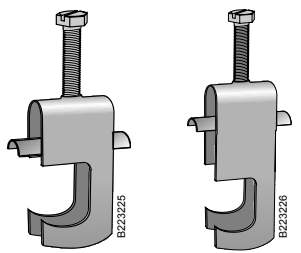
Mounting rail 40 with Cable clamp type A.



Use Cable clamp type A to attach cables to cable ladders KHZSP, KHZSPZ, KHZPS, KHZPV and KHZP. Use Insert piece EM.



In order to avoid torsion of the rung, cable clamps can be mounted opposite each other on the rung.



Cable clamp for 1 cable

Cable clamp for 2 cables

Cable clamp type R

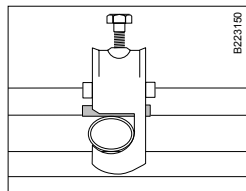
Cable clamp for fastening of one cable on on cable ladders KHZ and KHZV, in combination with Insert piece EM.

Cable clamp R for 1 cable

Type	For cable mm
Cable clamp R1-12	- 12
Cable clamp R1-16	13 - 16
Cable clamp R1-22	17 - 22
Cable clamp R1-28	23 - 28
Cable clamp R1-36	29 - 36
Cable clamp R1-44	37 - 44
Cable clamp R1-52	45 - 52
Cable clamp R1-60	53 - 60
Cable clamp R1-70	61 - 70

Cable clamp R for 2 cables

Type	For cable mm
Cable clamp R2-12	- 12
Cable clamp R2-16	13 - 16
Cable clamp R2-22	17 - 22
Cable clamp R2-28	23 - 28
Cable clamp R2-36	29 - 36
Cable clamp R2-44	37 - 44
Cable clamp R2-52	45 - 52
Cable clamp R2-60	53 - 60

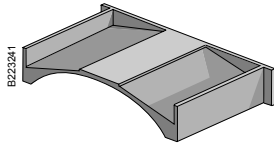


Cable clamp Type R is used for fastening cables on the cable ladders KHZ and KHZV. Insert piece EM must be installed.

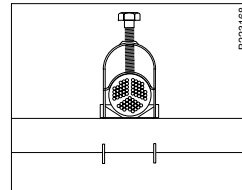
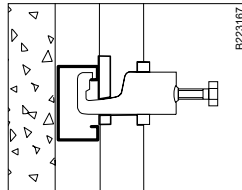
Tightening moment

When mounting, Insert piece EM is to be used. It is important that the clamp is not tightened too hard. The installer must watch out for deformations when tightening. Suitable tightening moment for clamps with M6-screw is 0.5-1.0 Nm and for clamps with M8-screw 1.0-1.5 Nm.

Insert piece EM



Insert piece to be used in order to prevent pressure on the cable. The insert piece is placed between the cable and the rung from the same side where the clamp has been fastened to the rung.



Insert pieces increase the contact area of the cables.

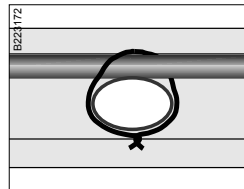
Type	For cable mm
EM - 12	- 12
EM - 16	13 - 16
EM - 22	17 - 22
EM - 28	23 - 28
EM - 36	29 - 36
EM - 44	37 - 44
EM - 52	45 - 52
EM - 60	53 - 60
EM - 70	61 - 70

Lashing wire

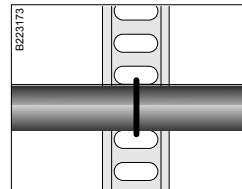


Lashing wire to be used for lashing of wires on cable ladders.

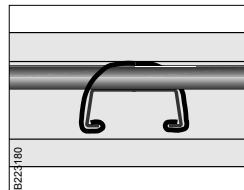
Type		Diam mm	Breaking load kg
HTR - 2303	Lashing wire, stainless steel, white PVC	1.25	92
HTR - 2313	Lashing wire, stainless steel, black PVC	1.25	92
HT - 2304	Lashing wire, white PVC	1.5	25
HT - 2314	Lashing wire, black PVC	1.5	25



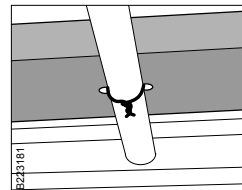
Cables are easily installed by lashing around the rungs of KHZ and KHZV.



Cables are easily installed by lashing through the perforations of the rungs or around the rungs of KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV.



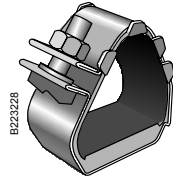
Cables are easily installed on KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV by lashing in such a way that the lashing wire is pinched around the rung as shown.



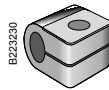
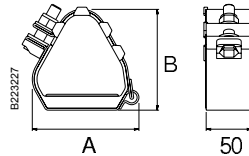
Dividing strips and teleconduits are attached to the ladder by lashing around the rungs of KHZ and KHZV

Cable clamp ER

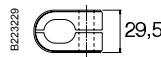
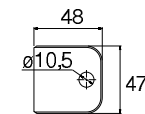
Cable clamp for the installation of cables on cable ladders with round or perforated rungs.



Cable clamp ER



Oval rung adaptor



Type	For cable mm	A mm	B mm
Cable clamp ER	23 - 28	80	74
Cable clamp ER	27 - 32	82	81
Cable clamp ER	30 - 35	82	88
Cable clamp ER	33 - 38	85	94
Cable clamp ER	36 - 42	113	101
Cable clamp ER	40 - 46	115	108
Cable clamp ER	44 - 50	117	115
Cable clamp ER	48 - 55	120	129
Cable clamp ER	51 - 58	121	130
Cable clamp ER	55 - 62	156	138
Cable clamp ER	59 - 66	158	146
Cable clamp ER	63 - 70	160	150
Cable clamp ER	67 - 74	763	161
Cable clamp ER	71 - 78	165	168
Cable clamp ER	74 - 82	167	176
Cable clamp ER	77 - 85	169	181

**Tested at British short-circuit testing station.
Test report no. BS/F 1265**

- Wibe cable ladder KHZ-600, KHZP-300 and KHZP-600. Cable clamp ER mounted on every rung.
- Wibe cable ladder KHZ-300. Cable clamp ER mounted on every other rung.

Condition after test

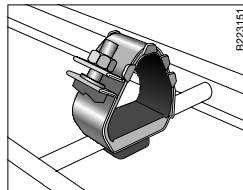
- 400 volt 58 kA symmetrical current (Peak 140 kA) during 0.1 second:
- All clamps remained secure
 - Some slight distortion of the ladder rungs
 - The cables were splayed out between the clamps but otherwise in good order.

Test report no. BS/F 1268

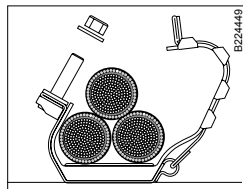
- Wibe cable ladder KHZ-600 and KHZP-600. Cable clamp ER mounted on every other rung

Condition after test

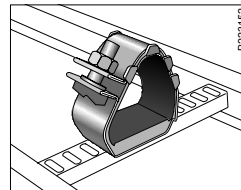
- 352 volt 64 kA symmetrical current (Peak 140 kA) during 0.1 second:
- All clamps remained secure
 - There was distortion of a number of the ladder rungs
 - The cables were splayed out between the clamps but otherwise in good order.



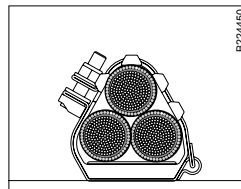
Remove the bottom plate of the clamp and mount it with Oval rung adapter on cable ladders with round rungs - KHZ and KHZV.



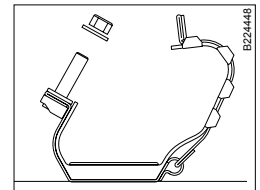
Mount the cables.



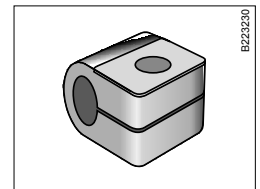
Remove the bottom plate of the clamp and mount it with 2 screw sets 74S on cable ladders with perforated rungs - KHZP, KHZPS, KHZSP, KHZSPZ and KHZPV.



Lock the clamp with the locking nut. Turn the nut to max. 4-5 Nm. The rubber lining must touch the cables but not so tight that the cables will be deformed



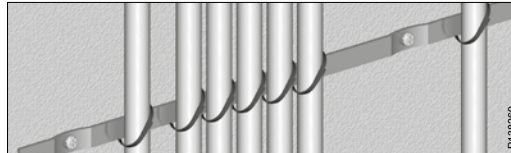
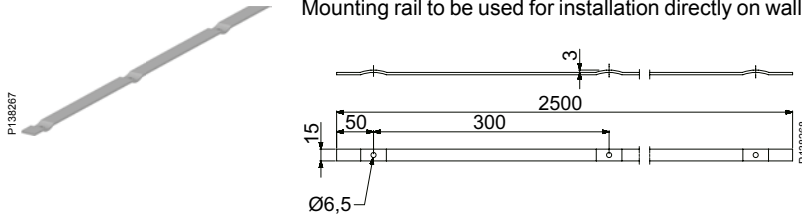
Remove the locking nut. Open the clamp.



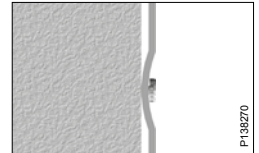
Oval rung adaptor, screw set included, to be used when mounting Cable clamp ER on oval rungs on the KHZ range.

Mounting rail WMS15

Mounting rail to be used for installation directly on wall for lashing of cables.



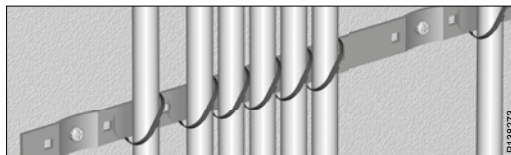
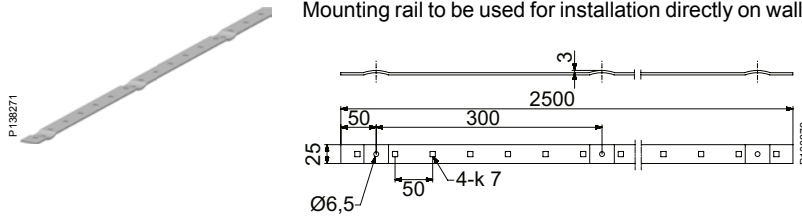
Mounting of cables with lashing wire, strips etc.



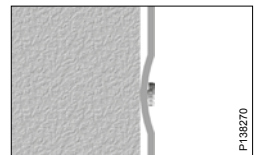
The mounting rail installed directly onto wall.

Mounting rail WMS25

Mounting rail to be used for installation directly on wall for lashing of cables.



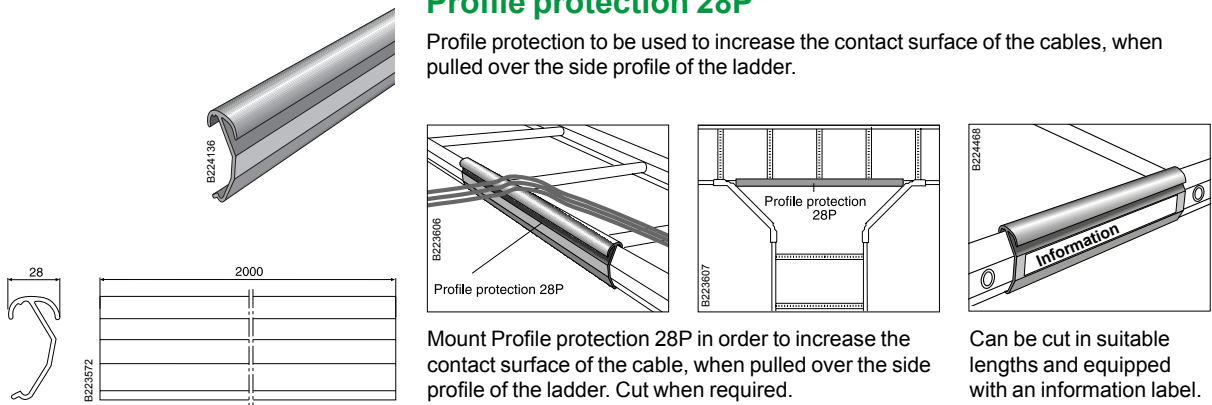
Mounting of cables with lashing wire, strips etc.



The mounting rail installed directly onto wall.

Profile protection 28P

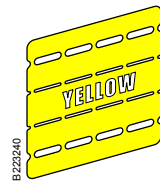
Profile protection to be used to increase the contact surface of the cables, when pulled over the side profile of the ladder.



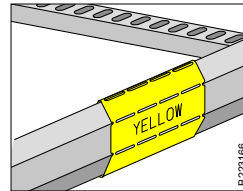
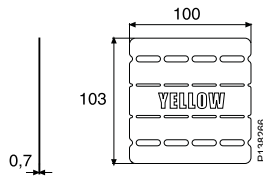
Mount Profile protection 28P in order to increase the contact surface of the cable, when pulled over the side profile of the ladder. Cut when required.

Can be cut in suitable lengths and equipped with an information label. Easy to mount on the ladder side profile.

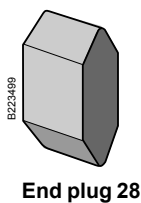
Marking plate 93



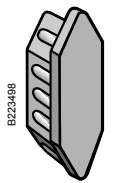
Marking plates are part of a colour marking system that is easy to use when you want to mark out the type of cable that is placed on the cable ladder



The Marking plate can be bent around the side profile on all Wibe cable ladders.



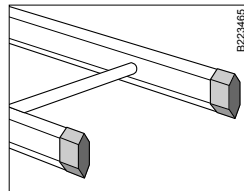
End plug 28



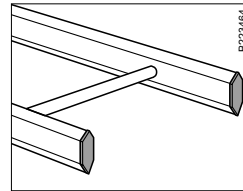
End plug 28i

End plug 28 and 28i

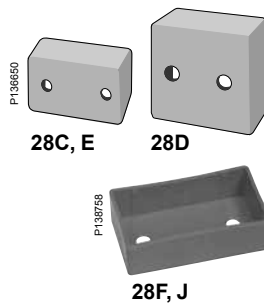
End plug to be mounted on ladder ends for sealing or protection.



Mount End plug 28 in ladder ends as protection.



Mount End plug 28i inside the ladder ends for sealing. Joining with Joint 19 or 21 can be made with End plug 28i left in the ladders ends.



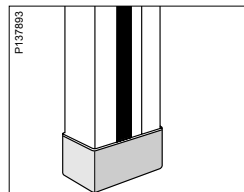
28C, E

28D

28F, J

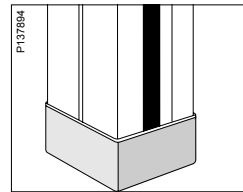
End plug 28C, D, E, F and J

End plug to be mounted on pendant ends to provide protection against personal injury and to make the ends of the profiles more conspicuous.



End plug **28C** fits Vertical piece 2 and Pendant/ Fixing rail 24/34.

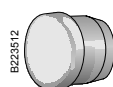
End plug **28E** fits Vertical piece 2F and Pendant/ Fixing rail 24/48.



End plug **28D** fits Vertical piece 20 and Pendant/ Fixing rail 24/20.

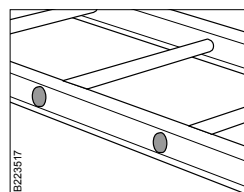
End plug **28F** fits Vertical piece 20FS and Pendant/ Fixing rail 24/20FS.

End plug **28J** for Vertical piece 20F and Pendant/ Fixing rail 24/20F



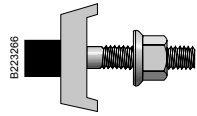
Cross member plug 27

Cross member plug to be installed at the ends of the rungs of KHZ and KHZV. Used in premises with a high corrosion risk.

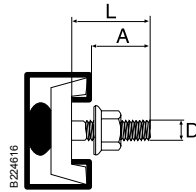


Mount Cross member plug 27 in KHZ and KHZV rung tube ends in premises with high relative humidity where the risk of corrosion is high

T-bolt 26F

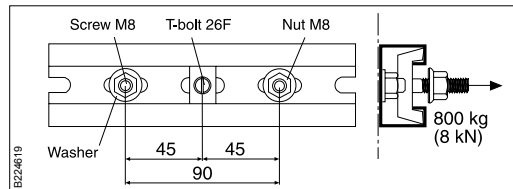


Easy to fit into the fixing rail. It is made to stick which makes it easier to mount and attach compared to a spring nut. It stays in place by itself even before it is fixed with the nut. To be used for the mounting of Cantilever arm 50 on Pendant/Fixing rail 24/48 and all vertical pieces except Vertical piece 2.

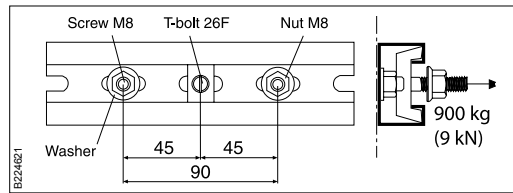


Type	L mm	A mm
M8	30	24
M10	30	24
M10	40	34
M8	50	44
M10	50	44

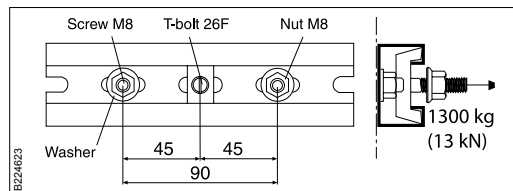
Max permitted extraction force



T-bolt 26F M8/M10 + P/F-rail 24/48 + Washer 8,4x19x1,5



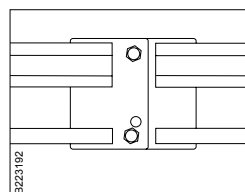
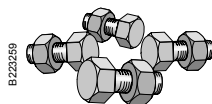
T-bolt 26F M8 + P/F-rail 24/48 + Washer 9x35x2



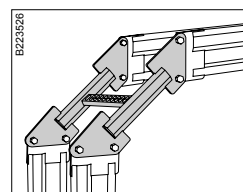
T-bolt 26F M10 + P/F-rail 24/48 + Washer 9x35x2

Screw set M12

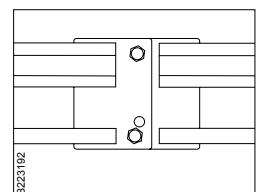
Screw set to be used for all joints with cable ladders KHZV and KHZPV.



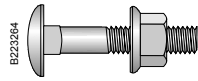
For joining ladders.



For joints with Riser coupler 49.



For joints with 90° bend 55 and T-junctions 56.



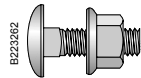
Screw set 2S

Screw set to be used for fastening of Support bracket 3 on Pendant/fixing rail 24/20F and Angle bracket 5L to the opening on Pendant rail 24/34 and 24/48. Set including screw MVBF 8x40 and nut M6MF8.



Screw set 20S

Screw set to be used for installation of Support bracket 3 on Pendant/fixing rail 24/20 and Vertical piece 20, Angle bracket 5L to the opening on Pendant rail 24/48 and 24/20. Set including screw MVBF 8x60 and nut M6MF8.



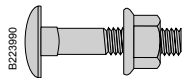
Screw set 22S

Screw set to be used for installation of Support bracket 3 on Vertical piece 2 and 2F, Support bracket 3 and Ceiling bracket 5 on Pendant/fixing rails 24/34 and 24/48, Angle bracket 5L against the back of Pendant/fixing rails, Pendant/fixing rails back to back. Set including screw MVBF 8x16 and nut M6MF8.



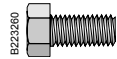
Screw set W34

Screw set to be used for the fastening of dividing strips on cable ladders KHZSP, KHZSPZ, KHZPS and KHZPV. Set including screw MSCS 6x12 and nut M6MF 6.



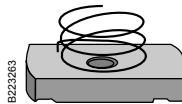
Screw set W37

Screw set including bolt MVBF 8x35 and nut M6MF 8, to be used for the installation of Support bracket 3 on Vertical piece 20F.



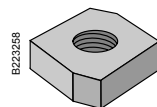
Screw set M10 x 20

Screw to be used with Spring nut M10 for the installation of Cantilever arm 50 on Pendant/fixing rail 24/48.



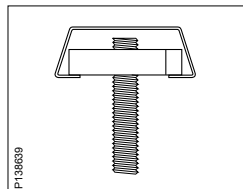
Spring nut M8/M10

Spring nut to be used for fastening of accessories (control panels, etc.) on Pendant/fixing rail 24/48.

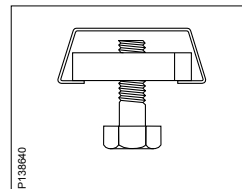


Back nut M8

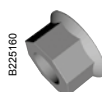
Back nut to be used for fastening of vertical pieces, etc., in the rungs of cable ladders KHZSP, KHZSPZ, KHZP, KHZPS and KHZPV.



Mounting with Threaded rod M8 and Backnut M8 in the cable ladder rungs.



Pendants etc. are mounted with Bolt M8 and Back nut M8 in the rungs.



Flange nut B43 M8, M10

Used for joining of Threaded rod W76 M8 and M10.



Thread lock B50 M8, M10

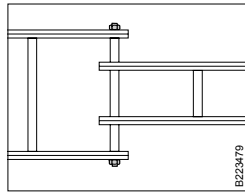
Used for joining of Threaded rod W76 M8 and M10.



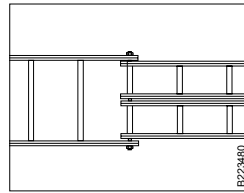
Intermediate connection bolt 29

Intermediate connection bolt to be used at the transition from a broad to a narrower cable ladder KHZ.

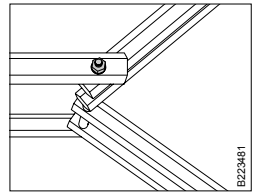
Type	Bolt diam x length mm
Intermediate connection bolt 29/200	M10 x 235
Intermediate connection bolt 29/300	M10 x 335
Intermediate connection bolt 29/400	M10 x 435
Intermediate connection bolt 29/500	M10 x 535
Intermediate connection bolt 29/600	M10 x 635



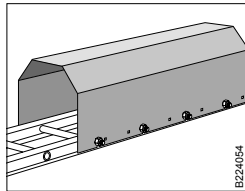
Intermediate connection bolts are used for changing from a broad to a narrower ladder. The broader ladder's last rung is cut to permit the narrower ladder to fit in. The intermediate connection bolt is mounted through the rungs of the KHZ ladder.



Intermediate connection bolts can also be used for transition from one wide ladder to two narrower ones.



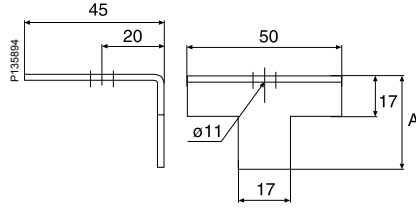
Intermediate connection bolt also permits formation of angles.



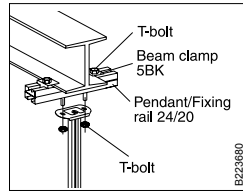
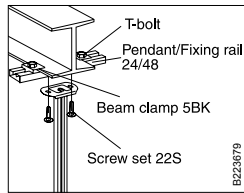
To be mounted on ladder KHZ with Intermediate connection bolt 29.

Beam clamp 5BK

Beam clamp to be used for the installation of Vertical pieces 2, 2F or 20 on I-beams.

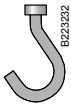


Type	A mm
Beam clamp 5BK-10, for flange thickness max 13 mm	30
Beam clamp 5BK-30, for flange thickness max 14–30 mm	50

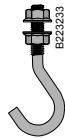
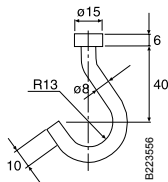


On ceiling beams, mount Vertical piece 2, 2F or 20 using 2 Beam clamps 5BK, Pendant/ Fixing rail 24/48 and Screw set 22S. For Beam clamp 5BK-10, use T-bolt 26F/40. For Beam clamp 5BK-30, use T-bolt 26F/50.

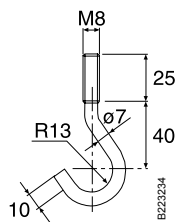
Alternatively, a Pendant/ Fixing rail 24/20 may be used. This will require 4 T-bolts.



Hot dip galv.

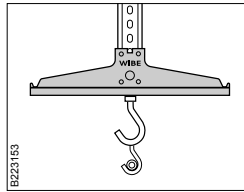


AISI 316L

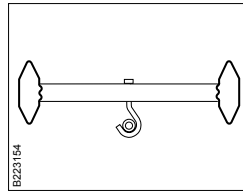


Hook 8

Hook to be used for the installation of cables beneath Support bracket 3. Can also be installed in perforated rungs.

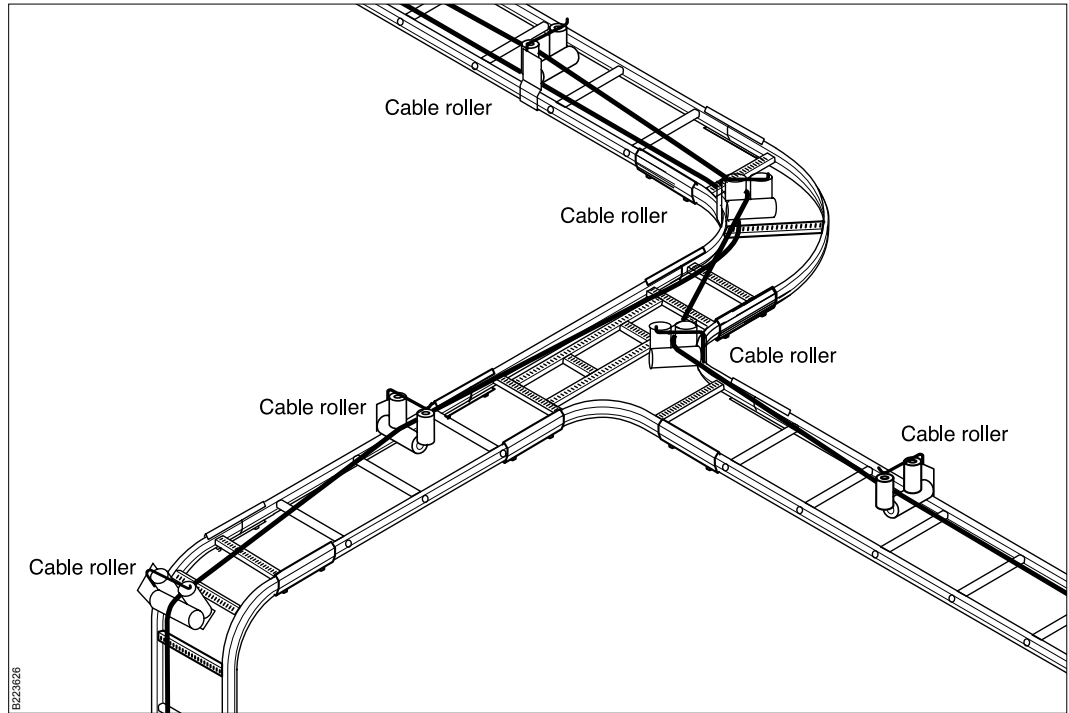


Hook 8 mounted beneath Support bracket 3 for installation of cables.

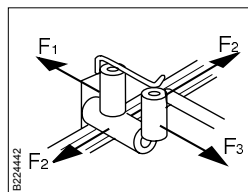
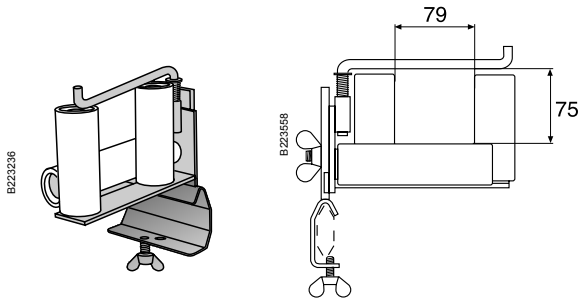


Hook 8 installed in a perforated rung.

Cable roller S

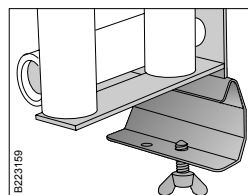


Cable roller used to facilitate the pulling of cables and lines. Easily installed on all Wibe cable ladders except the high-sided WHS ladders (outer mounting hole). Also suitable for external/internal profiles of all 90° bends, T-junctions, X-junctions and risers (inner mounting hole). With a height adjustment of 45 mm to leave room for cables to pass under the roller.

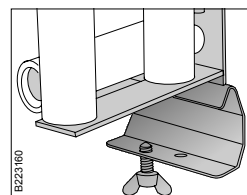


Load

Permitted loading $F_1 = 100$ kg (KHZ, KHZP, KHZV) 35 kg (KHZSP)
 Permitted loading $F_2 = 125$ kg (KHZ, KHZP, KHZV) 35 kg (KHZSP)
 Permitted loading $F_3 = 100$ kg (KHZ, KHZP, KHZV) 35 kg (KHZSP)



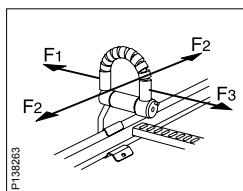
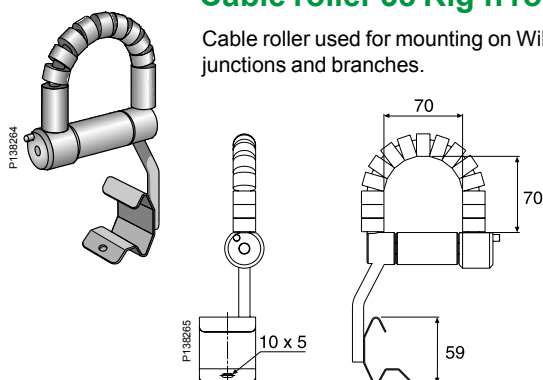
For fitting on 90°, T- and Xjunctions, use the inner mounting hole.



For mounting on ladders, use the outer mounting hole.

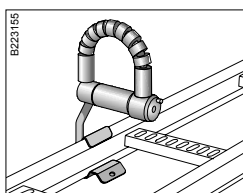
Cable roller 38 Rig'n roll

Cable roller used for mounting on Wibe cable ladders with belonging junctions and branches.

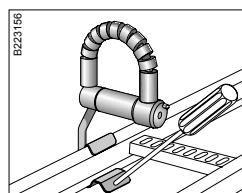


Load

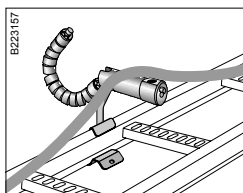
Permitted loading $F_1 = 20$ kg (KHZ, KHZP, KHZV, KHZSP)
 Permitted loading $F_2 = 50$ kg (KHZ, KHZP, KHZV, KHZSP)
 Permitted loading $F_3 = 50$ kg (KHZ, KHZP, KHZV)
 25 kg (KHZSP)



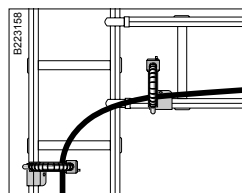
Cable roller 38 is to be mounted on the cable ladder profile.



Use a screw driver when dismantling the cable roller.



Open the cable roller by pressing the locking button and turn the loop aside.



The loop has rollers which make cable pulling over bends and junctions very easy.



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