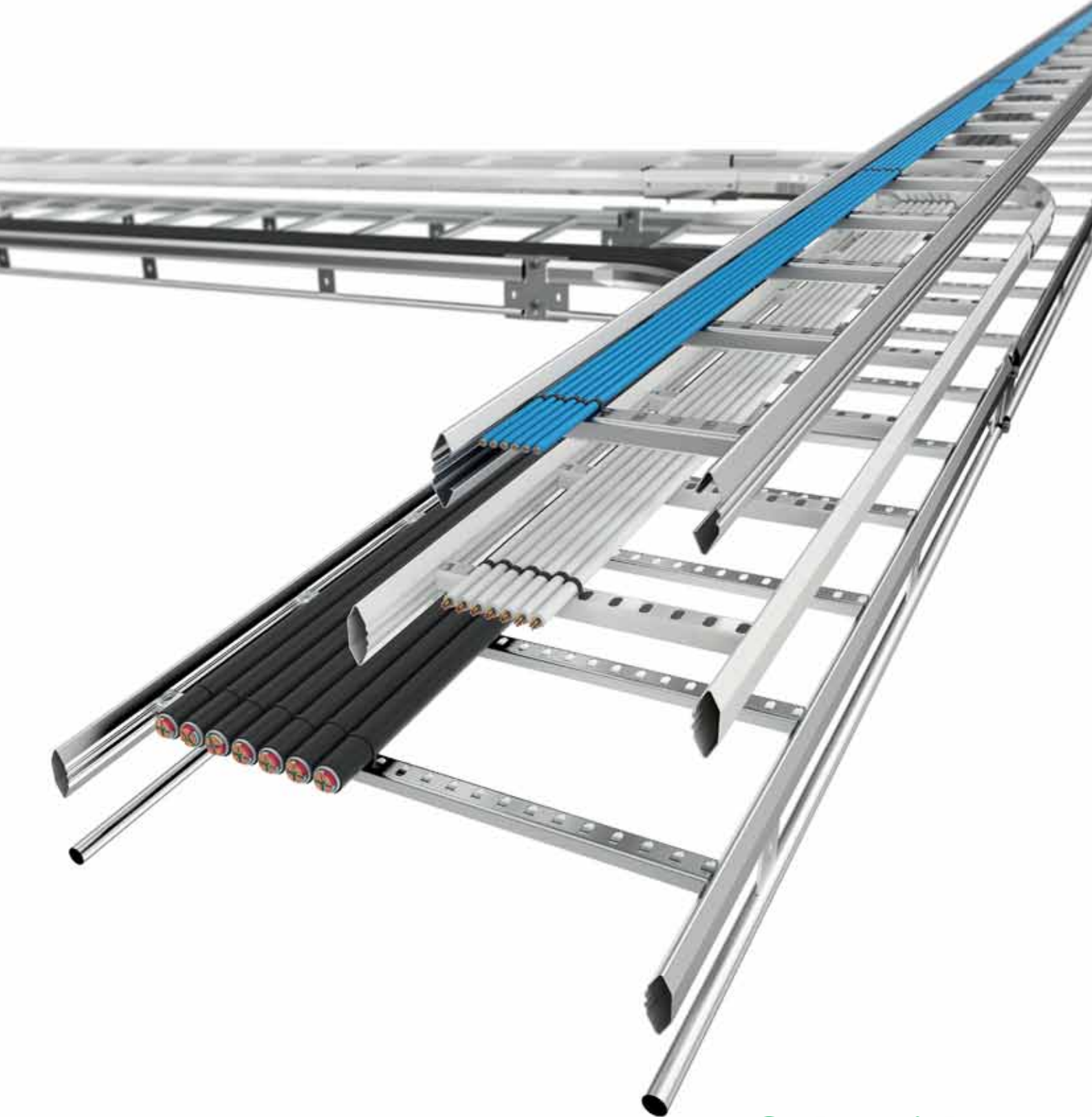


Cable Support Solutions

Wibe Cable Ladders

The spine of an exceptional infrastructure



85

years of expertise
in cable support

Cable support is the fundament 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 applied for a shopping mall, heavy industry or an off-shore environment.



Cable Support is an essential ingredient in 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, realized 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.



P133281

Our Cable Support range contains all 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. The 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 that can be mounted in any direction or angle to fit round bends and curves in any environment.



Wibe Cable ladders	6
A quick over-view of the Wibe cable ladder range and information about corrosion classes.	
Ready for constant change	8
The Wibe Cable Ladder system, agile enough to be completely reconfigured in a matter of days.	
Various applications	10
Accessories and benefits	16
New long span Nema 20C range	18
Fire resistance	22
Configuration tool	23
Some references	25
Product range and technical part	28

Light, strong and endurable

A product with the right properties 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 on 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 KHZ

Cable ladder with round rungs

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

Wibe covers all corrosion classes

C1

Electro-galvanized

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



C2

Pre-galvanized

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



C3

Hot-dip galvanized

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



C4

Hot-dip galvanized

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

Wibe KHZSP/KHZSPZ

Cable ladder with open profile and perforated rungs

KHZSP

Length: 3, 4 and 6 m. Width: 200-600 mm

Corrosion class: C2 to C5-M

Surface treatment: Pre-galvanized, Stainless steel AISI 316L

KHZSPZ

Length: 4 and 6 m. Width: 200-600 mm

Corrosion class: C3 to C4

Surface treatment: Hot-dip galvanized,

Wibe KHZP/KHZPS

Cable ladder with perforated rungs

KHZPS

Length: 6 m. Width: 150-1000 mm

Corrosion class: C2

Surface treatment: Pre-galvanized

KHZP

Length: 3 and 6 m. Width: 150-1000 mm

Corrosion class: C3 to C5-M

Surface treatment: Hot-dip galvanized, 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 galvanized, Zinkpox®, Stainless steel AISI 316L

Wibe KHZP 20C

High-sided reinforced cable ladder with perforated rungs

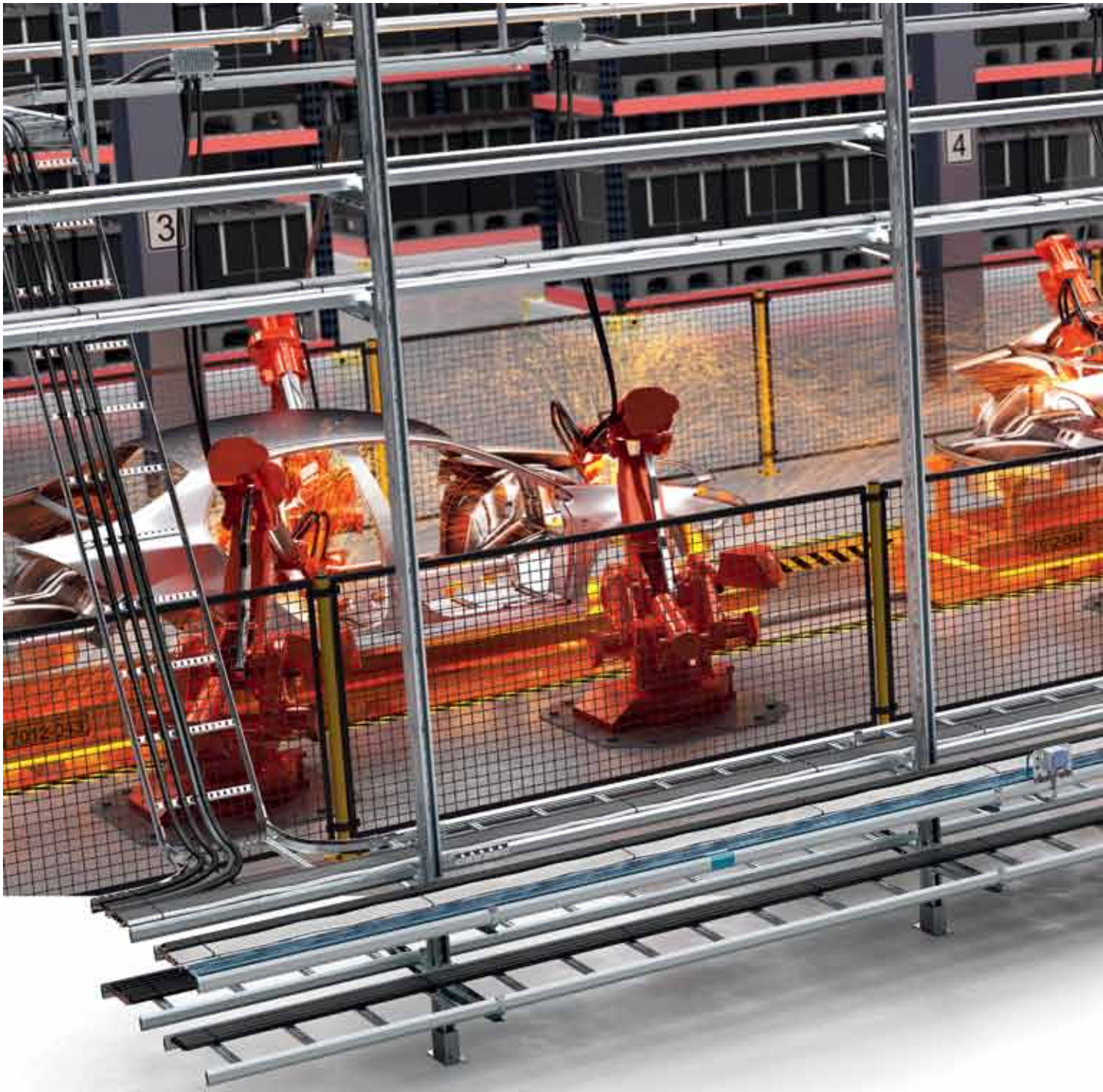
Length: 6 m.

Width: 200-1000 mm

Corrosion class: C3 to C4, C5-I Zinkpox® on special order

Surface treatment: Hot-dip galvanized, Zinkpox® on special order





P135711



P135795

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.



P138787

Coupling 22

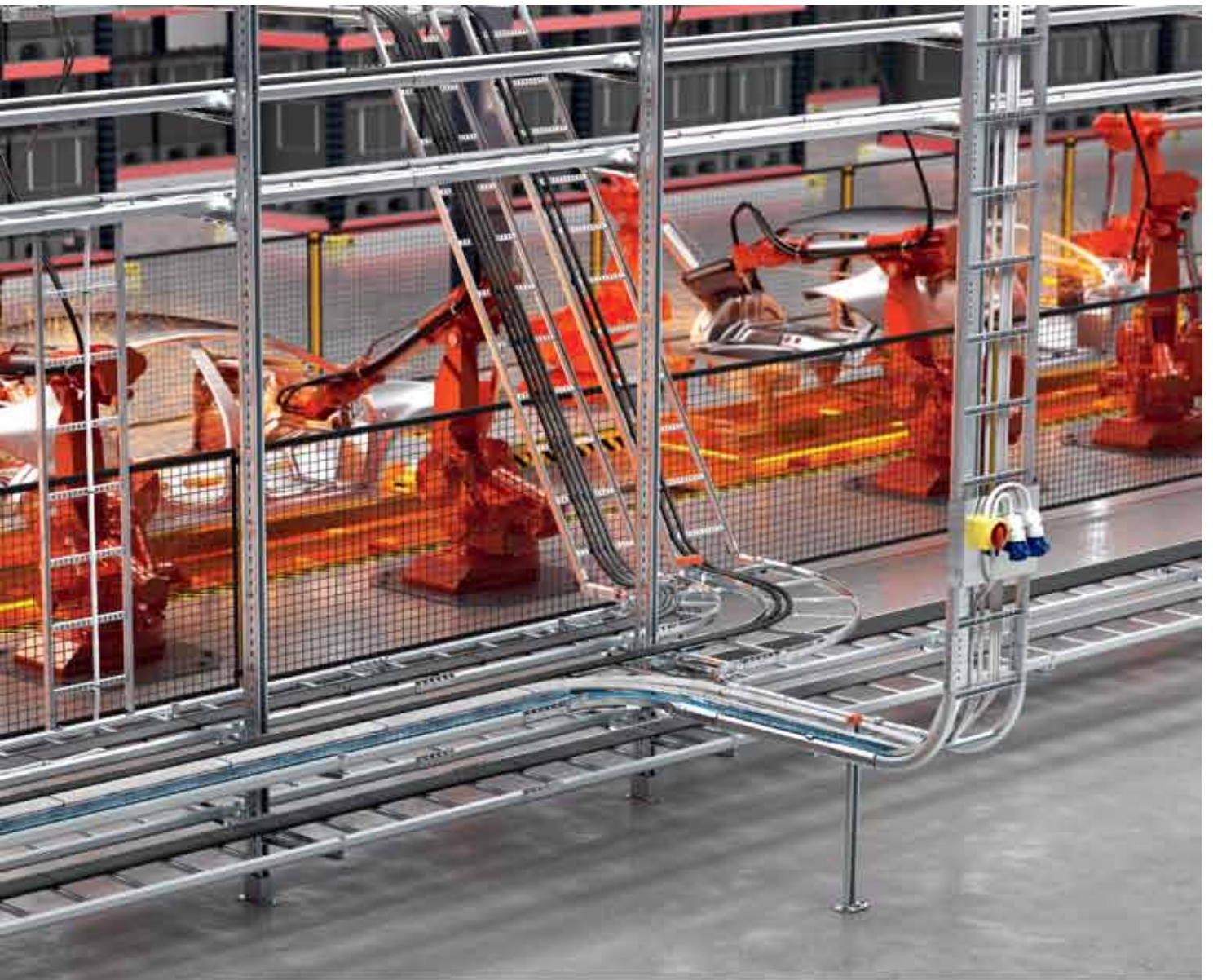
Versatile joint for horizontal or vertical branches in any angle. Suitable for 90 bend, T- or X-junctions, or as a riser.



P135711

Vertical piece

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



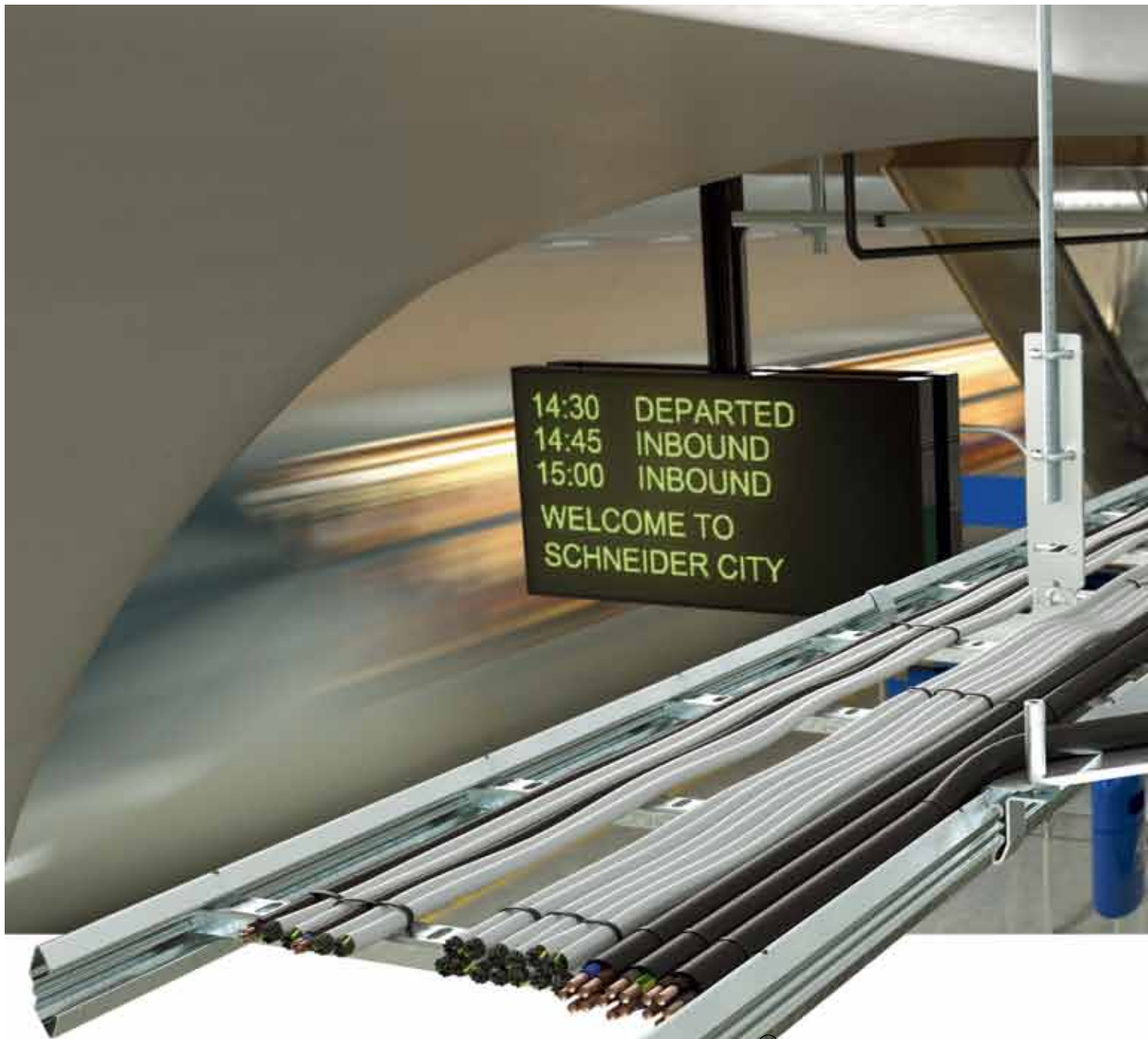
Organised and ready for constant change

In a high-tech industry the infrastructure needs to be modular and flexible, minimizing 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 really 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

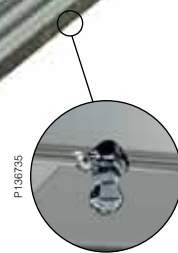
bends, raisers, cantilever arms, brackets, joints, couplings and much more, making the entire solution flexible and adjustable enough to take on any challenging task.

P1195725

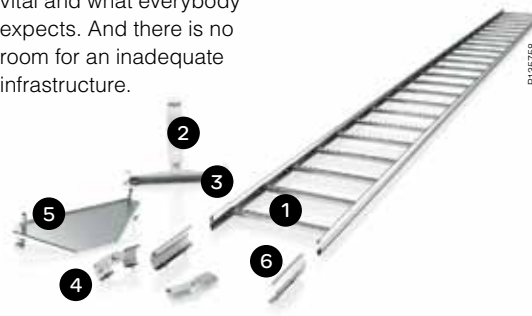


The challenge

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.



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.



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
4. Coupling
5. Angle plate
6. Joint

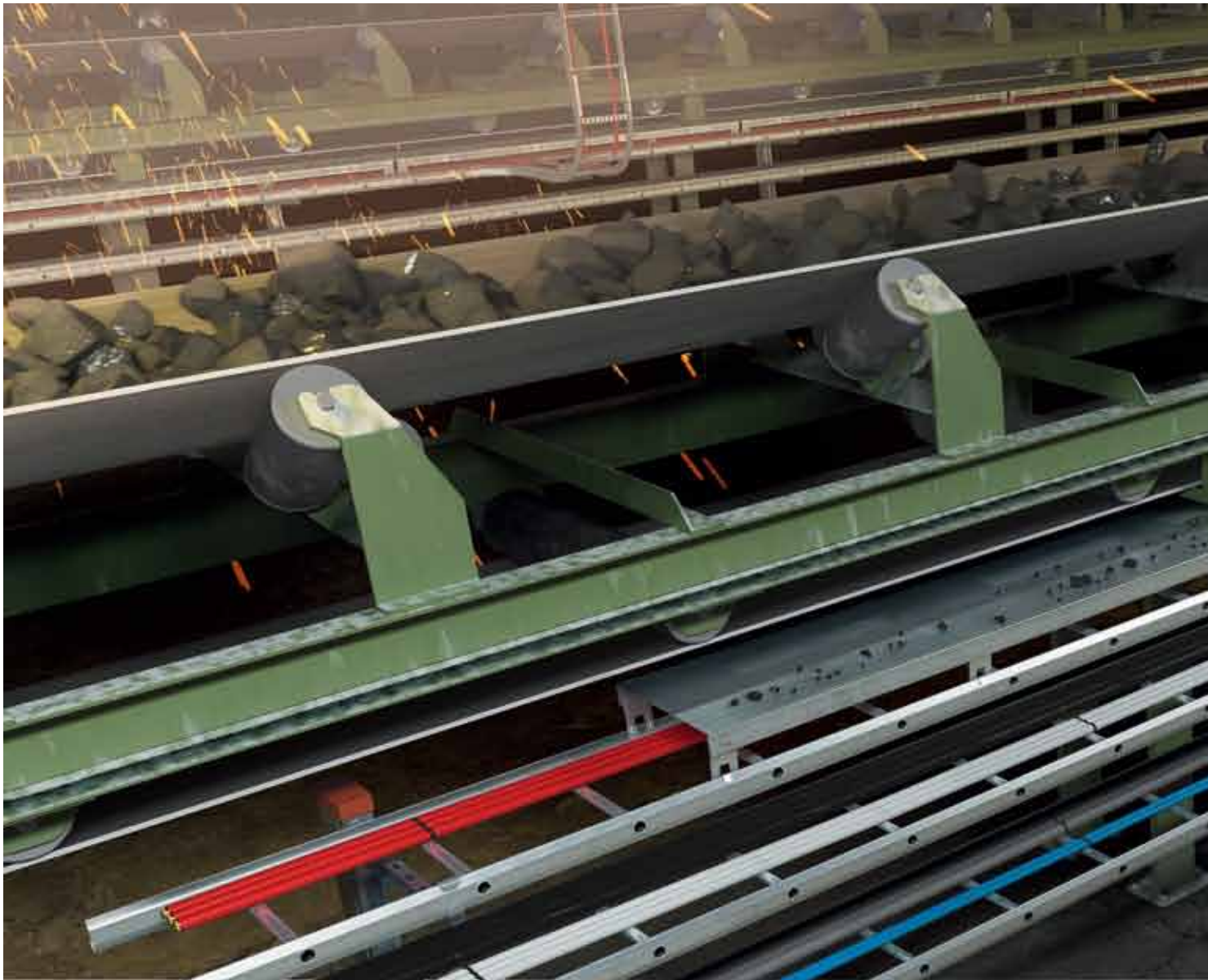


On track with the future

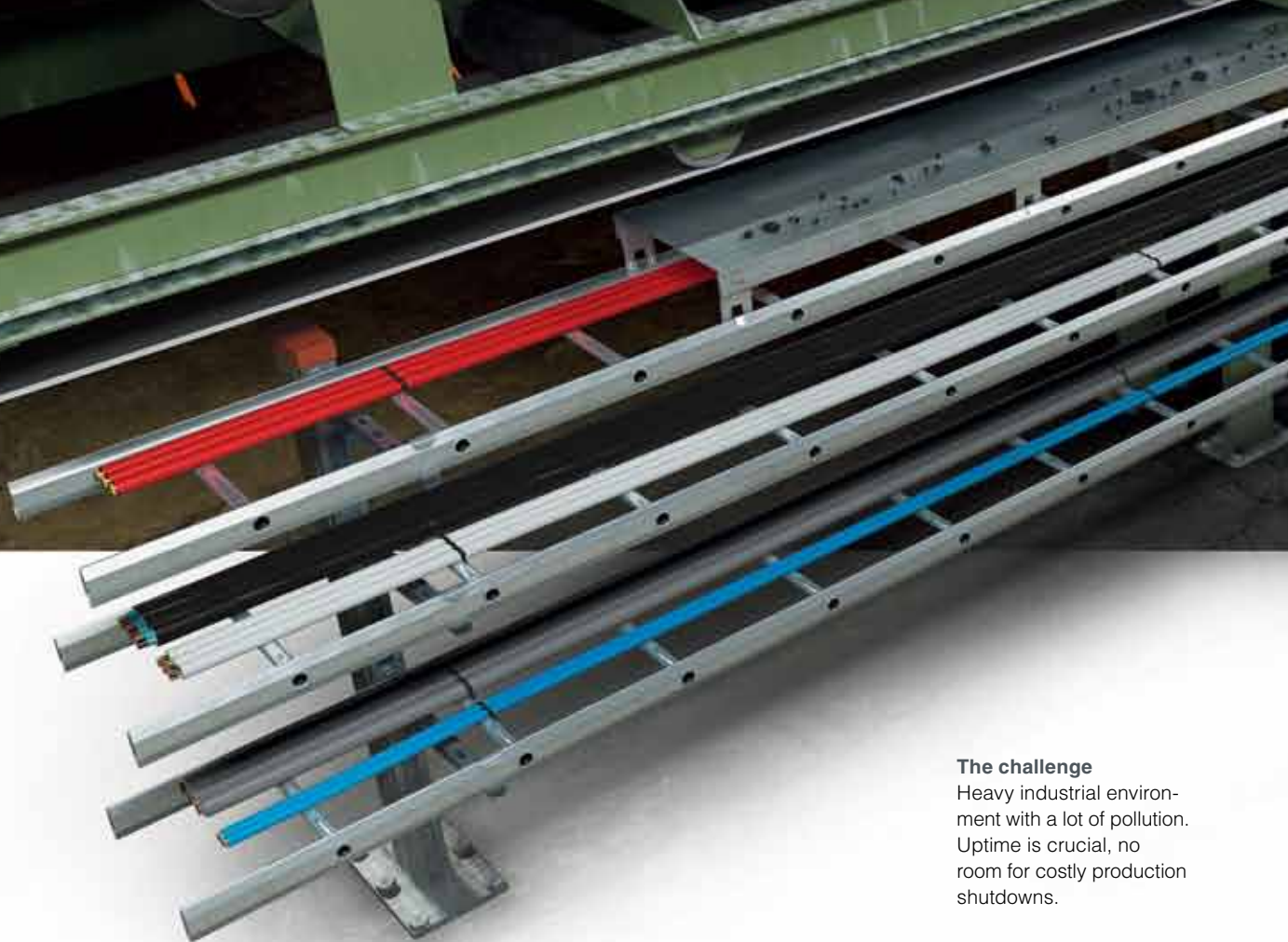
Today we constantly meet increasing expectations on performance, flexibility and sustainability. Advanced constructions require top quality in every detail and keeping up with technical development is a challenging task. Our goal is to prosper business performance while conserving environmental resources.

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 that is constantly refined and improved, Wibe Cable Ladders match all the requirements by far.



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.

It is noisy, busy and very harsh conditions. Maintaining continuous production is top priority, and any malfunctions will jeopardize 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 like round rungs and cover plates protect the installation from dirt and damage.



P135704

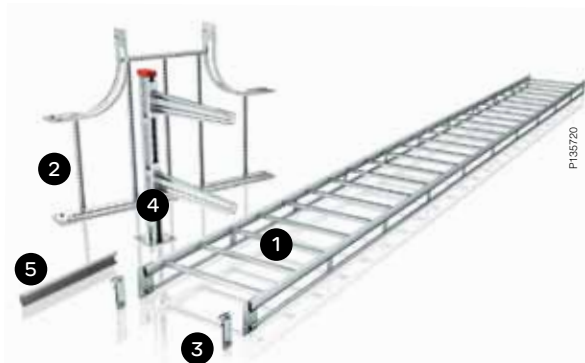
The challenge

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



P135720



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 on.

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.



Coupling 22

This ingenious coupling 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 lot 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.



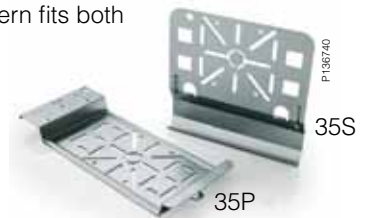


P138745

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



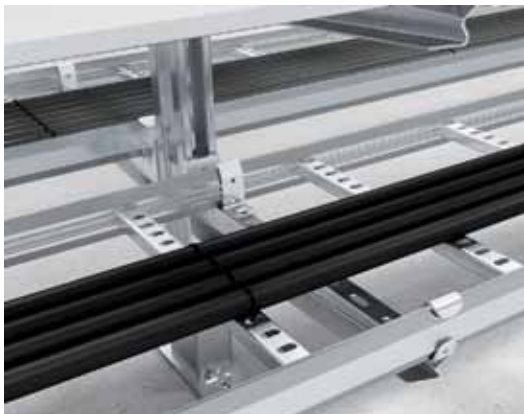
P138749

Tele-conduit

Keep the entire installation tidy and well organized – 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 organizational qualities to any complex installation.



P138754



P138751

Cable roller

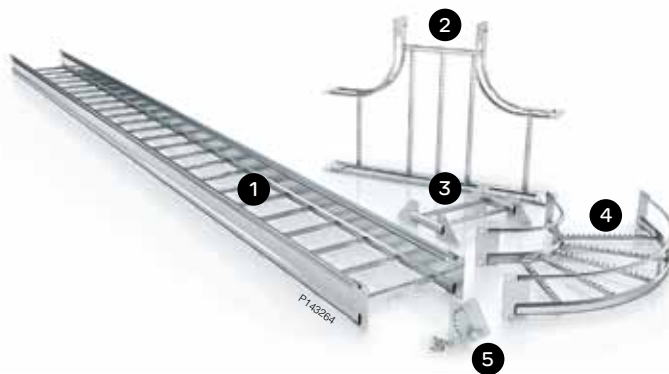
The cable rollers simplify pulling of cables. The rollers are adjustable in height to allow cables to pass underneath. Suitable for 90° bends, T- and X-junctions as well as risers.



P138756



P1432



The challenge:

To meet the toughest requirements of extra heavy load and wide support distances in the most critical industrial environments.

Few but strong

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

1. KHZP 20C Cable ladder in hot-dip galv
2. T-junction 20C
3. Riser coupling 20C
4. 90° Bend 20C
5. Vertical coupling 20C



When conditions call for extreme loads and the widest support spans

Over the years, the Wibe Cable Ladder system from Schneider Electric has been developed to tackle all kinds of harsh environments, such as Oil & Gas and chemical industries. Now the range has been further reinforced.

The latest and most powerful addition to our cable ladder portfolio is KHZP 20C – a strong, high-sided ladder with excellent properties. Meeting the NEMA 20C SWL standard, 149 kg/m at 6-metre span/safety, this new range offers long spans with heavy-load qualities. Nevertheless, the KHZP 20C range enables fast and easy installa-

tion. For example, the couplers are integrated into the ladder sides, providing much faster mounting time than conventional systems requiring splice plates and multiple nuts and bolts. All in all, the KHZP 20C is a solution that contributes heavily to a safe, easily maintained and long lasting installation.

Based on proven expertise and continuous refinement

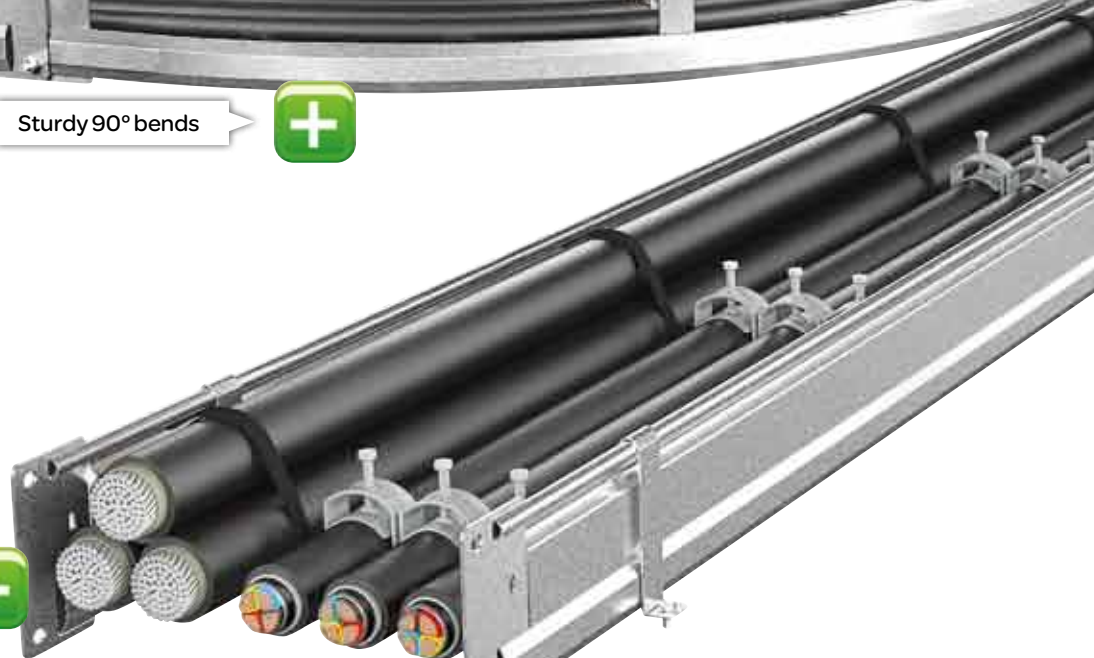
The KHZP 20C has evolved from many years of renowned development. With impressive dimensions and easy-to-apply accessories, such as bends, risers, T-junctions, couplings and reducers, the KHZP 20C is the ultimate durable solution for demanding installations.



Sturdy 90° bends

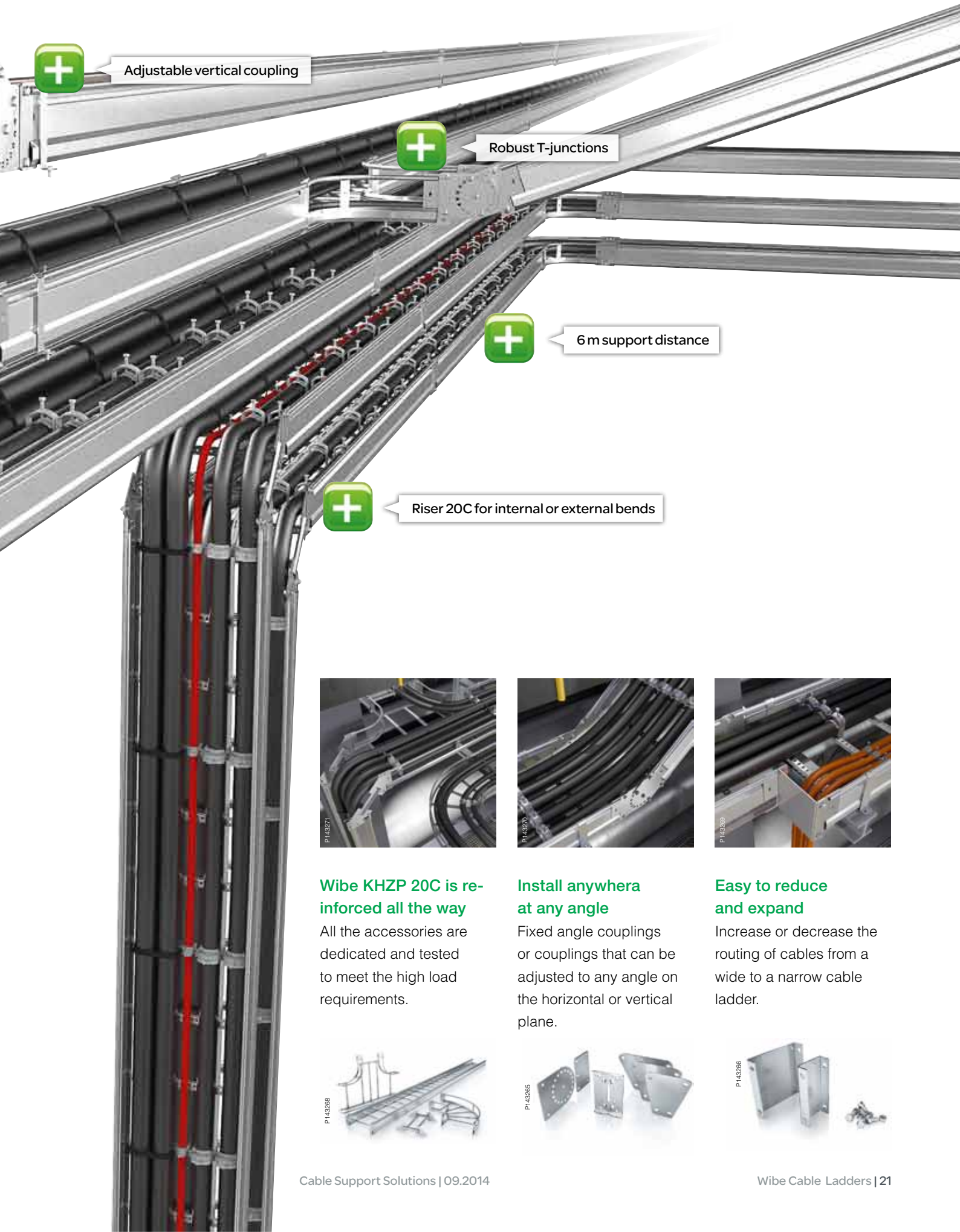


Width 200–1000 mm



Integrated couplers





Adjustable vertical coupling



Robust T-junctions



6 m support distance



Riser 20C for internal or external bends



P143271



P143270



P143269

Wibe KHZP 20C is reinforced all the way

All the accessories are dedicated and tested to meet the high load requirements.



P143268

Install anywhere at any angle

Fixed angle couplings or couplings that can be adjusted to any angle on the horizontal or vertical plane.



P143265

Easy to reduce and expand

Increase or decrease the routing of cables from a wide to a narrow cable ladder.



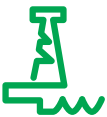
P143266

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 will 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 ship-yard 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 feel confident when installing Wibe cable ladders in environments requiring both E30 and E90 certification.

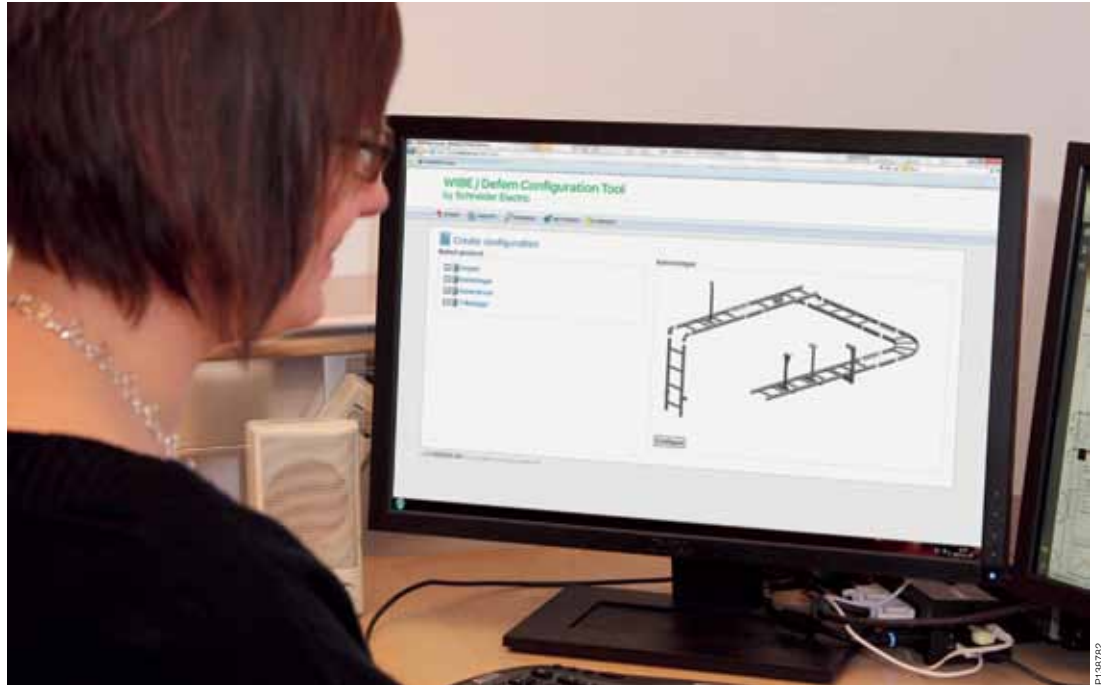
The cable ladders with supporting system and Dätwyler Pyrofil KERAM E30 and E90 cables were tested for 90 minutes in a temperature of up to 1000°C without collapsing, with the electrical performance still remaining intact.

For installation specification please see the Technical part in this catalogue.

Our Configuration tool – the right choice



Eliminate waste and maximize 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 that is either insufficient or oversized, means actually 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 optimizing 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 customized

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, but more versions are under development.

3.2
million
metres

manufactured each year.
Wibe Cable Ladders
form the backbone of the
modern infrastructure.

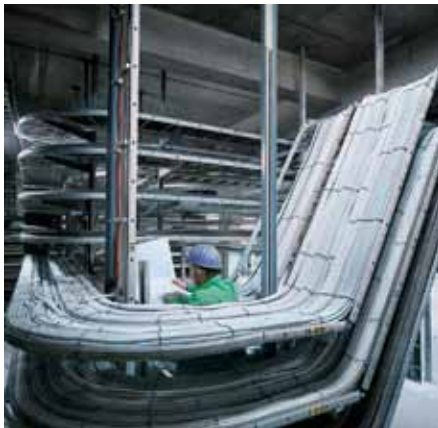
Experience and knowledge take you higher

Creating shared value

Throughout the years we have stacked up an outstanding amount of knowledge and skills 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 that 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.



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 metres).





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.



P136521

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.



P129638

Wibe Cable Ladder KHZP installed at Kista Science Center, Sweden.



P129750

Wibe Cable Ladder KHZV installed at Gärdstaverken, Sweden.

Content

Overall view of the Cable ladder system

Installation summary..... 30

Choice guide

Pre-galvanized 38

Hot-dip galvanized 46

Zinkpox..... 60

Stainless steel 74

Range

Pre-galvanized 82

Hot-dip galvanized 93

Zinkpox..... 117

Stainless steel 130

Technical description

Corrosion classes..... 144

Surface treatments 147

Installation regulations 148

Loading capacity 148

Electro-magnetic compatibility.. 149

Potential balancing 150

E-90 fire test 152

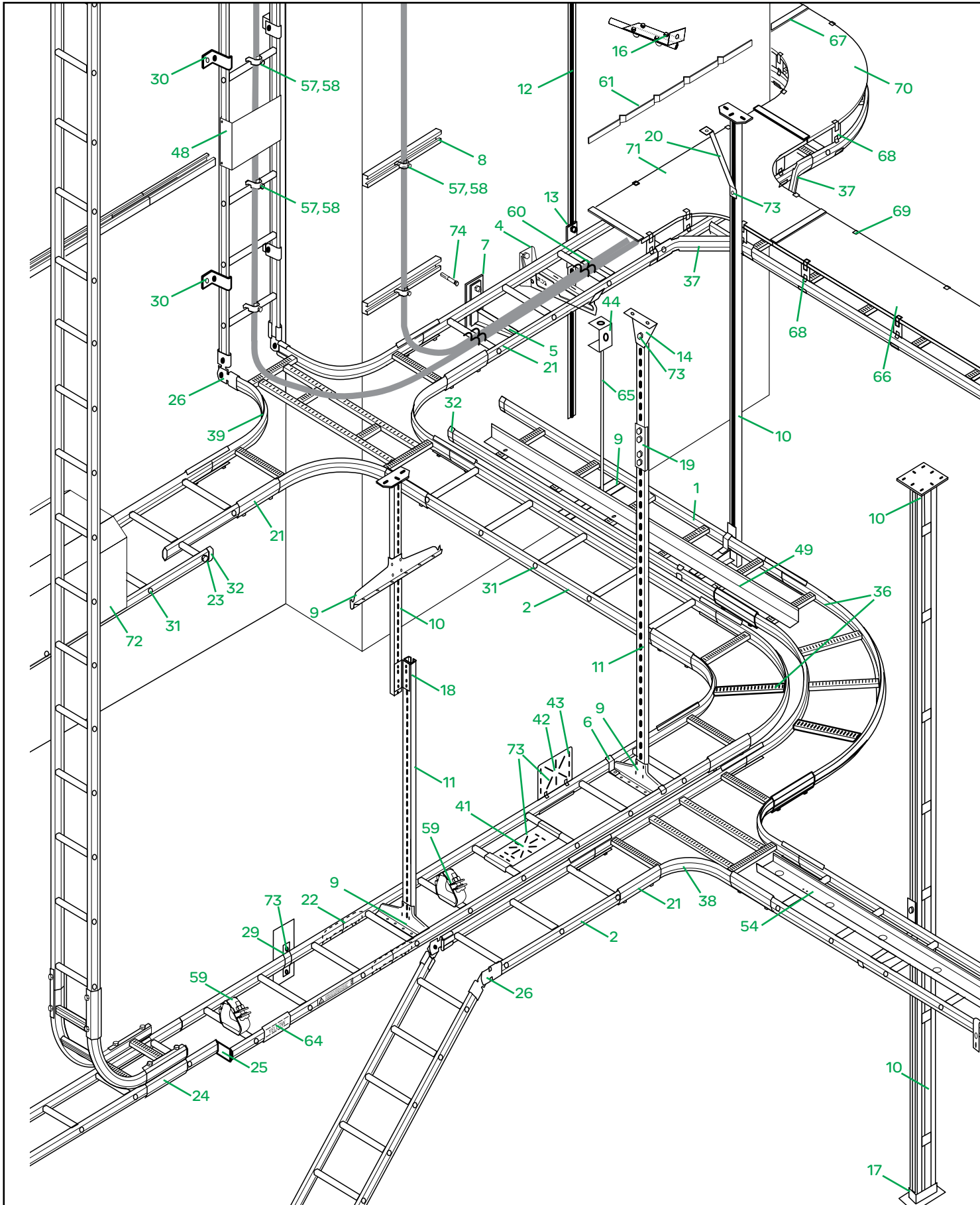
Standards and quality..... 154

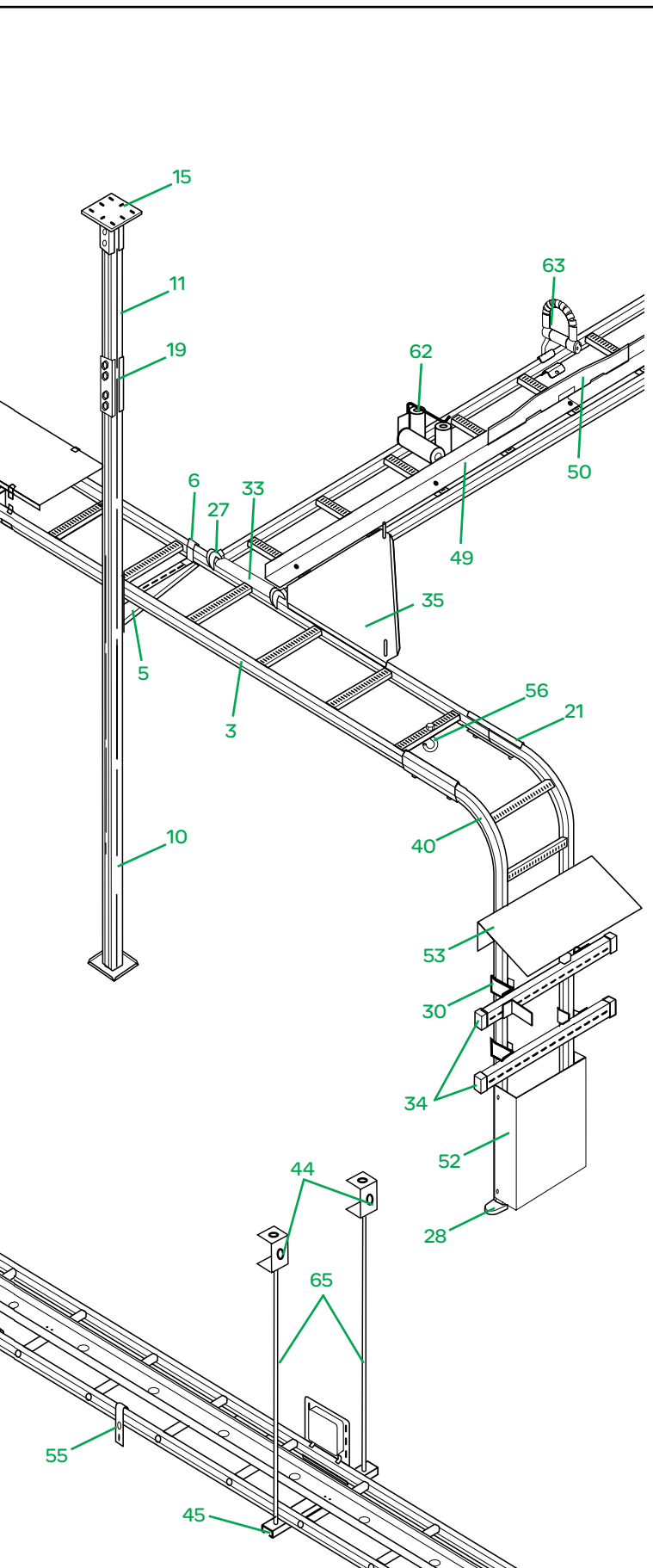
Use and installation 155

Reference number overview..... 232

Installation summary

KHZSP, KHZSPZ, KHZPS, KHZ, KHZP



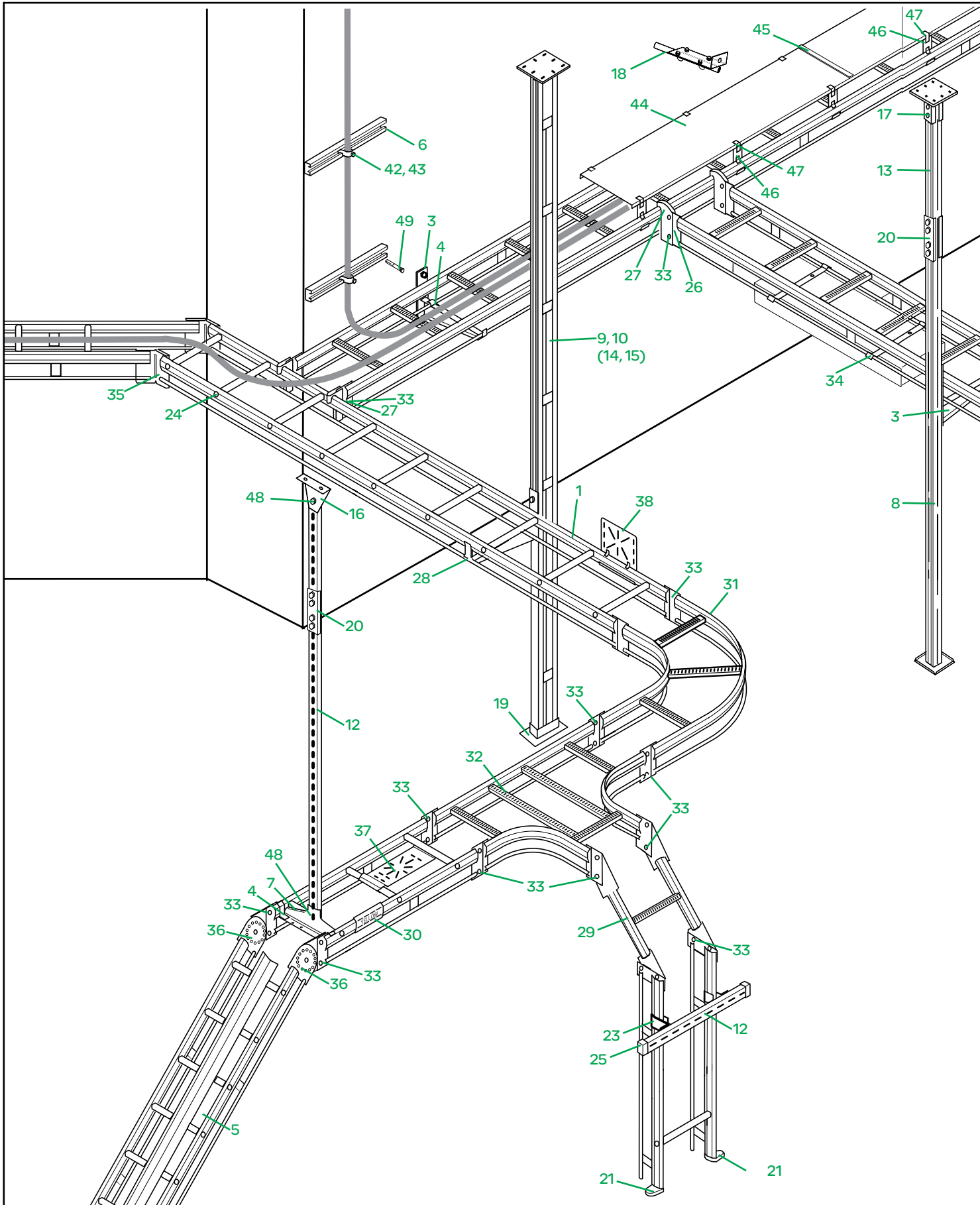


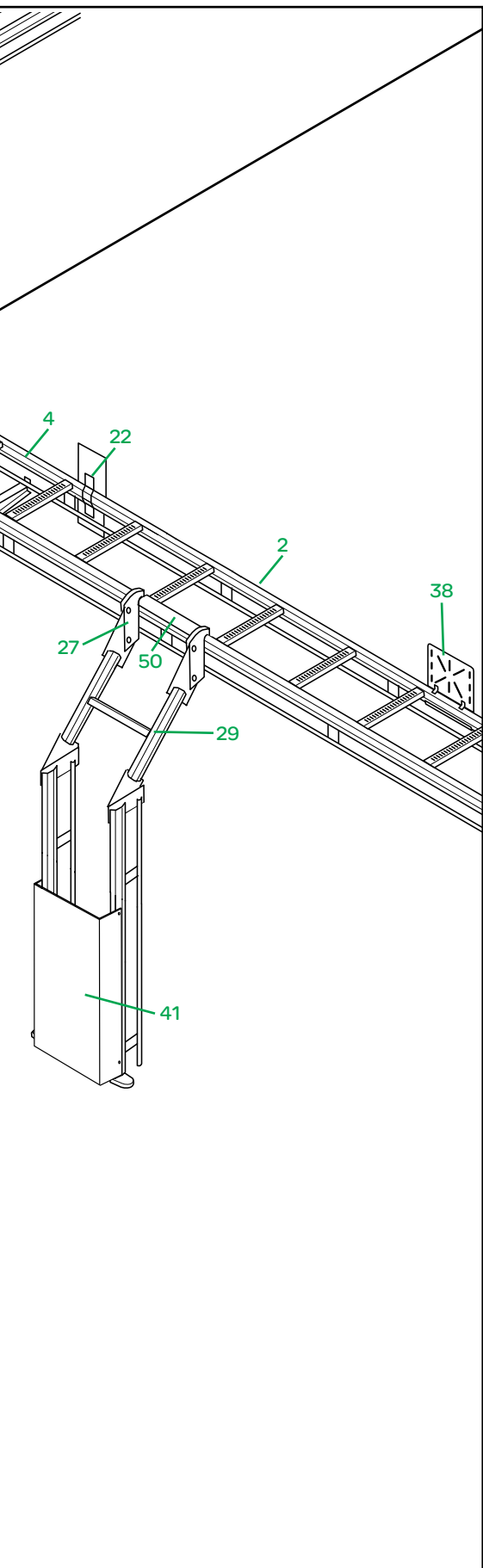
Components

- 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 Coupling 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 coupling 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

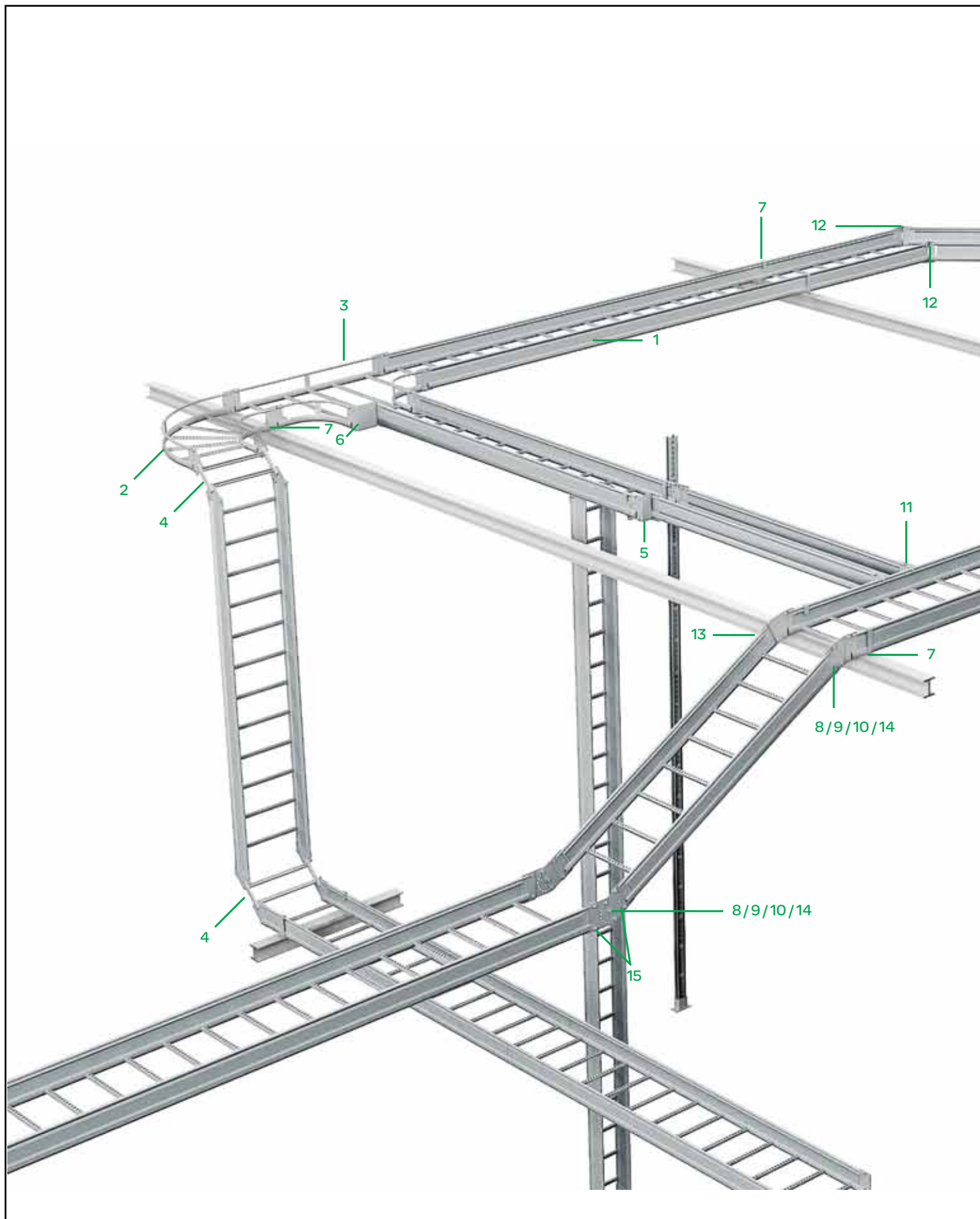
KHZV, KHZPV

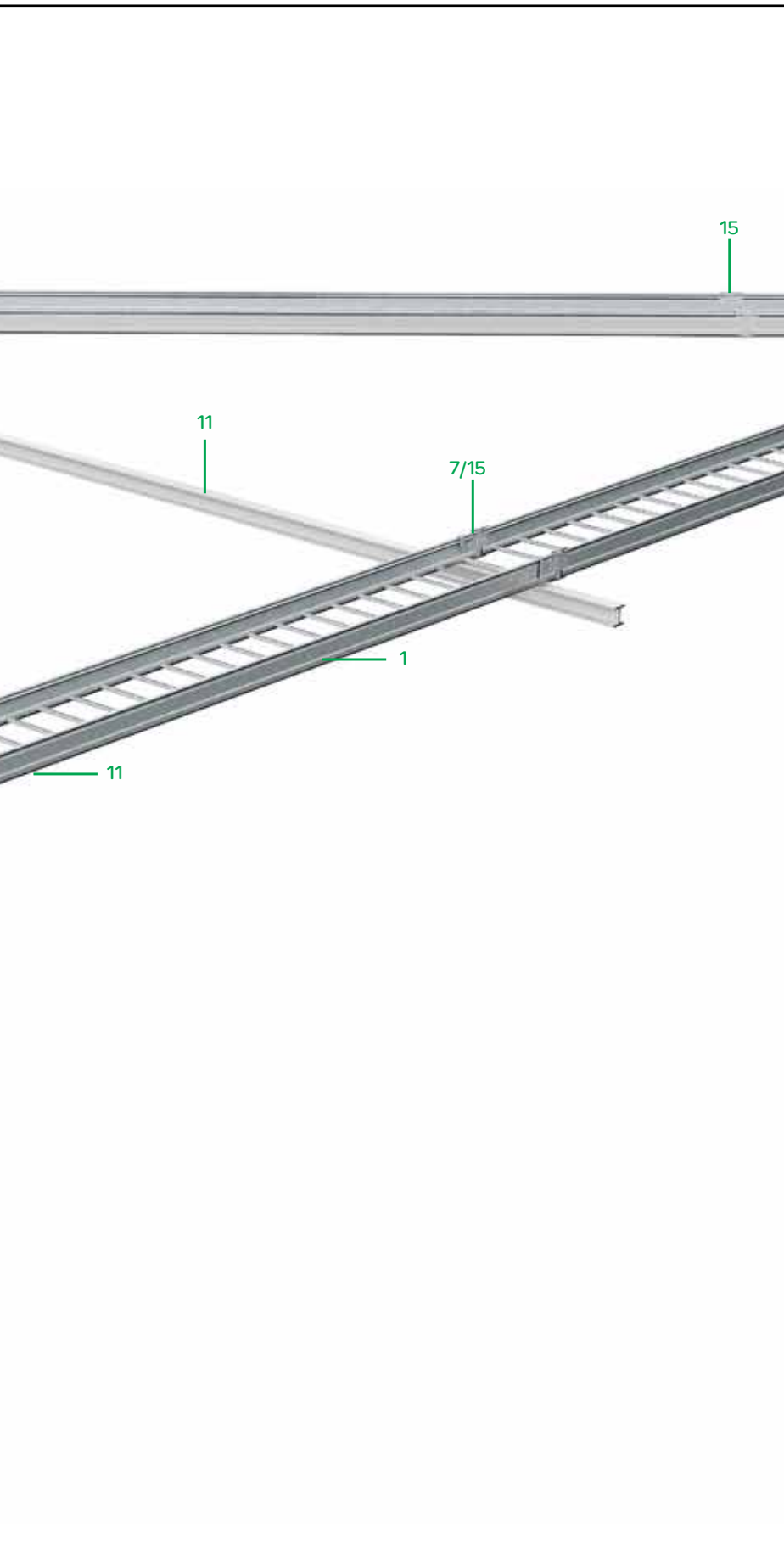




Components

- 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 coupling 49
- 30 Marking plate 93
- 31 90° bend 55
- 32 T-junction 56
- 33 Screw set M12
- 34 Lighting bracket 200
- 35 Coupling 44
- 36 Coupling 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



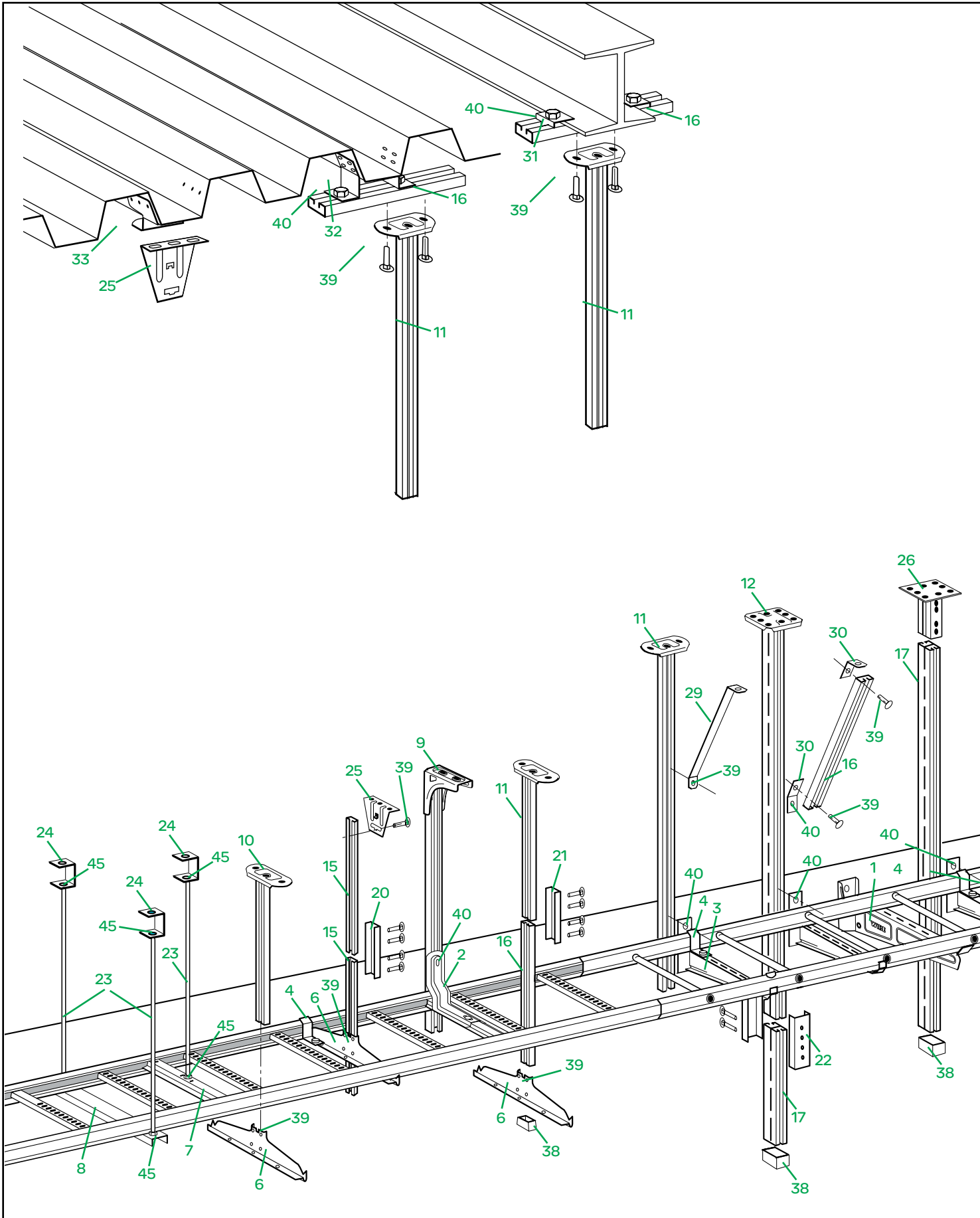


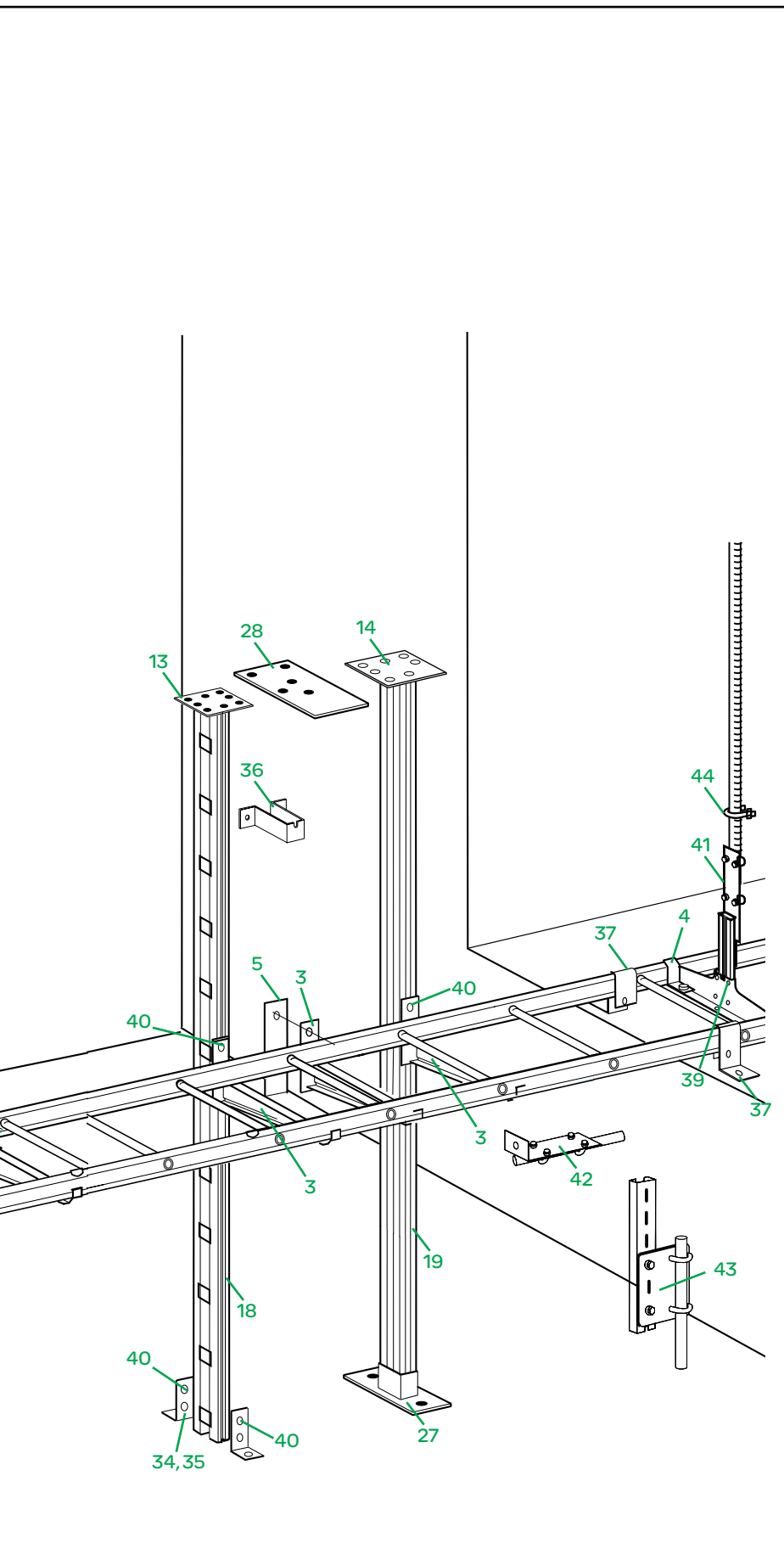
Suspension

- 1 Cable ladder
- 2 90° Bend
- 3 T-Junction
- 4 Riser
- 5 Reducer 100
- 6 Reducer 200
- 7 Profile clamp
- 8 Angle plate 60
- 9 Angle plate 45
- 10 Angle plate 30
- 11 Take-off hook
- 12 Horizontal coupling for bending
- 13 Horizontal coupling
- 14 Vertical coupling
- 15 Extension bolt set

Suspension components

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









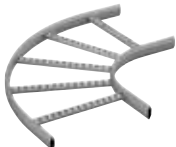







Suspension

- 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








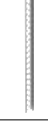




Pre- galvanized

	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	
Joints & Couplings								
Joint 21 click ZM 			CSU795050	CSU795050	CSU795050	CSU795050	CSU795050	
Joint 21 ZM 			CSU795051	CSU795051	CSU795051	CSU795051	CSU795051	
Coupling 22 			721122	721122	721122	721122	721122	
Dropper joint 32 HDG 			734713	734713	734713	734713	734713	
Junction coupling 14 			723212	723212	723212	723212	723212	
Bends								
90° Bend 15 Interior 			723061	723062	723063	723064	723065	
Wall support								
Cantilever arm 30 	CSU795240		727777	727778	727779	727780	727781	
Cantilever arm 50i/81 	CSU795240		791413	791414	791415	780162	780163	
Cantilever arm 50 HDG 	CSU795240		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
	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
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Choice guide

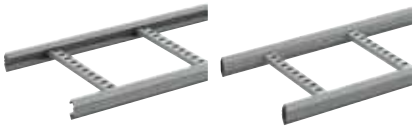



















Pre-galvanized

		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		CSU795240	M8 734983 M10 734864	727777	727778	727779	727780	727781		
Cantilever arm 50i/81		CSU795240	M8 734983 M10 734864	791413	791414	791415	780162	780163		
Cantilever arm 50 HDG		CSU795240	M8 734983 M10 734864	723434	723436	723437	723438	723439		
Support bracket 3		CSU795240	22S for VP 2/2F 20S for VP 20	721869	721870	721871	721872	721873		
Support bracket 6		721 CSU795240 121	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
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		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
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	725067	725067	725067	725067	725067	725067	725067	725067

Choice guide

Pre-galvanized





	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	
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
	725350	725351	725352	725353	725354	725355	781099	725356
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	768733	768733	768733	768733	768733	768733	768733	768733
	721114	721114	721114	721114	721114	721114	721114	721114











Choice guide

Pre-galvanized

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













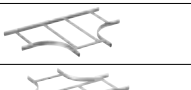
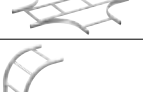
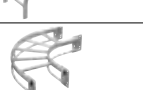







Marking identification		
Marking plate 93, Yellow		737704
Marking plate 93, Orange		737705
Marking plate 93, Blue		737706
Marking plate 93, Green		737707
Marking plate 93, Black		737708
Label Potentialutjämning, SE		786860
Label Equipotential Bonding, UK		On request
Label Potentialausgleich, DE		On request

Protection / Stop ends		
Profile protection 28P		732151
End plug 28		709019
End plug 28i		735446 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 galvanized

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=4 metres KHZSPZ										
L=6 metres KHZP/SPZ										
L=6 metres KHZPV										
Joints & Couplings										
Joint 21 click ZM				CSU795050	CSU795050	CSU795050	CSU795050	CSU795050	CSU795050	
Joint 21 ZM				CSU795051	CSU795051	CSU795051	CSU795051	CSU795051	CSU795051	
Joint 21 HDG				791199	791199	791199	791199	791199	791199	
Coupling 22				718409	718409	718409	718409	718409	718409	
Dropper joint 32 HDG				734713	734713	734713	734713	734713	734713	
Junction coupling 14				725096	725096	725096	725096	725096	725096	
Screw set M12 for KHZPV										
Coupling 44										
Coupling 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 coupling 49			2 x 706415							
Wall support										
Cantilever arm 50		CSU795241 CSU795242		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		

	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
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		731837	731837	731837	731837	731837	-	731837
		707609	707609	707609	707609	707609	-	707609
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	716179	716180	716182	716183	716184	716185	723057	723260
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	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
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	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 galvanized

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=4 metres KHZSPZ									
L=6 metres KHZP/SPZ									
L=6 metres KHZPV									
Ceiling / floor support									
Cantilever arm 50 	CSU795241 CSU795242	M8 734744 M10 716794	723434	723436	723437	723438	723439		
	707511 708001								
Cantilever arm 50F 	707511 708001	M8 734744 M10 716794							
Support bracket 3 	CSU795241 CSU795242	22S for VP 2/2F 20S for VP 20	720762	720763	720764	720765	720766		
Support bracket HSO 	CSU795241 CSU795242	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
	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
	731747	731747	731747	731747	731747	731747	731747	731747
	732983	732983	732983	732983	732983	732983	732983	732983
	731748	731748	731748	731748	731748	731748	731748	731748
	731749	731749	731749	731749	731749	731749	731749	731749
	731750	731750	731750	731750	731750	731750	731750	731750
	732264	732265	732266	732267	732268	732269	782213	732270
	781433	781434	781435	781436	781437	781438	781793	781439
	781440	781441	781442	781443	781444	781445	781796	781446
	780452	780453	780454	780455	780456	780457		
	730188	730188	730188	730188	730188	730188	730188	730188
	728584	728584	728584	728584	728584	728584	728584	728584

Choice guide

Hot-dip galvanized














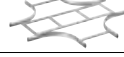








Perforated rungs

		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=4 metres KHZSPZ										
L=6 metres KHZP/SPZ										
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
	792865	792865	792865	792865	792865	792865	792865	792865
	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 galvanized 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				
Joints & Couplings				
Joint 21 click ZM				
Joint 21 ZM				
Joint 21 HDG				
Coupling 22				
Dropper joint 32 HDG				
Junction coupling 14				
Screw set M12 for KHZPV				
Coupling 44				
Coupling 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 coupling 49			2 x 706415	
Wall support				
Cantilever arm 50		CSU795241		
		CSU795242		
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 galvanized

















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				
Ceiling / floor support				
Cantilever arm 50		CSU795241 CSU795242	M8 734744 M10 716794	
		707511 708001		
Cantilever arm 50F		707511 708001	M8 734744 M10 716794	
Support bracket 3		CSU795241 CSU795242	22S for VP 2/2F 20S for VP 20	
Support bracket HSO		CSU795241 CSU795242	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
	720761	720762	720763	720764	720765	720766
	791063	791064	791065	791066	791067	791068
	717191	717191	717191	717191	717191	717191
	717192	717192	717192	717192	717192	717192
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	717196	717196	717196	717196	717196	717196
	717197	717197	717197	717197	717197	717197
	717198	717198	717198	717198	717198	717198
	CSU794202	CSU794202	CSU794202	CSU794202	CSU794202	CSU794202
	717199	717199	717199	717199	717199	717199
	CSU794203	CSU794203	CSU794203	CSU794203	CSU794203	CSU794203
	717200	717200	717200	717200	717200	717200
	CSU794204	CSU794204	CSU794204	CSU794204	CSU794204	CSU794204
	CSU794205	CSU794205	CSU794205	CSU794205	CSU794205	CSU794205
	715723	715723	715723	715723	715723	715723
	CSU794206	CSU794206	CSU794206	CSU794206	CSU794206	CSU794206
	715724	715724	715724	715724	715724	715724
	CSU794207	CSU794207	CSU794207	CSU794207	CSU794207	CSU794207
	715725	715725	715725	715725	715725	715725
	731747	731747	731747	731747	731747	731747
	732983	732983	732983	732983	732983	732983
	731748	731748	731748	731748	731748	731748
	731749	731749	731749	731749	731749	731749
	731750	731750	731750	731750	731750	731750
	732264	732265	732266	732267	732268	732269
	781433	781434	781435	781436	781437	781438
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	780452	780453	780454	780455	780456	780457
	730188	730188	730188	730188	730188	730188
	728584	728584	728584	728584	728584	728584

Choice guide








Hot-dip galvanized 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				
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 galvanized

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

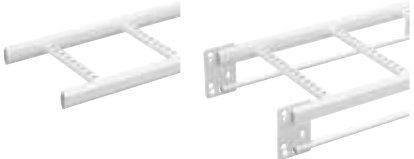










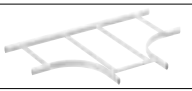









Threaded rod		
Threaded rod W76 M8 8/1000		CSU794697
Threaded rod W76 M8 8/2000		CSU734698
Flange nut M8		CSU794715
Joint nut M8		CSU794699

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		735446 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

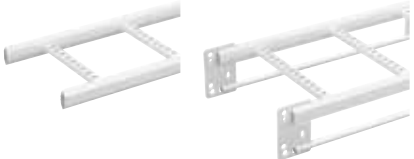











		Complementary accessories		
		Profile clamp 42, 43 Profile support piece 46	T-bolt or screw set	
Cable ladders Perforated rungs				
L=3 metres KHZP				
L=6 metres KHZP				
L=6 metres KHZPV				
Joints & Couplings				
Joint 21				
Coupling 22				
Junction coupling 14				
Dropper joint 32				
Screw set M12 for KHZPV				
Coupling 44				
Coupling 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 coupling 49			2 x 706415	
Wall support				
Cantilever arm 50		CSU795243		
		714165 714179		
Cantilever arm 50F		714165 714179		
Wall bracket 11/25				
Wall bracket 11/75				

	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 1000
	783524	783525	783526	783527	783528	783529	783530	783531
	718591	718592	718593	718594	718595	718596	728033	718597
		723390	723391	723392	723393	723394	-	716401
	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
		706415	706415	706415	706415	706415	-	706415
		720816	720816	720816	720816	720816	-	720816
		731911	731911	731911	731911	731911	-	731911
		714227	714227	714227	714227	714227	-	714227
	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
		716248	716250	716251	716252	716253	-	716254
		716262	716264	716265	716266	716267	-	716268
		716395	716396	716397	720518	716398	-	716399
	723441	723442	723444	723445	723446	723447	727783	727785
		723442	723444	723445	723446	723447	-	727785
		714021	714700	714022	718793	714023	-	714024
	713208	713208	713208	713208	713208	713208	713208	713208
	713207	713207	713207	713207	713207	713207	713207	713207

Choice guide

Zinkpox

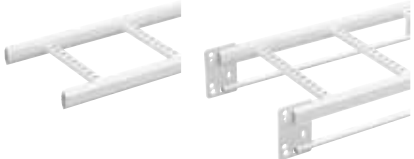











Perforated rungs

		Complementary accessories	
		Profile clamp 42, 43 Profile support piece 46	T-bolt or screw set
Cable ladders Perforated rungs			
L=3 metres KHZP			
L=6 metres KHZP			
L=6 metres KHZPV			
Ceiling / floor support			
Cantilever arm 50		CSU795243 714165 714179	M8 734744 M10 716794
Cantilever arm 50F		714165 714179	
Support bracket 3		CSU795243	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 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			

	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 1000
	783524	783525	783526	783527	783528	783529	783530	783531
	718591	718592	718593	718594	718595	718596	728033	718597
		723390	723391	723392	723393	723394	-	716401
	723441	723442	723444	723445	723446	723447	727783	727785
		723442	723444	723445	723446	723447	-	727785
		714021	714700	714022	718793	714023	-	714024
	721862	721863	721864	721865	721866	721867	-	-
	716283	716283	716283	716283	716283	716283	716283	716283
	716284	716284	716284	716284	716284	716284	716284	716284
	716285	716285	716285	716285	716285	716285	716285	716285
	716286	716286	716286	716286	716286	716286	716286	716286
	716287	716287	716287	716287	716287	716287	716287	716287
	717201	717201	717201	717201	717201	717201	717201	717201
	717202	717202	717202	717202	717202	717202	717202	717202
	717203	717203	717203	717203	717203	717203	717203	717203
	717204	717204	717204	717204	717204	717204	717204	717204
	717205	717205	717205	717205	717205	717205	717205	717205
	787277	787277	787277	787277	787277	787277	787277	787277
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	716277	716277	716277	716277	716277	716277	716277	716277
	716278	716278	716278	716278	716278	716278	716278	716278
	716279	716279	716279	716279	716279	716279	716279	716279
	716280	716280	716280	716280	716280	716280	716280	716280
	716281	716281	716281	716281	716281	716281	716281	716281
	782365	782366	782367	782368	782369	782370	782214	782371
	781751	781752	781753	781754	781755	781756	781794	781757
	781765	781766	781767	781768	781769	781770	781797	781771
	782382	782382	782382	782382	782382	782382	782382	782382
	782384	782384	782384	782384	782384	782384	782384	782384

Choice guide

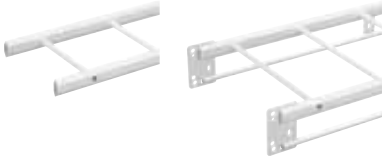








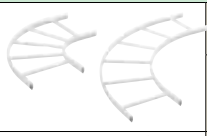









Zinkpox Perforated rungs

		Complementary accessories		
		Profile clamp 42, 43 Profile support piece 46	T-bolt or screw set	
Cable ladders Perforated rungs				
L=3 metres KHZP				
L=6 metres KHZP				
L=6 metres KHZPV				
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				
Take-off hook 47				
Accessories holder				
Junction box plate 35S				
Junction box plate 35P				
Cabling support				
Profile protection 28P				
Angle plate 33/2				

	KHZZP 150	KHZZP 200	KHZZP 300	KHZZP 400	KHZZP 500	KHZZP 600	KHZZP 800	KHZZP 1000
		KHZZPV 200	KHZZPV 300	KHZZPV 400	KHZZPV 500	KHZZPV 600		KHZZPV 1000
	783524	783525	783526	783527	783528	783529	783530	783531
	718591	718592	718593	718594	718595	718596	728033	718597
		723390	723391	723392	723393	723394	-	716401
	721945	721945	721945	721945	721945	721945	721945	721945
	731792	731792	731792	731792	731792	731792	731792	731792
	720529	720529	720529	720529	720529	720529	720529	720529
	792863	792863	792863	792863	792863	792863	792863	792863
	792865	792865	792865	792865	792865	792865	792865	792865
	792867	792867	792867	792867	792867	792867	792867	792867
		791401	791401	791401	791401	791401	-	791401
	731746	731746	731746	731746	731746	731746	731746	731746
	731745	731745	731745	731745	731745	731745	731745	731745
	732151	732151	732151	732151	732151	732151	732151	732151
	714168	714168	714168	714168	714168	714168	714168	714168

Choice guide

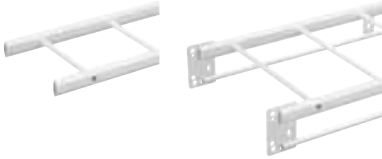











Zinkpox Round rungs

		Complementary accessories		
		Profile clamp 42, 43 Profile support piece 46	T-bolt or screw set	
Cable ladders Round rungs				
L=6 metres KHZ				
L=6 metres KHZV				
Joints & Couplings				
Joint 21				
Coupling 22				
Junction coupling 14				
Dropper joint 32				
Screw set M12 for KHZPV				
Coupling 44				
Coupling 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 coupling 49				
Wall support				
Cantilever arm 50		CSU795243		
		714165 714179		
Cantilever arm 50F		714165 714179		
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
	714058	714059	714061	714062	714063	714064
		714198	714200	714202	714201	714203
	791200	791200	791200	791200	791200	791200
	718410	718410	718410	718410	718410	718410
	790906	790906	790906	790906	790906	790906
	780874	780874	780874	780874	780874	780874
		706415	706415	706415	706415	706415
		720816	720816	720816	720816	720816
		731911	731911	731911	731911	731911
		714227	714227	714227	714227	714227
	716074	716075	716077	716078	716079	716080
	716186	716187	716189	716190	716191	716192
	716201	716202	716204	716205	716206	716207
	716217	716218	716220	716221	716222	716223
	718184	718185	718187	718188	718189	718190
		716248	716250	716251	716252	716253
		716262	716264	716265	716266	716267
		716395	716396	716397	720518	716398
	723441	734442	723444	723445	723446	723447
		723442	723444	723445	723446	723447
		714021	714700	714022	718793	714023
	713208	713208	713208	713208	713208	713208
	713207	713207	713207	713207	713207	713207

Choice guide

Zinkpox Round rungs

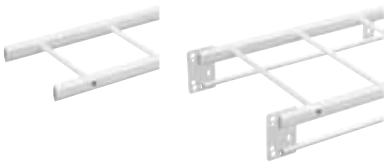











		Complementary accessories		
		Profile clamp 42, 43 Profile support piece 46	T-bolt or screw set	
Cable ladders Round rungs				
L=6 meters KHZ				
L=6 metres KHZV				
Ceiling / floor support				
Cantilever arm 50		CSU795243 714165 714179	M8 734744 M10 716794	
Cantilever arm 50F		714165 714179		
Support bracket 3		CSU795243	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
	KHZV 150	KHZV 200	KHZV 300	KHZV 400	KHZV 500	KHZV 600
	714058	714059	714061	714062	714063	714064
		714198	714200	714202	714201	714203
	723441	723442	723444	723445	723446	723447
		723442	723444	723445	723446	723447
		714021	714700	714022	718793	714023
	721862	721863	721864	721865	721866	721867
	716283	716283	716283	716283	716283	716283
	716284	716284	716284	716284	716284	716284
	716285	716285	716285	716285	716285	716285
	716286	716286	716286	716286	716286	716286
	716287	716287	716287	716287	716287	716287
	717201	717201	717201	717201	717201	717201
	717202	717202	717202	717202	717202	717202
	717203	717203	717203	717203	717203	717203
	717204	717204	717204	717204	717204	717204
	717205	717205	717205	717205	717205	717205
	787277	787277	787277	787277	787277	787277
	716276	716276	716276	716276	716276	716276
	716277	716277	716277	716277	716277	716277
	716278	716278	716278	716278	716278	716278
	716279	716279	716279	716279	716279	716279
	716280	716280	716280	716280	716280	716280
	716281	716281	716281	716281	716281	716281
	782365	782366	782367	782368	782369	782370
	781751	781752	781753	781754	781755	781756
	781765	781766	781767	781768	781769	781770
	782382	782382	782382	782382	782382	782382
	782384	782384	782384	782384	782384	782384

Choice guide

Zinkpox

Round rungs




		Complementary accessories		
		Profile clamp 42, 43 Profile support piece 46	T-bolt or screw set	
Cable ladders Round rungs				
L=6 metres KHZ				
L=6 metres KHZV				
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				
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
	714058	714059	714061	714062	714063	714064
		714198	714200	714202	714201	714203
	721945	721945	721945	721945	721945	721945
	731792	731792	731792	731792	731792	731792
	720529	720529	720529	720529	720529	720529
	792863	792863	792863	792863	792863	792863
	792865	792865	792865	792865	792865	792865
	792867	792867	792867	792867	792867	792867
		791401	791401	791401	791401	791401
	731746	731746	731746	731746	731746	731746
	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












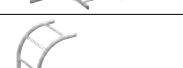







Threaded rod		
Threaded rod B41 M8 316L 1000 mm		1149551
Threaded rod B41 M8 316L 2000 mm		1149552
Threaded rod B41 M10 316L 1000 mm		1149561
Threaded rod B41 M10 316L 2000 mm		1149562
Flange nut B43 M8		1149554
Flange nut B43 M10		1149564
Joint nut B42/M8		1149555
Joint nut B42/M10		1149565

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		735446 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	T-bolt or screw set							
		Profile clamp 43		Profile support piece 46						
Cable ladders										
L=3 metres KHZSP				CSU794439	CSU794440	CSU794441	CSU794442	CSU794443		
L=6 metres KHZSP/KHZP				CSU794445	CSU794446	CSU794447	CSU794448	CSU794449		
L=6 metres KHZPV										
Joints & Couplings										
Joint 21				725751	725751	725751	725751	725751		
Coupling 22				725760	725760	725760	725760	725760		
Junction coupling 14				727195	727195	727195	727195	727195		
Screw set M12 for KHZPV										
Coupling 44										
Coupling 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 coupling 49			2 x 728767							
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		

	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
	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	T-bolt or screw set						
		Profile clamp 43		Profile support piece 46					
Cable ladders									
L=3 metres KHZSP				CSU794439	CSU794440	CSU794441	CSU794442	CSU794443	
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	
Vertical piece 2-400				725558	725558	725558	725558	725558	
Vertical piece 2-500				725559	725559	725559	725559	725559	
Vertical piece 2-700				725560	725560	725560	725560	725560	
Vertical piece 2-1000				725561	725561	725561	725561	725561	
Vertical piece 2F-280				725562	725562	725562	725562	725562	
Vertical piece 2F-370				725563	725563	725563	725563	725563	
Vertical piece 2F-505				725564	725564	725564	725564	725564	
Vertical piece 2F-730				725565	725565	725565	725565	725565	
Vertical piece 2F-1000				725566	725566	725566	725566	725566	
Vertical piece 2F-1500			725568	725568	725568	725568	725568		
Vertical piece 20-500				725567	725567	725567	725567	725567	
Vertical piece 20-700				725568	725568	725568	725568	725568	
Vertical piece 20-1000				725569	725569	725569	725569	725569	
Vertical piece 20-1500				725570	725570	725570	725570	725570	
Vertical piece 20-2000				725571	725571	725571	725571	725571	
Vertical piece 20-3000			725572	725572	725572	725572	725572		
Dividers									
Dividing strip 39/24			W34	725593	725593	725593	725593	725593	
Dividing strip 39/55			W34	725594	725594	725594	725594	725594	
Tele-conduit 36-50				725590	725590	725590	725590	725590	
Tele-conduit 36-100			W34	725591	725591	725591	725591	725591	
Tele-conduit 39-200				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	
Cover clamp				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
	727382	727383	727384	727385	727386	727387	782128	782129
		784066	784067	784068	784069	784070	784071	784072
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		725620	725622	725623	725624	725625		
	726433	726434	726435	726436	726437	726438		
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	725593	725593	725593	725593	725593	725593	725593	725593
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	788639	788640	788641	788642	788643	788644	788645	788646
	788647	788648	788649	788650	788651	788652	788653	788654
	730190	730190	730190	730190	730190	730190	730190	730190
	728586	728586	728586	728586	728586	728586	728586	728586

Choice guide





Stainless steel AISI 316L




		Complementary accessories		KHZSP 200	KHZSP 300	KHZSP 400	KHZSPZ 500	KHZSP 600		
		Profile clamp 42	T-bolt or screw set							
		Profile clamp 43		Profile support piece 46						
Cable ladders										
L=3 metres KHZSP				CSU794439	CSU794440	CSU794441	CSU794442	CSU794443		
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		



	KHZZP 150	KHZZP 200	KHZZP 300	KHZZP 400	KHZZP 500	KHZZP 600	KHZZP 800	KHZZP 1000
		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
	1149359	1149359	1149359	1149359	1149359	1149359	1149359	1149359
	1149391	1149391	1149391	1149391	1149391	1149391	1149391	1149391
	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
		792875	792875	792875	792875	792875	792875	792875
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	732151	732151	732151	732151	732151	732151	732151	732151
	727340	727340	727340	727340	727340	727340	727340	727340
	727197	727197	727197	727197	727197	727197	727197	727197





Choice guide

Stainless steel AISI 316L

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 B42/M8		1149555
Joint nut B42/M10		1149565

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		735446 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-galvanized

Corrosion class C2

Cable ladders

P140324



Type	Dimensions A/B/C mm	Weight kg/100 m	EAN code	Ref. No.
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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-galvanized.

KHZSP-200	55/198/3000	198	7321677831555	783155
	55/198/4000		7321677185726	718572
	55/198/6000		7321677344888	734488
KHZSP-300	55/298/3000	217	7321677831562	783156
	55/298/4000		7321677185733	718573
	55/298/6000		7321677344895	734489
KHZSP-400	55/398/3000	237	7321677831579	783157
	55/398/4000		7321677185740	718574
	55/398/6000		7321677344901	734490
KHZSP-500	55/498/3000	257	7321677831586	783158
	55/498/4000		7321677185757	718575
	55/498/6000		7321677344918	734491
KHZSP-600	55/598/3000	277	7321677831593	783159
	55/598/4000		7321677185764	718576
	55/598/6000		7321677344925	734492

P140330



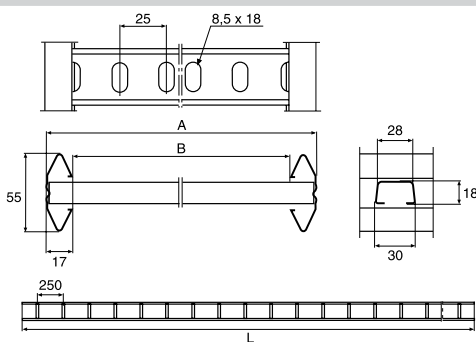
Cable ladders KHZPS

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-galvanized.

KHZPS-150	55/147/6000	225	7321677253500	725350
KHZPS-200	55/197/6000	235	7321677253517	725351
KHZPS-300	55/297/6000	255	7321677253524	725352
KHZPS-400	55/397/6000	275	7321677253531	725353
KHZPS-500	55/497/6000	300	7321677253548	725354
KHZPS-600	55/597/6000	315	7321677253555	725355
KHZPS-800	55/797/6000	410	7321677810994	781099
KHZPS-1000	55/997/6000	490	7321677253562	725356

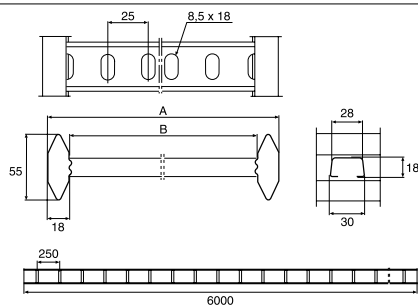
Dimension table

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
Type	A mm	B mm	L mm	Ref. No.
KHZSP-200	198	164	3000	783155
			4000	718572
			6000	734488
KHZSP-300	298	264	3000	783156
			4000	718573
			6000	734489
KHZSP-400	398	364	3000	783157
			4000	718574
			6000	734490
KHZSP-500	498	464	3000	783158
			4000	718575
			6000	734491
KHZSP-600	598	564	3000	783159
			4000	718576
			6000	734492

B223075



KHZPS-150	147	111	6000	725350
KHZPS-200	197	161	6000	725351
KHZPS-300	297	261	6000	725352
KHZPS-400	397	361	6000	725353
KHZPS-500	497	461	6000	725354
KHZPS-600	597	561	6000	725355
KHZPS-800	797	761	6000	781099
KHZPS-1000	997	961	6000	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.					
P140020	21 ZM	64/22/300		46	3606480574856	CSU795051
	Joint 21					
	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.					
P139854	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-galvanized.					
P140338	9	52/4/200		16	7321677211159	721115

Couplings

	Coupling 22					
	Coupling to be used for horizontal or vertical branches at any desired angle. M6 screws included. Material: Steel, pre-galvanized.					
P140337	22	60/24/150		21	7321677211227	721122
	Junction coupling 14					
	Junction coupling 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-galvanized.					
P140338	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-galvanized.					
P151014	42	55/55/30		65,5	3606485410326	CSU795240
	Profile clamp 42 for fire resistance installations E30 - E90					
	Profile clamp fire resistant certified according to DIN 4102-12. Classification E30 - E90. Specifically to be used to fix the cable ladder KHZPS to cantilever arm 50 or support bracket HSO in fire resistant certified installation configurations. Screw M8 and nut included. Material: Steel, pre-galvanized.					
P140339	42	54/57/30		65,5	3606485410319	CSU795239
	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-galvanized.					
P140340	41	125/16/30		10	7321677253630	725363

Cantilever arms

	Cantilever arm 30					
	Cantilever arm for installation inside cable ladder KHZSP. Material: Steel, pre-galvanized.					
	30-200	185/184/80		90	7321677277773	727777
	30-300	185/284/80		110	7321677277780	727778
	30-400	185/384/80		120	7321677277797	727779
	30-500	185/484/80		140	7321677277803	727780
	30-600	185/584/80		160	7321677277810	727781

Wall and support brackets

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
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-galvanized.					
50i-200	85/250/43		29	7321677914135	791413
50i-300	110/350/43		46	7321677914142	791414
50i-400	115/450/44		83	7321677914159	791415
81-500	150/568/40		100	7321677801626	780162
81-600	150/658/40		140	7321677801633	780163
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-galvanized.					
11/25	85/71/40		24	7321677211050	721105
11/75	135/71/40		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-galvanized.					
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-galvanized.					
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-galvanized.					
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-galvanized.					
24/34	293/16/42		23	7321677253579	725357
24/34	383/16/42		31	7321677253586	725358
24/34	495/16/42		40	7321677253593	725359
24/34	698/16/42		56	7321677253609	725360
24/34	990/16/42		80	7321677253616	725361
24/34	2970/16/42		240	7321677211029	721102

Pendant bars

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Pendant/Fixing rail 24/48					
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc. Material: Steel, pre-galvanized.					
24/48	2970/26/48		520	7321677317172	731717
24/48	5940/26/48		1120	7321677317219	731721
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-galvanized.					
1-300	362/-/40		35	7321677927272	792727
1-500	568/-/40		53	7321677927289	792728
1-800	880/-/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-galvanized.					
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-galvanized.					
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-galvanized.					
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-galvanized.					
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-galvanized.					
2Fi	131/134/54		50	7321677925544	792554

Wall support for mounting of cantilever arm on porous walls or sandwich wall blocks, with six keyholes for easy fixation. When mounting cantilever arm on support, use screw set 25S (M8). Material: Steel, pre-galvanized.					
Wall support 550 mm	20/100/550		105	3606485405476	CSU795220
Wall support 550 mm white	20/100/550		107	3606485405469	CSU795221

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-galvanized.					
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

Threaded rod

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
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-galvanized.					
B43/M8	17/17/8		0.68	7321677888474	1149405
B43/M10	20/20/15		1.12	7332227014649	1149464
Thread lock B50					
Thread lock to be used when joining Threaded rods. Material: Steel, electro-galvanized.					
B50/M8	10/20/35		1	7332227014564	1149456
B50/M10	12/24/35		2	7332227014663	1149466

Take-off hook, end connection

Fixed take-off hook 4					
Fixed take-off hook to be used for 90° horizontal branches. Material: Aluminium.					
4	71/19/86		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-galvanized.					
B21	250/50/20		44	7332227011594	1149159
B21 90 degrees	120/50/135		44	7332227011914	1149191

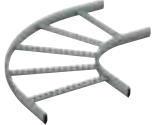
Installation and box plates

Installation plate 61					
Installation plate to be used on vertical cable ladder installations for mounting of terminal boxes, contact breakers, etc. Material: Steel, pre-galvanized.					
61-200	310/70/200		100	7321677324866	732486
61-300	310/70/300		140	7321677324873	732487
61-400	310/70/400		170	7321677324880	732488
61-500	310/70/500		240	7321677324897	732489
61-600	310/70/600		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-galvanized.					
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-galvanized.					
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-galvanized.					
62-100	100/15/130		12	7321677834600	783460
62-200	200/15/130		24	7321677834617	783461


Outlet and junction box sets

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Outlet					
Outlet, 2-way, enclosed IP44, mounted on a Junction box plate 35S. Material: Steel, pre-galvanized.					
P132522 	35S	164/64/170	35	7321677342259	734225
Outlet, 2-way, unenclosed IP21, mounted on a Junction box plate 35S. Material: Steel, pre-galvanized.					
P132523 	35S	164/58/170	33	7321677342266	734226
Junction box					
Junction box, IP65, mounted on a Junction box plate 35S. Material: Steel, pre-galvanized.					
P132521 	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-galvanized.					
B22322 	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-galvanized.					
P140354 	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-galvanized.					
P140355 	36-50	24/50/2000	94	7321677250653	725065
	36-100	24/100/2000	142	7321677250660	725066
	36-200	24/200/2000	238	7321677250677	725067

Dividers


Dividing strip 39					
Dividing strip to be used to separate low-tension and high-tension cables. Material: Steel, pre-galvanized.					
P140356 	39/24	24/24/1750	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.					
P140044 	W39	37/-/330	3	7321677168248	716824

Steel cable ladders

Pre-galvanized

Corrosion class C2

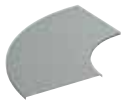
Covers/Cover plates

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
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-galvanized.					
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
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-galvanized.					
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-galvanized.					
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-galvanized.					
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-galvanized.					
Cover clamp	32/10.5/20		1.5	7321677126682	712668
Cover joint					
Cover joint to be inserted between covers. Material: Steel, pre-galvanized.					
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

P140357



P140358



P140359



P140360




P140361



P140362



Covers/Cover plates

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
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-galvanized.					
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-galvanized.					
65-200	1000/120/200		930	7321677324750	732475
65-300	1000/120/300		1140	7321677324767	732476
65-400	1000/120/400		1350	7321677324774	732477
65-500	1000/120/500		1560	7321677324781	732478
65-600	1000/120/600		1780	7321677324798	732479


Angle plates

Angle plate 33					
Angle plate to be used together with 90° horizontal T-junctions. Recommended for all cable ladders. Material: Steel, pre-galvanized.					
33/1	28/150/290		50	7321677687336	768733
33/2	25/195/490		90	7321677211142	721114

Clamps A and R with accessories

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-galvanized.					
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
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-galvanized.					
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

Clamps A and R with accessories

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Cable clamp type R					
Cable clamp for fastening of one cable on cable ladders KHZ and KHZV, in combination with Insert piece EM. Material: Steel, pre-galvanized.					
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
Cable clamp for fastening of two cables on cable ladders KHZ and KHZV, in combination with Insert piece EM. Material: Steel, pre-galvanized.					
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
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-galvanized.					
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-galvanized.					
HT-33	19.5/15/25		1	7321677136742	713674
HT-34	43.5/15/25		2	7321677136759	713675

Installation system HT

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

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			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

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

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

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-galvanized.					
	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 roll)	375/160/460	710	7321677801879	780187
Demo kit					
Wibe ladder demo kit consisting of: KHZ 150 HDG L=0,35m, KHZP 150 HDG L=0,35m, KHZSP 200 pre-galv L=0,35m, cantilever arm 50 150 HDG, cantilever arm 50i 200, joint 21 click, coupler 22 HDG, VP 2F /280, end plug 28E, end plug 28, end plug 28i, T-bolt M10-30 HDG, profile clamp 42 HDG, wall bracket 11/25, angle bracket 5L, take off hook 4. Material: Steel					
	Wibe Ladder Demo Kit	290/375/580	640	3606480738401	CSU795180
Demo kit, length material					
Wibe ladder length material demo kit consisting of: KHZ 150 HDG, KHZP 150 HDG, KHZSP 200 pre-galv, KHZ 150 zinkpox, KHZSP 200 316L, KHZP 150 316L. Lengths = 0,35 m each. Material: Steel					
	Wibe Ladder Demo kit Length Material	290/375/580	640	3606480738418	CSU795181

Steel cable ladders

Hot-dip galvanized
Corrosion class C3, C4

Cable ladders

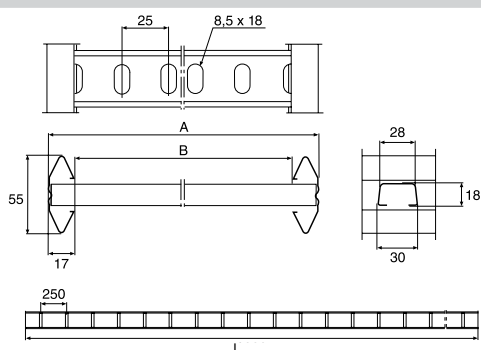
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Type	Dimensions A/B/C mm	Weight kg/100 m	EAN code	Ref. No.
Cable ladders KHZSPZ				
Cable ladder for indoor or outdoor industrial applications. With open side profiles and profile-shaped rungs. Must not be used as walkway. Material: Steel, hot-dip galvanized.				
KHZSPZ-200	55/198/4000	200	7321677239047	723904
	55/198/6000		7321677344949	734494
KHZSPZ-300	55/298/4000	220	7321677239054	723905
	55/298/6000		7321677344956	734495
KHZSPZ-400	55/398/4000	240	7321677239061	723906
	55/398/6000		7321677344963	734496
KHZSPZ-500	55/498/4000	260	7321677239078	723907
	55/498/6000		7321677344970	734497
KHZSPZ-600	55/598/4000	280	7321677239085	723908
	55/598/6000		7321677344987	734498

Dimension table

B223678



Type	A mm	B mm	L mm	Ref. No.
KHZSPZ-200	198	164	4000	723904
			6000	734494
KHZSPZ-300	298	264	4000	723905
			6000	734495
KHZSPZ-400	398	364	4000	723906
			6000	734496
KHZSPZ-500	498	464	4000	723907
			6000	734497
KHZSPZ-600	598	564	4000	723908
			6000	734498

Steel cable ladders

Hot-dip galvanized
Corrosion class C3, C4

Cable ladders

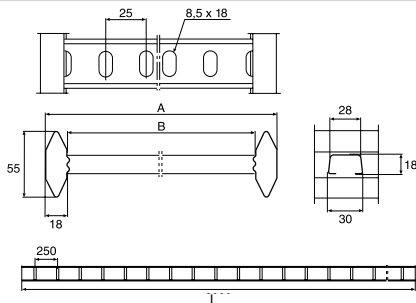
P139625



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 galvanized.				
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

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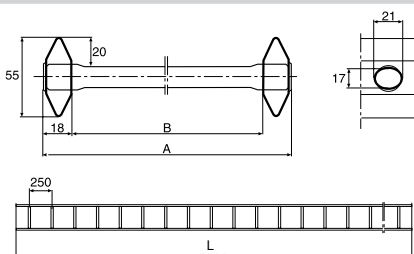
Type	A mm	B mm	L mm	Ref. No.
KHZP-150	147	111	3000 6000	783516 718562
KHZP-200	197	161	3000 6000	783517 718563
KHZP-300	297	261	3000 6000	783518 718564
KHZP-400	397	361	3000 6000	783519 718565
KHZP-500	497	461	3000 6000	783520 718566
KHZP-600	597	561	3000 6000	783521 718567
KHZP-800	797	761	3000 6000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

Cable ladders

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, hot-dip galvanized.				
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 galvanized.				
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

Dimension table

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



Steel cable ladders

Hot-dip galvanized
Corrosion class C3, C4

Cable ladders

P139646



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 galvanized.

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

P139651



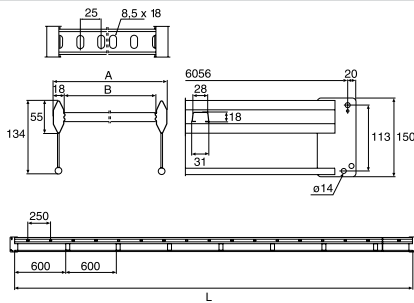
Cable ladders KHZV

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 galvanized.

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

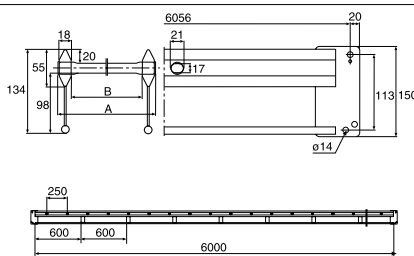
Dimension table

B224376



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

B224553



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

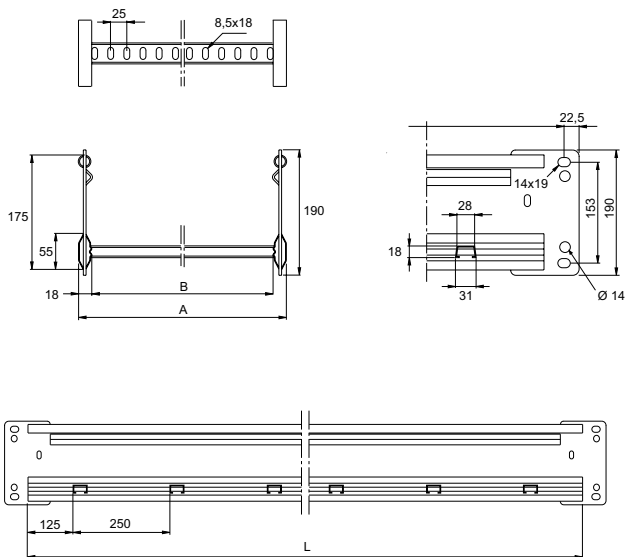
Cable ladders

P143117



Type	Dimensions A/B/C mm	Weight kg/100 m	EAN code	Ref. No.
Cable ladders KHZP 20C				
Reinforced cable ladder for indoor or outdoor industrial applications. Designed for extreme support distances and loadings. Fullfills NEMA 20C classification. With closed side profiles and profile-shaped rungs. Must not be used as a connection walkway. Material: Steel, hot-dip galvanized.				
KHZP 20C-200	190/200/6100	867	3606480739224	CSU795138
KHZP 20C-300	190/300/6100	900	3606480739231	CSU795139
KHZP 20C-400	190/400/6100	933	3606480739248	CSU795140
KHZP 20C-500	190/500/6100	967	3606480739255	CSU795141
KHZP 20C-600	190/600/6100	1000	3606480739262	CSU795142
KHZP 20C-800	190/600/6100	1033	3606480739279	CSU795143
KHZP 20C-1000	190/1000/6100	1067	3606480739286	CSU795144








Dimension table




Type	A mm	B mm	L mm	Ref. No.
KHZP 20C-200	197	161	6000	CSU795138
KHZP 20C-300	297	261	6000	CSU795139
KHZP 20C-400	397	361	6000	CSU795140
KHZP 20C-500	497	461	6000	CSU795141
KHZP 20C-600	597	561	6000	CSU795142
KHZP 20C-800	797	761	6000	CSU795143
KHZP 20C-1000	997	961	6000	CSU795144

Steel cable ladders

Hot-dip galvanized
Corrosion class C3, C4

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: Steel, hot-dip galvanized.						
P140020 	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.						
P140020 	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.						
P139654 	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 galvanized.						
P139917 	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 galvanized.						
P139618 	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 galvanized.						
P139919 	45	150/4/95	50	7321677076093	707609	

Couplings

	Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
P139656	Coupling 22	Coupling to be used for horizontal or vertical branches at any desired angle. M6 screws included. Material: Steel, hot-dip galvanized.				
	22	60/24/150		21	7321677184095	718409
P139620	Junction coupling 14	Junction coupling 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 galvanized.				
	14	65/73/350		49	7321677250967	725096
P139921	Coupling 44	Coupling to be used for horizontal coupling 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 galvanized.				
	44	135/-/120		50	7321677208159	720815
P143850	Horizontal coupling for bending 20C	Coupling to be used for horizontal connection of cable ladders KHZP 20C range. 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 galvanized.				
	For Bending 20C	180/15/120		55	3606480739583	CSU795210
P143851	Horizontal coupling 20C	Coupling to be used for horizontal connection of cable ladders KHZP 20C range. Four screws M8x30 and nuts are included. Material: Steel, hot-dip galvanized.				
	20C	180/15/120		94	3606480739590	CSU795211
P139922	Coupling 51	Coupling to be used as a self-supporting vertical coupling of cable ladders KHZV/KHZPV. Two screws M12 and nuts are included. Material: Steel, hot-dip galvanized.				
	51	150/-/193+138		150	7321677318377	731837
P143852	Vertical coupling	Coupling to be used as a self-supporting vertical coupling of cable ladders KHZP 20C range. Adjustable from 10° to 90° gradually in steps of 20°. Two screws M12 and nuts are included. Material: Steel, hot-dip galvanized.				
	20C	190/4/250		221	3606480739538	CSU795205

Clamps, support piece

P151015	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 galvanized.				
	42	55/55/30		67	3606485410340	CSU795242
P151014		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, Zinc+.				
	42 Zinc+	55/55/30		66	3606485410333	CSU795241
P139924	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 galvanized.				
	43	21/43/30		5	7321677075119	707511
P139925 P139926	Clamp 12	Clamp to be used on the side profile of the cable ladder for installation of accessories. Bolt and nut included. Material: Steel, hot-dip galvanized.				
	12/70	125/25/40		19	7321677286539	728653
	12/120	175/25/40		24	7321677286546	728654


Clamps, support piece

Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Profile clamp 20C				
Profile clamp for KHZP 20 range to be used for installations where the cable ladder is to be fixed to cantilever arms, I-beams, etc. Material: Steel, hot-dip galvanized.				
20C	190/57/40	26	3606480739521	CSU795168
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 galvanized.				
41	125/16/30	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 galvanized.				
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 galvanized.				
50L-100	85/150/40	24	7321677251056	725105
50L-150	85/200/40	28	7321677251063	725106
50L-200	85/250/40	34	7321677251070	725107
50L-250	105/298/40	46	7321677251087	725108
50L-300	105/348/40	54	7321677251094	725109
50L-400	120/447/50	103	7321677251100	725110
50L-500	140/548/50	160	7321677251117	725111
50L-600	150/646/50	191	7321677251124	725112
50-100	85/150/40	24	7321677234325	723432
50-150	85/200/40	28	7321677234332	723433
50-200	85/250/40	34	7321677234349	723434
50-250	105/300/40	52	7321677234356	723435
50-300	105/350/40	60	7321677234363	723436
50-400	120/450/50	228	7321677234370	723437
50-500	140/550/50	172	7321677234387	723438
50-600	150/650/50	215	7321677234394	723439
50-700	150/750/50	270	7321677271252	727125
50-800	160/850/50	310	7321677271269	727126
50-900	160/950/50	350	7321677271276	727127
50-1000	170/1050/50	390	7321677271283	727128
50F-200	148/245/50	95	7321677186242	718624
50F-300	175/345/50	125	7321677186259	718625
50F-400	175/445/50	170	7321677186266	718626
50F-500	180/547/50	220	7321677186273	718627
50F-600	180/647/50	250	7321677186280	718628
50F-1000	240/1052/60	770	7321677124657	712465

Wall and support brackets

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 galvanized.				
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
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 galvanized.				
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
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 galvanized.				
HSO M16	5/50/50	8.7	7321677910922	791092
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 galvanized.				
11/25	85/71/40	24	7321677132041	713204
11/75	135/71/40	30	7321677132034	713203
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 galvanized.				
20	50/59/154	47	7321677234509	723450
Wall bracket 20F				
Wall bracket to be used at installation of Pendant/fixing rail 20F to ceiling beam or wall. Material: Steel, hot-dip galvanized.				
20F	50/93/150	69	7321677234516	723451

P139628



P139631



P140025



P139632



P139634



P139635



P139636



Steel cable ladders

Hot-dip galvanized

Corrosion class C3, C4

Vertical pieces

P 139637



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, hot-dip galvanized.

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

P 139638



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 galvanized.

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

P 139642



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 galvanized.

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

P 139643

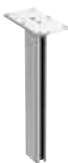


Vertical piece 20F

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

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

P 139644




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 galvanized.

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

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 galvanized.					
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 galvanized.					
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 galvanized.					
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 galvanized.					
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 galvanized.					
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 galvanized.					
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 galvanized.					
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 galvanized.					
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 galvanized.					
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 galvanized.					
1-300	362/-/40		35	7321677176403	717640
1-500	568/-/40		53	7321677176410	717641
1-800	880/-/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 galvanized.					
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 galvanized.					
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 galvanized.					
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 galvanized.					
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 galvanized.					
60/40	95/23/40		10	7321677189045	718904

Brackets

	Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
P139957	Rod bracket 82				
	Rod bracket to be used together with Cantilever arm 50, in combination with threaded rod support. Material: Steel, hot-dip galvanized.				
	82	60/158/43	360	7321677867684	786768

Pendant joint

	Pendant joint 2J, 2FJ and 20J				
P139959	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 galvanized.				
P139960	2J	200/48/18	43	7321677131778	713177
P139958	2FJ	200/55/18	46	7321677131785	713178
	20J	200/55/36	94	7321677131730	713173

Ceiling brackets

	Ceiling bracket 5				
P139961	Ceiling bracket to be used for installations with Pendant/Fixing rails 24/34 and 24/48. Screw not included.				
	Material: Steel, hot-dip galvanized.				
	5	100/135/40	35	7321677186402	718640

	Ceiling bracket 5TPA				
P139962	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 galvanized.				
	5TPA	50/76/79-118	14	7321677334872	733487

	Ceiling bracket 5TP				
P139963	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 galvanized.				
	5TP	75/35/50	12	7321677131532	713153

	Ceiling brackets TF-10 and TF-16				
P139938	Ceiling bracket to be used for installation with Threaded rods. Nut included.				
	Material: Steel, hot-dip galvanized.				
P139939	TF-10 (with nut M10)	55/40/45	15	7321677881642	788164
	TF-16 (with nut M16)	75/50/50	30	7321677881659	788165

Take-off hook, end connection


	Fixed take-off hook 4				
P139957	Fixed take-off hook to be used for 90° horizontal branches.				
	Material: Aluminium.				
	4	71/19/86	8	7321677090174	709017

	Take-off hook 47				
P139958	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 galvanized.				
	47	155/10/73	27	7321677913503	791350

	Take-off hook 20C				
P143549	Take-off hook to be used on cable ladders KHZP 20C range to make 90° branches. Screw M12 and nuts are included.				
	Material: Steel, hot-dip galvanized.				
	20C	205/10/78	40	3606480739576	CSU795209

	End connection 10				
P139964	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 tray

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Combi-fittings B21					
Combi-fitting to be used when mounting mesh trays onto cable ladders. Material: Steel, HDG.					
B21	250/50/20		48	7332227012591	1149259
B21 90 degrees	120/50/135		46	7332227012911	1149291

Beam clamp, hook

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 galvanized.					
5BK-10 (max. 13 mm)	30/50/45		15	7321677156757	715675
5BK-30 (14-30 mm)	50/50/45		18	7321677182435	718243
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 galvanized.					
8	67/15/40		5	7321677286423	728642


Back, installation and box plates

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 galvanized.					
40	150/-/60		55	7321677687381	768738
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 galvanized.					
61-200	310/70/200		100	7321677324910	732491
61-300	310/70/300		140	7321677324927	732492
61-400	310/70/400		170	7321677324934	732493
61-500	310/70/500		240	7321677324941	732494
61-600	310/70/600		270	7321677324958	732495
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 galvanized.					
35S holed	164/20/170		22	7321677317462	731746
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 galvanized.					
35P	-/106/250		28	7321677317455	731745

Bends

Riser 18					
Riser piece to be fitted to the cable ladders by using Joint 21. Material: Steel, hot-dip galvanized.					
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

Bends

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Riser coupling 49					
Coupling to be used as a self-supporting vertical coupling of cable ladders KHZV/KHZPV. Two screw sets M12 are needed. Material: Steel, hot-dip galvanized.					
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
Riser coupling 20C					
Coupling to be used as a self-supporting vertical coupling of cable ladders KHZP 20C range. Two screw sets M12 are needed. Material: Steel, hot-dip galvanized.					
20C-200	170/200/550		249	3606480739439	CSU795159
20C-300	170/330/550		260	3606480739446	CSU795160
20C-400	170/400/550		271	3606480739453	CSU795161
20C-500	170/500/550		282	3606480739460	CSU795162
20C-600	170/600/550		293	3606480739477	CSU795163
20C-800	170/800/550		315	3606480739484	CSU795164
20C-1000	170/1000/550		386	3606480739491	CSU795165
Angle plates 20C					
Angled coupling to be used for cable ladders KHZP 20C range. Four screws M12x30 and nuts are included. Material: Steel, hot-dip galvanized.					
20C 60°	180/5/265		111	3606480739545	CSU795206
20C 45°	190/5/220		99	3606480739552	CSU795207
20C 30°	195/5/180		85	3606480739569	CSU795208
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 galvanized.					
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 galvanized.					
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

Steel cable ladders


Hot-dip galvanized

Corrosion class C3, C4

Bends

P140038



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: Steel, hot-dip galvanized.					
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

P143124



90° bend 20C, interior					
Interior bend piece to be fitted to cable ladders KHZP 20C range, creating a 90° horizontal bend. Material: Steel, hot-dip galvanized.					
20C-200	190/625/625		517	3606480739293	CSU795145
20C-300	190/725/725		568	3606480739309	CSU795146
20C-400	190/825/825		619	3606480739316	CSU795147
20C-500	190/925/925		671	3606480739323	CSU795148
20C-600	190/1025/1025		722	3606480739330	CSU795149
20C-800	190/1225/1225		824	3606480739347	CSU795150
20C-1000	190/1425/1425		1048	3606480739347	CSU795151

P140037



T-junction 16					
T-junction piece to be fitted to the cable ladders by using Joint 21. Material: Steel, hot-dip galvanized.					
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

P140038




T-junction 56					
T-junction piece to be fitted to the cable ladder KHZV or KHZPV by using screw set M12. Material: Steel, hot-dip galvanized.					
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

P143131




T-junction 20C					
T-junction piece to be fitted to the cable ladder KHZP 20C range by using screw set M12. Material: Steel, hot-dip galvanized.					
20C-200	190/265/1050		783	3606480739361	CSU795152
20C-300	190/725/1150		853	3606480739378	CSU795153
20C-400	190/825/1250		900	3606480739385	CSU795154
20C-500	190/925/1350		987	3606480739392	CSU795155
20C-600	190/1025/1450		1039	3606480739408	CSU795156
20C-800	190/1225/1650		1306	3606480739415	CSU795157
20C-1000	190/1425/1850		1518	3606480739422	CSU795158


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 galvanized.					
	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
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 galvanized.					
67	250/-/893	90	7321677886388	788638	


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: Steel, hot-dip galvanized.					
	36-50	24/50/2000	94	7321677317486	731748
	36-100	24/100/2000	142	7321677317493	731749
	36-200	24/200/2000	238	7321677317509	731750

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: Steel, hot-dip galvanized.					
	39/24	24/24/1750	46	7321677317479	731747
	39/55	55/24/1750	73	7321677329830	732983
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


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, hot-dip galvanized.					
	64-150	10/151/2000	290	7321677825615	WBE782561
	64-200	10/201/2000	370	7321677825622	WBE782562
	64-300	10/301/2000	540	7321677825639	WBE782563
	64-400	10/401/2000	710	7321677825646	WBE782564
	64-500	10/501/2000	1020	7321677825653	WBE782565
	64-600	10/601/2000	1210	7321677825660	WBE782566
	64-800	10/801/2000	1660	7321677825677	WBE782567
	64-1000	10/1001/2000	2000	7321677825684	WBE782568

Steel cable ladders

Hot-dip galvanized

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 galvanized.

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

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 galvanized.

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 galvanized.

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 galvanized.

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 galvanized.

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 galvanized.

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

P140046



P140047



P140048



P138585



P140049




P140050



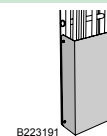
P140051



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 galvanized.					
65-200	1000/120/200		930	7321677301928	730192
65-300	1000/120/300		1140	7321677301935	730193
65-400	1000/120/400		1350	7321677301942	730194
65-500	1000/120/500		1560	7321677301959	730195
65-600	1000/120/600		1780	7321677301966	730196

P140052



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 galvanized.					
200	24/25/215		16	7321677186433	718643

P140053



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 galvanized.					
33/2	25/195/490		90	7321677077489	707748

P140054



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 galvanized.					
HT-14	30/30/104		18	7321677136711	713671

P140055



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 galvanized.					
HT-31	115/4.5/23		2	7321677136728	713672

P140056



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

P140057



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 galvanized.					
HT-11	155/40/40		41	7321677176182	717618

P140058



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

P140059





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

P140060



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, galvanized, 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 galvanized.					
40	270/26/48		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 galvanized.					
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
Reducer 20C					
Reducer/Expander for transition joining from a wide to a narrower cable ladder of KHZP 20C range. May also be used at centred transition joining. Material: Steel, hot-dip galvanized.					
20C-100	40/200/100		109	3606480739507	CSU795166
20C-200	40/200/200		176	3606480739514	CSU795167


Bar fixings

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


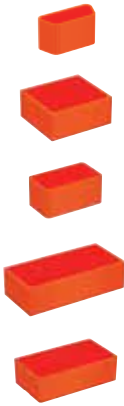

Lashing wire

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.					
 P140226 P140225	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.					
 P140228 P140225	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.					
 P140063	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.					
 P140064 P140065 P140066	28, red	59/25/22	0.8	7321677090198	709019
	28i, white 28i, red	54/14/19	0.4	7321677354467 7321677319947	735446 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.					
 P140067 P140068 P140069 P140070 P138758	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.					
 P140071	27	Ø20/10	0.15	7321677266685	726668

Steel cable ladders

Hot-dip galvanized

Corrosion class C3, C4

Screws, bolts and nuts

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
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 galvanized.					
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 galvanized.					
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 galvanized.					
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 galvanized.					
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 galvanized.					
22S	—		1.9	7321677136940	713694
Screw set 25S					
Screw set to be used for installation of Cantilever arm 30, 50i and 50 on Wall support plate. Set including screw MVBF 8x25 and nut M6MF8. Material: Steel, hot-dip galvanized.					
25S	—		2,2	3606485440897	CSU795277
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: Steel, hot-dip galvanized.					
W34	—		0.8	7321677346462	734646
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 galvanized.					
M8	—		2.7	7321677164073	716407
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 galvanized.					
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 galvanized.					
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

B223240



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

P138944



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

P138267



Mounting rail WMS15

Mounting rail to be used for installation directly on wall for lashing of cables. Material: Steel, hot-dip galvanized.

WMS15	15/3/2500	88	7321677928958	792895
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P138271



Mounting rail WMS25

Mounting rail to be used for installation directly on wall for lashing of cables. Material: Steel, hot-dip galvanized.

WMS25	25/3/2500	141	7321677250004	725000
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P140075



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

P140154



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
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P140055



Distance nut

Distance 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.

Distance nut M8	15/15/30	4	3606480483790	CSU794699
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Paint

P149450



Anti-corrosive repair paint

Anti-corrosive repair paint Galvafrid for the repair of damages on pre-galvanized or hot-dip galvanized ladders and accessories.

Galvafrid, 0.4 litre tin	—	104	7321677176373	717637
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Tools

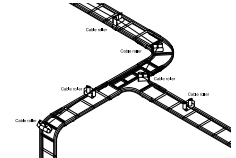
P128977



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-galvanized.



S	230/80/204	230	7321677186600	718660
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P149449



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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P149452



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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Cable ladders

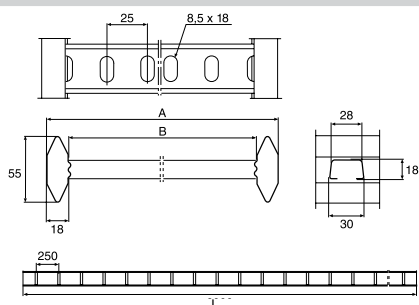
PI40376



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	55/147/3000 55/147/6000	260	7321677835249 7321677185917	783524 718591
KHZP-200	55/197/3000 55/197/6000	270	7321677835256 7321677185924	783525 718592
KHZP-300	55/297/3000 55/297/6000	290	7321677835263 7321677185931	783526 718593
KHZP-400	55/397/3000 55/397/6000	315	7321677835270 7321677185948	783527 718594
KHZP-500	55/497/3000 55/497/6000	340	7321677835287 7321677185955	783528 718595
KHZP-600	55/597/3000 55/597/6000	360	7321677835294 7321677185962	783529 718596
KHZP-800	55/797/3000 55/797/6000	490	7321677835300 7321677280339	783530 728033
KHZP-1000	55/997/3000 55/997/6000	560	7321677835317 7321677185979	783531 718597

Dimension table

B223677



Type	A mm	B mm	L mm	Ref. No.
KHZP-150	147	111	3000 6000	783524 718591
KHZP-200	197	161	3000 6000	783525 718592
KHZP-300	297	261	3000 6000	783526 718593
KHZP-400	397	361	3000 6000	783527 718594
KHZP-500	497	461	3000 6000	783528 718595
KHZP-600	597	561	3000 6000	783529 718596
KHZP-800	797	761	3000 6000	783530 728033
KHZP-1000	997	961	3000 6000	783531 718597

Steel cable ladders

Zinkpox
Corrosion class C5-I

Cable ladders

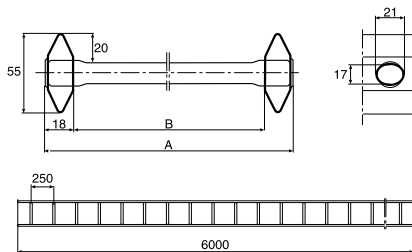
P140384



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

B223569



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

Cable ladders

P140390



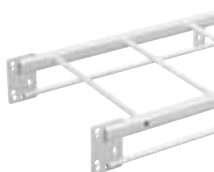
Type	Dimensions A/B/C mm	Weight kg/100 m	EAN code	Ref. No.
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Cable ladders KHZPV

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, Zinkpox coated white.

KHZPV-200	150/197/6000	426	7321677233908	723390
KHZPV-300	150/297/6000	448	7321677233915	723391
KHZPV-400	150/397/6000	470	7321677233922	723392
KHZPV-500	150/497/6000	493	7321677233939	723393
KHZPV-600	150/597/6000	515	7321677233946	723394
KHZPV-1000	150/997/6000	703	7321677164011	716401

P140397



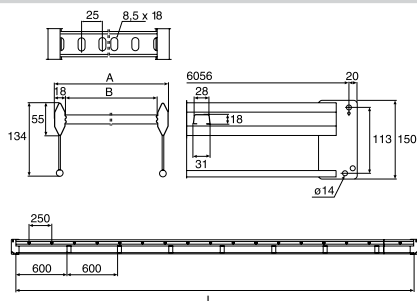
Cable ladders KHZV

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, Zinkpox coated white.

KHZV-200	150/197/6000	440	7321677141982	714198
KHZV-300	150/297/6000	460	7321677142002	714200
KHZV-400	150/397/6000	480	7321677142026	714202
KHZV-500	150/497/6000	500	7321677142019	714201
KHZV-600	150/597/6000	530	7321677142033	714203

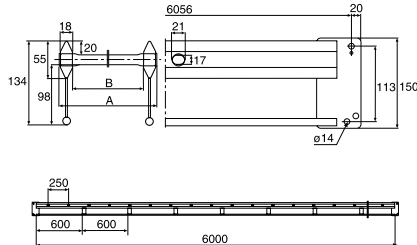
Dimension table

B223676




Type	A mm	B mm	L mm	Ref. No.
KHZPV-200	197	161	6000	723390
KHZPV-300	297	261	6000	723391
KHZPV-400	397	361	6000	723392
KHZPV-500	497	461	6000	723393
KHZPV-600	597	561	6000	723394
KHZPV-1000	997	961	6000	716401

B223653



KHZV-200	197	161	6000	714198
KHZV-300	297	261	6000	714200
KHZV-400	397	361	6000	714202
KHZV-500	497	461	6000	714201
KHZV-600	597	561	6000	714203

Joints

	Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
	Joint 21					
P140401	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					
P140402	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					
P140403	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					
P140404	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


Couplings

	Coupling 22					
P140405	Coupling 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 coupling 14					
P140406	Junction coupling 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
	Coupling 44					
P140407	Coupling to be used for horizontal coupling 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
	Coupling 51					
P140408	Coupling to be used as a self-supporting vertical coupling 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					
P151016	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	55/55/30		69	3606485410357	CSU795243
	Profile clamp 43					
P140410	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	21/43/30		5	7321677141654	714165
	Clamp 12					
P140411	Clamp to be used on the side profile of the cable ladder for installation of accessories. Bolt and nut included. Material: Steel, Zinkpox coated white.					
	12/70	125/25/40		19	7321677329779	732977
	12/120	175/25/40		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	125/16/30		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 and 50F					
Cantilever arm for mounting on walls, pendant/fixing rails or vertical pieces. Material: Steel, Zinkpox coated white.					
50L-100	85/150/40		24	7321677251131	725113
50L-150	85/200/40		28	7321677251148	725114
50L-200	85/250/40		34	7321677251155	725115
50L-250	105/298/40		46	7321677251162	725116
50L-300	105/348/40		54	7321677251179	725117
50L-400	120/447/50		103	7321677251186	725118
50L-500	140/548/50		160	7321677251193	725119
50L-600	150/646/50		191	7321677251209	725120
50-100	85/150/40		24	7321677234400	723440
50-150	85/200/40		28	7321677234417	723441
50-200	85/250/40		34	7321677234424	723442
50-250	105/300/40		52	7321677234431	723443
50-300	105/350/40		60	7321677234448	723444
50-400	120/450/50		228	7321677234455	723445
50-500	140/550/50		172	7321677234462	723446
50-600	150/650/50		215	7321677234479	723447
50-700	150/750/50		270	7321677277827	727782
50-800	160/850/50		310	7321677277834	727783
50-900	160/950/50		350	7321677277841	727784
50-1000	170/1050/50		390	7321677277858	727785
50F-200	148/245/50		95	7321677140213	714021
50F-300	175/345/50		125	7321677147007	714700
50F-400	175/445/50		170	7321677140220	714022
50F-500	180/547/50		220	7321677187935	718793
50F-600	180/647/50		250	7321677140237	714023
50F-1000	240/1052/60		770	7321677140244	714024

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	85/71/40		24	7321677132089	713208
11/75	135/71/40		30	7321677132072	713207

Steel cable ladders


Zinkpox

Corrosion class C5-I

Vertical pieces

P140422



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, 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

P140423



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

P140424



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

P140425




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

P140426



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

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

P140433
P140434



Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
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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	362/-/40	35	7321677176434	717643
1-500	568/-/40	53	7321677176441	717644
1-800	880/-/40	82	7321677176458	717645
1-1500	1296/35/50	560	7321677205301	720530

P140435



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

P140436



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
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P140437



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
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P140438



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
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P140439



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	200/48/18	43	7321677163038	716303
2FJ	200/55/18	46	7321677163045	716304
20J	200/55/36	94	7321677163021	716302

Ceiling brackets

P140442



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
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P140443



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
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Take-off hook

P138857



Fixed take-off hook 4

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

4	71/19/86	8	7321677140671	714067
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P140444




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
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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

P139864



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

P140445



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

P140446



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

P140447



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

P140448



Riser coupling 49				
Coupling to be used as a self-supporting vertical coupling of cable ladders KHZV/KHZPV. Two screw sets M12 are needed. Material: Steel, Zinkpox coated white.				
49-200	120/197/483	220	7321677163953	716395
49-300	120/297/483	230	7321677163960	716396
49-400	120/397/483	240	7321677163977	716397
49-500	120/497/483	245	7321677205189	720518
49-600	120/597/483	250	7321677163984	716398
49-1000	120/997/483	280	7321677163991	716399

P140449




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

P140450



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.					
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
90° bend 55, interior					
Interior bend piece to be fitted to cable ladders KHZV and KHZPV, creating a 90° horizontal bend. Material: Steel, Zinkpox coated white.					
55-200	150/625/625		510	7321677162482	716248
55-300	150/725/725		560	7321677162505	716250
55-400	150/825/825		620	7321677162512	716251
55-500	150/925/925		680	7321677162529	716252
55-600	150/1025/1025		750	7321677162536	716253
55-1000	150/1425/1425		1110	7321677162543	716254
T-junction 16					
T-junction piece to be fitted to the cable ladders by using Joint 21. Material: Steel, Zinkpox coated white.					
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
T-junction 56					
T-junction piece to be fitted to the cable ladder KHZV or KHZPV by using screw set M12. Material: Steel, Zinkpox coated white.					
56-200	150/1050/625		710	7321677162628	716262
56-300	150/1150/725		790	7321677162642	716264
56-400	150/1250/825		840	7321677162659	716265
56-500	150/1350/925		940	7321677162666	716266
56-600	150/1450/1025		1010	7321677162673	716267
56-1000	150/1850/1425		1300	7321677162680	716268
X-junction 17					
X-junction piece to be fitted to the cable ladders by using Joint 21. Material: Steel, Zinkpox coated white.					
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

P140451



P140452



P140453




P140454



P140455



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

P140456



P140457



P140458



P140459



P140460



P140461



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

P140462



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	270/26/48	56	7321677290451	729045

P140463



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

P140464



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

P140226
P140225



P140226
P140225



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

P140063



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			7321677319947	731994
End plug 28C, D and E				
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

P140064



P140065
P140066



P140067






P140068





P140069




End plugs

Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
End plug 28F and J				
P140070 	28F for Vertical piece 20FS and 30/53/110 Pendant/fixing rail 24/20FS	4	7321677898763	789876
P138758 	28J for Vertical piece 20F and 27/53/95 Pendant/Fixing rail 24/20F	2.1	3606480457531	CSU794520
Cross member plug 27				
P140071 	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.	0.15	7321677266685	726668




Marking plates

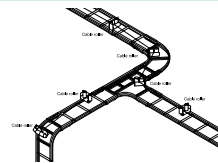
Marking plate 93				
Marking plates are part of a colour marking system that is easy to use when you want to mark out the type of cable that is placed on the cable ladder. Five different colours are available.				
B223240 	93, yellow	103/0.7/100	5	7321677377046 737704
	93, orange	103/0.7/100	5	7321677377053 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				
P138844 	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

Paint

Repair paint				
Repair paint for the repair of minor damages of powder-coated products. Colour white RAL 9003, gloss 30.				
B224228 	Spray bottle, 0.4 litres	—	60	7321677397136 739713

Tools

Cable roller S				
P123977 	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-galvanized.			
	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).				
P149449 	38 Rig'n roll	220/50/130	48	7321677359981 735998
P149452 	Bag	375/160/460	230	7321677801862 780186
	Set 66 (1 bag + 10 Cable rollers 38 Rig'n roll)	375/160/460	710	7321677801879 780187



Steel cable ladders

Stainless steel AISI 316L

Corrosion class C5-M

Cable ladders

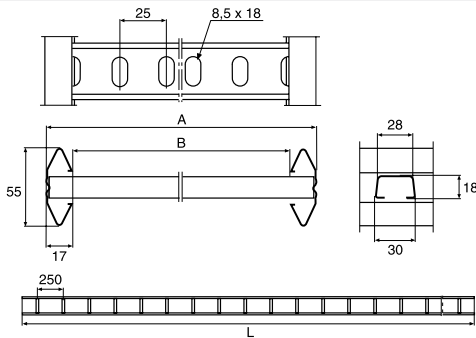
P139619



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	198/164/2995 198/164/5995	198	3606480446795 3606480446856	CSU794439 CSU794445
KHZSP-300	298/264/2995 298/264/5995	217	3606480446801 3606480446863	CSU794440 CSU794446
KHZSP-400	398/364/2995 398/364/5995	237	3606480446818 3606480446870	CSU794441 CSU794447
KHZSP-500	498/464/2995 498/464/5995	257	3606480446825 3606480446887	CSU794442 CSU794448
KHZSP-600	598/564/2995 598/564/5995	277	3606480446832 3606480446894	CSU794443 CSU794449

Dimension table

B224475



Type	A mm	B mm	L mm	Ref. No.
KHZSP-200	198	164	2995 5995	CSU794439 CSU794445
KHZSP-300	298	264	2995 5995	CSU794440 CSU794446
KHZSP-400	398	364	2995 5995	CSU794441 CSU794447
KHZSP-500	498	464	2995 5995	CSU794442 CSU794448
KHZSP-600	598	564	2995 5995	CSU794443 CSU794449

Cable ladders

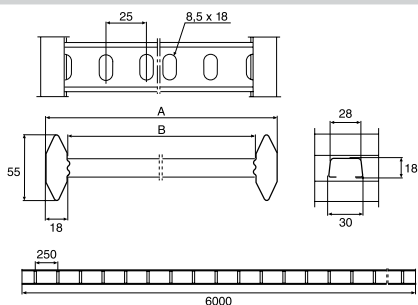
P139625



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

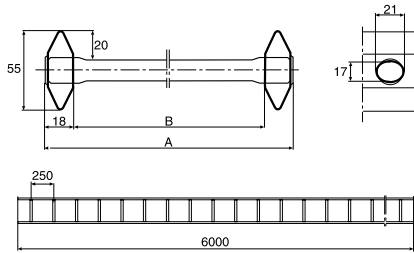
P139639



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

B223689



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

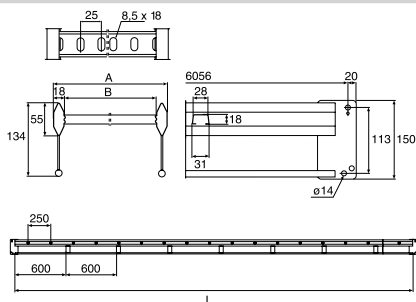
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Type	Dimensions A/B/C mm	Weight kg/100 m	EAN code	Ref. No.
Cable ladders KHZPV				
Reinforced cable ladder for indoor or outdoor industrial applications. Designed for extreme support distances and loadings. With closed side profiles and profile-shaped 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

LSB02867







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






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: Stainless steel AISI316L.					
P139855 	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.					
P139919 	45	150/4/95	50	7321677928736	792873

Couplings

Coupling 22					
Coupling to be used for horizontal or vertical branches at any desired angle. M6 screws included. Material: Stainless steel AISI316L.					
P139856 	22	60//24/150	21	7321677257607	725760
Junction coupling 14					
Junction coupling 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.					
P139920 	14	65/73/350	49	7321677271955	727195
Coupling 44					
Coupling to be used for horizontal coupling 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.					
P139821 	44	135/-/120	50	7321677928880	792888
Coupling 51					
Coupling to be used as a self-supporting vertical coupling of cable ladders KHZV/KHZPV. Two screws M12 and nuts are included. Material: Stainless steel AISI316L.					
P139822 	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.					
P139823 	42	54/57/30	65,5	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.					
P139824 	43	21/43/30	5	7321677928934	792893
Clamp 12					
Clamp to be used on the side profile of the cable ladder for installation of accessories. Bolt and nut included. Material: Stainless steel AISI316L.					
P139825 P139826 	12/70	125/25/40	19	7321677286515	728651
	12/120	175/25/40	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.					
P139827 	41	125/16/30	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.					
P139828 	46	72/18/30	15	7321677928774	792877

Cantilever arms

P140016



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	85/150/40	24	7321677256181	725618
50-150	85/200/40	28	7321677256198	725619
50-200	85/250/40	34	7321677256204	725620
50-250	105/300/40	52	7321677256211	725621
50-300	105/350/40	60	7321677256228	725622
50-400	120/450/50	228	7321677256235	725623
50-500	140/550/50	172	7321677256242	725624
50-600	150/650/50	215	7321677256259	725625

Wall and support brackets

P140622



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

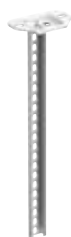
P138934
P138933



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	85/71/40	24	7321677257744	725774
11/75	135/71/40	30	7321677257751	725775

Vertical pieces

P139937



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

P139938




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

P139942



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	293/16/42		23	7321677255740	725574
24/34	383/16/42		31	7321677255757	725575
24/34	495/16/42		40	7321677255764	725576
24/34	698/16/42		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 and nuts included. Material: Stainless steel AISI316L.					
2J	200/48/18		43	7321677264841	726484
2FJ	200/55/18		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		63	7332227015516	1149551
	8/8/2000			7332227015523	1149552
B41/M10	10/10/1000		99	7332227015615	1149561
	10/10/2000			7332227015622	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		0.68	7332227015547	1149554
B43/M10	20/20/15		1.12	7332227015646	1149564
Distance nut B42					
Distance nut to be used when joining Threaded rods. Material: Stainless steel AISI316L.					
B42/M8	15/15/30		1	7332227015554	1149555
B42/M10	20/20/40		2	7332227015653	1149565

Clamps, hooks


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-galvanized 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

Steel cable ladders

Stainless steel AISI 316L

Corrosion class C5-M


Box plates

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

Bends

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
Riser coupling 49					
Coupling to be used as a self-supporting vertical coupling of cable ladders KHZV/KHZPV. Two screw sets M12 are needed. 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
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 ladder KHZV or KHZPV by using screw set M12. 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	24/24/1750	46	7321677255931	725593
39/55	55/24/1750	73	7321677255948	725594

Dividers

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

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: Stainless steel AISI316L.				
64-150	10/151/2000	290	7321677825851	782585
64-200	10/201/2000	370	7321677825868	782586
64-300	10/301/2000	540	7321677825875	782587
64-400	10/401/2000	710	7321677825882	782588
64-500	10/501/2000	1020	7321677825899	782589
64-600	10/601/2000	1210	7321677825905	782590
64-800	10/801/2000	1660	7321677825912	782591
64-1000	10/1001/2000	2000	7321677825929	782592



Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
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	10/151/2000	190	7321677322916	732291
W5-200	10/201/2000	250	7321677322923	732292
W5-300	10/301/2000	360	7321677322930	732293
W5-400	10/401/2000	680	7321677322947	732294
W5-500	10/501/2000	840	7321677322954	732295
W5-600	10/601/2000	700	7321677322961	732296
W5-800	10/801/2000	1420	7321677833757	783375
W5-1000	10/1001/2000	1730	7321677322978	732297

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: 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


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

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



Covers/Cover plates

Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Cover clamp				
Cover clamps to be used when installing a cover on a Profile support piece 37. Material: Stainless steel AISI316L.				
P140049 	Cover clamp	32/10.5/20	1.5	7321677285860 728586
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.				
P140052 	65-200	1000/120/200	930	7321677324811 732481
	65-300	1000/120/300	1140	7321677324828 732482
	65-400	1000/120/400	1350	7321677324835 732483
	65-500	1000/120/500	1560	7321677324842 732484
	65-600	1000/120/600	1780	7321677324859 732485



Angle plates

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: Stainless steel AISI316L.				
P140386 	33/1	28/150/290	50	7321677273409 727340
P140054	33/2	25/195/490	90	7321677271979 727197




Fittings for mesh trays

Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Combi-fittings B21				
Combi-fitting to be used when mounting mesh trays onto cable ladders. Material: Stainless steel AISI316L.				
P140021 	B21	250/50/20	45	7332227013598 1149359
P140022 	B21 90 degrees	120/50/135	45	7332227013918 1149391




Installation system HT

Pipe HTR-68				
Pipe for easy locking of wires. Material: Stainless steel AISI316L.				
P140060 	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.				
P140227 	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


Bar fixings

Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Round bar fixing				
Round bar fixing to be used for mounting in underground cavities and tunnels. Material: Stainless steel AISI316L.				
P131546 	For ceilings	6/60/325	90	7321677928644 792864
P131551 	For floors	6/140/130	91	7321677928668 792866
P131555 	For walls	61/60/161	68	7321677928682 792868





Lashing wire

	Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
P140228 P140225 	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
P140226 P140225 	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

	Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
P140063 	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

P140064 	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
P140065 P140066 	28i, white	54/14/19		0.4	7321677354467	735446
	28i, red				7321677319947	731994
P140067 P140068 P140069 P140070 P138758 	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	
P140071 	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

P140072 	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
P140156 	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

Screws, bolts and nuts

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

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-galvanized

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-galvanized

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 galvanized

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 galvanized

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 air-born pollution.
- Atmospheres with average salt content or discernible levels of airborne pollution.
- EN-ISO1461:2009.



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 airborn pollution, high levels of humidity and aggressive atmospheres
- SS2333 RF/AISI 304



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-galvanized 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-galvanized 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 galvanized 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
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 galvanized (>20 µm): EN 10346 • Hot-dip galvanized (55-70 µm): EN ISO 1461 • Zinc+ (>25 µm): EN 10346 • Zinkpox, hot-dip galvanized (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.

Electro-galvanized

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-galvanized

Products are manufactured from Z 275 pre-galvanized 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 galvanized

Schneider Electric has one of the most modern hot-dip galvanization plants in the Nordic countries. The hot-dip process is continuous, guaranteeing a high and even quality. The manufactured products are hot-dip galvanized in accordance with EN-ISO 1461:2009 whilst nuts and bolts are hot-dip galvanized in accordance with SS-EN ISO 10684:2004. This form of galvanization 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 galvanization. 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 galvanizing, 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 galvanized 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 maximize 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 galvanized products with stainless steel.

- 5. Measures:** If a blue annealing appears when cutting, grinding or drilling, re-move 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.

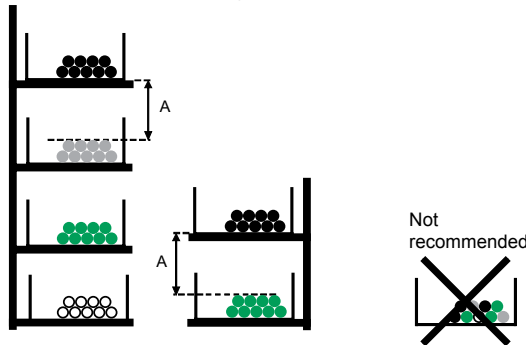
Method of installation	Correction Factor C _g							
	Number of circuits of multicore cables							
	2	3	4	5	6	7	8	9
Single layer multicore touching on ladder supports	0,87	0,82	0,80	0,80	0,79	0,79	0,78	0,78

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.

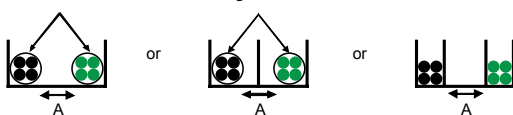
Communication cable type	Number of power circuits (1-phase 20A, 230V)									
	1-3	4-6	7-9	10-12	13-15	16-30	31-45	46-60	61-75	>75
	Minimum separation distance (mm), see figure A below this table									
Category 5e/6 unshielded	20	40	60	80	100	200	300	400	500	600
Category 5e/6/6 _A shielded	10	20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

No fixing or bundling needed.

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

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 V, longer than 4 metres spans.

Installation recommendations for cable ladders

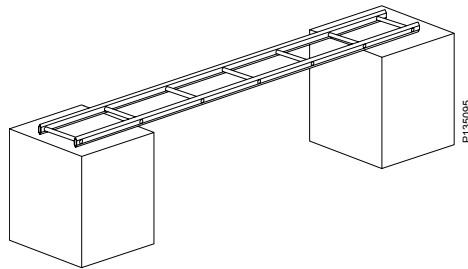
The cable ladders should be installed in such a way that, as often as possible, the cables can be laid directly in place rather than being pulled through. Ladders for current carrying cables along the ceiling should be installed in such a way that the distance from the top of the ladder to the ceiling 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

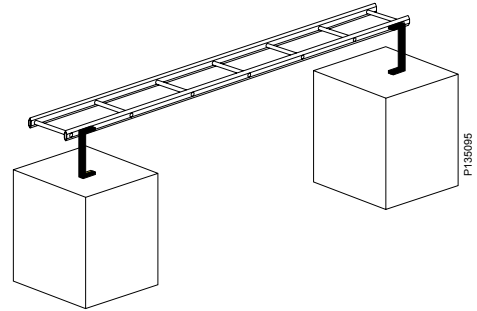
Schneider Electric has performed measurements at EMC Services in Gothenburg regarding EMC requirements, report RE-10273-17181. The results show that the shielding performance of both incoming and emitted fields is good concerning Wibe cable ladders.

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

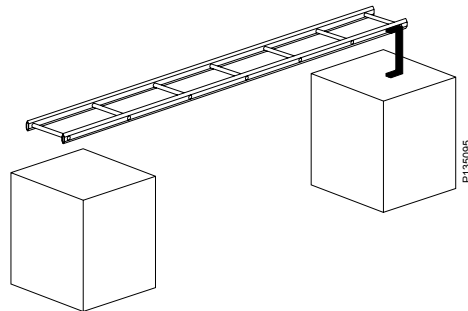


Metal against metal connection
- the ultimate installation

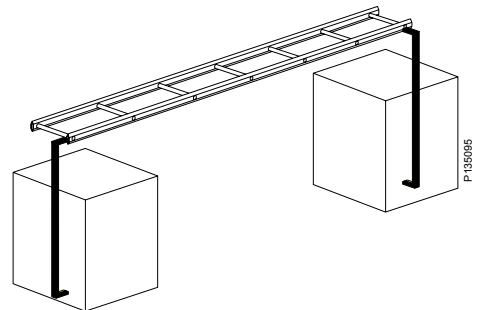


Short double connection
- realistic installation

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. (*)








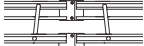



() Currently this value is studied through document IEC/SC23A/WG12, CLC/TC213/WG-5 – 765. It will be changed to 50 mΩ x metre.*

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 joins recommended for each ladder type, and taking sizes into account.

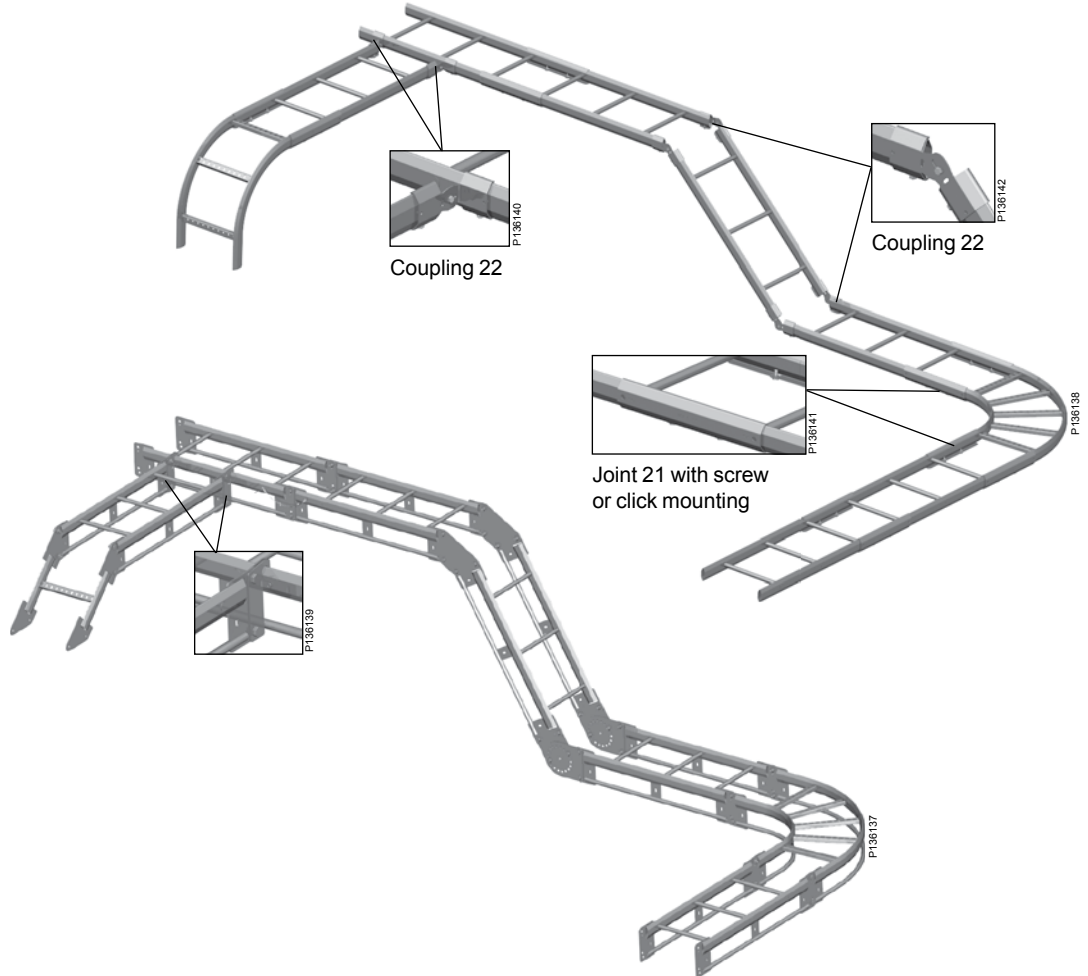
To guarantee a safe installation, Schneider Electric recommends a proper earthing of all the elements that make up the system (sections and accessories), using the accessories designed specifically for this purpose.

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

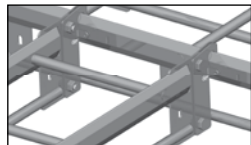
For pre-galv, hot-dip galv and stainless steel AISI 316L

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.

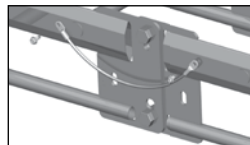


For zinkpox coating

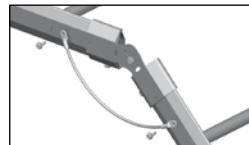
Installation of cable ladders with Zinkpox coating



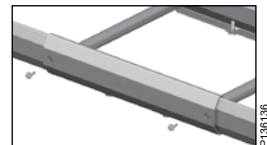
Take-off hook 47 is mounted with self-drilling screw 4.8x13



For installation of joints, couplings, 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 Coupling 22.



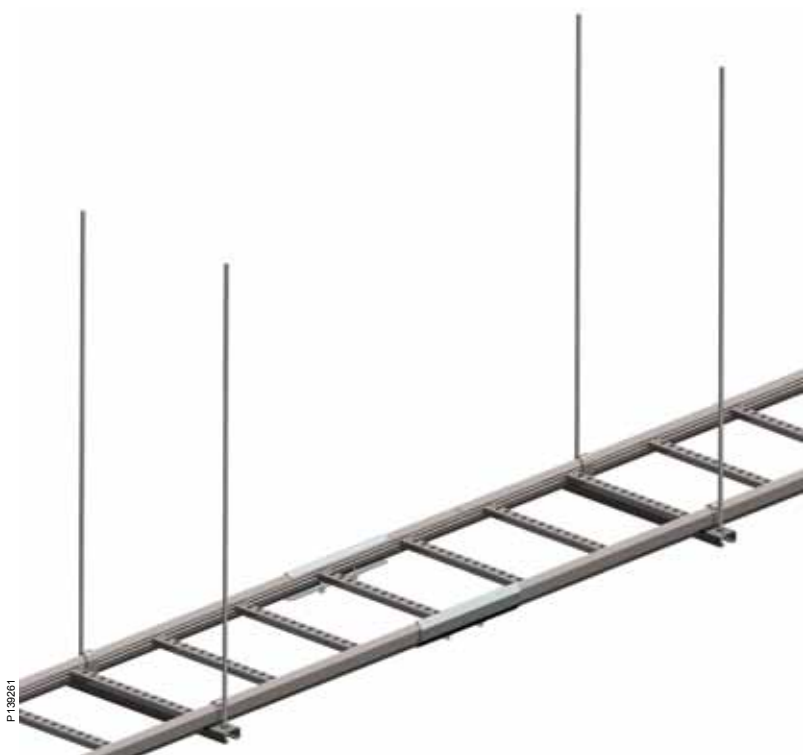
Joint 21 is mounted with self-drilling screw 4.8x13 in the grounding holes. When joining KHZ ladders Joint 21 must be moved approx. 20 mm from centre.



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	CSU795239
Vertical piece 2F-280	717196
Vertical piece 2F-370	717197
Vertical piece 2F-505	717198
Vertical piece 2F-640	CSU794202
Vertical piece 2F-730	717199
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	CSU795132
Nut M6MF M8	CSU794715



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	CSU795239
Threaded rod W76-1000	725079
Threaded rod W76-2000	716792
Nut M10	723938
Nut M10	1149464

P-139281



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-10642.	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.

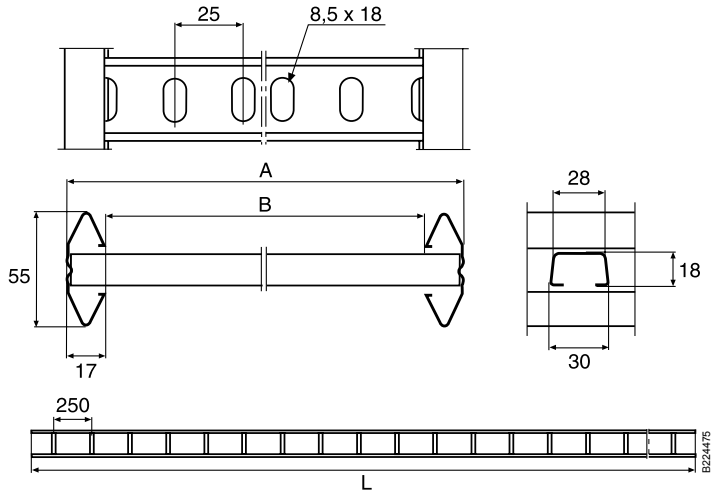
Schneider Electric fulfills the demands according to the harmonized standard SS-EN 6153 Edition 1:2002.

Installation instructions

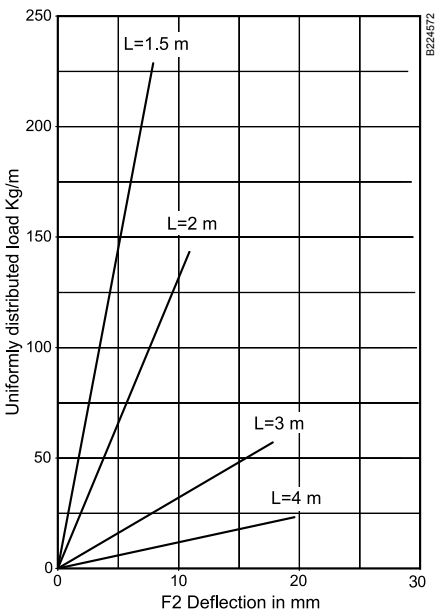
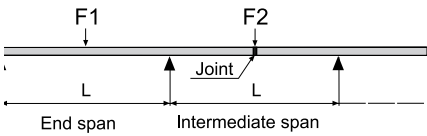
Use and Installation

90° bend 15, interior and exterior	206	Installation d	155	Take-off hook 20C	202
90° bend 20C, interior	207	Installation plate 61	204	Take-off hook 47	202
90° bend 55 interior	206	Intermediate connection bolt 29	228	T-bolt 26F	226
Angle bracket 5L and 5LS	198	Joint 9	163	Tele-conduit 36 with knock-out holes	210
Angle plate 20C	168	Joint 21, with screws or screwless	163	Threaded rod B41 and W76 M8, M10	182
Angle plate 33/1 and 33/2	215	Joint 45	164	Thread lock B50 M8, M10	182
Back nut M8	227	Joint nut M8, M10	182	Thread lock B50 M8, M10	227
Back plate 40	176	Junction box plate 35P	204	Tightening loop HT	217
Beam clamp 5BK	229	Junction box plate 35S	203	T-junction 16	207
Bracket 60/40	199	Junction coupling 14	166	T-junction 20C	208
Cable clamp ER	223	KHZ	160	T-junction 56	208
Cable clamp type A	221	KHZP-20C	162	Wall bracket 11/25 and 11/75	183
Cable clamp type R	221	KHZP / KHZPS	158	Wall bracket 20	183
Cable roller 38 Rig'n roll	231	KHZPV	159	Wall bracket 20F	183
Cable roller S	230	KHZSP/ KHZSPZ	157	Wall bracket HT-14	215
Cantilever arm 30	171	KHZV	161	Wall support	177
Cantilever arm 50i	172	Lashing wire	222	Washer HSO M16	181
Cantilever arm 50L, 50 and 50F	174	Lighting bracket 200	215	Vertical coupling 20C	168
Cantilever arm 81	173	Marking plate 93	225	Vertical piece 2	184
Carrying bracket HT-31	216	Mounting rail 40	176	Vertical piece 2F	186
Carrying bracket HT-33/34	216	Mounting rail WMS15	224	Vertical piece 2Fi	185
Carrying bracket HT-152	216	Mounting rail WMS25	224	Vertical piece 20	188
Carrying sling HT-51	216	Pendant bar 1	197	Vertical piece 20F	190
Ceiling bracket 2Fi	196	Pendant base plate 520	196	Vertical piece 20FS	191
Ceiling bracket 5	200	Pendant/Fixing rail 24/20	193	X-junction 17	209
Ceiling bracket 5TP	201	Pendant/Fixing rail 24/20F	194		
Ceiling bracket 5TPA	201	Pendant/Fixing rail 24/20FS	194		
Ceiling bracket TF-10 and TF-16	182	Pendant/Fixing rail 24/34	192		
Ceiling plate 20F	195	Pendant/Fixing rail 24/48	192		
Ceiling plate 20FS	195	Pendant joint 2J, 2FJ and 20J	197		
Clamp 12	170	Pipe HT-68 and HTR-68	217		
Clamp set M6	220	Profile clamp 20C	169		
Combi bracket 53	199	Profile clamp 41	170		
Combi Fitting B21	203	Profile clamp 42	169		
Combi Fitting B2190 degree	203	Profile clamp 43	169		
Coupling 22	165	Profile protection 28P	224		
Coupling 44	166	Profile support piece 37	213		
Coupling 51	167	Profile support piece 46	170		
Cover 64	214	Protecting cover	214		
Cover 90° bend	212	Rail fixing support 24/20F, 24/20FS	196		
Cover clamp	213	Reducer 20C	218		
Cover joint	213	Reducer 31	218		
Cover plate 65	214	Riser 18	205		
Cover T-junction	212	Riser coupling 20C	205		
Cover W5	211	Riser coupling 49	205		
Cross member plug 27	225	Rod bracket 82	200		
Distance piece W39	211	Round bar fixing for ceilings	219		
Dividing strip 39	210	Round bar fixing for floors	220		
Dropper joint 32	164	Round bar fixing for walls	220		
Earth clamp W79	204	S-bend 67	209		
End bracket HT-11	217	Screw set 2S	227		
End connection 10	202	Screw set 20S	227		
End plug 28 and 28i	225	Screw set 22S	227		
End plug 28C, D, E, F and J	225	Screw set M10 x 20	227		
Fixed take-off hook 4	202	Screw set M12	226		
Fixing rail 24/26x53 for casting-in	195	Screw set W34	227		
Flange nut B43 M8, M10	182	Screw set W37	227		
Flange nut B43 M8, M10	227	Spring nut M8/M10	227		
Hook 8	229	Steel wire	218		
Horizontal coupling 20C/Horizontal		Support bracket 3	178		
coupling bending 20C	167	Support bracket 6	180		
Insert piece EM	222	Support bracket HSO	181		

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

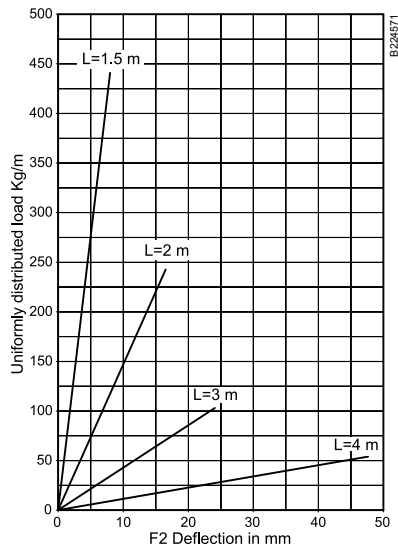
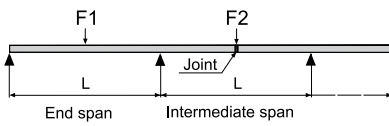
Guaranteed uniformly distributed load includes a minimum safety factor of 1.7 towards rupture. The diagram shows the deflection with Joint 21 for all ladder widths.

The cable ladders must not be used as walkways.

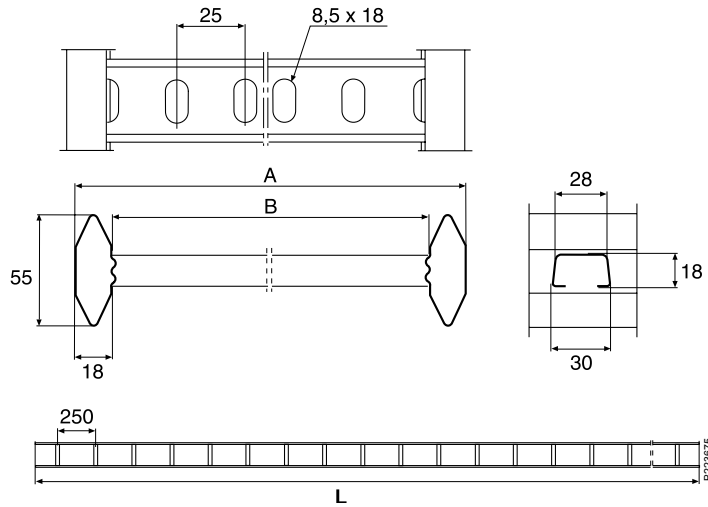
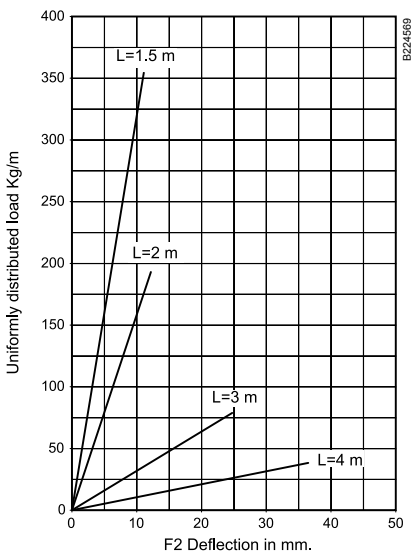
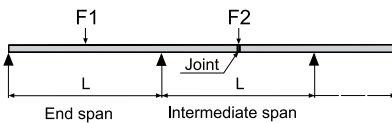
KHZP / KHZPS



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).

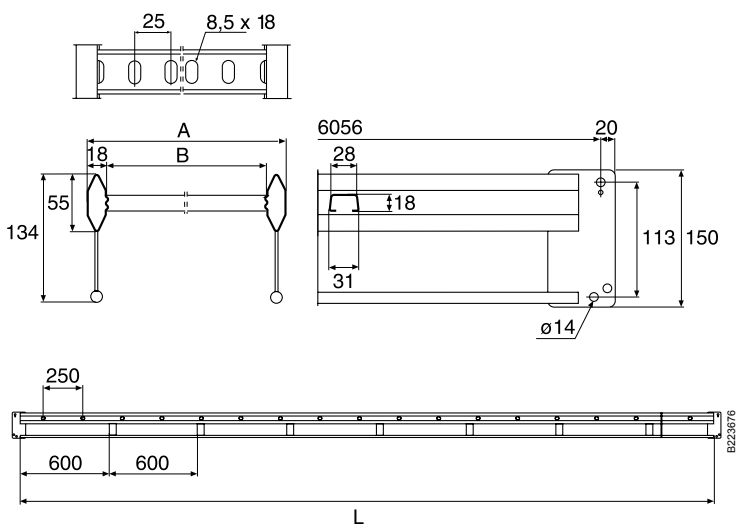
Guaranteed load

Guaranteed uniformly distributed load includes a minimum safety factor of 1.7 towards rupture. The diagrams shows the deflection with Joint 21 for all ladder widths.

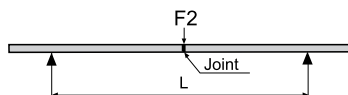
The cable ladders must not be used as walkways.



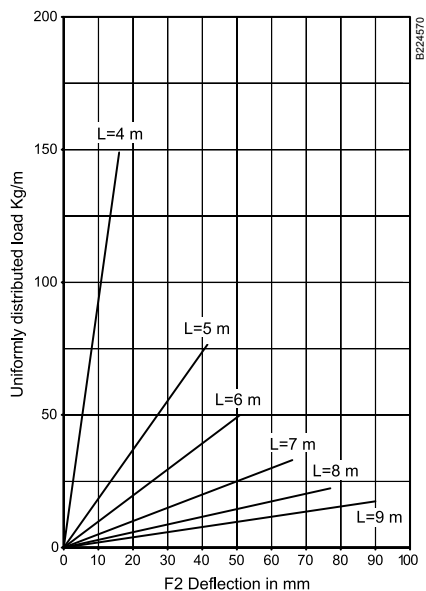
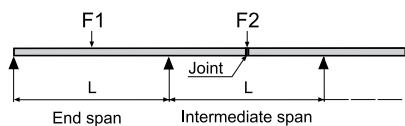
KHZPV



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

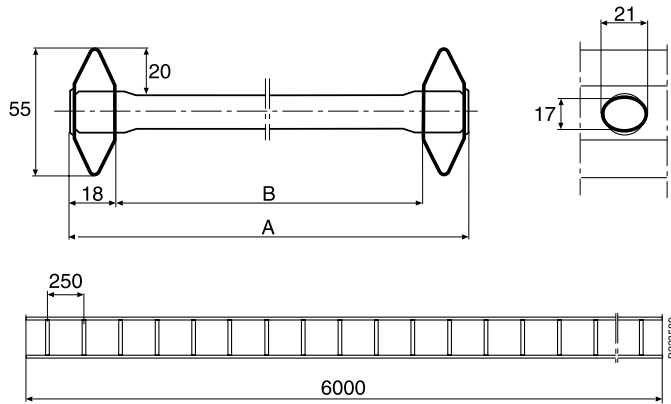
The ladders are tested according to IEC 61537, test model II for bracket distance up to and including 4 m, test type V for bracket distance more than 4 m.

Guaranteed load

Guaranteed uniformly distributed load supported includes a minimum safety factor of 1.7 towards rupture for all ladder widths.

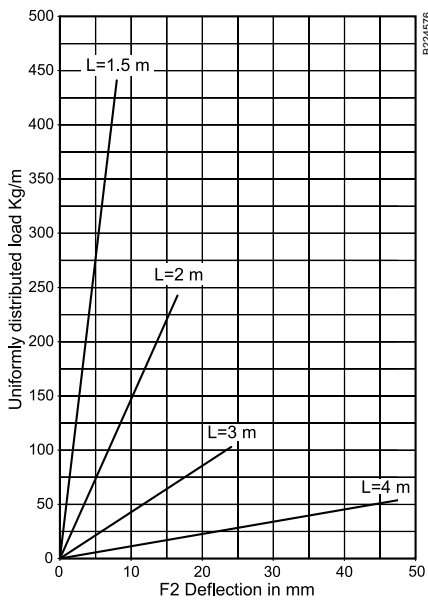
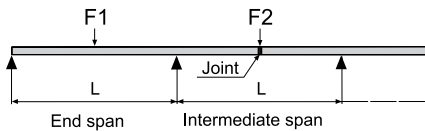
The cable ladders must not be used as walkways.

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

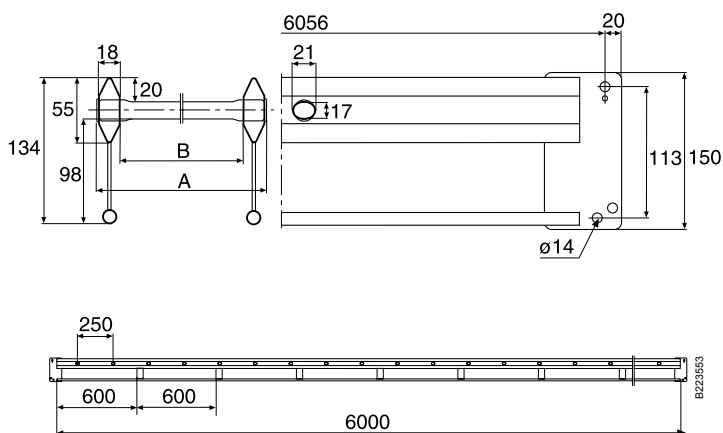
The ladders are tested according to IEC 61537, test model II - a joint in the intermediate span (F2).

Guaranteed load

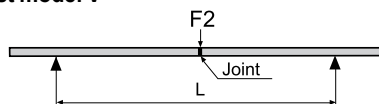
Guaranteed uniformly distributed load includes a minimum safety factor of 1.7 towards rupture. The diagrams shows the deflection with Joint 21 for cable ladder widths up to 600 mm. For widths greater than 600 mm contact Schneider Electric or distributor.

The cable ladders must not be used as walkways.

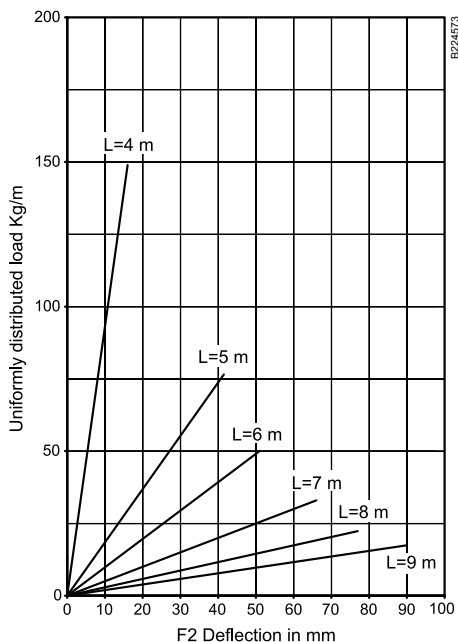
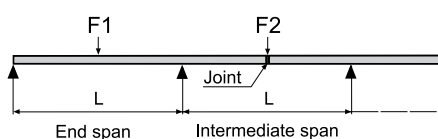
KHZV



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

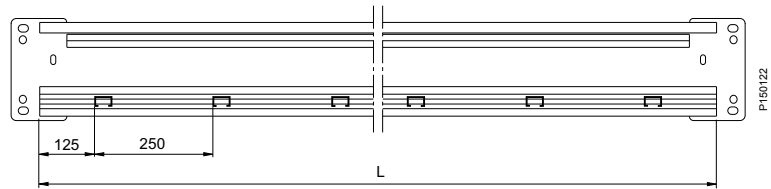
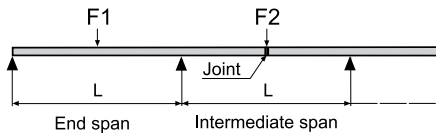
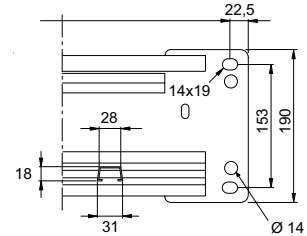
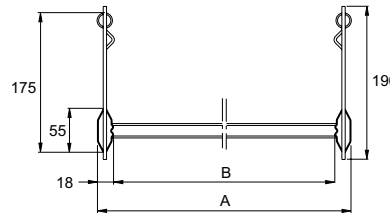
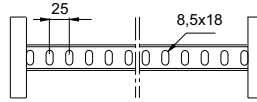
Guaranteed uniformly distributed load supported includes a minimum safety factor of 1.7 towards rupture. The diagram shows the deflection for ladder widths.

The cable ladders must not be used as walkways.

KHZP-20C

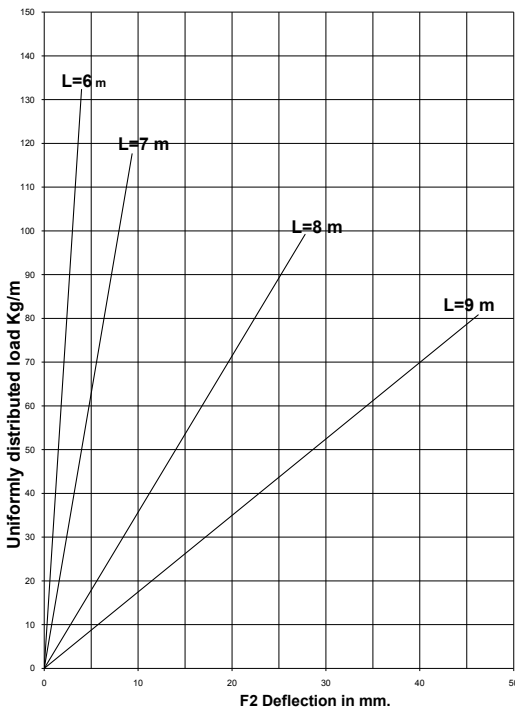


P148117



Test model II

SWL (Safe working load) KHZP 20C-200-1000



Type	L m	A mm	B mm
KHZP 20C-200	6	197	161
KHZP 20C-300	6	297	261
KHZP 20C-400	6	397	361
KHZP 20C-500	6	497	461
KHZP 20C-600	6	597	561
KHZP 20C-800	6	797	761
KHZP 20C-1000	6	997	961

To be able to take the load requirements the system shall be supported close to all transition points like Bends, T-junctions, Risers, Take-off hooks, Angle plates and Couplers.

Loadings IEC 61537

The ladders are tested according to IEC 61537, test model II.

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.

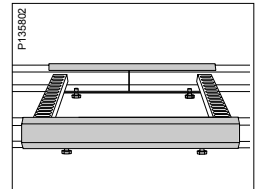
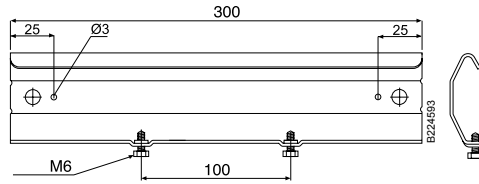
Loadings according NEMA V1 20C

Test result at 6 meter support distance 173 kg/m (safety factor of 1.5).

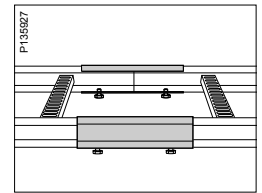
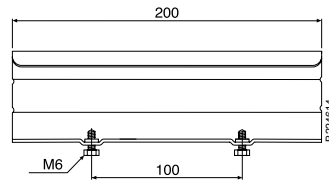
The cable ladders must not be used as walkways.

Joint 21, with screws or screwless

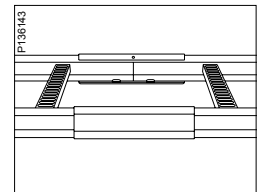
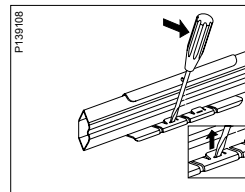
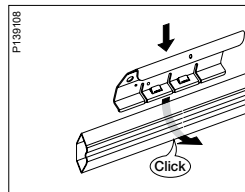
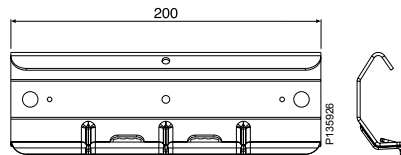
Joint to be used for straight, rigid joining of cable ladders, bends, junctions and risers. No extra earthing needed.



Joint 21 in stainless steel

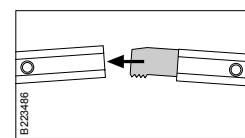
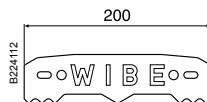


Joint 21 screwless joint



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.

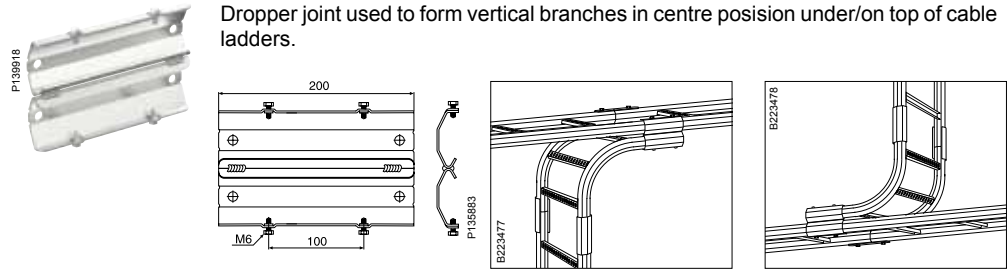


Joint 9 is used in straight joints of KHZ, KHZP and KHZPS.

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.

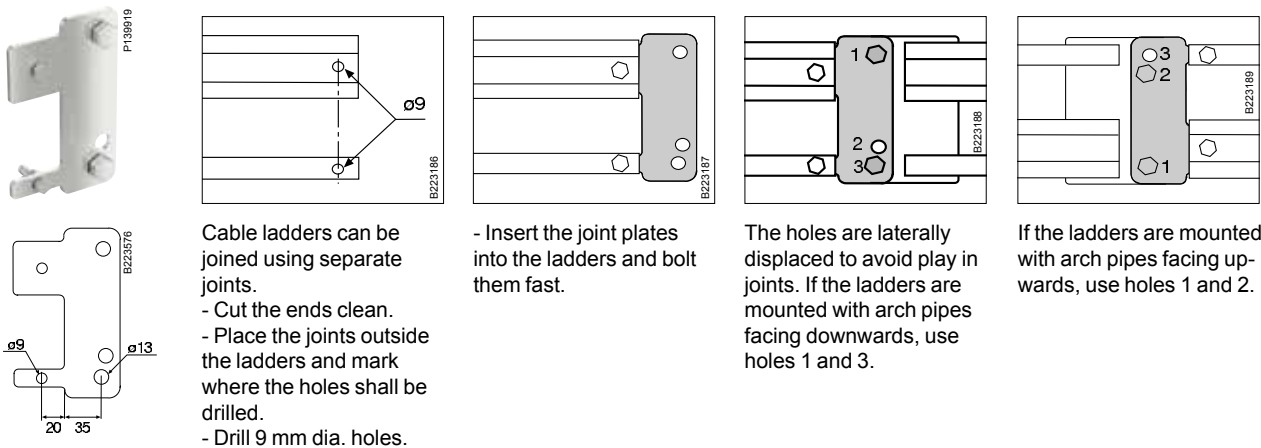


To be used together with Riser 18 to form vertical branches under Cable ladder KHZ, KHZP, KHZSP, KHZSPZ and KHZPS.

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.

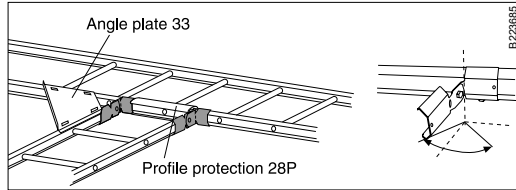
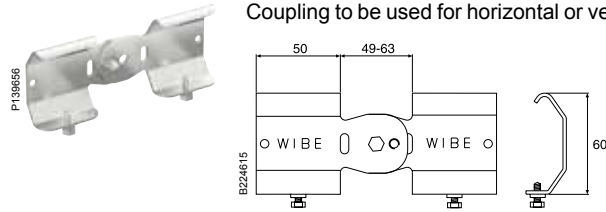
- Insert the joint plates into the ladders and bolt them fast.

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.

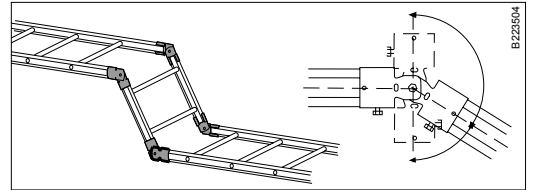
If the ladders are mounted with arch pipes facing upwards, use holes 1 and 2.

Coupling 22

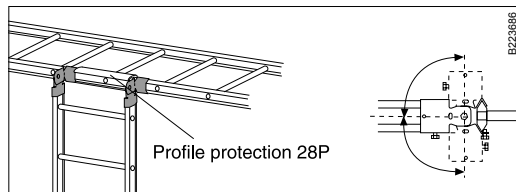
Coupling to be used for horizontal or vertical branches at any desired angle.



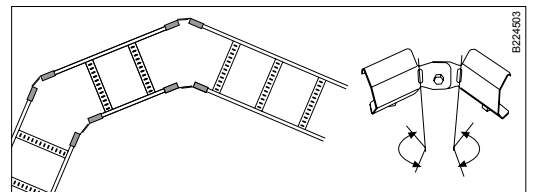
Coupling 22 is used for horizontal branching to the required angle. The cut length of the ladder ends determines the angle. Angle plate 33 is always recommended for horizontal branches. Use Profile protection 28P.



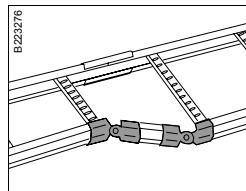
Coupling 22 is used to form vertical angles of the required size.



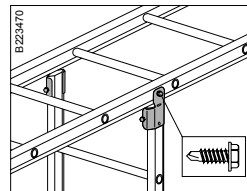
Coupling 22 is used to form vertical branches of the required angle. Mount Profile protection 28P. To be cut when required.



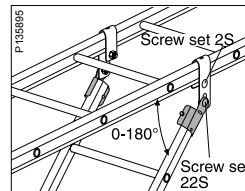
Use 4 Couplings 22 to form a horizontal bend in different angles. The cut lengths of the ladder ends determine the angle.



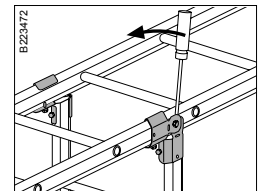
As an alternative at transition joining of KHZSP, KHZPS, KHZ and KHZP use 1 Joint 21 and 2 Couplings 22.



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



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

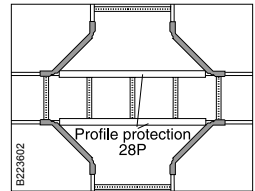
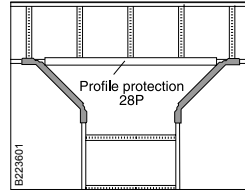
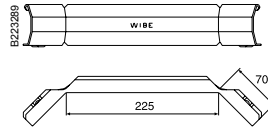


Use 2 Coupling 22 for vertical branching under the cable ladder. **Note!** The screw of Coupling 22 must be turned so that its head will be placed against the side profile of the cable ladder. Bend the coupling with a screwdriver.

Junction coupling 14



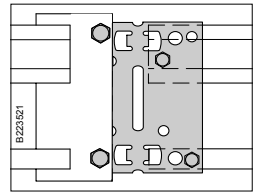
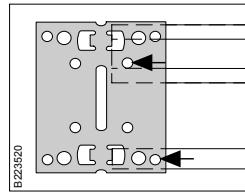
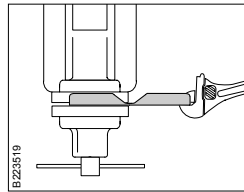
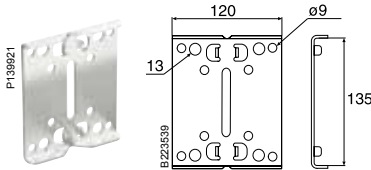
Junction coupling to be used for T- and X-junctions. Suitable for cable ladders KHZ, KHZP, KHZSP and KHZPS, all cable widths.



For T-junctions, use 2 Junction couplings 14.
 For X-junctions, use 4 Junction couplings 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.

Coupling 44

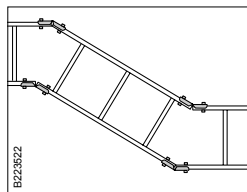
Coupling to be used for horizontal coupling of cable ladders KHZV/KHZPV. Also to be used for branches and as an end connection against a wall.



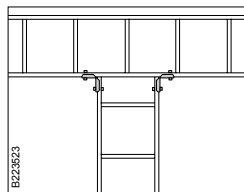
Coupling 44 may be bent to the required angle in a vice, using an adjustable spanner or similar.

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

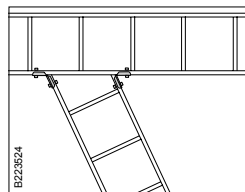
Assemble the cut and drilled ladders using M8x30 mm bolts. If the angle unit is mounted against a fixed joint plate use Screw set M12.



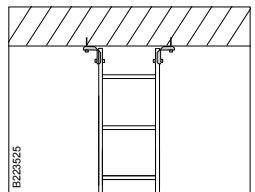
Angled cutting of the ladder ends determines the angle.



Straight branch.



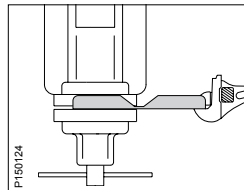
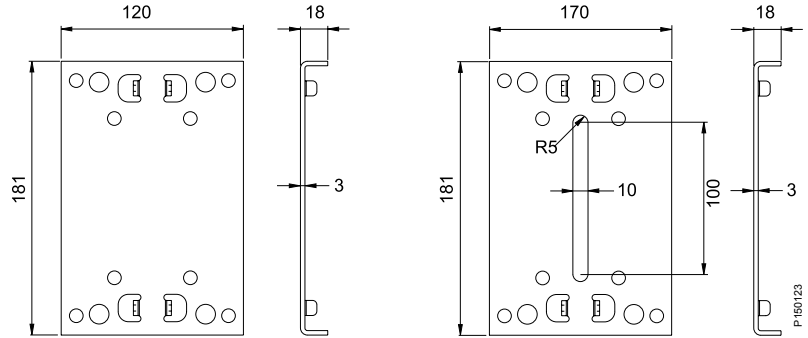
Angled branch.



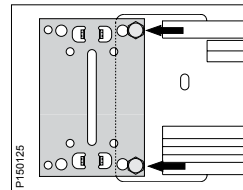
Use Coupling 44 as an end attachment for mounting ladders against walls or floors.

Horizontal coupling 20C/ Horizontal coupling bending 20C

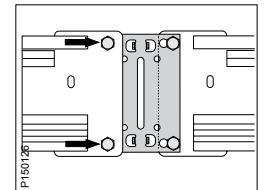
Coupling to be used for horizontal connection of cable ladders KHZP 20C range. Four screws M8x30 and nuts are included.



Coupling for Bending 20C may be bent to the required angle in a vice, using an adjustable spanner or similar.



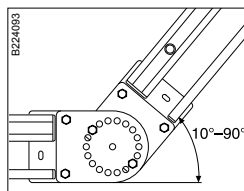
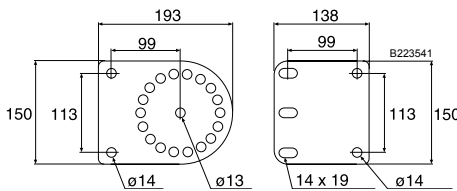
Use Coupling 44 as a drilling pattern on the cut ladder. Drill 9 mm dia. holes.



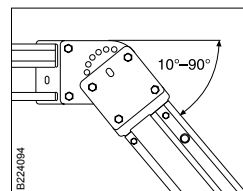
Assemble the cut and drilled ladders using M8x30 mm bolts. If the angle unit is mounted against a fixed joint plate use Screw set M12.

Coupling 51

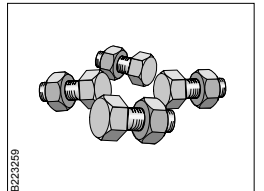
Coupling to be used as a self-supporting vertical coupling of cable ladders KHZV/KHZPV.



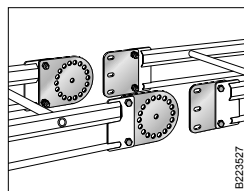
Rising. Adjustable from 10° to 90° gradually in steps of 20°.



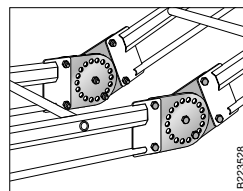
Sloping. Adjustable from 10° to 90° gradually in steps of 20°.



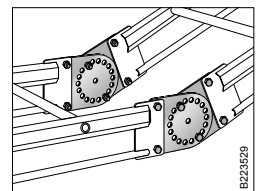
Screw set to be used for all joints with cable ladders KHZV and KHZPV.



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.

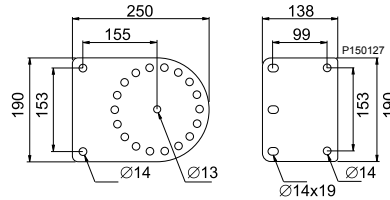


3. Move the nut in the centre hole to the opposite outer hole and tighten.

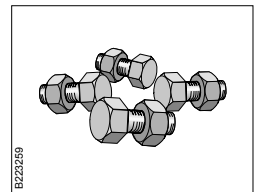
Vertical coupling 20C



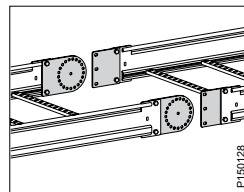
Coupling to be used as a self-supporting vertical coupling of cable ladders KHZP 20C range. Adjustable from 10° to 90° gradually in steps of 20°. Two screws M12 and nuts are included.



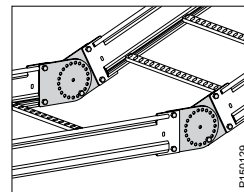
Rising and sloping adjustable from 10° to 90° gradually in steps of 20°. Screw set M12 for installation on the cable ladder is to be ordered separately..



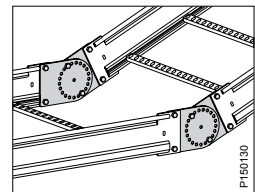
Screw set to be used for all joints with cable ladders KHZP 20C.



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.

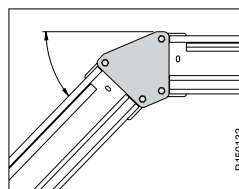
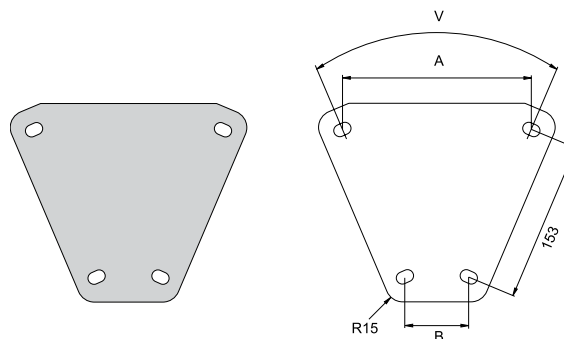


3. Move the nut in the centre hole to the opposite outer hole and tighten.

Angle plate 20C



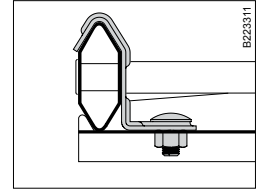
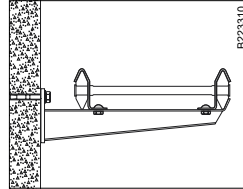
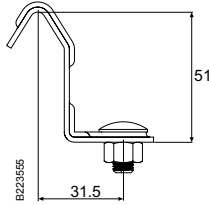
Angled coupling to be used for cable ladders KHZP 20C range. Four screws M12x30 and nuts are included.



V	A mm	B mm
30	135	56
45	180	62
60	222	69

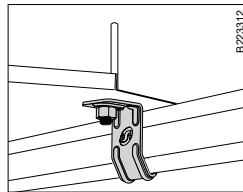
Profile clamp 42

Profile clamp to be used for installations where the cable ladder is to be fixed to cantilever arms, support brackets, etc. For mounting against wall use wall bracket 11.

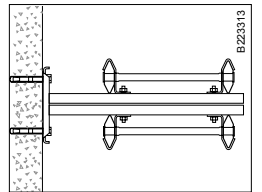


Use Profile clamp 42 for attaching KHZSP, KHZPS, KHZ and KHZP to Cantilever arm 50 and Support bracket 3.

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



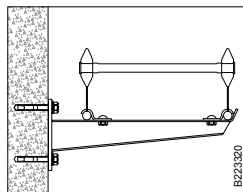
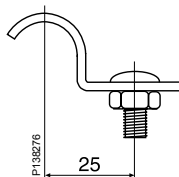
To lock Angle plate 33/2, fit 2 Profile clamp 42.



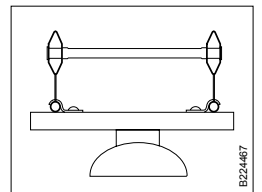
Cable ladders can be mounted directly on Vertical piece 20 or 20F with Profile clamp 42. Use T-bolt for mounting. Convenient at vertical installations in shafts.

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.



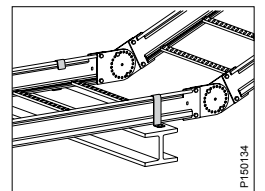
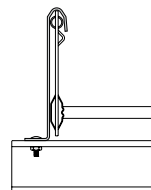
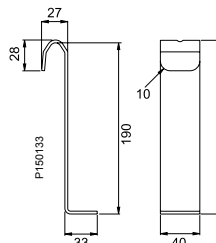
Use Profile clamp 43 to attach KHZV/KHZPV to Cantilever arm 50.



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

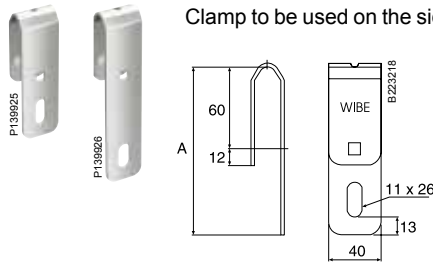
Profile clamp 20C

Profile clamp for KHZP 20 range to be used for installations where the cable ladder is to be fixed to cantilever arms, I-beams, etc. Slot for screw locking 9x24 mm.



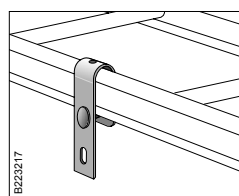
Clamp 12

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



P139925
 P139926
 A
 60
 12
 WIBE
 B223218
 11 x 26
 13
 40

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

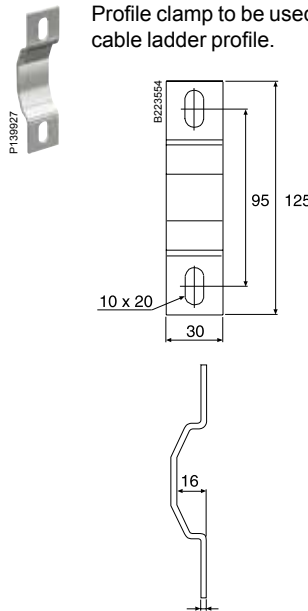


B223217

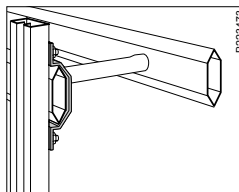
Clamp 12 can be used for installation of antenna brackets, junction boxes and so on. Bolt and nut included.

Profile clamp 41

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

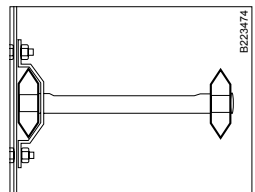


P139927
 B223854
 95
 125
 10 x 20
 30
 16
 3



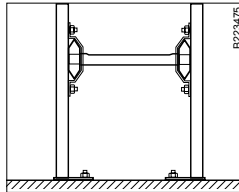
B223473

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



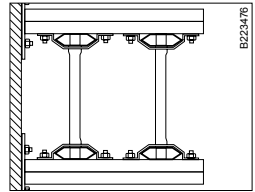
B223474

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



B223475

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

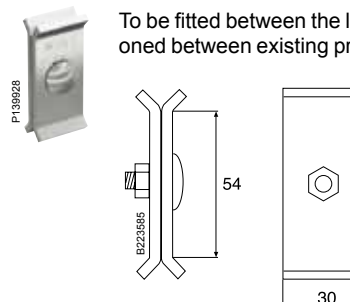


B223476

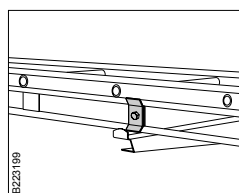
Mounting of cable ladders on wall pendants, such as in shafts. Use T-bolts against the opening of the fixing rail.

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.

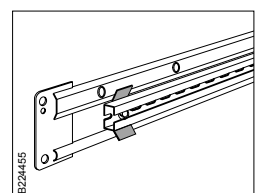


P139928
 B223585
 54
 30



B223189

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.

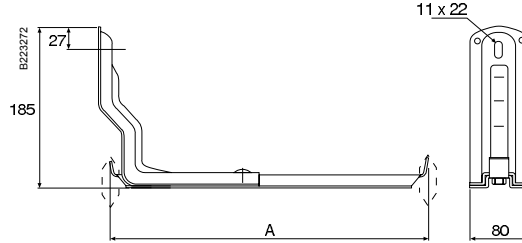


B224455

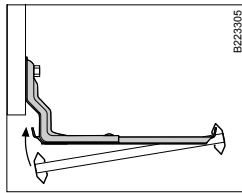
Profile support piece 46 can be installed as a fixing for different applications.

Cantilever arm 30

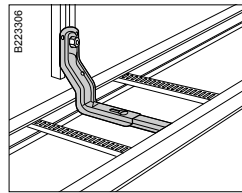
Cantilever arm for installation inside cable ladder KHZSP.



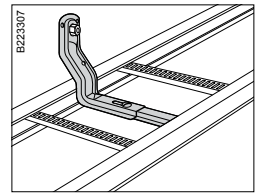
Cantilever arm type	A mm
30/200	184
30/300	284
30/400	384
30/500	484
30/600	584



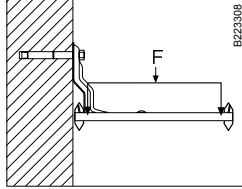
Installation of cable ladder KHZSP. Place the ladder on the outer tab and press it over the inner tab. When necessary, the ladder can be locked with a Profile clamp 43.



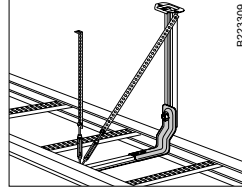
Installation on Vertical piece 2F. Cable ladder KHZSP can be adjusted max 40 mm.



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.



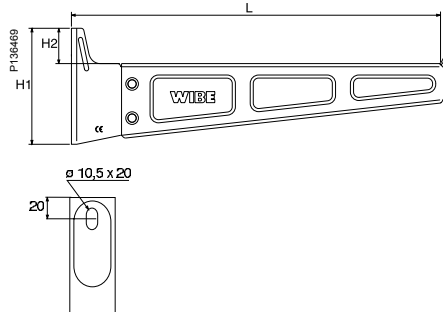
When you mount cable ladders that are 500-600 mm wide it might be necessary with a reinforcement of the outer edge of the cantilever arm. Installation band and stretching screw can be used for mounting in the ceiling or on a vertical piece.

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

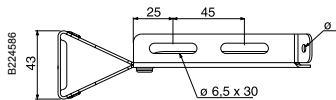
Cantilever arm 50i

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

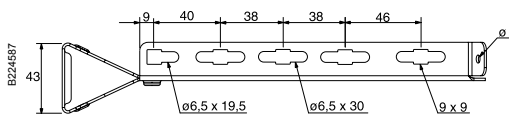


Cantilever arm type	Size		
	L mm	H1 mm	H2 mm
50i-200	250	85	28.5
50i-300	350	110	33.5
50i-400	450	115	31.0

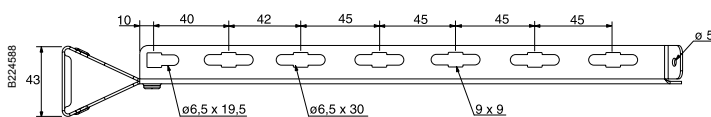
Widths = 100



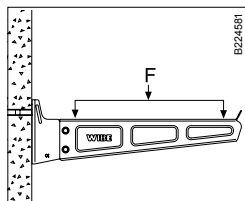
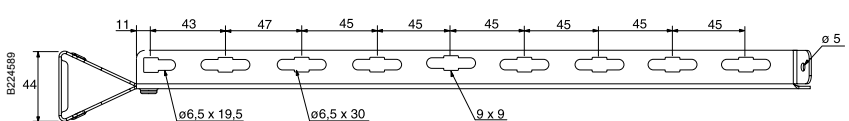
Widths = 200



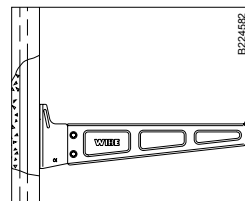
Widths = 300



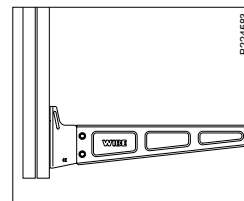
Widths = 400



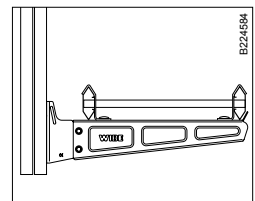
Installation of cantilever arm mounted to wall using Expansion bolt M8. Breaking load - See table below.



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.

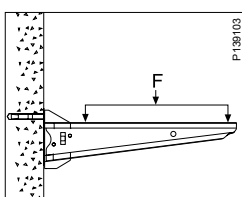
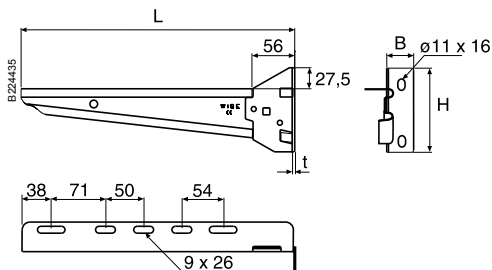


Cable ladder KHZSP mounted on Cantilever arm 50i, Profile clamp 42 is used.

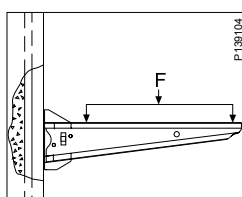
Breaking load F - Mounted on wall		
Type of cantilever arm	kN	kg
50i-100	2.30	230
50i-200	2.15	215
50i-300	2.20	220
50i-400	2.35	235

Cantilever arm 81

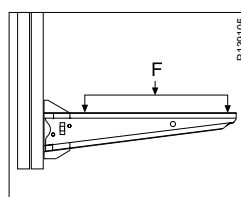
Cantilever arm to be used for lighter mountings on walls, vertical pieces or pendant/fixing rails. for widths 500-600 mm.



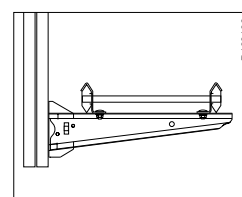
Installation of a cantilever arm to a wall using an Expansion bolt. Breaking load - see below.



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.

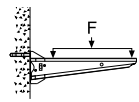
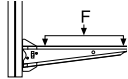


Installation of cantilever arm using T-bolt with vertical pieces. Breaking load - see below. Also check breaking load of the vertical piece.



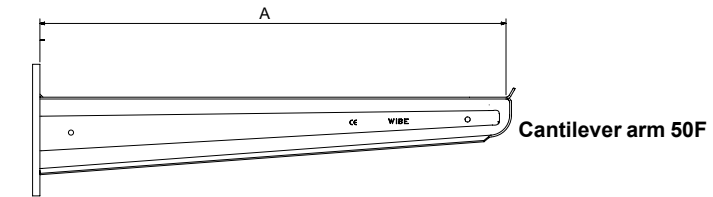
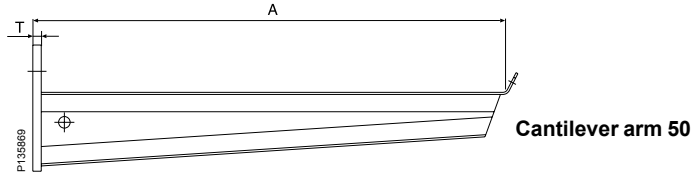
Cable ladder KHZSP mounted on Cantilever arm 81, Profile clamp 42 is used.

Size and Breaking load F

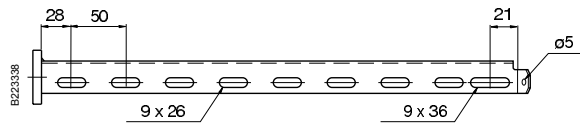
Type	Size							
	L mm	B mm	H mm	t mm	Mounted on wall kN	kg	Mounted on P/F rail 24/48 with T-bolt 26 kN	kg
Cantilever arm 81/500	568	40	150	3.0	1.9	190	1.9	190
Cantilever arm 81/600	658	40	150	3.0	1.9	190	1.9	190

Cantilever arm 50L, 50 and 50F

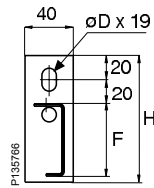
Cantilever arm for mounting on walls, pendant/fixing rails or vertical pieces.



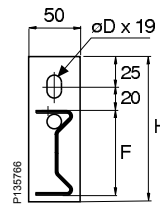
Cantilever arm 50L and 50



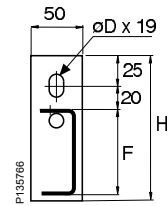
50L,50/100-300



50L,50/400-600



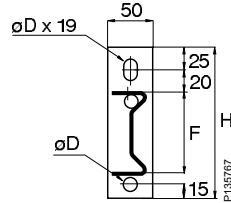
50/700-1000



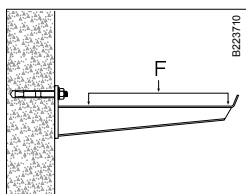
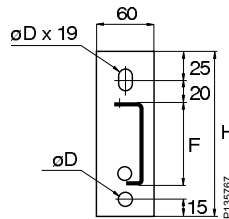
Cantilever arm 50F



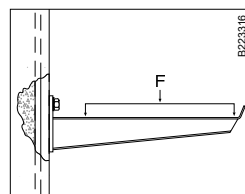
50F/200-600



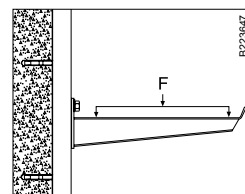
50F/1000



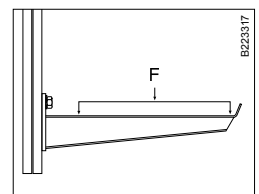
Installation of a cantilever arm to a wall using an Expansion bolt. Breaking load – see on next page.



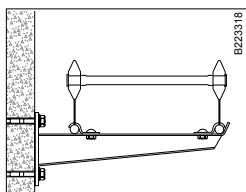
Installation of a cantilever arm using a T-bolt on a Fixing rail 24/26x53 rail for casting-in or Pendant/ Fixing rails mounted on the wall. Breaking load – see on next page.



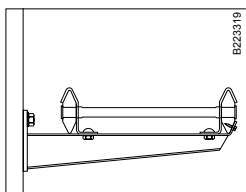
Mounting a cantilever arm using a T-bolt on a Pendant/ Fixing rail mounted on a wall.



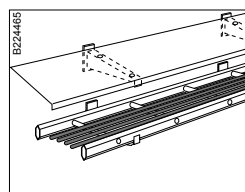
Installation of cantilever arm using T-bolt with vertical pieces. Breaking load – see on next page. Also check breaking load of the vertical piece.



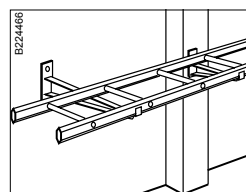
Profile clamp 43 is used for attaching a KHZV onto a Cantilever arm 50F.



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

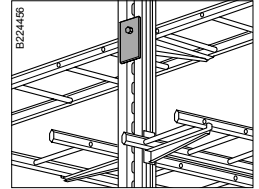
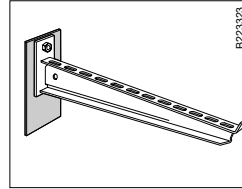
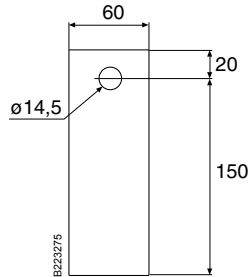
Type	A mm	D mm	F mm	H mm	T mm	Mounted on wall		Mounted on P/F rail 24/48 with T-bolt 26F	
						kN	kg	kN	kg
50L/100	150	12	34	85	4	1.5	150	1.5	150
50L/150	200	12	36	85	4	1.5	150	1.5	150
50L/200	250	12	39	85	4	1.5	150	1.5	150
50L/250	298	12	56	105	4	2.0	200	2.0	200
50L/300	348	12	60	105	4	2.0	200	2.0	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.



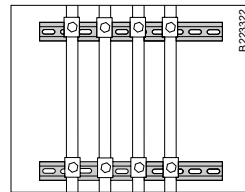
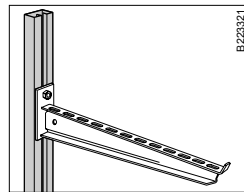
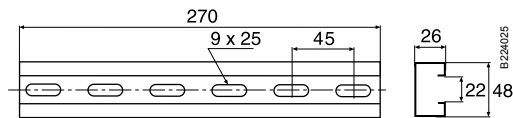
Mount Back plate 40 as shown in the illustration to reduce the surface stress on porous walls.

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.



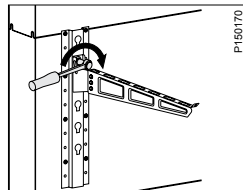
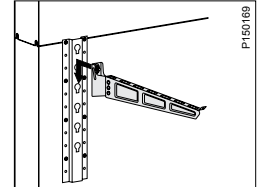
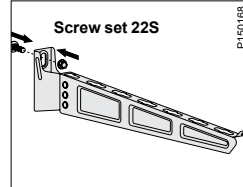
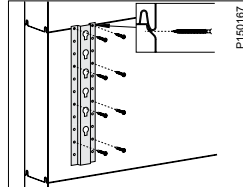
Mounting rails reduce the surface stress on porous walls. Mount the cantilever arm using T-bolt, which permits height adjustment.

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

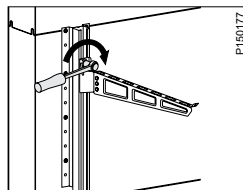
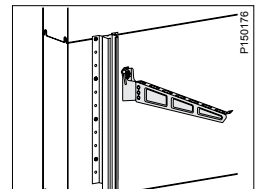
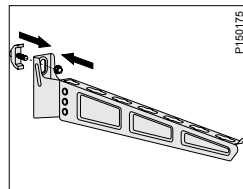
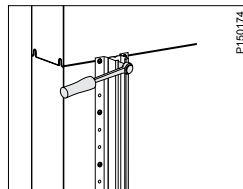
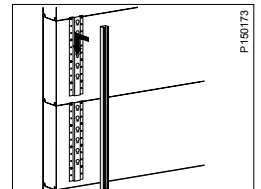
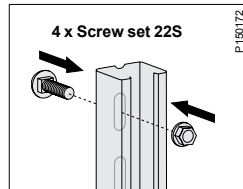
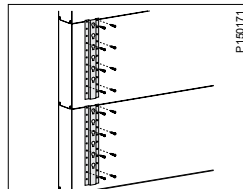
Wall support



Wall support for mounting of cantilever arm on porous walls or sandwich wall blocks, with six keyholes for easy fixation. When mounting cantilever arm on support, use screw set 22S (M8).

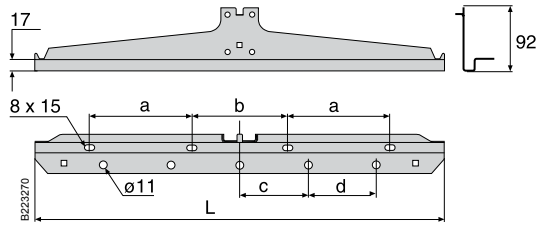


Two wall support plates can be combined with pendent rail 24/48 for extended mounting. for mounting of pendent rail use screw set 22S.



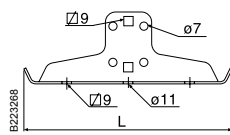
Support bracket 3

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

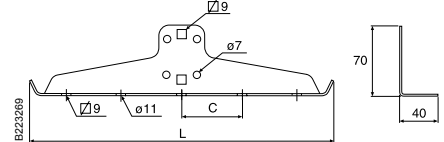


Stainless steel AISI 316L

3/150-200



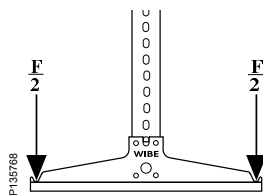
3/300-600



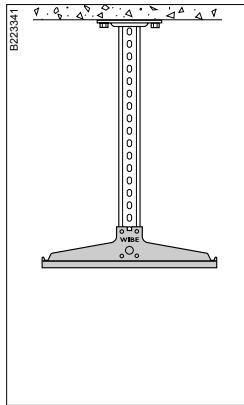
Size

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

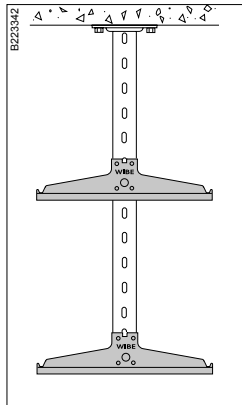
Breaking load for support bracket with symmetrical loading



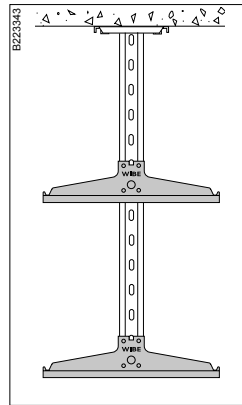
Type	Breaking load F	
	kN	kg
Support bracket 3/150	16	1600
Support bracket 3/200	16	1600
Support bracket 3/300	16	1600
Support bracket 3/400	12	1200
Support bracket 3/500	12	1200
Support bracket 3/600	10	1000



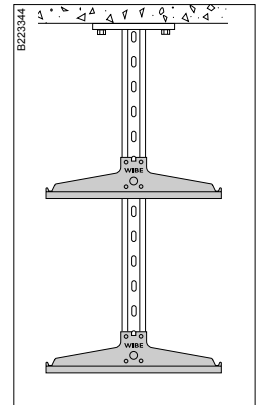
Mount Support bracket 3 on Vertical piece 2 with Screw set 22S.



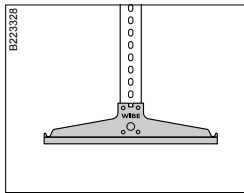
Mount Support bracket 3 on Vertical piece 2F with Screw set 22S.



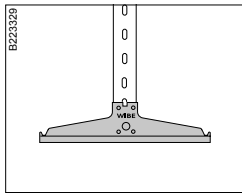
Mount Support bracket 3 on Vertical piece 20 with Screw set 20S.



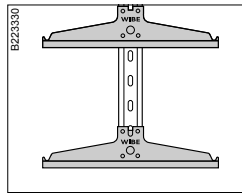
Mount Support bracket 3 on Vertical piece 20F with Screw set 2S.



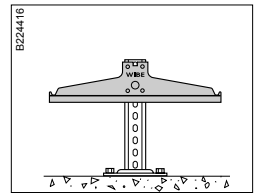
Mount Support bracket 3 on Pendant/Fixing rail 24/34 with Screw set 22S.



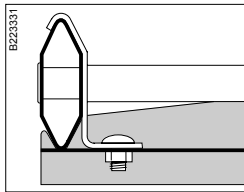
Mount Support bracket 3 on Pendant/Fixing rail 24/20 or 24/48 with Screw set 22S.



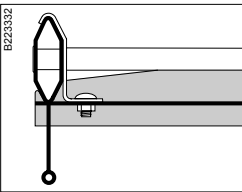
Support bracket 3 installed on Pendant/Fixing rail 24/20F with Screw set 2S.



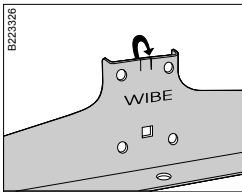
Support bracket 3 can be mounted on floor or under data floor with a suitable vertical piece.



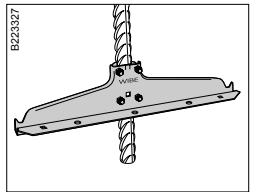
For installation of KHZSP, KHZ, KHZP and KHZPS on Support bracket 3 Profile clamp 42 is used.



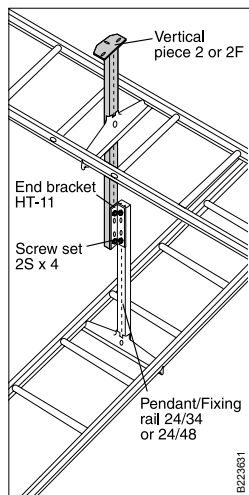
When attaching KHZV/KHZPV to Support bracket 3, use Profile clamp 42.



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



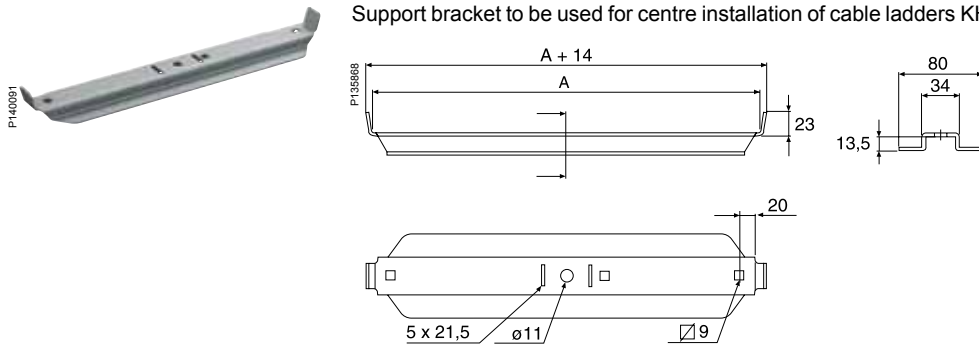
Support bracket 3 mounted on a rock bolt with Clamp set M6.



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.

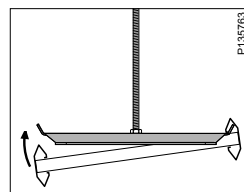


Size

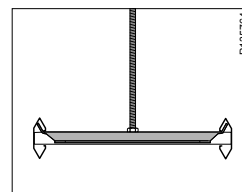
Type	A mm
Support bracket 6/200	170
Support bracket 6/300	270
Support bracket 6/400	370
Support bracket 6/500	470
Support bracket 6/600	570

Breaking load for Support bracket 6 – symmetrical loading

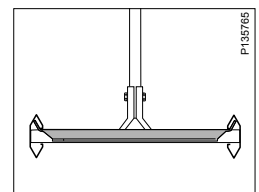
Support bracket	Breaking load with Threaded rod W76 M10		Breaking load with Pendant attachment W21	
	kN	kg	kN	kg
6/200	5.0	500	3.4	340
6/300	4.8	480	3.4	340
6/400	3.0	300	3.0	300
6/500	2.2	220	2.2	220
6/600	1.7	170	1.7	170



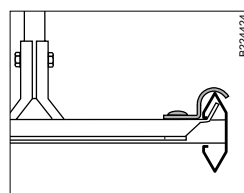
Support bracket 6 must be mounted inside cable ladder KHZSP.



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



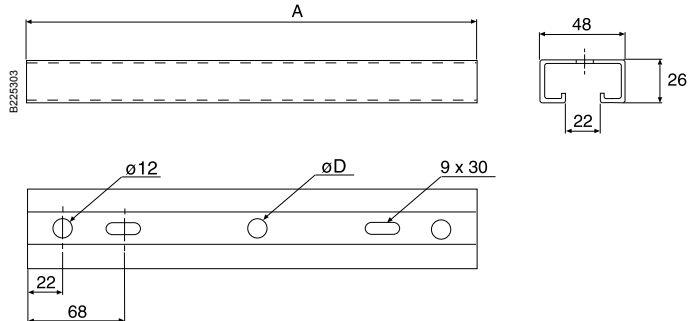
Support bracket 6 mounted with Pendant rail W32, Pendant attachment W21 and Screw set W37 from the Wibe Cable Tray range.



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.

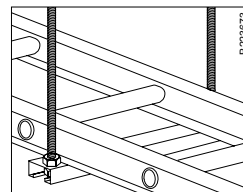
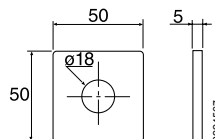


Size

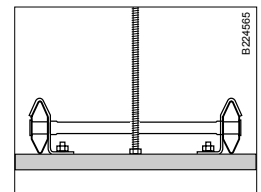
Type	A mm	D mm
Support bracket HSO/150 M10	210	12
Support bracket HSO/200 M10	260	12
Support bracket HSO/300 M10	360	12
Support bracket HSO/400 M16	460	18
Support bracket HSO/500 M16	560	18
Support bracket HSO/600 M16	660	18

Washer HSO M16

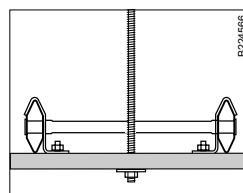
Washer to be used for centered mounting with Support bracket HSO M16 and Threaded rod M16.



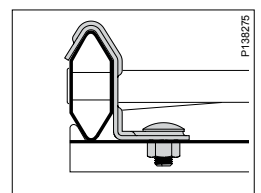
Support bracket HSO M10 installed with Threaded rod W76 M10.



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



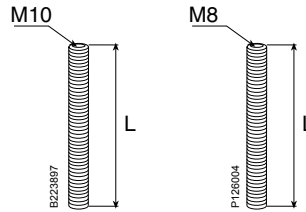
Centered installation with Support bracket HSO M16, widths 400-600, Threaded rod M16, 2 Nuts M16 and Washer HSO M16.



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.



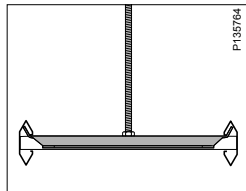
Flange nut B43 M8, M10

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

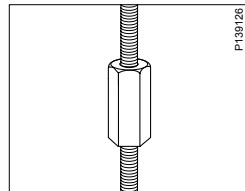


Thread lock B50 M8, M10

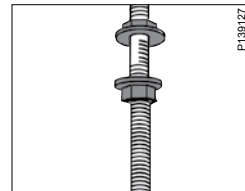
Used for joining of Threaded rod.



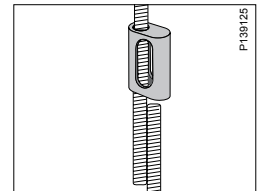
Support bracket 6 mounted with Threaded rod. Flange Nut B43 must be used.



Use Joint nut when joining 2 pieces of Threaded rod.



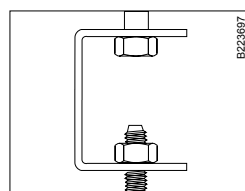
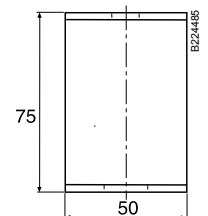
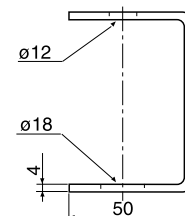
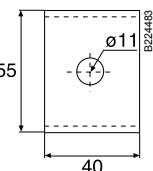
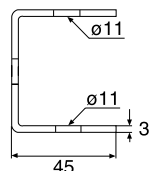
Flange nut B43 is mounted onto Threaded rod in order to lock support brackets and ceiling brackets.



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

Ceiling bracket TF-10 and TF-16

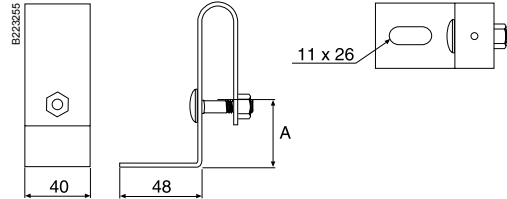
Ceiling bracket to be used for installation with Threaded rods.



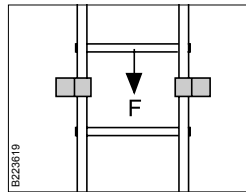
Ceiling bracket TF-10 or TF-16 installed with Threaded rod M10 or M16.

Wall bracket 11/25 and 11/75

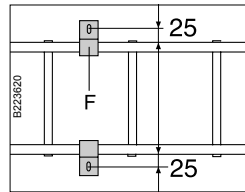
To be used for vertical or horizontal installations of cable ladders against a wall.



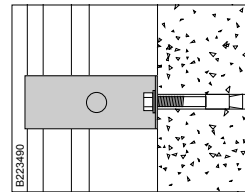
Type	A mm
Wall bracket 11/25	25
Wall bracket 11/75	75



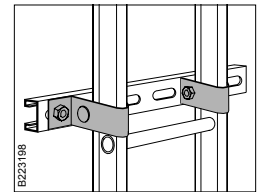
Vertical mounting
(max. load - F)
Wall bracket 11/25:
300 kg (3 kN)
Wall bracket 11/75:
300 kg (3 kN)
When mounting against a
rung the max load is 500
kg (5 kN) for wall bracket
11/25.



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



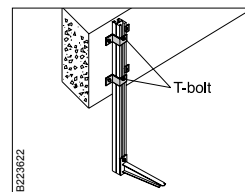
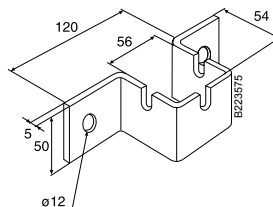
Mount wall brackets
against walls using
Expansion bolts.



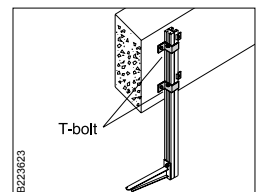
Pendant/fixing rails can
be mounted on cable
ladders using wall
brackets for mounting
equipment cubicles etc.
Mount wall brackets on
Pendant/fixing rails using
Screw set 22S.

Wall bracket 20

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



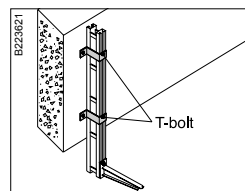
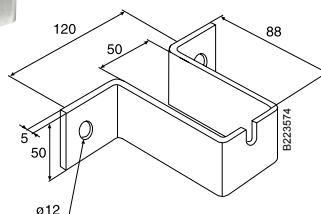
For cable ladder install-
ations along a beam.
Pendant/Fixing rail 24/20
must be mounted with 2
Wall brackets 20 and 2
T-bolts 26F-30 placed in
the centre outlet. This
installation is also used for
fixing to wall. Max vertical
load 700 kg (7 kN).



For cable ladder install-
ations 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

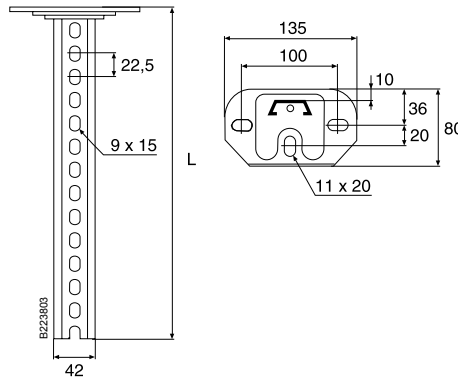
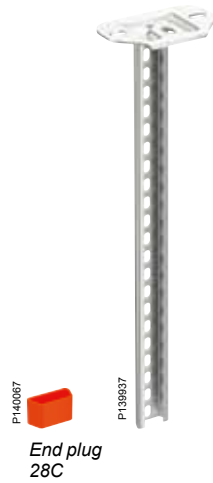
To be used at installation of Pendant/Fixing rail 20F to ceiling beam or wall.



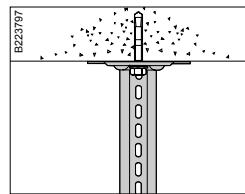
Pendant/Fixing rail
24/20F must be mounted
with 2 Wall brackets 20F
and 2 T-bolts 26F-30 for
cable ladders along
beams. This installation is
also used for fixing to
wall. Max. vertical load
700 kg (7 kN).

Vertical piece 2

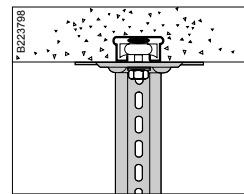
Vertical piece to be used for installation of Support bracket 3, symmetrical loading. Not suitable for cable ladders KHZV and KHZPV. Can be joined to Pendant/fixing rail 24/34 with Pendant joint 2J.



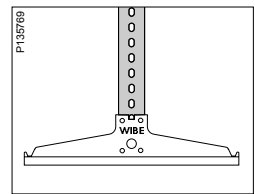
Type	L mm
Vertical piece 2/300	279
Vertical piece 2/400	392
Vertical piece 2/500	504
Vertical piece 2/700	729
Vertical piece 2/1000	1022



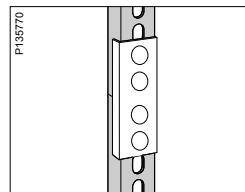
Mount Vertical piece 2 using an Expansion bolt or a concrete screw.



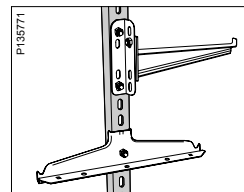
Mount Vertical piece 2 on a Fixing rail 24/26x53 for casting-in using T-bolt 26F.



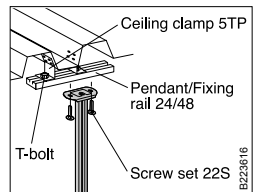
On Vertical piece 2, mount Support bracket 3 using Screw set 22S.



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

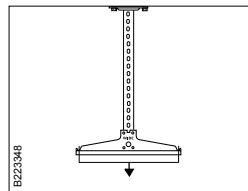


Cantilever arm 50 can, using End bracket HT-11, be mounted at 90° to the pendant/fixing rail. Only for lightweight mounting, such as data cables.

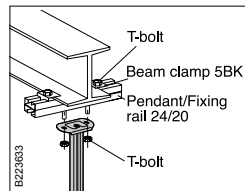


In ceilings with trapezoidal profile sheeting, mount Vertical piece 2 as shown above.

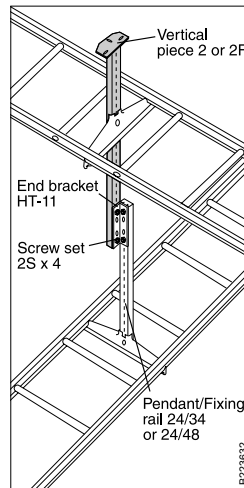
Breaking load



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



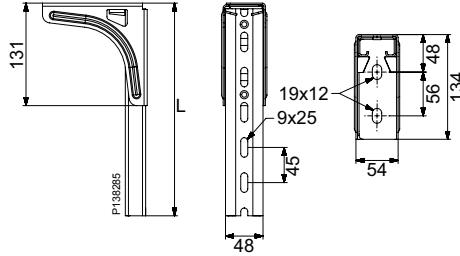
On beams in ceilings. When the beam flange thickness does not exceed 13 mm, use Beam clamp 5BK-10 and T-bolt 26F/40. For flange thicknesses not exceeding 30 mm use Beam clamp 5BK-30 and T-bolt 26F/50.



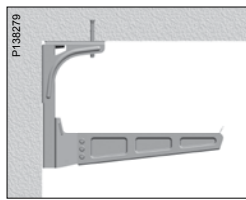
End bracket HT-11 permits the mounting of crossing cable ladders at different levels on the same pendant/fixing rail.

Vertical piece 2Fi

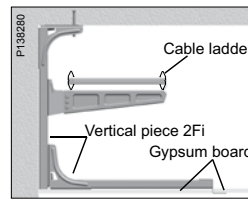
Vertical piece to be used for lighter mountings with Cantilever arm 50i and Cable ladder KHZSP.



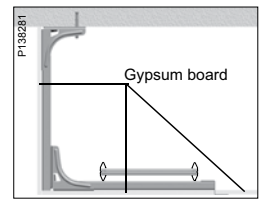
Type	L mm
Vertical piece 2Fi-300	272
Vertical piece 2Fi-500	497
Vertical piece 2Fi-750	722
Vertical piece 2Fi-1000	992



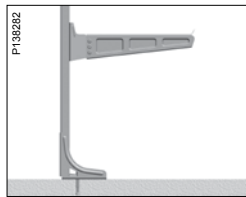
Vertical piece 2Fi can be mounted in ceiling close to wall.



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

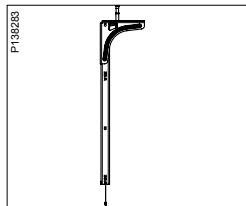


Vertical piece 2Fi can be used as carrier of gypsum boards in order to build in cable ladder passages.

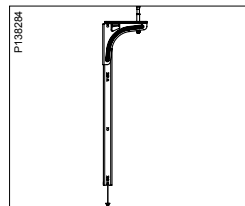


Vertical piece 2Fi is suitable for floor mounting.

Breaking load



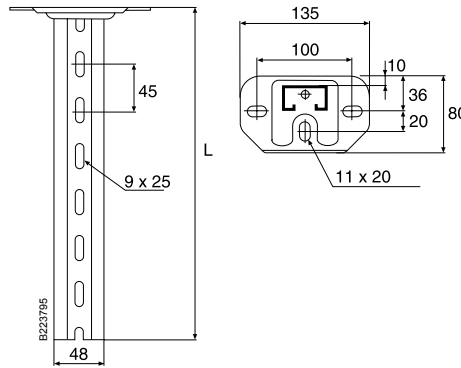
Vertical piece 2Fi mounted in the inner hole. Breaking load=500 kg (5 kN) at symmetrical loading.



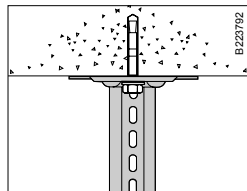
Vertical piece 2Fi mounted in the outer hole. Breaking load=100 kg (1 kN) at symmetrical loading.

Vertical piece 2F

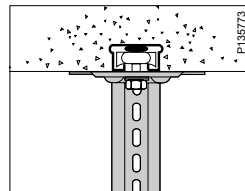
Vertical piece to be used for installation of Support bracket 3 or Cantilever arm 50. Can be joined to Pendant/fixing rail 24/48 with Pendant joint 2FJ. Can be mounted from the ceiling or on the floor. Can also be installed as a cantilever arm on a wall.



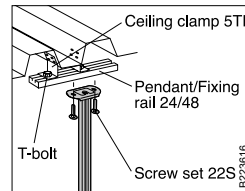
Type	L mm
Vertical piece 2F/280	280
Vertical piece 2F/370	370
Vertical piece 2F/505	505
Vertical piece 2F/640	640
Vertical piece 2F/730	730
Vertical piece 2F/865	865
Vertical piece 2F/1000	1000
Vertical piece 2F/1500	1495



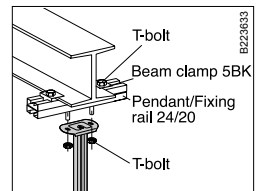
Mount Vertical piece 2F using Expansion bolt alt. Concrete screw.



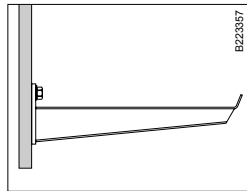
On Fixing rail forcasting-in, mount Vertical piece 2F using T-bolt.



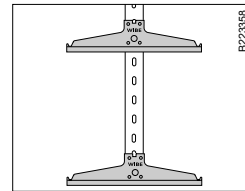
In ceilings with trapezoidal sheeting, mount Vertical piece 2F as shown above.



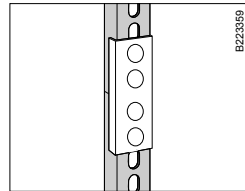
On beams in ceilings, mount Vertical piece 2F as shown in the figure above. When the beam flange thickness does not exceed 13 mm, use Beam clamp 5BK-10 and T-bolt 26F/40. For flange thicknesses not exceeding 30 mm use Beam clamp 5BK-30 and T-bolt 26F/50.



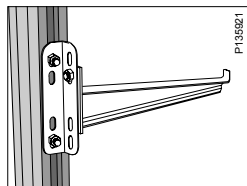
On Vertical piece 2F, mount Cantilever arm 50 using T-bolt.



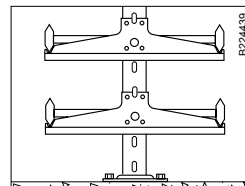
On Vertical piece 2F, mount Support bracket 3 using Screw set 22S.



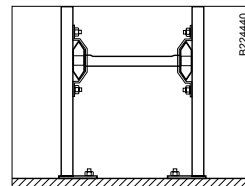
Vertical piece 2F can be joined to achieve the required length using Pendant/fixing rail 24/48 and Pendant joint 2FJ.



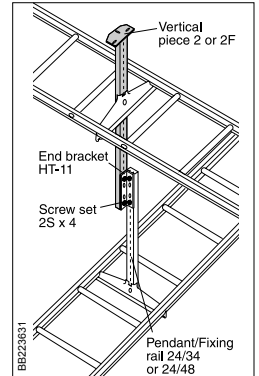
Cantilever arm 50 can, using End bracket HT-11, be mounted at 90° to the pendant/fixing rail. Only for lightweight installation of data cable type and suchlike.



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

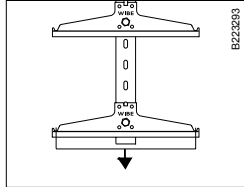


For installation on floor the cable ladders can be mounted with Vertical piece 2F, Profile clamp 41 and T-bolt.



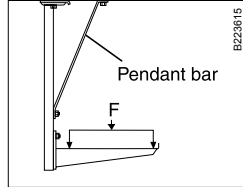
End bracket HT-11 permits mounting of crossing cable ladders on different levels on the same pendant/fixing rail.

Breaking load symmetrical loading*



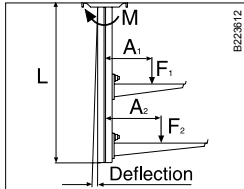
Breaking load for Vertical piece 2F (VP) = 2300 kg (23 kN) at symmetrical loading.

VP + Pendant bar for reduction of deflection

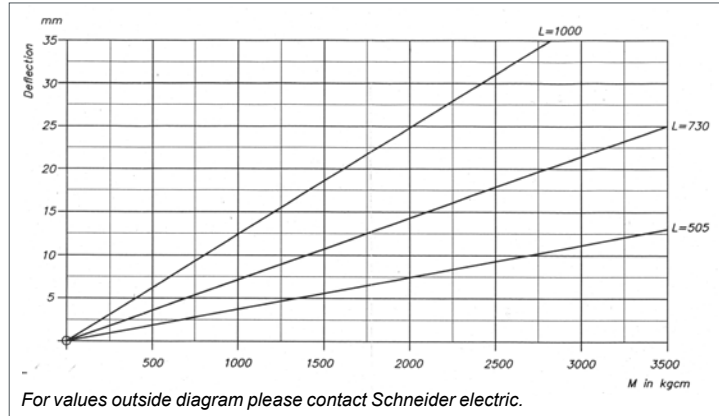


Deflection of Vertical piece 2F is reduced by installing Pendant bar 1 or Pendant/Fixing rail and Bracket 60/40. Loadings in accordance with chart below.

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) (A_1) (F_2) (A_2)

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

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

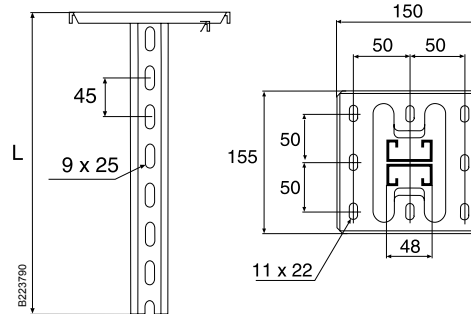
Loading table for Vertical piece 2F installed as a cantilever arm

Pendant type	Vertical piece 2F with Pendant bar 1/300	
	2F/700	2F/1000
Ladder width	Breaking load	Breaking load
150	120	75
200	125	80
300	135	90
400	140	100
600	—	120

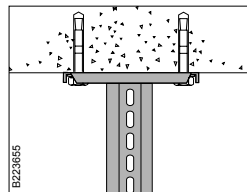
*Safe working load according to IEC 61537 is breaking load divided by 1,7.

Vertical piece 20

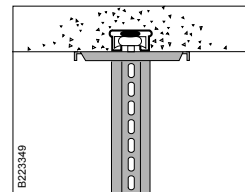
Vertical piece, two-sided, to be used for vertical installation together with Cantilever arm 50, from a ceiling or on a floor. Can also be installed as a cantilever arm on a wall.



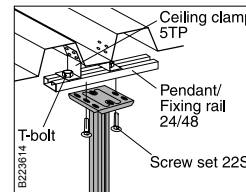
Type	L mm
Vertical piece 20/280	280
Vertical piece 20/370	370
Vertical piece 20/500	505
Vertical piece 20/640	640
Vertical piece 20/700	730
Vertical piece 20/865	865
Vertical piece 20/1000	1000
Vertical piece 20/1500	1495
Vertical piece 20/2000	1990
Vertical piece 20/3000	2980



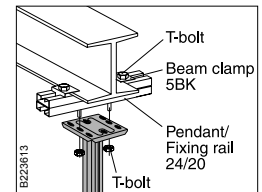
Mount Vertical piece 20 using Expansion bolt.



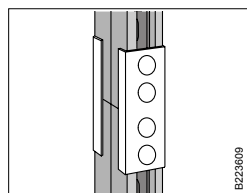
On fixing rail for casting-in, mount Vertical piece 20 using T-bolts.



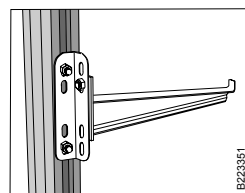
In ceilings with trapezoidal profile sheeting, mount Vertical piece 20 as shown above



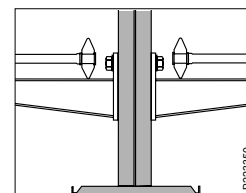
On beams in ceilings, mount Vertical piece 20 as shown in the figure above. When the beam flange thickness does not exceed 13 mm, use Beam clamp 5BK-10 and T-bolt 26F/40. For flange thicknesses not exceeding 30 mm use Beam clamp 5BK-30 and T-bolt 26F/50.



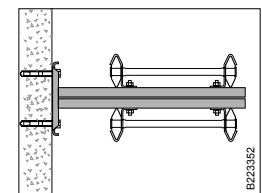
Vertical piece 20 can be joined to achieve the required length using Pendant/Fixing rail 24/20 and Pendant joint 20J.



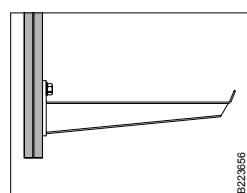
Using End bracket HT-11, Cantilever arm 50 can be mounted at 90° to the pendant/fixing rail. Only for lightweight mounting of data cable type and suchlike



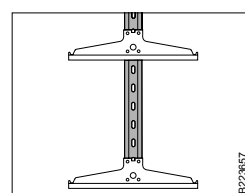
Vertical piece 20 is also suitable for floor mounting



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.

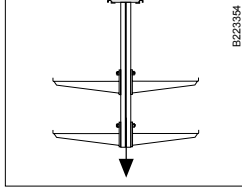


On vertical piece, mount Cantilever arm 50 using T-bolt. For loadings see Cantilever arm 50



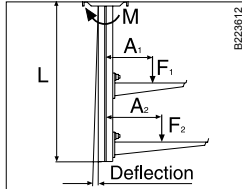
On Vertical piece 20, mount Support bracket 3 using Screw set 20S.

Breaking load symmetrical loading*

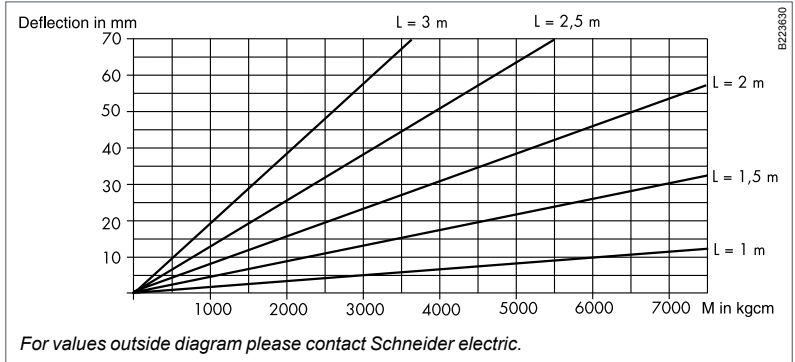


Breaking load for vertical piece (VP) = 3000 kg (30 kN).

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)

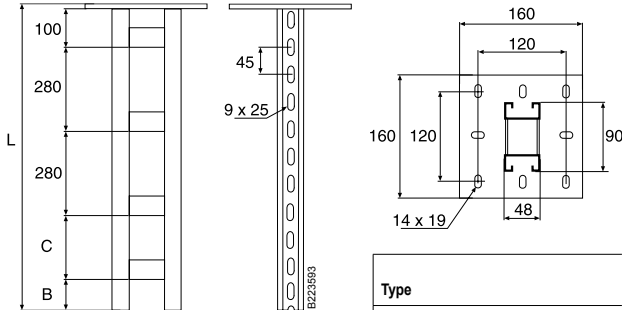
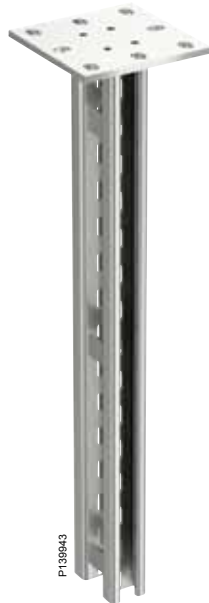
Loading table for Vertical piece 20 installed as a cantilever arm

Pendant type	Vertical piece 20 with Pendant bar 1/300			Vertical piece 20 without pendant bar		
	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	—

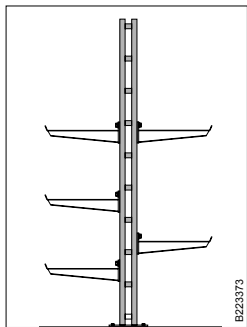
*Safe working load according to IEC 61537 is breaking load divided by 1,7.

Vertical piece 20F

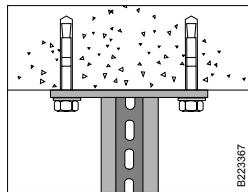
Vertical piece, two-sided, to be used for mounting from the ceiling or on the floor. Suitable for rather heavy loads.



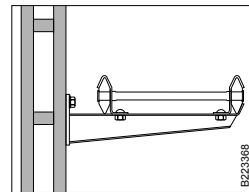
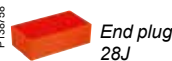
Type	B mm	C mm	L mm
Vertical piece 20F/1000	50	280	995
Vertical piece 20F/1500	70	195	1490
Vertical piece 20F/2000	5	195	1985
Vertical piece 20F/3000	70	280	2980



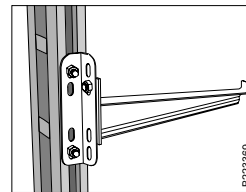
Floor mounting example.



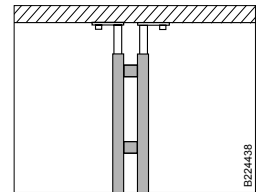
Mount Vertical piece 20F using Expansion bolt alt. Concrete screw.



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

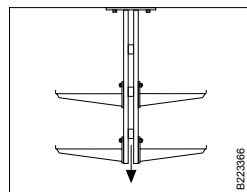


Using End bracket HT-11, Cantilever arm 50 can be mounted at 90° to the vertical piece. Only for lightweight mounting of data cable type or similar.



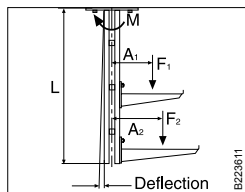
Vertical piece 20F mounted on floor can be fixed using Vertical piece 2 as ceiling bracket, adjustable in the pendant.

Breaking load Symmetrical loading*

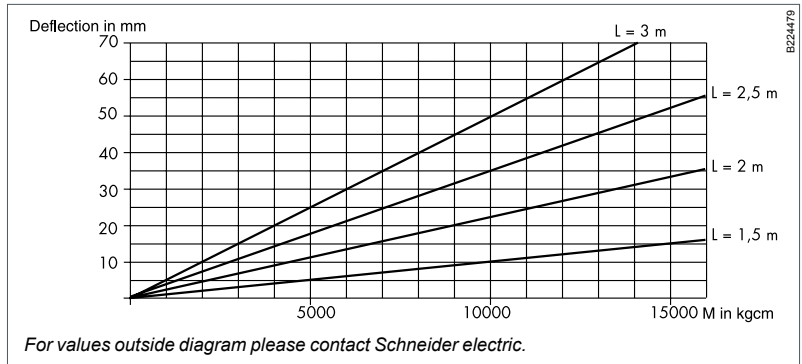


Breaking load for Vertical piece (VP) 20F = 5000 kg (50kN)

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?

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

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

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

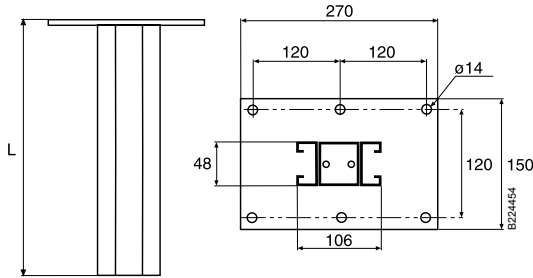
M = 6880 kgcm - bending as per diagram, about 6 mm.

- 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)

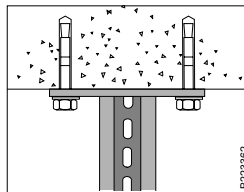
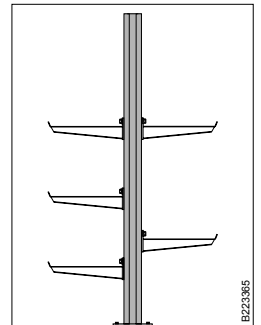
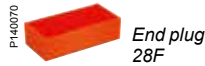
*Safe working load according to IEC 61537 is breaking load divided by 1,7.

Vertical piece 20FS

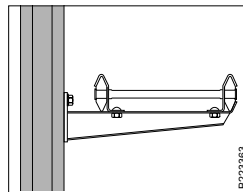
Vertical piece, two-sided, to be used for mounting from the ceiling or on the floor. Suitable for very heavy loads.



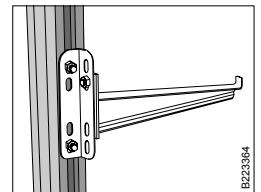
Type	L mm
VP 20FS/1500	1495
VP 20FS/2000	1990
VP 20FS/2500	2485
VP 20FS/3000	2980



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

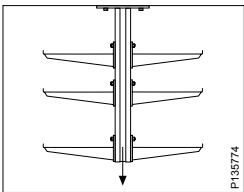


Mount Cantilever arm 50 using T-bolt. For loads on Cantilever arm 50, see Cantilever arm 50L, 50 and 50F.



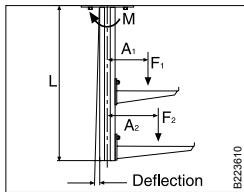
Using End bracket HT-11, Cantilever arm 50 can be mounted at 90° to the vertical piece. Only for lightweight mounting of data cable type or similar.

Breaking load Symmetrical loading

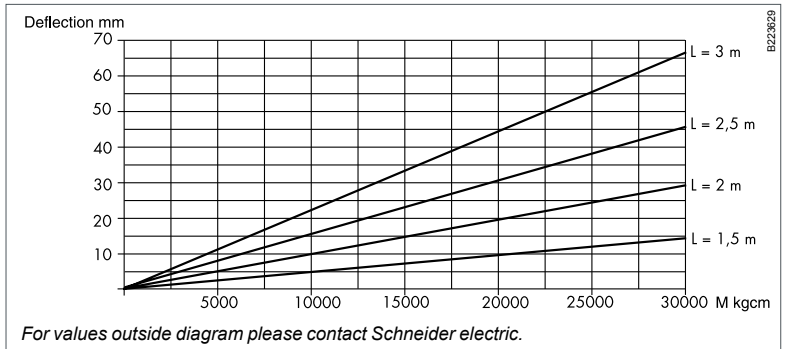


Symmetrical loading
Breaking load for Vertical piece (VP) 20FS = 5000 kg (50 kN)

Breaking load asymmetrical loading



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



For values outside diagram please contact Schneider electric.

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

L = VP length

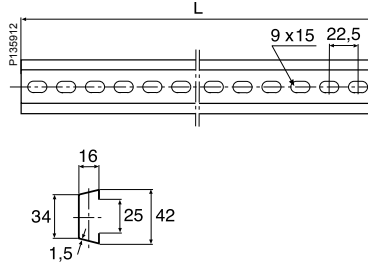
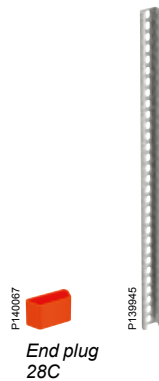
Break load torque 60 000 (kgcm)

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

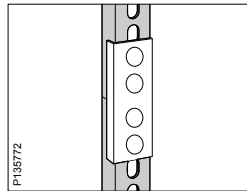
*Safe working load according to IEC 61537 is breaking load divided by 1,7.

Pendant/Fixing rail 24/34

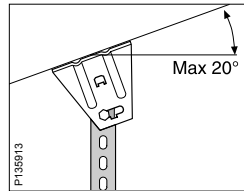
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc.



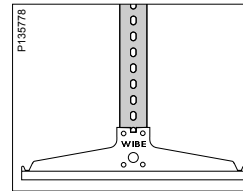
Type	L mm
Pendant/Fixing rail 24/34	292.5
Pendant/Fixing rail 24/34	382.5
Pendant/Fixing rail 24/34	495.0
Pendant/Fixing rail 24/34	697.5
Pendant/Fixing rail 24/34	990.0
Pendant/Fixing rail 24/34	2970.0



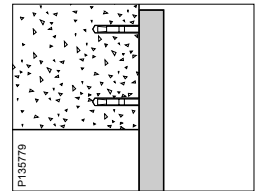
Vertical piece 2 may be joined to Pendant/Fixing rail 24/34 and Pendant joint 2J to achieve a suitable length.



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



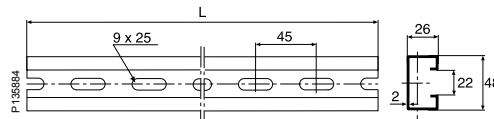
Mount Support bracket 3 using Screw set 22S.



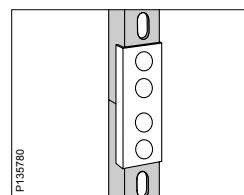
Side mounting of pendant/fixing rails may be done using 2 Expansion bolts alt. 2 Concrete screws.

Pendant/Fixing rail 24/48

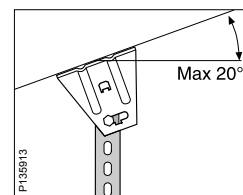
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc.



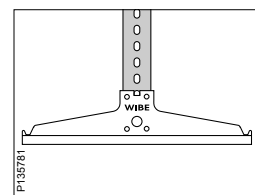
Type	L mm
Pendant/Fix. rail 24/48	2970
Pendant/Fix. rail 24/48	5940



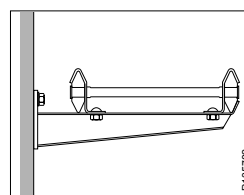
Vertical piece 2F may be joined using Pendant/Fixing rail 24/48 and Pendant joint 2FJ to achieve the required length.



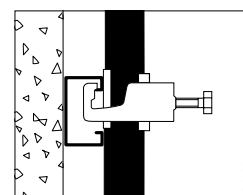
Ceiling bracket 5 and 1 Screw set 22S together provide a vertical piece that can be mounted with up to 20° slope. Only for mounting support brackets.



Mount Support bracket 3 using Screw set 22S.



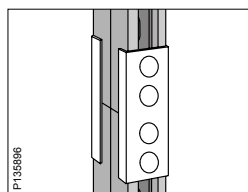
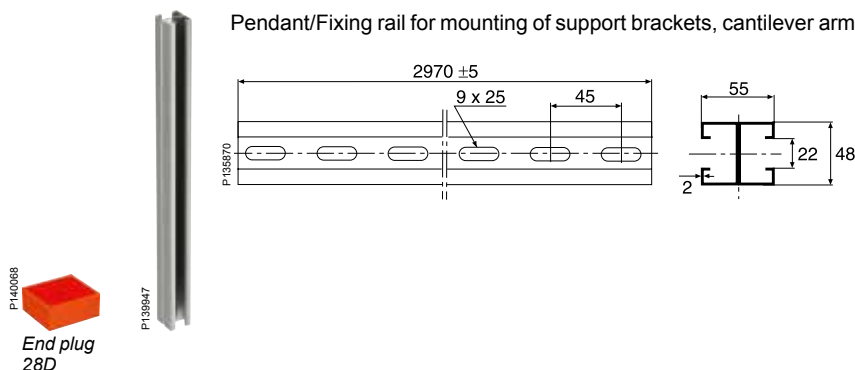
Mount Cantilever arm 50 using T-bolt.



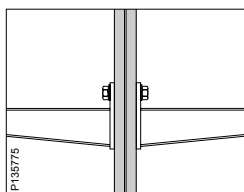
Cables are mounted on a Pendant/Fixing rail 24/48 using cable clamps of type A.

Pendant/Fixing rail 24/20

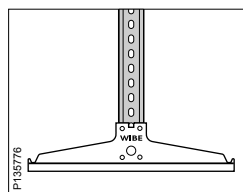
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc.



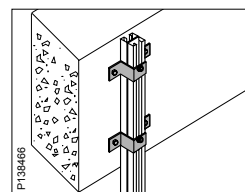
Vertical piece 20 may be joined using Pendant/Fixing rail 24/20 and Pendant joint 20J. Only for symmetrical loading.



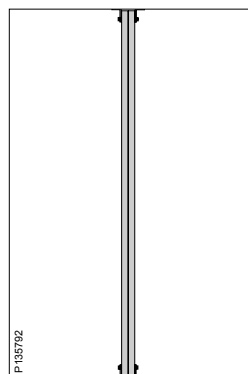
Mount Cantilever arm 50 using T-bolts.



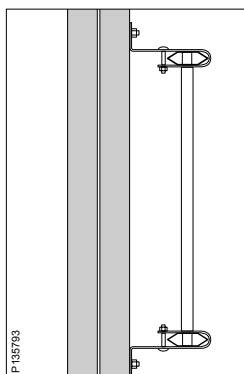
Mount Support bracket 3 using Screw set 20S.



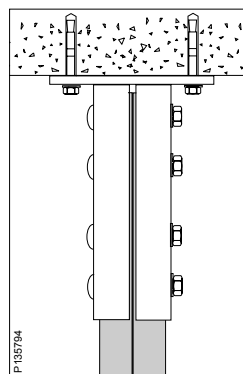
Pendant/Fixing rail can be mounted on beam or wall with Wall bracket 20.



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.



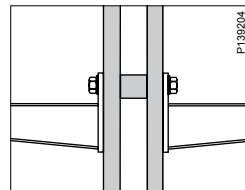
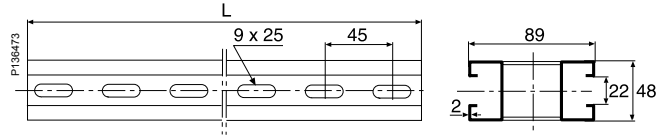
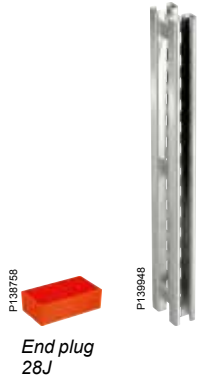
Cable ladder may be mounted vertically or horizontally on Pendant/Fixing rail 24/20 using Wall bracket 11/25 or 11/75 and T-bolt.



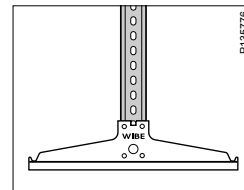
Pendant base plate 520 can be mounted as a ceiling or floor attachment.

Pendant/Fixing rail 24/20F

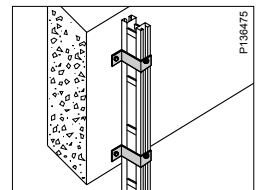
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc.



Mount Cantilever arm 50 using T-bolts.

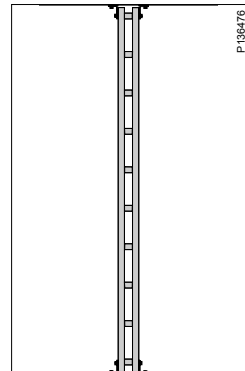


Mount Support bracket 3 using Screw set 2S.

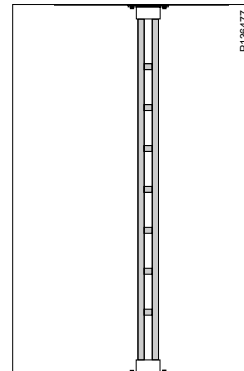


Pendant/Fixing rail 24/20F can be mounted on beam or wall with Wall bracket 20F

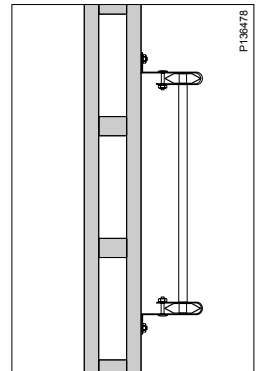
Type	L mm
Pendant/Fixing rail 24/20F-3000	2970
Pendant/Fixing rail 24/20F-6000	5940



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.



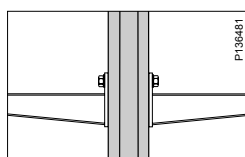
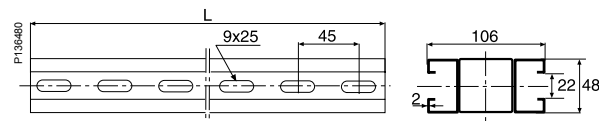
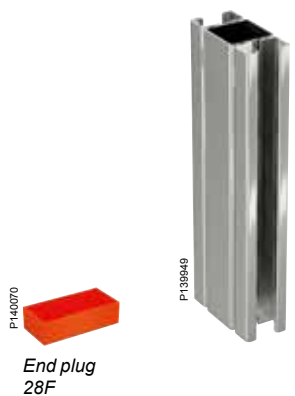
Mount Pendant/Fixing rail 24/20F between a floor and ceiling using 2 Rail fixing supports.



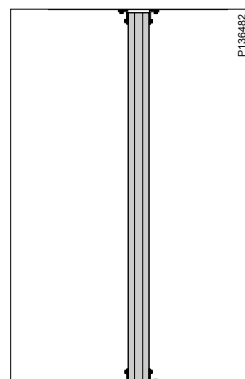
Cable ladder can be mounted vertically or horizontally on Pendant/Fixing rail 24/20F using Wall bracket 11/25 or 11/75.

Pendant/Fixing rail 24/20FS

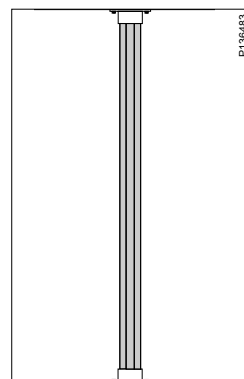
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc.



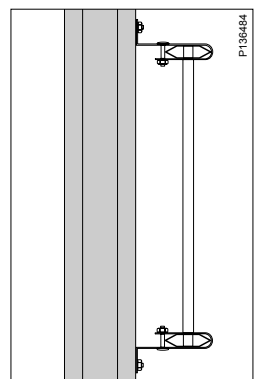
Mount Cantilever arm 50 using T-bolts.



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.



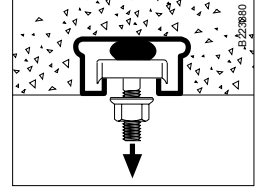
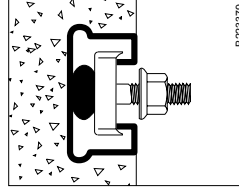
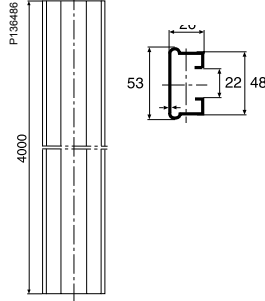
Mount Pendant/Fixing rail 24/20FS between floor and ceiling using 2 Rail fixing supports.



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.

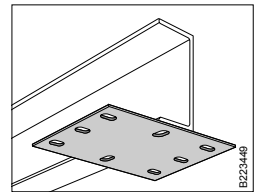
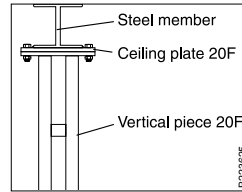
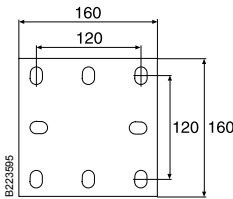


Fixing rail 24/26 x 53 for casting-in in walls and ceilings. Mount cantilever arms with T-bolt 26F.

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.

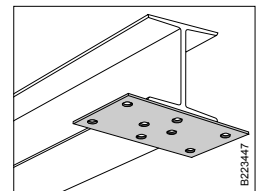
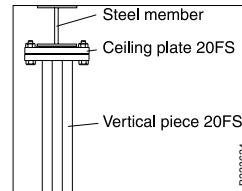
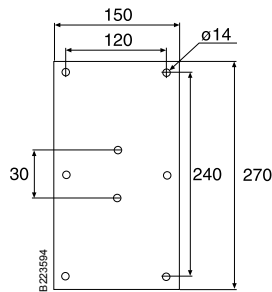


The ceiling plate is welded to the steel member. Permission to weld on the steel member is required. Remove all zinc at the weld. Post-treat using Galvafruid.

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.



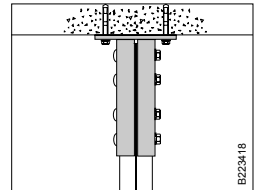
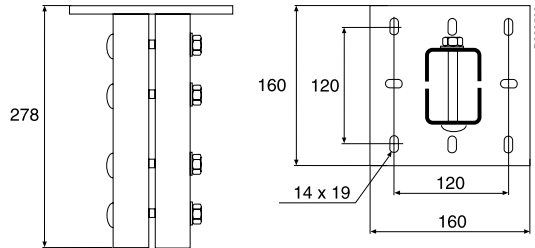
The ceiling plate is welded to the steel member. Permission to weld on the steel member is required. Remove all zinc at the weld. Post-treat using Galvafruid.

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.

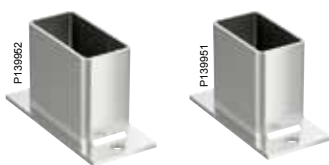
Pendant base plate 520



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

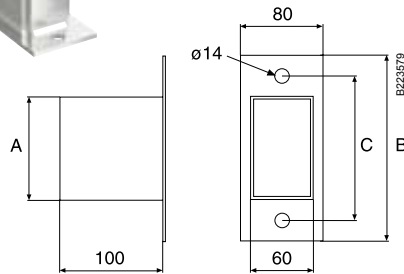


Vertical pieces of the required length can be mounted using Pendant base plate 520 and Pendant/Fixing rail 24/20.

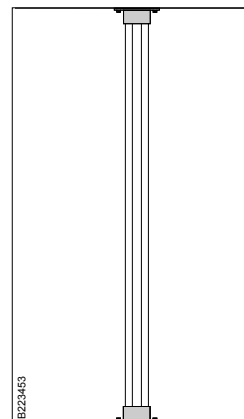


Rail fixing support 24/20F, 24/20FS

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



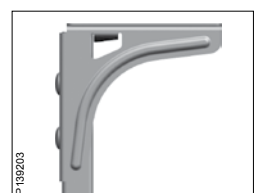
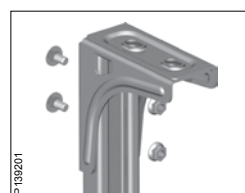
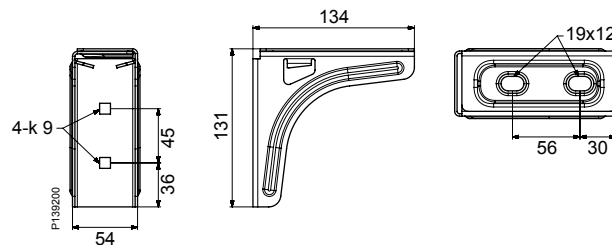
Type	A mm	B mm	C mm
Rail fix. support 24/20F	100	165	135
Rail fix. support 24/20FS	120	185	155



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

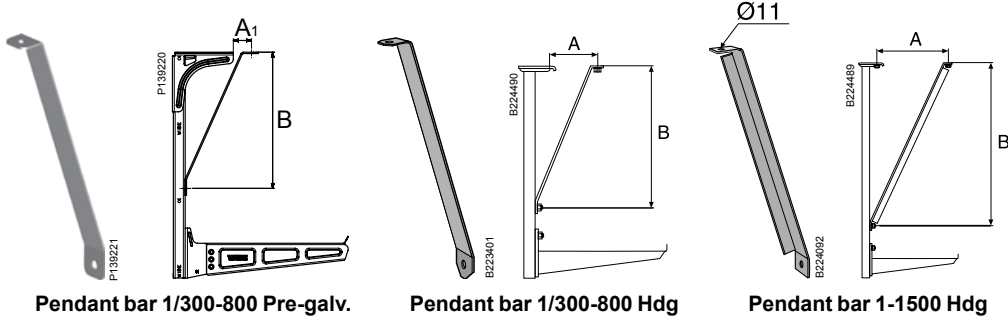
Ceiling bracket to be used on Pendant/fixing rail 24/48 to achieve the desired length of vertical pieces.



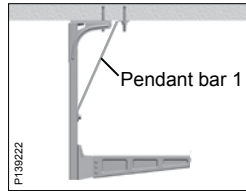
Ceiling bracket 2Fi and Pendant/Fixing rail 24/48, mounted together with 2 Screw sets 22S, are used when other lengths are required than those available for Vertical piece 2Fi.

Pendant bar 1

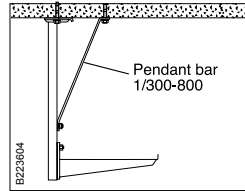
Pendant bar to be installed in order to reduce the deflection of heavily loaded vertical pieces. Installed with T-bolt and Expansion bolt.



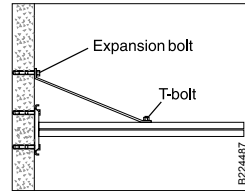
Type	A mm ¹	A mm	B mm
1/300	40	80	300
1/500	40	130	500
1/800	125	215	800
1/1500	Varies	Varies	Varies



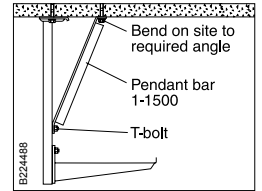
To reduce deflection of Vertical piece 2Fi at heavy loads on Cantilever arm 50i the Pendant bar 1 can be used. Install with T-bolt and Expansion bolt.



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.



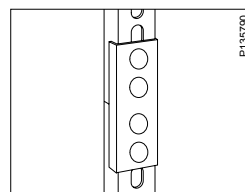
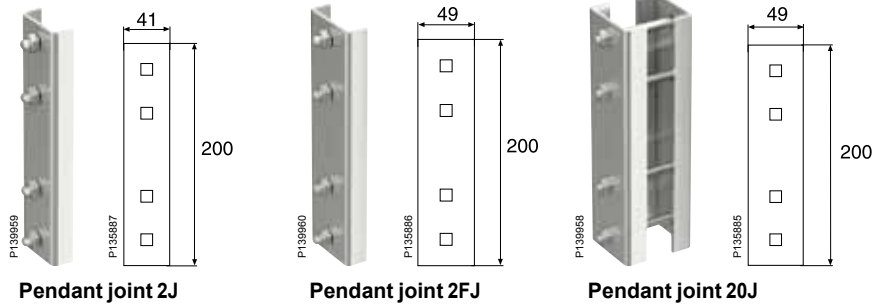
To be mounted to strengthen Vertical piece 20 when mounted horizontally. Use T-bolt and Expansion bolt.



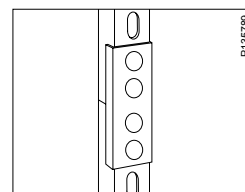
Mount this stay to reduce deflection of long Vertical pieces 2F, 20 and 20F.

Pendant joint 2J, 2FJ and 20J

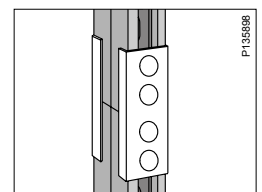
Pendant joint to be used for joining pendant/fixing rails and vertical pieces.



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.

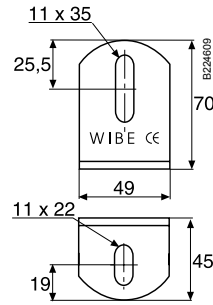
Angle bracket 5L and 5LS



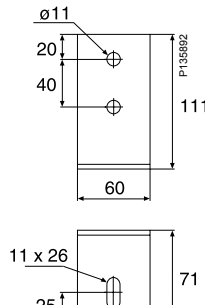
Angle bracket 5L



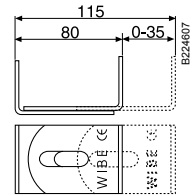
Angle bracket 5LS



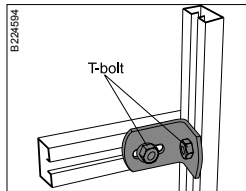
Angle bracket 5L



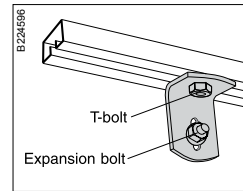
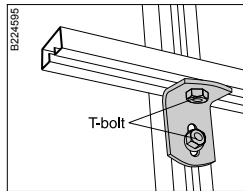
Angle bracket 5LS



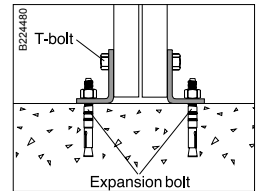
Adjustability 5L



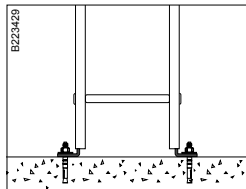
Installation examples for installation of pendant/fixing rails to different frameworks for installation of control panels, electric distribution boards, etc. Angle bracket 5L is used.



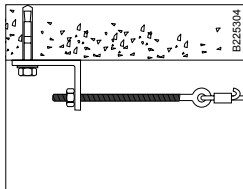
Mounting of a pendant/fixing rail on a wall. Use Angle bracket 5L or 5LS.



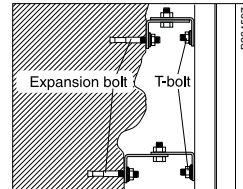
Mounting of a pendant/fixing rail against floor with Angle bracket 5L or 5LS.



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



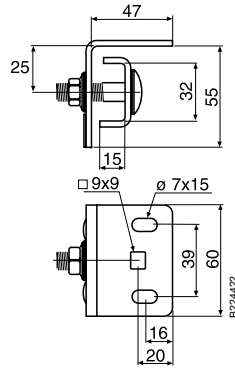
Angle bracket 5L is installed in ceiling with Expansion bolt or concrete screw. Max. permitted loading 600 kg (6 kN).



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



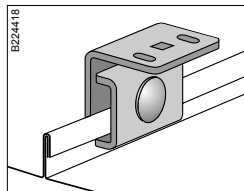
Breaking load*

	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

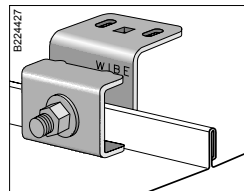
* Loading values and fixing of roof sheet - follow the supplier's recommendations

Test have been made of:

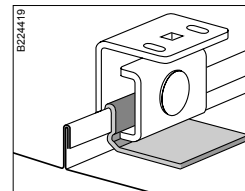
Bandsheet Prelac BLX t=0.6 SSAB tunnplåt Copper sheeting annealed SS 5015-80 t=0.6 Tightening torque at test=60Nm



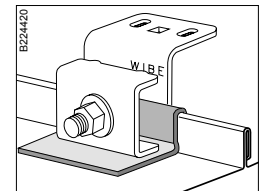
Combi bracket 53 mounted on seamed roofing sheet.



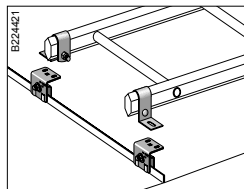
Alternative mounting of Combi bracket 53.



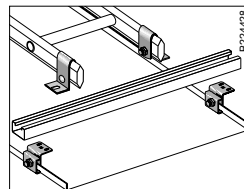
In order to avoid contact between Combi bracket 53 and copper sheeting, Insulating plate 54 must be used.



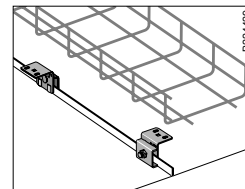
Alternative mounting of Combi bracket 53 and Insulating plate 54.



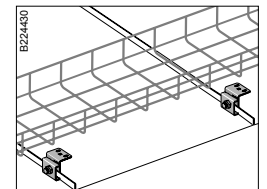
Cable ladder mounted across the seams of the roofing sheets with Combi bracket 53, Wall bracket 11/25 and Screw set 22S.



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.



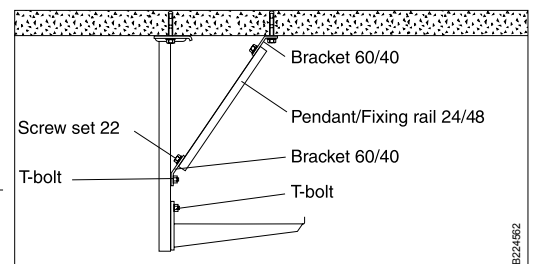
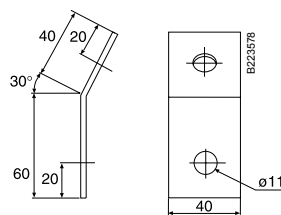
Mesh tray mounted along the seams of the roofing sheets with Combi bracket 53 and accessories from the Mesh tray programme.



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

Bracket 60/40

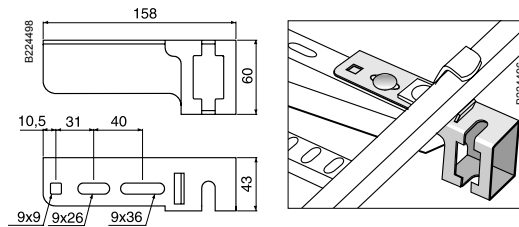
Bracket to be used together with Pendant/fixing rail 24/48 to reduce the deflection of long vertical pieces.



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

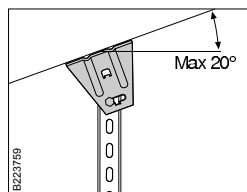
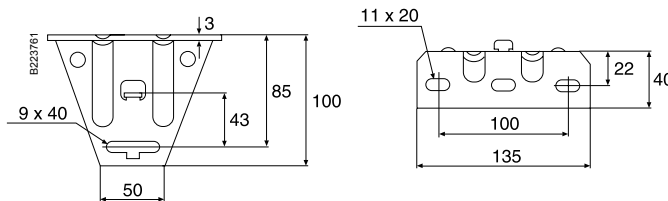
Rod bracket to be used together with Cantilever arm 50, in combination with threaded rod support.



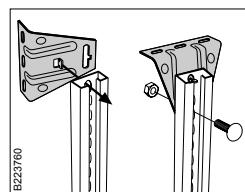
Rod bracket 82 mounted on Cantilever arm 50. Screw set 22S and Profile clamp 42 are to be used.

Ceiling bracket 5

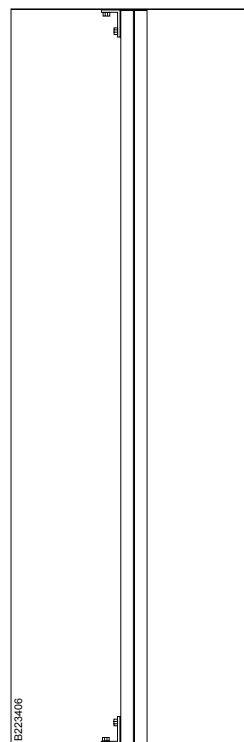
Ceiling bracket to be used for installations with Pendant/Fixing rails 24/34 and 24/48.



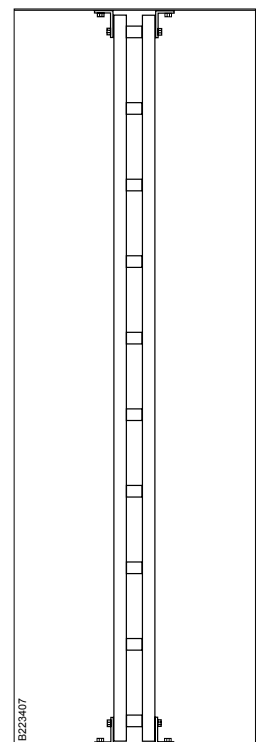
Using Pendant/Fixing rail 24/34 or 24/48, 1 Ceiling bracket 5 and 1 Screw set 22S it is possible to make a vertical piece that can be installed at an angle of up to 20°. Breaking load for rail 34 = 1000 kg (10 kN). Breaking load for rail 48 = 1200 kg (12 kN).



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°.



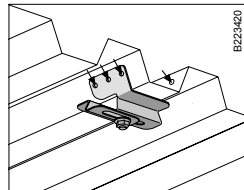
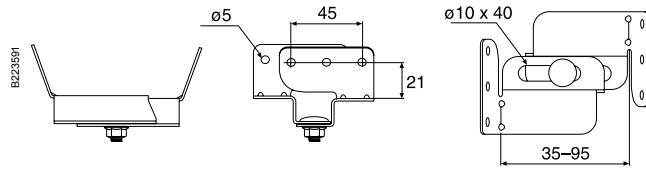
Pendant/Fixing rail 24/20 can, using 2 Ceiling brackets 5 and 2 T-bolts, be mounted between floor and ceiling (see also Angle bracket 5L).



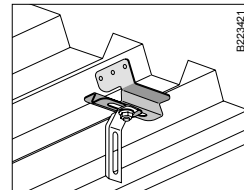
Pendant/Fixing rail 24/20F can, using 4 Ceiling brackets 5 and 4 T-bolts, be mounted between floor and ceiling (see also Angle bracket 5L).

Ceiling bracket 5TPA

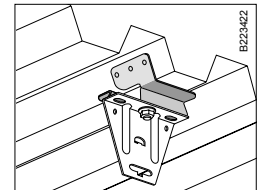
Ceiling bracket with telescopic function, to be used for mounting of various sizes of trapezoid plates.



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

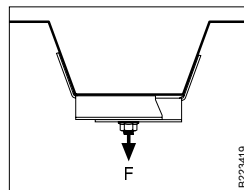


Pendant attachment W21 or Tube pendant attachment W73 (Wibe Cable Tray) can be mounted in Ceiling bracket 5TPA with the existing screw.

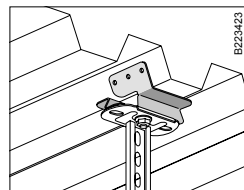


Ceiling bracket 5 or Ceiling attachment W31 can be mounted with the existing screw.

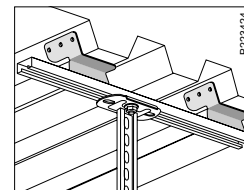
Breaking load



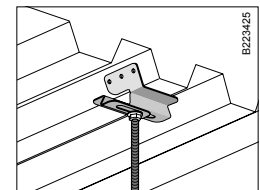
Ceiling bracket 5TPA can be loaded with $F=150$ kg without deformation. For loading figures for thin plate or fixing elements, follow suppliers recommendations.



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



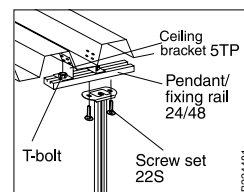
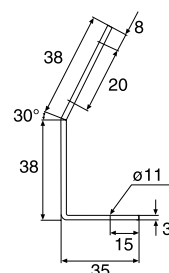
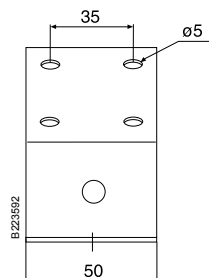
Install Mounting rail 40 between 2 Ceiling brackets 5TPA if the vertical piece must be adjusted sideways.



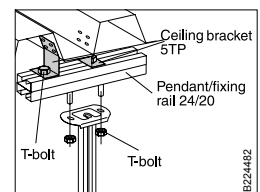
Pendant W76 M8 or M10 installed in Ceiling bracket 5TPA.

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.



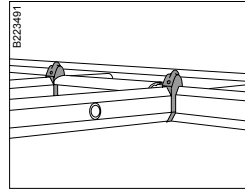
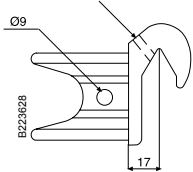
Alternatively Pendant/Fixing rail 24/20 may be used. This will require the use of 4 T-bolts.

Fixed take-off hook 4

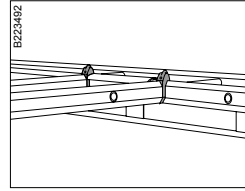
Fixed take-off hook to be used for 90° horizontal branches.



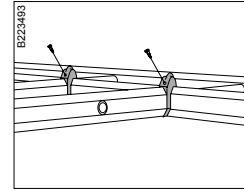
5 mm dia. hole for any locking against the ladder profile using sheet screws or blind rivets



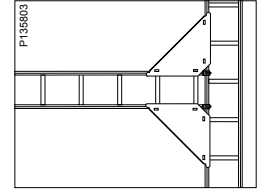
Fixed take-off hook 4 is used at 90° horizontal branches. Coupling 22 can also be used for straight angle formation.



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



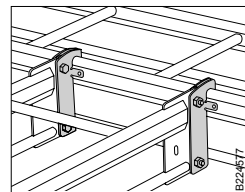
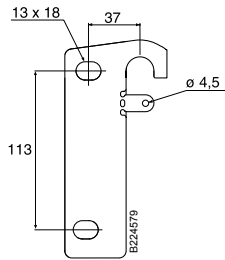
5 mm dia. hole for any locking against the section using sheet screws or blind rivets.



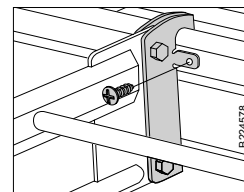
Angle plate 33 is always recommended at horizontal branches.

Take-off hook 47

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



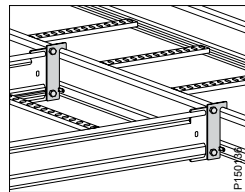
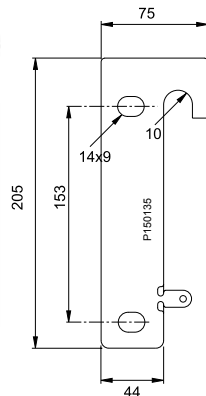
Use Take-off hook 47 to make 90° branches.



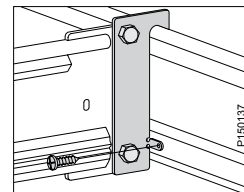
The extra hole, Ø 4.5, is to be used when earthing is demanded or if vertical locking of the ladder is needed. A self-drilling screw must be used.

Take-off hook 20C

Take-off hook to be used on cable ladders KHZP 20C range to make 90° branches. Screw M12 and nuts are included.



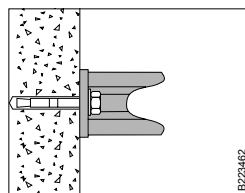
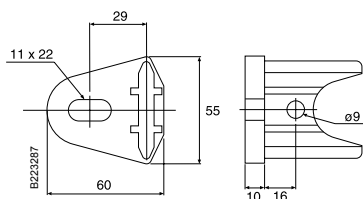
Use Take-off hook 20C to make 90° branches.



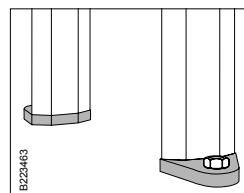
The extra hole, Ø 4.5, is to be used when earthing is demanded or if vertical locking of the ladder is needed. A self-drilling screw must be used.

End connection 10

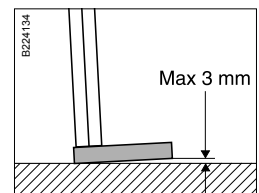
End connection to be used for the connection of a ladder vertically to a floor, or horizontally to a wall.



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



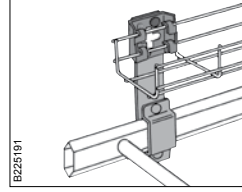
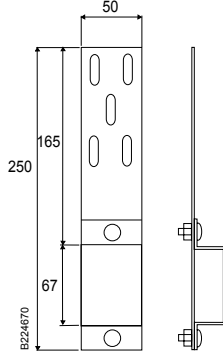
Mount the End connection 10 using Expansion bolts.



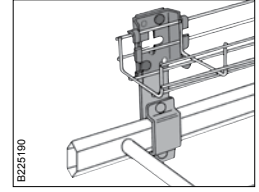
Max. tilt permitted = 3 mm before tightening the screw.

Combi Fitting B21

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



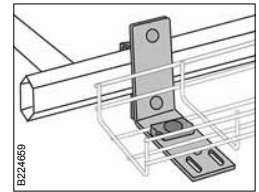
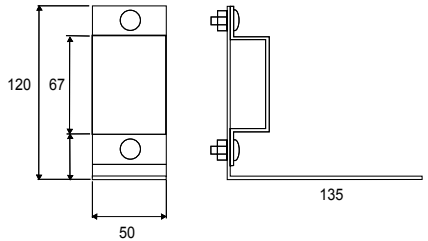
Defem Mesh tray 53 and 75 is mounted onto Combi Fitting B21 with Bracket B4 mini Bolt and Nut B13.



Defem Mesh tray 120 is mounted onto Combi Fitting B21 with Bracket B4 Bolt and Nut B13.

Combi Fitting B21 90 degree

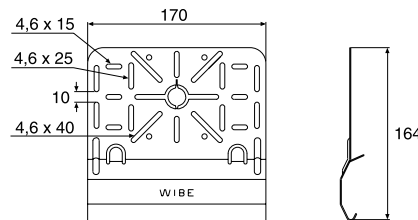
Combi-fitting to be used when mounting mesh trays onto cable ladders.



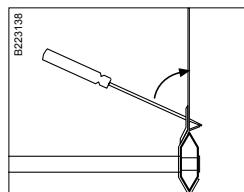
Defem Mesh tray 53, 75 and 120 is mounted onto Combi Fitting B21 90° with 1 Fitting B2, 1 Bolt and Nut B13.

Junction box plate 35S

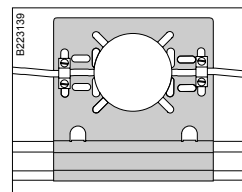
Installed upright or hanging from the profile. Locked with locking tabs.



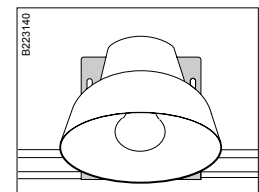
B223550



Bend the tab towards the ladder section by using a screwdriver as a lever for mounting junction box plates.



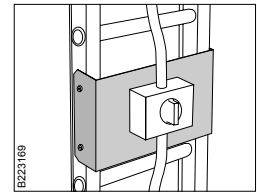
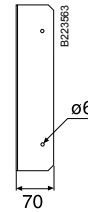
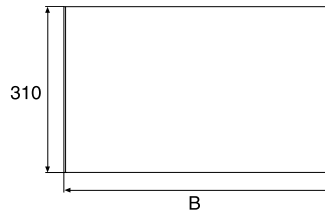
Junction box plates can be mounted in standing or hanging positions on the side sections. Strain-relief may be provided using the outermost holes and clamps or strips.



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.

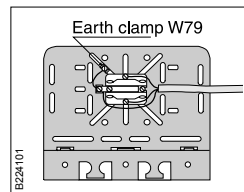
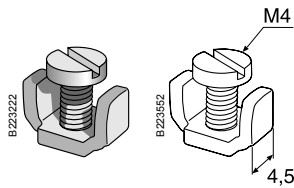


Used on vertical cable ladder installations for mounting of terminal boxes, contact breakers etc. Mount with self-tapping screw ST4.2 in the side profile.

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

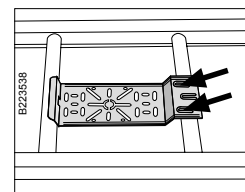
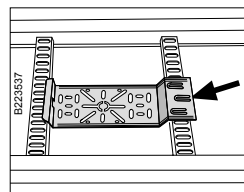
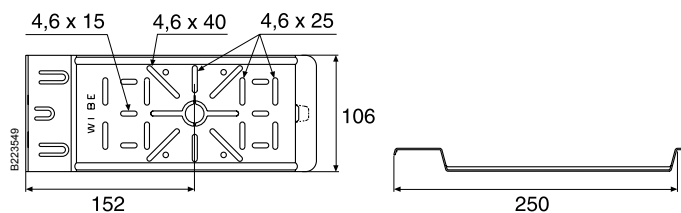
The earth clamp is used when protective earthing of the junction box plate is required.



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.

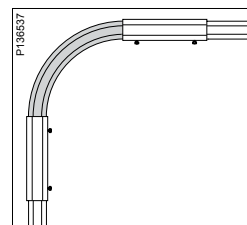
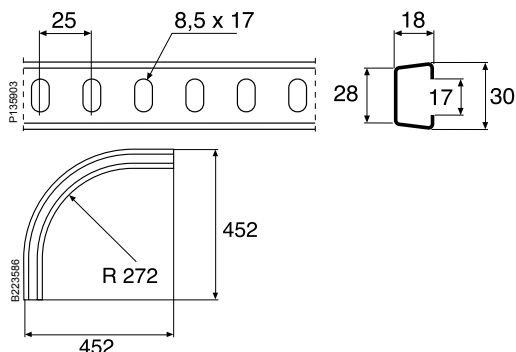


Mount junction box plates between the ladder rungs. On KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV attach junction box plates by bending the central tab into the rung perforation using a screwdriver or suchlike.

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

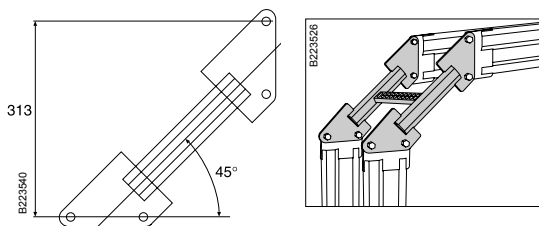
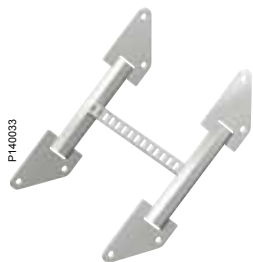
Riser piece to be fitted to the cable ladders by using Joint 21.



Join the cable ladders to Riser 18 using Joint 21.

Riser coupling 49

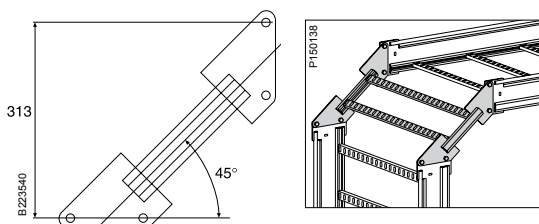
Coupling to be used as a self-supporting vertical coupling of cable ladders KHZV/ KHZPV. Two screws M12 and nuts are needed.



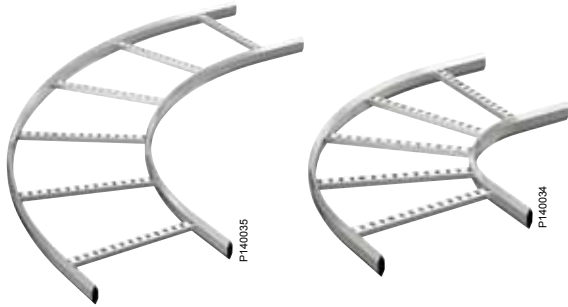
Mount Riser coupling 49 to form a 90° branch on KHZV/KHZPV using 2 Screw sets M12. This provides a large radius for cables.

Riser coupling 20C

Coupling to be used as a self-supporting vertical coupling of cable ladders KHZP 20C range. Two screw sets M12 are needed.



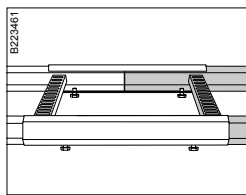
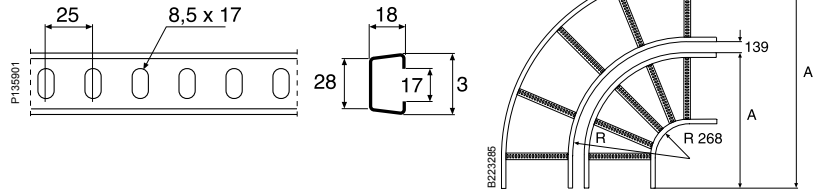
Mount Riser coupling 20C to form a 90° branch on KHZP 20C using 2 Screw sets M12. This provides a large radius for cables.



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.



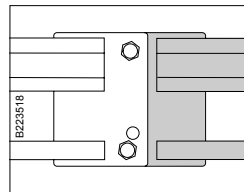
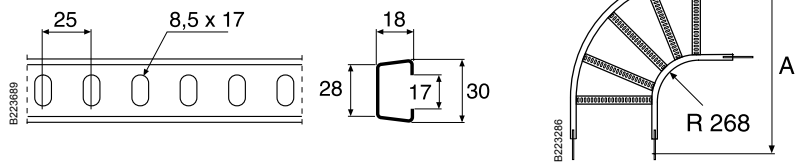
Join cable ladders to 90° bend using Joint 21.

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.

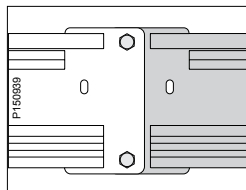
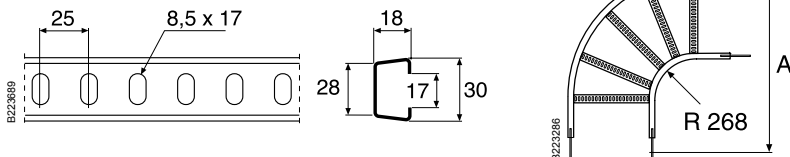


For joining to KHZV and KHZPV, use Screw set M12

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 55/800	1225
90° bend 55/1000	1425

90° bend 20C, interior

Interior bend piece to be fitted to cable ladders KHZP 20C range, creating a 90° horizontal bend.

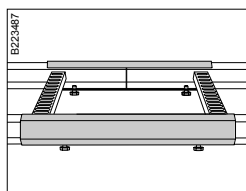
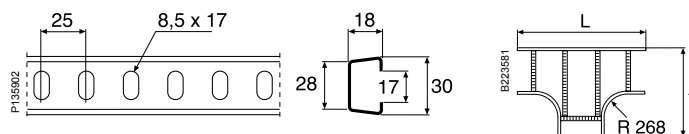


For joining to KHCP 20C/ KHZV and KHZPV, use Screw set M12

Type	A mm
90° bend 20C/200	625
90° bend 20C/300	725
90° bend 20C/400	825
90° bend 20C/500	925
90° bend 20C/600	1025
90° bend 20C/800	1025
90° bend 20C/1000	1425

T-junction 16

T-junction piece to be fitted to the cable ladders by using Joint 21.



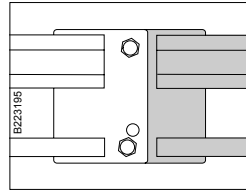
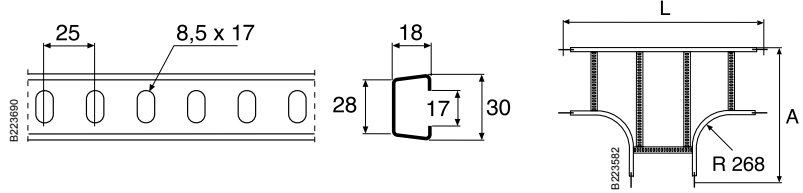
Join the cable ladders to T-junction 16 using Joint 21.

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 ladder KHZV or KHZPV by using screw ser M12.



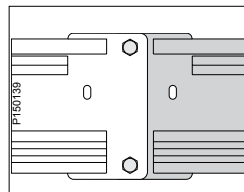
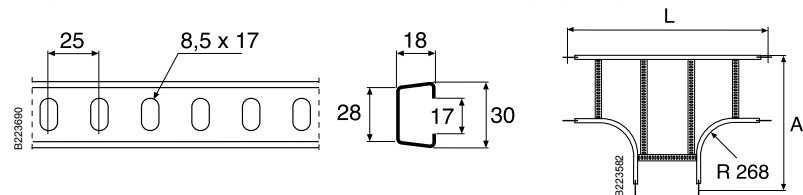
For joining to KHZV and KHZPV, use Screw set M12.

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
T-junction 55/800	1225	1650
T-junction 56/1000	1425	1850



T-junction 20C

T-junction piece to be fitted to the cable ladder KHZP 20C range by using screw set M12.



For joining to KHCP 20C/ KHZV and KHZPV, use Screw set M12.

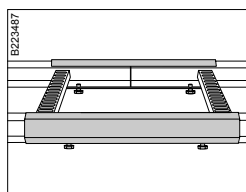
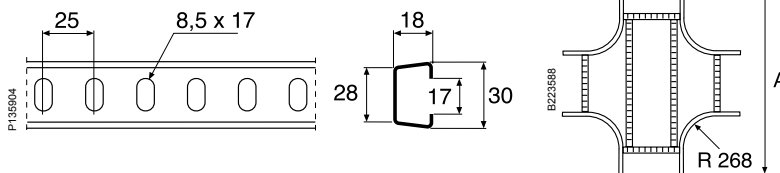
Type	A mm	L mm
T-junction 20C/200	625	1050
T-junction 20C/300	725	1150
T-junction 20C/400	825	1250
T-junction 20C/500	925	1350
T-junction 20C/600	1025	1450
T-junction 20C/800	1225	1650
T-junction 56/1000	1425	1850



P140039

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.

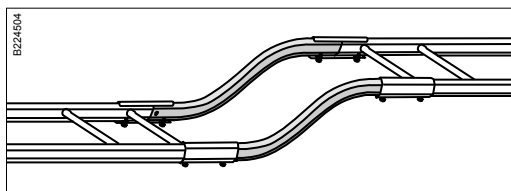
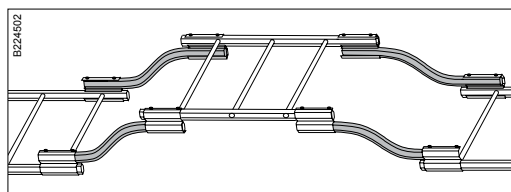
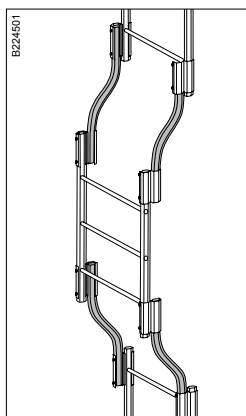
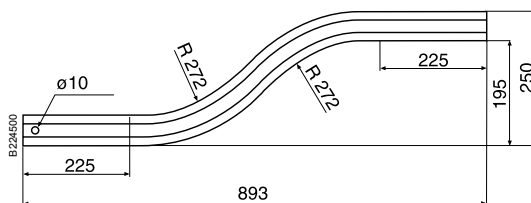
Type	A mm
X-junction 17/150	547
X-junction 17/200	997
X-junction 17/300	1097
X-junction 17/400	1197
X-junction 17/500	1297
X-junction 17/600	1397
X-junction 17/800	1597
X-junction 17/1000	1797



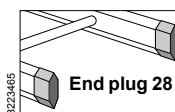
P140040

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.



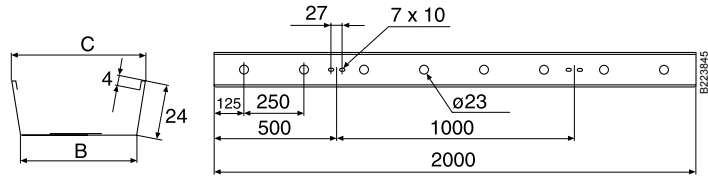
B223465

End plug 28

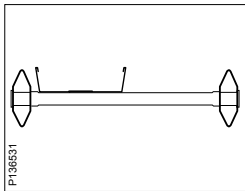
Tele-conduit 36 with knock-out holes



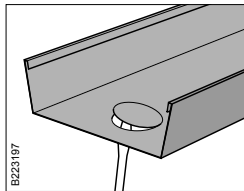
Tele-conduit to be used where a separate tray is required for low-tension cables. Knock-out holes in the bottom of the channel permit the cables to pass through.



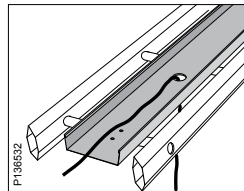
Type	B mm	C mm
Tele-conduit 36/50	42	50
Tele-conduit 36/100	92	100
Tele-conduit 36/200	192	200



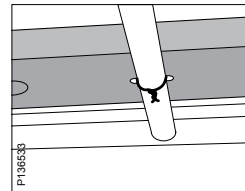
Mount Tele-conduit 36 whenever a special channel is required for low tension lines.



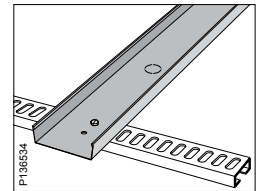
Whenever you wish to make a hole to let a cable through, press the knock-out piece from below using a screw-driver or suchlike



In the event of special needs, a sealing sleeve 22.5 or corresponding may be mounted in the hole.



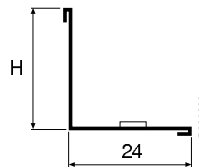
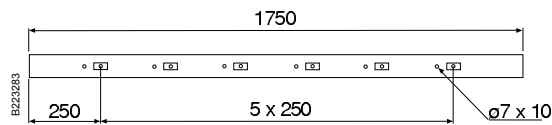
Attach Tele-conduit 36 onto KHZ and KHZV by tying with wire round rungs.



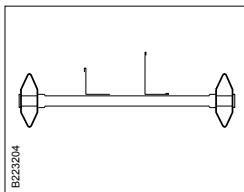
Attach Tele-conduit 36 to KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV using Screw set W34 through the rung perforations.

Dividing strip 39

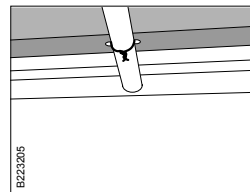
Dividing strip to be used to separate low-tension and high-tension cables.



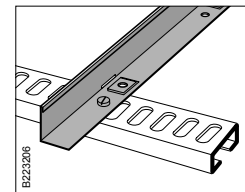
Type	H mm
Dividing strip 39/24	24
Dividing strip 39/55	55



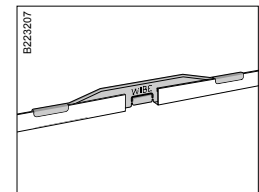
Mount one or more Dividing strips 39 to separate low and high tension cables.



Attach Dividing strip 39 to KHZ and KHZV by lashing around the rungs.



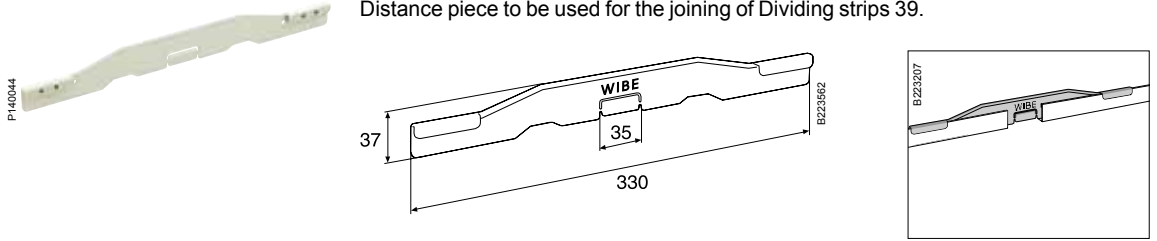
Attach Dividing strip 39 to KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV using Screw set W34 through the rung perforations.



It is advisable to join dividing strips using Distance piece W39.

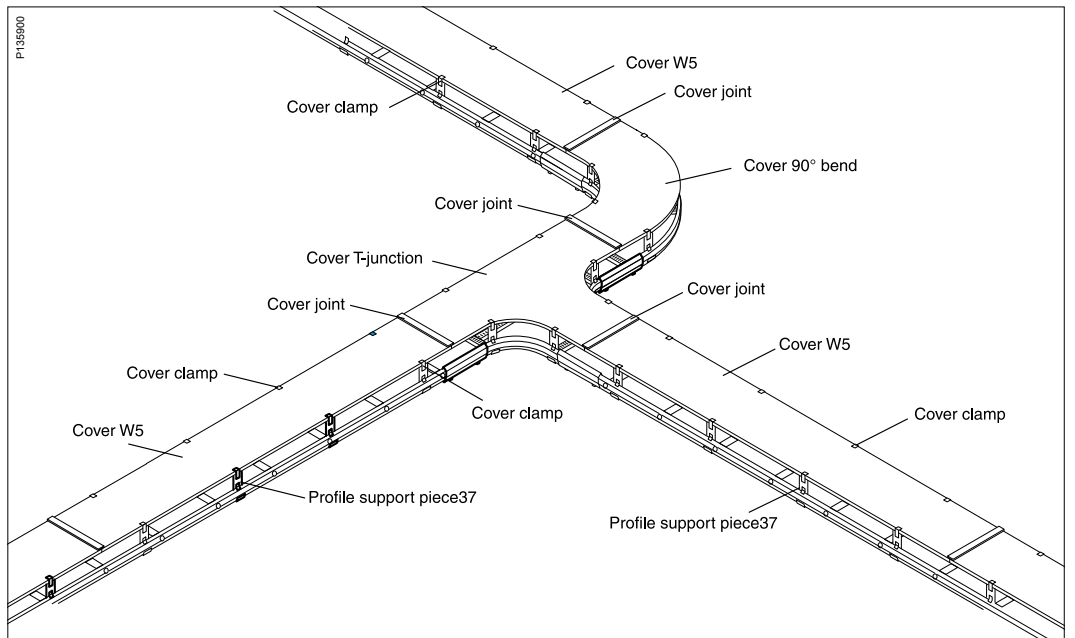
Distance piece W39

Distance piece to be used for the joining of Dividing strips 39.

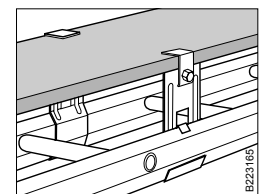
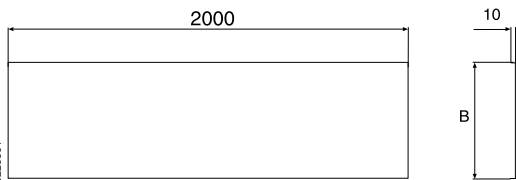


Mount one or more Dividing strips 39 to separate low and high tension cables.

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.

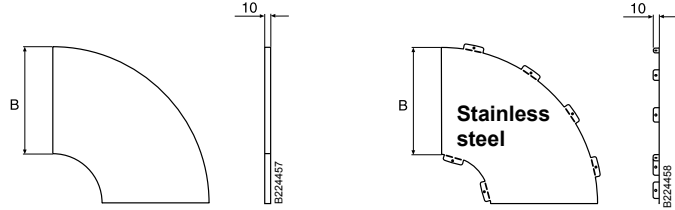


Type	Ladder width mm	B mm
Cover W5 - 150	150	151
Cover W5 - 200	200	201
Cover W5 - 300	300	301
Cover W5 - 400	400	401
Cover W5 - 500	500	501
Cover W5 - 600	600	601
Cover W5 - 800	800	801
Cover W5 - 1000	1000	1001

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.

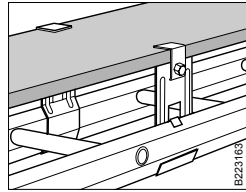
Cover 90° bend

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

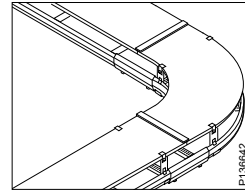


Type	Ladder width mm	B mm
90° bend - 150	150	151
90° bend - 200	200	201
90° bend - 300	300	301
90° bend - 400	400	401
90° bend - 500	500	501
90° bend - 600	600	601
90° bend - 800	800	801
90° bend - 1000	1000	1001

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



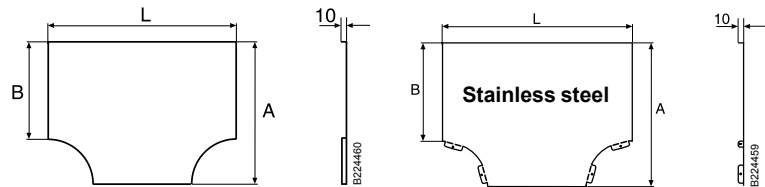
Fasten cover to Profile support piece 37 using Cover clamp.



Mount with Profile support pieces 37, Cover clamps and Cover joints.

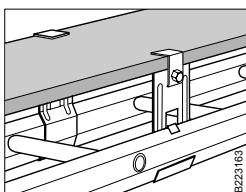
Cover T-junction

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

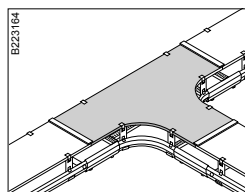


Type + ladder width	A mm	B mm	L mm
T-junction - 150	400	151	651
T-junction - 200	450	201	701
T-junction - 300	550	301	801
T-junction - 400	650	401	901
T-junction - 500	750	501	1001
T-junction - 600	850	601	1101
T-junction - 800	1050	801	1301
T-junction - 1000	1240	1001	1501

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



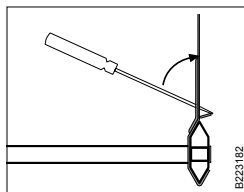
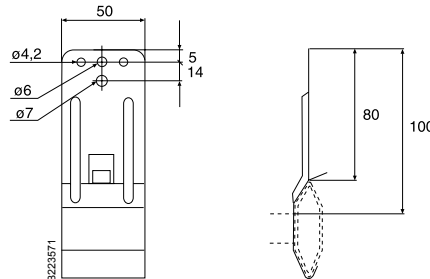
Fasten cover to Profile support piece 37 using Cover clamp.



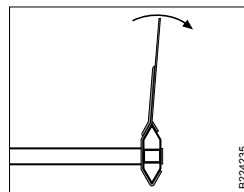
Mount with Profile support pieces 37, Cover clamps and Cover joints.

Profile support piece 37

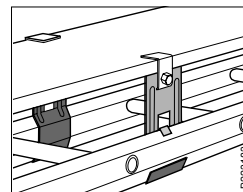
Profile support piece to be used when installing covers. To be mounted on approximately every 0.5 m along both sides of the cable ladder. Used together with cover clamp for locking covers.



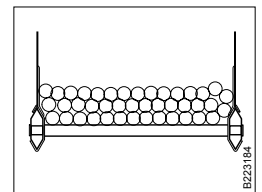
Mount Profile support piece 37 on the inside of the hexagonal section. Bend the tab towards the ladder section using a screwdriver as a lever.



Profile support piece 37 can be bent to fit the cover width.



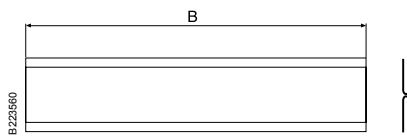
Lock the cover on the Profile support piece 37 using Cover clamps.



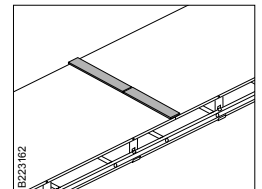
Profile support pieces 37 can be mounted as cable supports. Mount the attachments at about 0.5 m centres on both sides of the ladder.

Cover joint

Cover joint to be inserted between covers.



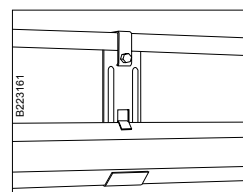
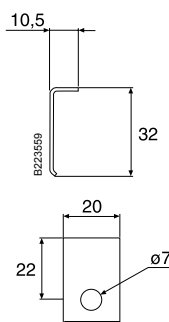
Type	Ladder width mm	B mm
Cover joint 150	10	125
Cover joint 200	200	175
Cover joint 300	300	275
Cover joint 400	400	375
Cover joint 500	500	475
Cover joint 600	600	575



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.

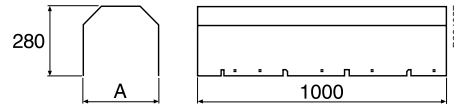


Cover clamps are required for mounting covers on Profile support piece 37.

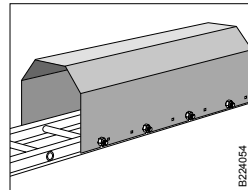
Protecting cover



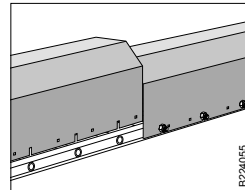
Cover to be used to protect the cable runs against ice and snow. Suitable for all cable ladder widths 300 and 400 respectively.



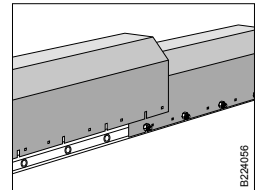
Type	A mm
Protecting cover 300	300
Protecting cover 400	400



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.

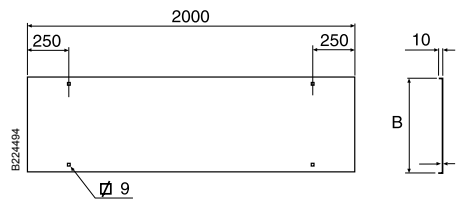


The covers can be mounted with overlap. The asymmetric hole pattern can be used to achieve a good fit.

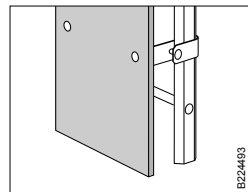
Cover 64



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

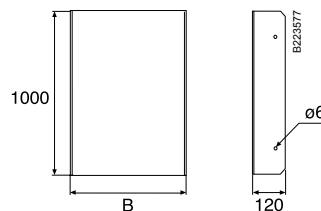


Cover 64 is to be mounted on the cable ladder with Wall bracket 11/25 or Wall bracket 11/75 and Screw set 22S. The covers are to be joined with Cover joints.

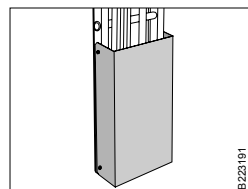
Cover plate 65



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



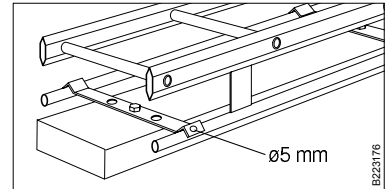
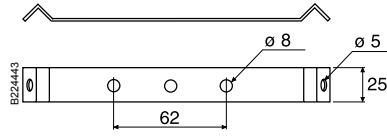
Used on vertical cable ladder installations as protection of cables near the floor. Mounted in the side profile with self-tapping screw ST4.2.

Lighting bracket 200



P140053

Lighting bracket to be used for the installation of lighting fittings beneath cable ladders KHZV and KHZPV 200.



B223176

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.



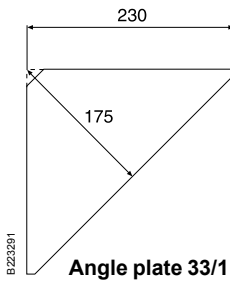
Angle plate 33/2

P140054



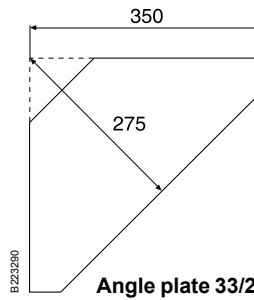
Angle plate 33/1

P140386



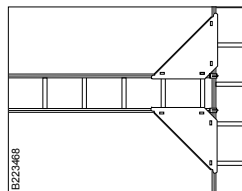
B223281

Angle plate 33/1



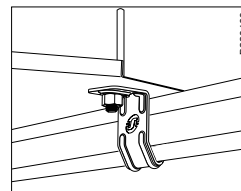
B223280

Angle plate 33/2



B223468

Angle plates are always recommended at 90° horizontal junctions.



B223469

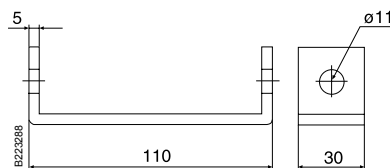
To lock Angle plate 33/2, fit Profile clamp 42.

Wall bracket HT-14

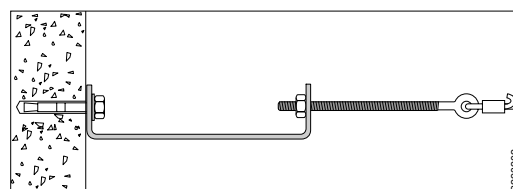
Bracket for wall installation



P140055



B223288

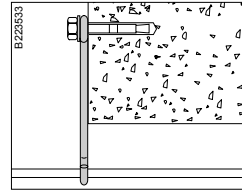
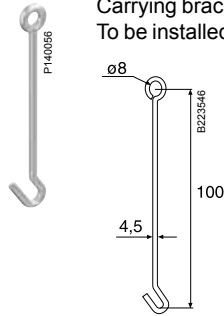


B223202

Wall bracket HT-14 is installed on wall with Expansion bolt or concrete screw.

Carrying bracket HT-31

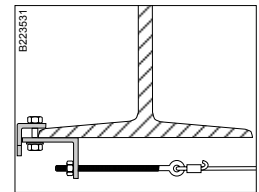
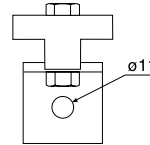
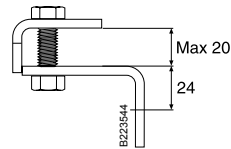
Carrying bracket to be used for ceiling installations.
To be installed with Expansion bolt or concrete screw.



Carrying bracket HT-31 is installed on ceiling beam with Expansion bolt or concrete screw .

Carrying bracket HT-152

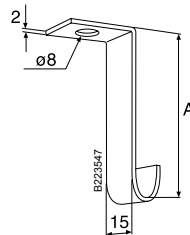
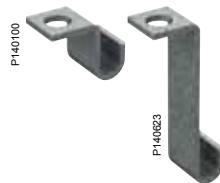
Carrying bracket to be used for easy I-beam installations.



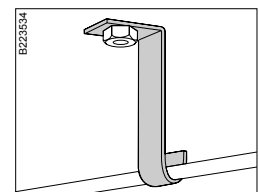
Carrying bracket is easily installed on I-beam.

Carrying bracket HT-33/34

Carrying bracket to be used for ceiling installations.
To be installed with Expansion bolt or concrete screw.



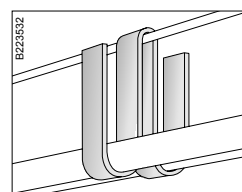
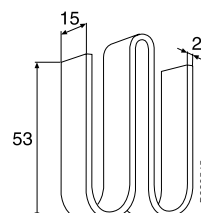
Type	A mm
HT-33	14
HT-34	38



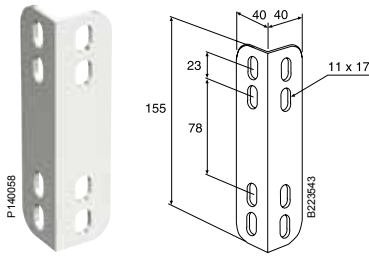
Carrying bracket is installed in ceiling with Expansion bolt or concrete screw.

Carrying sling HT-51

Carrying slings for cables.

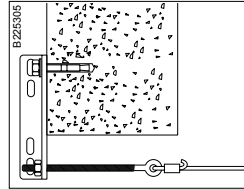


Carrying sling with space for 6 cables max. diam. 16 mm.

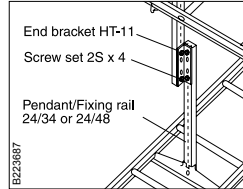


End bracket HT-11

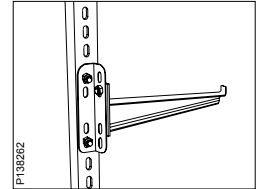
Used for assembling pendant/fixing rails to frames for switching cabinets and electrical control centres. Also suitable for assembling pendant rails for crossing cable runs. Also used as End Bracket for ceiling beam installation.



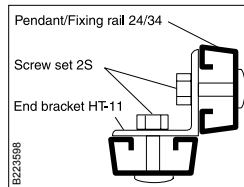
End bracket HT-11 is installed on ceiling beam with Expansion bolt or concrete screw.



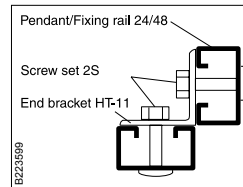
End bracket HT-11 permits mounting of crossing cable ladders in various planes on the same vertical piece.



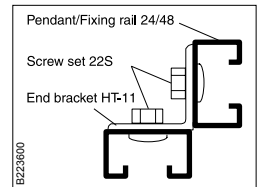
Cantilever arm 50 may, using End bracket HT-11, be mounted at 90° to the vertical piece. Only for lightweight mounting of data cable type or suchlike.



The HT-11 can be used when mounting together 2 Pendant/ Fixing rail 24/34, for example when assembling a stand.



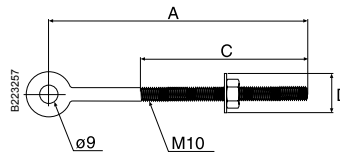
The HT-11 can be used when mounting together 2 Pendant/ Fixing rail 24/48 with the opening towards the attachment, for example when assembling a stand.



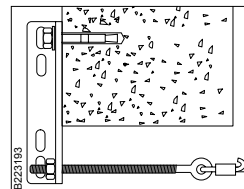
The HT-11 can be used when mounting together 2 Pendant/ Fixing rail 24/48, with the rear towards the attachment.

Tightening loop HT

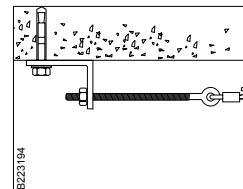
Tightening loop to be installed at the ends of steel wires.



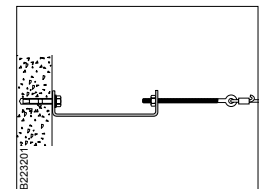
Type	A mm	C mm	D mm
Tightening loop HT-611	125	100	22
Tightening loop HT-621	270	100	50
Tightening loop HT-631	400	150	50



Tightening loop is installed in End bracket HT-11 for installation on ceiling beam.



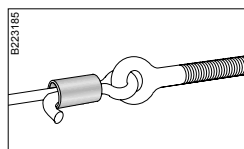
Tightening loop is installed in Angle bracket 5L for installation in ceiling.



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.



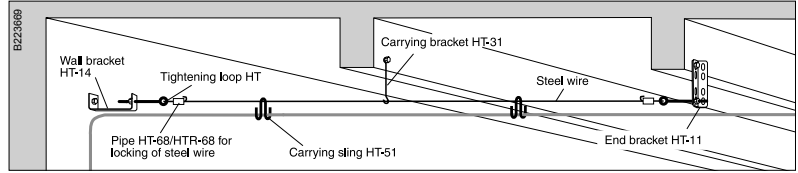
The steel cable is easily locked with the pipe.



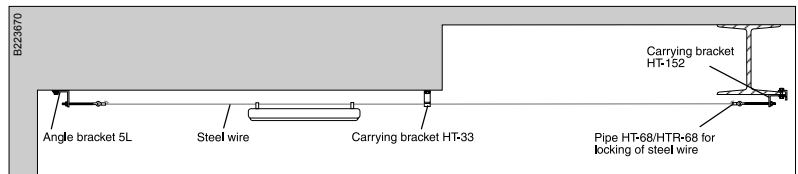
Type	Diam. mm	Breaking load kg
HT-2309	5.00	700
HT-2311	6.15	970
HTR-2322	2.50	450
HTR-2323	3.00	700
HTR-2324	4.00	1200

Steel wire

Steel wire to be installed as carrier of one or more cables.



Steel wire installed in ceiling with beams.

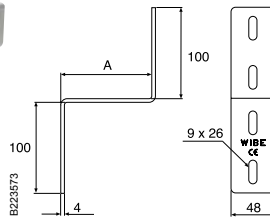


Steel wire installed in ceiling.

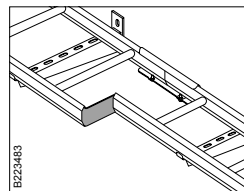


Reducer 31

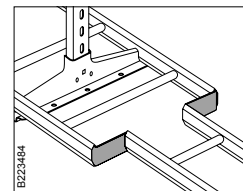
Reducer to be used for transition joining from a wide to a narrower cable ladder.



Type	A mm
Reducer 31/100	100
Reducer 31/200	200
Reducer 31/300	300
Reducer 31/400	400



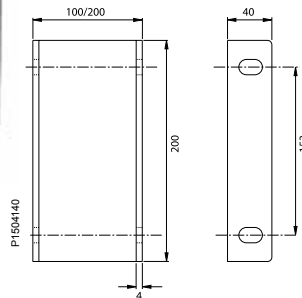
Reducer to be used for transition joining from a wide to a narrower cable ladder.



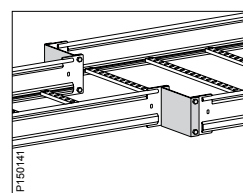
May also be used at centred transition joining

Reducer 20C

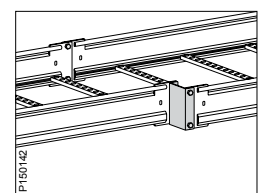
Reducer to be used for transition joining from a wide to a narrower cable ladder.



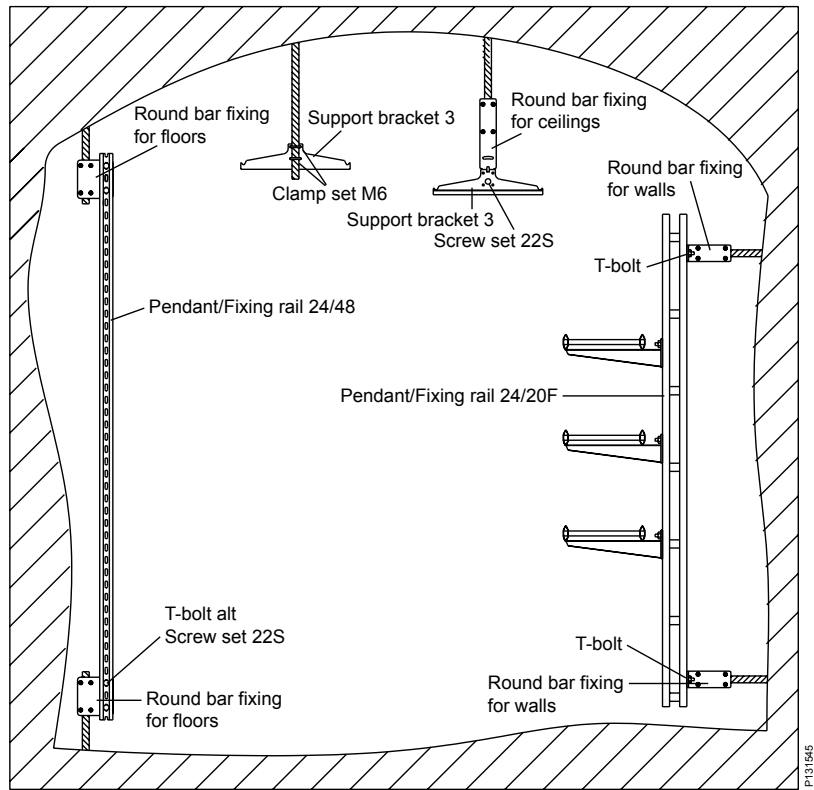
Type	A mm
Reducer 20C/100	100
Reducer 20C/200	200



May also be used at centred transition joining

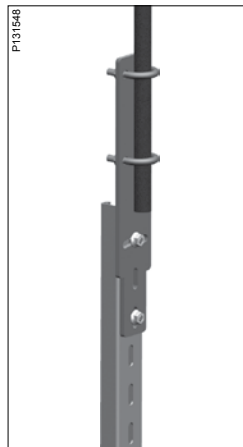
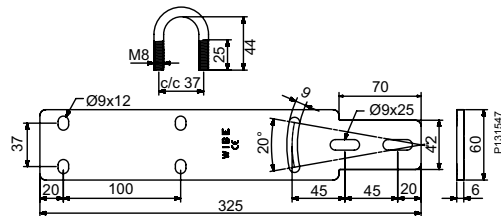


Reducer to be used for transition joining from a wide to a narrower cable ladder.



Round bar fixing for ceilings

Round bar fixing to be used for mounting in underground cavities and tunnels.



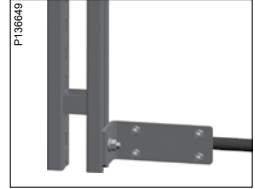
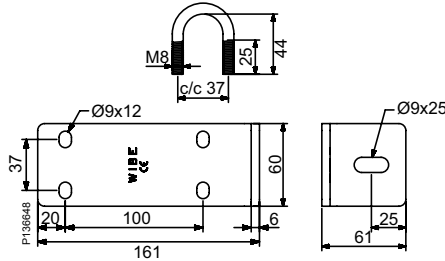
Round bar fixing for ceilings is mounted on pendant/fixing rail 24/48 with screw set 22S. Support bracket 3 is mounted directly on the fixing with Screw set 22S.



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

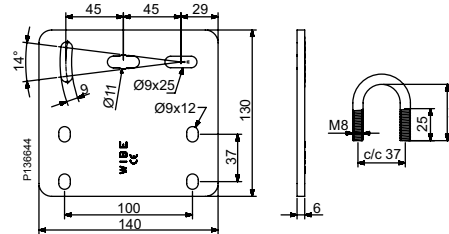
Round bar fixing to be used for mounting in underground cavities and tunnels.



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.



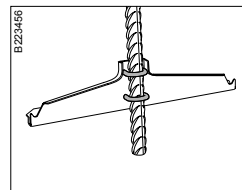
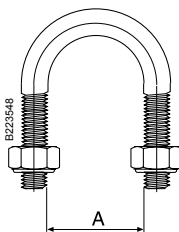
Round bar fixing for floors mounted on Pendant/ fixing rail 24/48 with Screw set 22S.



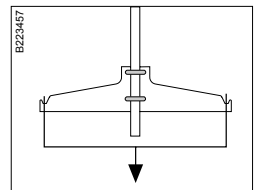
Round bar fixing for floors mounted on Pendant/ fixing rail 24/48 with T-bolt 26F

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-galvanized surface finish, whereas M6-20 must be used for Support bracket 3 in stainless steel and Installation plate 60 in all surface treatments.

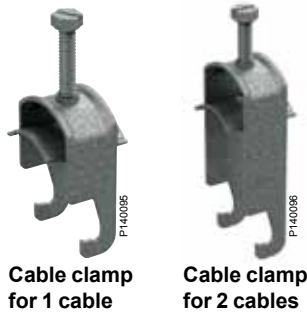


For installation of Support bracket 3 directly on ribbed bar 16-25 or fully threaded bar M16-M27.



Max. symmetrical loading 300 kg. Make sure the clamps grip the bar in a correct manner.

Type	Ø
M6-25	29
M6-20	24



Cable clamp for 1 cable

Cable clamp for 2 cables

Cable clamp type A

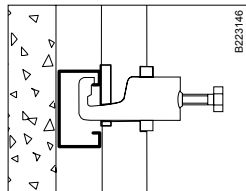
Cable clamp for fastening of cable on Pendant/Fixing rail 24/48 and on cable ladders KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV, in combination with Insert piece EM.

Cable clamp A for 1 cable

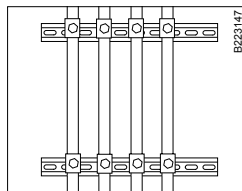
Type	For cable mm
Cable clamp A1-12	- 12
Cable clamp A1-16	13 - 16
Cable clamp A1-22	17 - 22
Cable clamp A1-28	23 - 28
Cable clamp A1-36	29 - 36
Cable clamp A1-44	37 - 44
Cable clamp A1-52	45 - 52
Cable clamp A1-60	53 - 60
Cable clamp A1-70	61 - 70

Cable clamp A for 2 cables

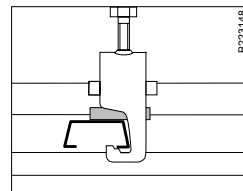
Type	For cable mm
Cable clamp A2-12	- 12
Cable clamp A2-16	13 - 16
Cable clamp A2-22	17 - 22
Cable clamp A2-28	23 - 28
Cable clamp A2-36	29 - 36
Cable clamp A2-44	37 - 44



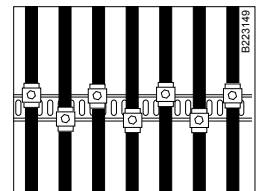
Use Cable clamp type A to attach cables to Pendant/Fixing rail 24/48. Use Insert piece EM.



Mounting rail 40 with Cable clamp type A.



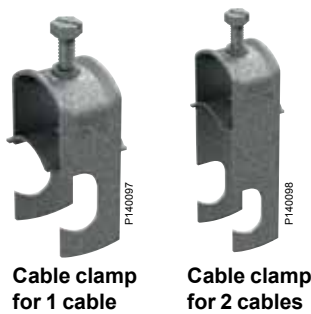
Use Cable clamp type A to attach cables to cable ladders KHZSP, KHZSPZ, KHZPS, KHZPV and KHZP. Use Insert piece EM.



In order to avoid torsion of the rung, cable clamps can be mounted opposite each other on the rung.

Cable clamp type R

Cable clamp for fastening of one cable on on cable ladders KHZ and KHZV, in combination with Insert piece EM.



Cable clamp for 1 cable

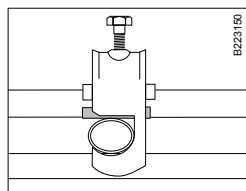
Cable clamp for 2 cables

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.

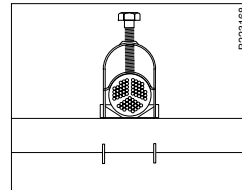
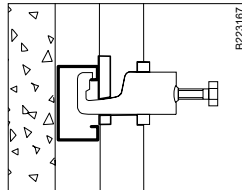
Tightening moment

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.

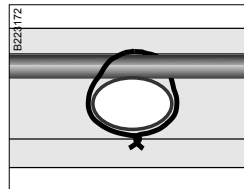
Type	For cable mm
EM - 12	- 12
EM - 16	13 - 16
EM - 22	17 - 22
EM - 28	23 - 28
EM - 36	29 - 36
EM - 44	37 - 44
EM - 52	45 - 52
EM - 60	53 - 60
EM - 70	61 - 70

Lashing wire

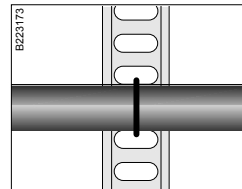
Lashing wire to be used for lashing of wires on cable ladders.



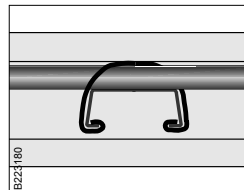
Type		Diam mm	Breaking load kg
HTR - 2303	Lashing wire, stainless steel, white PVC	1.25	92
HTR - 2313	Lashing wire, stainless steel, black PVC	1.25	92
HT - 2304	Lashing wire, white PVC	1.5	25
HT - 2314	Lashing wire, black PVC	1.5	25



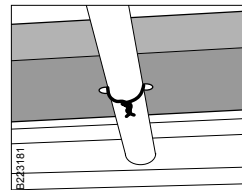
Cables are easily installed by lashing around the rungs of KHZ and KHZV.



Cables are easily installed by lashing through the perforations of the rungs or around the rungs of KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV.



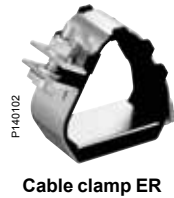
Cables are easily installed on KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV by lashing in such a way that the lashing wire is pinched around the rung as shown.



Dividing strips and teleconduits are attached to the ladder by lashing around the rungs of KHZ and KHZV

Cable clamp ER

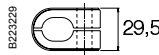
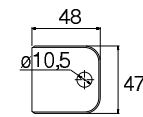
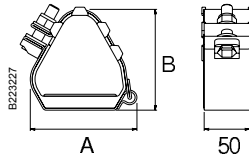
Cable clamp for the installation of cables on cable ladders with round or perforated rungs.



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

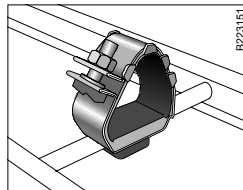
- 400 volt 58 kA symmetrical current (Peak 140 kA) during 0.1 second:
- All clamps remained secure
 - Some slight distortion of the ladder rungs
 - The cables were splayed out between the clamps but otherwise in good order.

Test report no. BS/F 1268

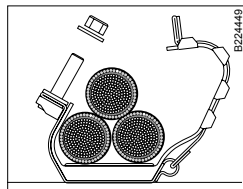
- Wibe cable ladder KHZ-600 and KHZP-600. Cable clamp ER mounted on every other rung

Condition after test

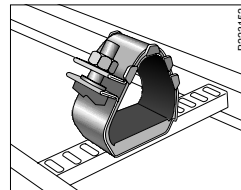
- 352 volt 64 kA symmetrical current (Peak 140 kA) during 0.1 second:
- All clamps remained secure
 - There was distortion of a number of the ladder rungs
 - The cables were splayed out between the clamps but otherwise in good order.



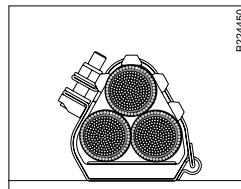
Remove the bottom plate of the clamp and mount it with Oval rung adapter on cable ladders with round rungs - KHZ and KHZV.



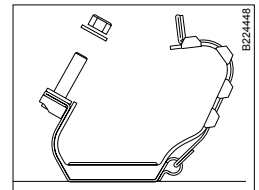
Mount the cables.



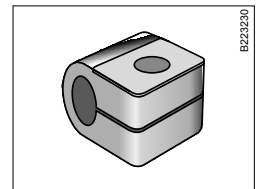
Remove the bottom plate of the clamp and mount it with 2 screw sets 74S on cable ladders with perforated rungs - KHZP, KHZPS, KHZSP, KHZSPZ and KHZPV.



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



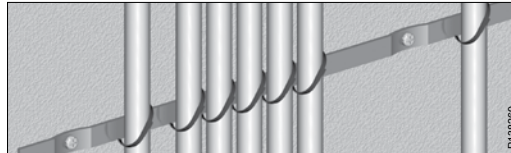
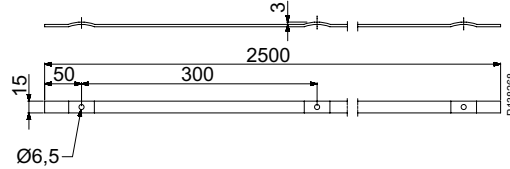
Remove the locking nut. Open the clamp.



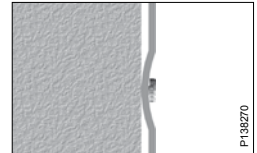
Oval rung adaptor, screw set included, to be used when mounting Cable clamp ER on oval rungs on the KHZ range.

Mounting rail WMS15

Mounting rail to be used for installation directly on wall for lashing of cables.



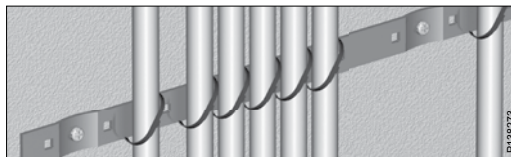
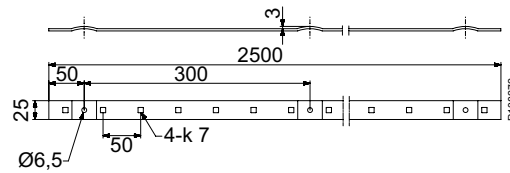
Mounting of cables with lashing wire, strips etc.



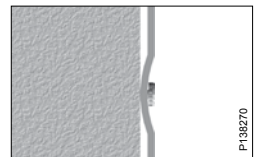
The mounting rail installed directly onto wall.

Mounting rail WMS25

Mounting rail to be used for installation directly on wall for lashing of cables.



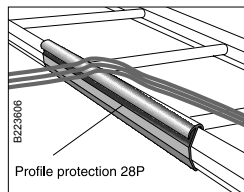
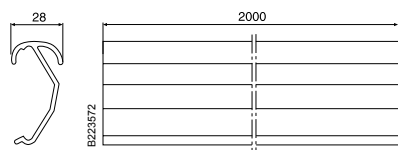
Mounting of cables with lashing wire, strips etc.



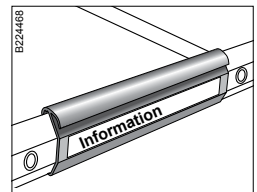
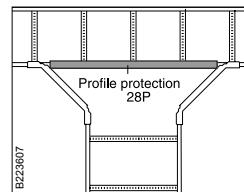
The mounting rail installed directly onto wall.

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.

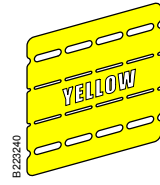


Mount Profile protection 28P in order to increase the contact surface of the cable, when pulled over the side profile of the ladder. Cut when required.

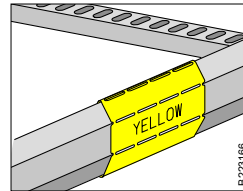
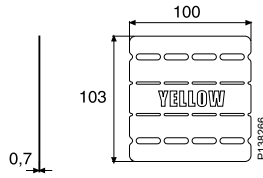


Can be cut in suitable lengths and equipped with an information label. Easy to mount on the ladder side profile.

Marking plate 93



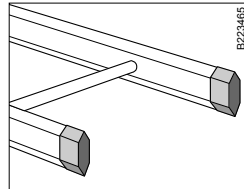
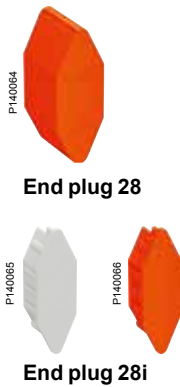
Marking plates are part of a colour marking system that is easy to use when you want to mark out the type of cable that is placed on the cable ladder



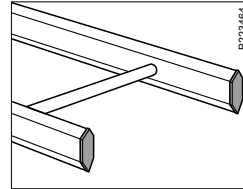
The Marking plate can be bent around the side profile on all Wibe cable ladders.

End plug 28 and 28i

End plug to be mounted on ladder ends for sealing or protection.



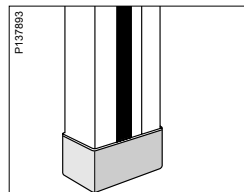
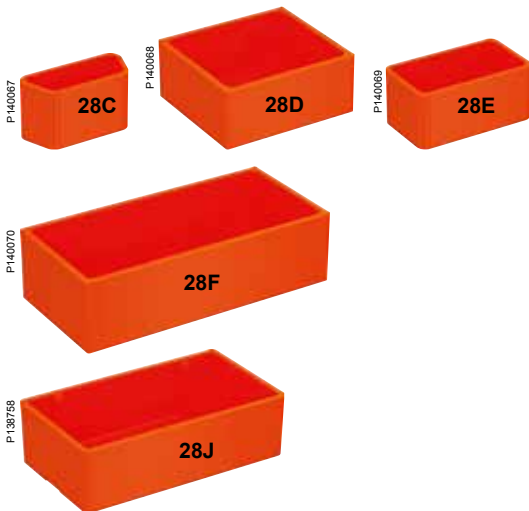
Mount End plug 28 in ladder ends as protection.



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.

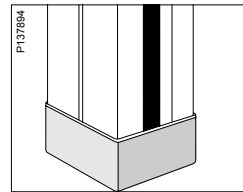
End plug 28C, D, E, F and J

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.



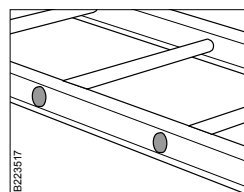
End plug **28D** fits Vertical piece 20 and Pendant/ Fixing rail 24/20.

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.

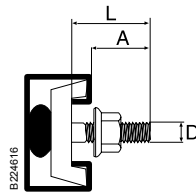


Mount Cross member plug 27 in KHZ and KHZV rung tube ends in premises with high relative humidity where the risk of corrosion is high

T-bolt 26F

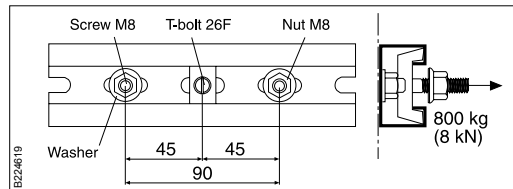


Easy to fit into the fixing rail. It is made to stick which makes it easier to mount and attach compared to a spring nut. It stays in place by itself even before it is fixed with the nut. To be used for the mounting of Cantilever arm 50 on Pendant/Fixing rail 24/48 and all vertical pieces except Vertical piece 2.

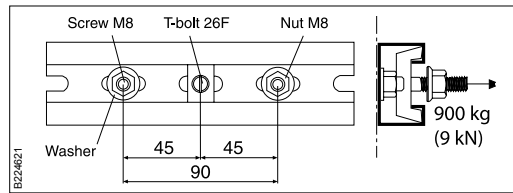


Type	L mm	A mm
M8	30	24
M10	30	24
M10	40	34
M8	50	44
M10	50	44

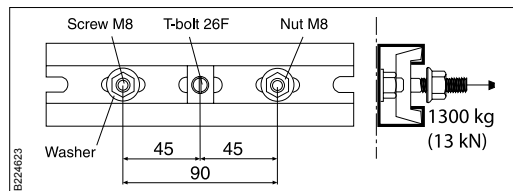
Max permitted extraction force



T-bolt 26F M8/M10 + P/F-rail 24/48 + Washer 8,4x19x1,5



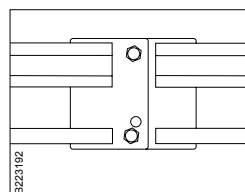
T-bolt 26F M8 + P/F-rail 24/48 + Washer 9x35x2



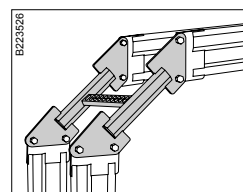
T-bolt 26F M10 + P/F-rail 24/48 + Washer 9x35x2

Screw set M12

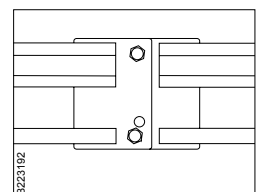
Screw set to be used for all joints with cable ladders KHZV and KHZPV.



For joining ladders.



For joints with Riser coupling 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.



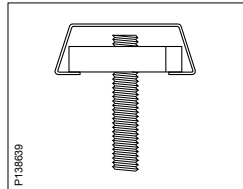
Spring nut M8/M10

Spring nut to be used for fastening of accessories (control panels, etc.) on Pendant/fixing rail 24/48.

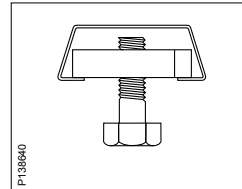


Back nut M8

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

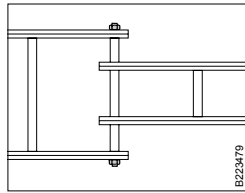
Used for joining of Threaded rod W76 M8 and M10.

Intermediate connection bolt 29

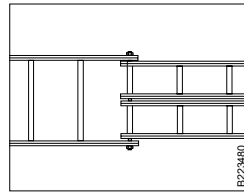


Intermediate connection bolt to be used at the transition from a broad to a narrower cable ladder KHZ.

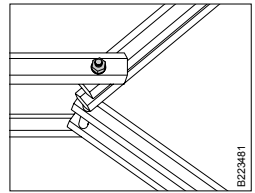
Type	Bolt diam x length mm
Intermediate connection bolt 29/200	M10 x 235
Intermediate connection bolt 29/300	M10 x 335
Intermediate connection bolt 29/400	M10 x 435
Intermediate connection bolt 29/500	M10 x 535
Intermediate connection bolt 29/600	M10 x 635



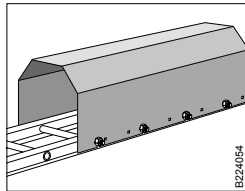
Intermediate connection bolts are used for changing from a broad to a narrower ladder. The broader ladder's last rung is cut to permit the narrower ladder to fit in. The intermediate connection bolt is mounted through the rungs of the KHZ ladder.



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.

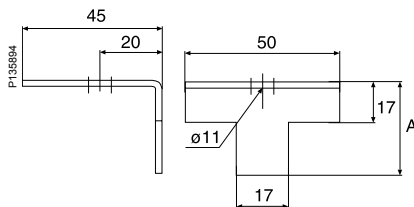


To be mounted on ladder KHZ with Intermediate connection bolt 29.

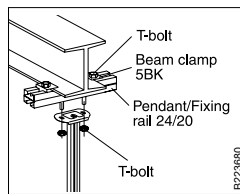
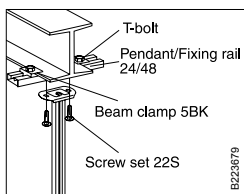
Beam clamp 5BK



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

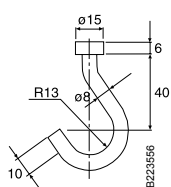


On ceiling beams, mount Vertical piece 2, 2F or 20 using 2 Beam clamps 5BK, Pendant/ Fixing rail 24/48 and Screw set 22S. For Beam clamp 5BK-10, use T-bolt 26F/40. For Beam clamp 5BK-30, use T-bolt 26F/50.

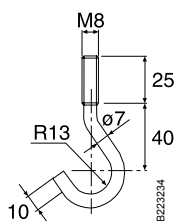
Alternatively, a Pendant/ Fixing rail 24/20 may be used. This will require 4 T-bolts.



Hot dip galv.

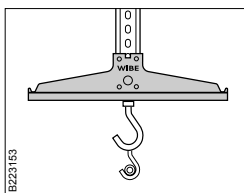


AISI 316L

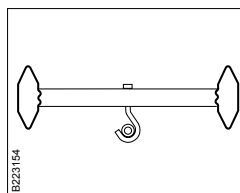


Hook 8

Hook to be used for the installation of cables beneath Support bracket 3. Can also be installed in perforated rungs.

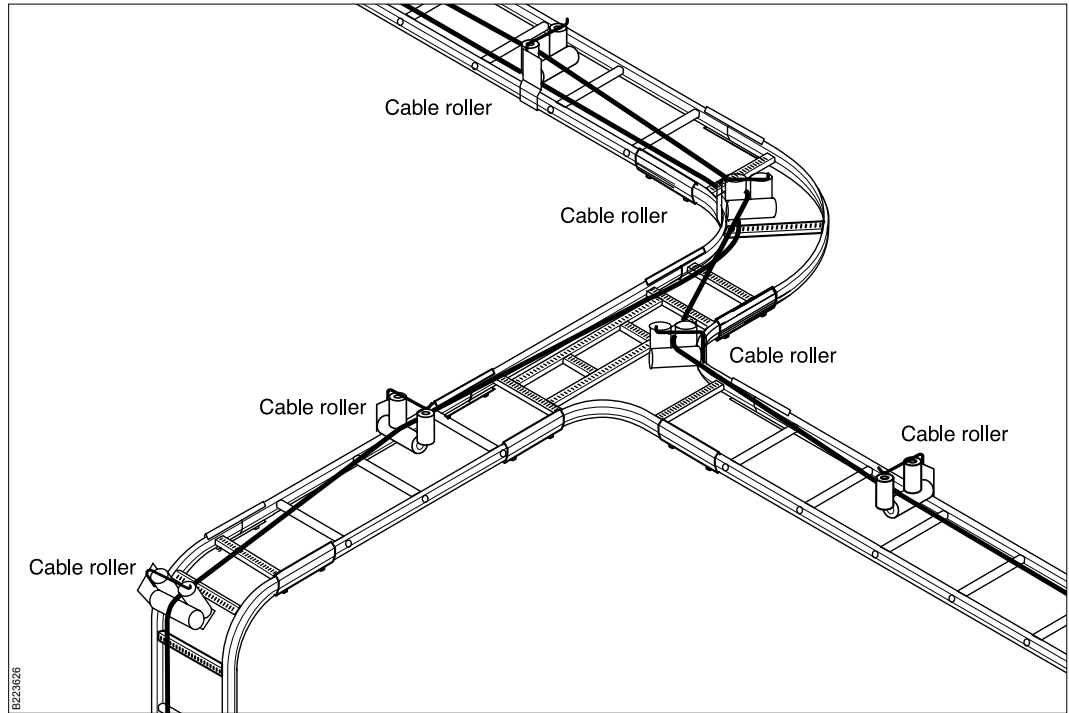


Hook 8 mounted beneath Support bracket 3 for installation of cables.

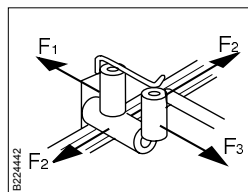
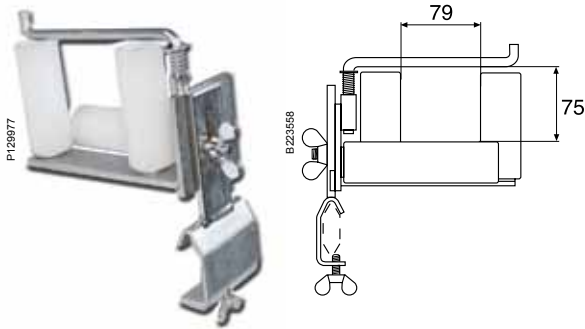


Hook 8 installed in a perforated rung.

Cable roller S

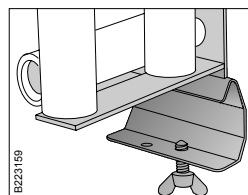


Cable roller used to facilitate the pulling of cables and lines. Easily installed on all Wibe cable ladders except the high-sided WHS ladders (outer mounting hole). Also suitable for external/internal profiles of all 90° bends, T-junctions, X-junctions and risers (inner mounting hole). With a height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

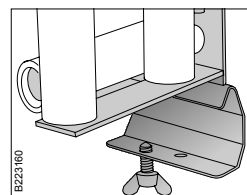


Load

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)



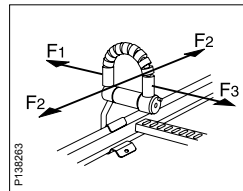
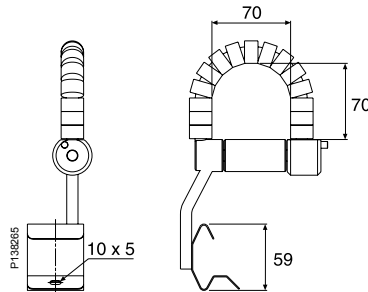
For fitting on 90°, T- and Xjunctions, use the inner mounting hole.



For mounting on ladders, use the outer mounting hole.

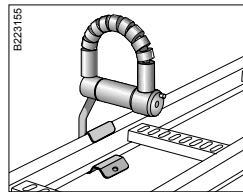
Cable roller 38 Rig'n roll

Cable roller used for mounting on Wibe cable ladders with belonging junctions and branches.

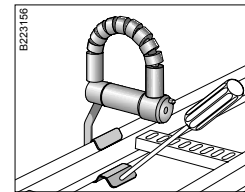


Load

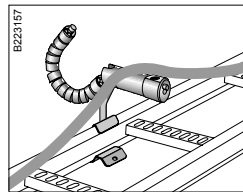
Permitted loading $F_1 = 20$ kg (KHZ, KHZP, KHZV, KHZSP)
 Permitted loading $F_2 = 50$ kg (KHZ, KHZP, KHZV, KHZSP)
 Permitted loading $F_3 = 50$ kg (KHZ, KHZP, KHZV)
 25 kg (KHZSP)



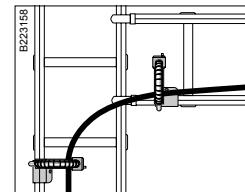
Cable roller 38 is to be mounted on the cable ladder profile.



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.

705093	.....103	713684	.....90	716193	.....108	716398	.....125	718519	.....89
705304	.....98	713684	.....113	716194	.....108	716399	.....125	718520	.....89
705392	.....114	713684	.....128	716196	.....108	716400	.....96	718521	.....89
705394	.....114	713684	.....142	716197	.....108	716401	.....119	718562	.....94
705395	.....114	713685	.....90	716198	.....108	716407	.....114	718563	.....94
705396	.....114	713685	.....113	716199	.....108	716640	.....87	718564	.....94
705397	.....114	713685	.....128	716200	.....108	716792	.....85	718565	.....94
706415	.....114	713685	.....142	716201	.....126	716793	.....85	718566	.....94
707511	.....99	713686	.....90	716202	.....126	716794	.....114	718567	.....94
707609	.....98	713686	.....113	716204	.....126	716795	.....114	718568	.....94
707748	.....111	713686	.....128	716205	.....126	716796	.....114	718572	.....82
708001	.....100	713686	.....142	716206	.....126	716824	.....87	718573	.....82
709017	.....86	713687	.....90	716207	.....126	716824	.....109	718574	.....82
709017	.....105	713687	.....113	716208	.....126	717001	.....112	718575	.....82
709018	.....86	713687	.....128	716209	.....109	717191	.....102	718576	.....82
709018	.....105	713687	.....142	716210	.....109	717192	.....102	718591	.....117
709019	.....91	713688	.....91	716212	.....109	717193	.....102	718592	.....117
709019	.....113	713688	.....112	716213	.....109	717194	.....102	718593	.....117
709019	.....128	713689	.....111	716214	.....109	717195	.....102	718594	.....117
709019	.....142	713690	.....111	716215	.....109	717196	.....102	718595	.....117
709020	.....91	713691	.....111	716216	.....109	717197	.....102	718596	.....117
709020	.....113	713694	.....114	716217	.....126	717198	.....102	718597	.....117
709020	.....128	714021	.....121	716218	.....126	717199	.....102	718618	.....86
709020	.....142	714022	.....121	716220	.....126	717200	.....102	718624	.....100
709021	.....91	714023	.....121	716221	.....126	717201	.....122	718625	.....100
709021	.....113	714024	.....121	716222	.....126	717202	.....122	718626	.....100
709021	.....128	714029	.....125	716223	.....126	717203	.....122	718627	.....100
709021	.....142	714058	.....118	716224	.....126	717204	.....122	718628	.....100
709031	.....103	714059	.....118	716241	.....108	717205	.....122	718632	.....114
709050	.....90	714061	.....118	716243	.....108	717618	.....111	718640	.....105
709051	.....90	714062	.....118	716244	.....108	717636	.....111	718643	.....111
709052	.....90	714063	.....118	716245	.....108	717637	.....116	718644	.....125
709053	.....90	714064	.....118	716246	.....108	717640	.....104	718660	.....92
709054	.....90	714066	.....120	716247	.....108	717641	.....104	718660	.....116
709055	.....90	714067	.....124	716248	.....126	717642	.....104	718660	.....129
709056	.....90	714085	.....125	716250	.....126	717643	.....124	718660	.....143
709057	.....90	714165	.....120	716251	.....126	717644	.....124	718718	.....102
709058	.....90	714168	.....128	716252	.....126	717645	.....124	718719	.....102
709795	.....103	714179	.....121	716253	.....126	717982	.....96	718720	.....102
709798	.....103	714198	.....119	716254	.....126	717983	.....96	718721	.....102
709799	.....102	714200	.....119	716255	.....108	717984	.....96	718793	.....121
709801	.....104	714201	.....119	716257	.....108	717985	.....96	718808	.....103
71120586	714202119	716258108	71798696	71883587
71201596	714203119	716259108	718176106	718849104
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71201996	715675106	716262126	718180106	718903104
71202096	715723102	716264126	718181106	718904104
712465	.....100	715724	.....102	716265	.....126	718182	.....106	720517	.....107
712639	.....88	715725	.....102	716266	.....126	718183	.....106	720518	.....125
712640	.....88	715726	.....102	716267	.....126	718184	.....125	720521	.....122
712642	.....88	715727	.....102	716268	.....126	718185	.....125	720522	.....122
71264388	715728102	716276122	718187125	720523122
71264488	715735114	716277122	718188125	720524122
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71266888	715879103	716279122	718190125	720526123
713153105	716066107	716280122	718191125	720527124
713173	.....105	716067	.....107	716281	.....122	718243	.....106	720528	.....124
713177	.....105	716069	.....107	716282	.....122	718249	.....102	720529	.....124
713178	.....105	716070	.....107	716283	.....122	718250	.....102	720530	.....124
713203	.....101	716071	.....107	716284	.....122	718251	.....102	720531	.....124
713204	.....101	716072	.....107	716285	.....122	718253	.....104	720536	.....104
713207	.....121	716073	.....107	716286	.....122	718409	.....99	720761	.....101
713208	.....121	716074	.....125	716287	.....122	718410	.....120	720762	.....101
713671	.....111	716075	.....125	716293	.....124	718473	.....92	720763	.....101
713672	.....111	716077	.....125	716294	.....125	718484	.....122	720764	.....101
713674	.....90	716078	.....125	716295	.....124	718485	.....122	720765	.....101
713675	.....90	716079	.....125	716302	.....124	718486	.....122	720766	.....101
713676	.....90	716080	.....125	716303	.....124	718487	.....125	720786	.....137
713677	.....111	716081	.....125	716304	.....124	718488	.....123	720815	.....99
713678	.....141	716179	.....107	716306	.....123	718507	.....89	720816	.....120
713679	.....91	716180	.....107	716307	.....123	718508	.....89	720824	.....100
713679	.....112	716182	.....107	716308	.....123	718509	.....89	721101	.....85
713681	.....91	716183	.....107	716309	.....123	718510	.....89	721102	.....84
713681	.....112	716184	.....107	716389	.....107	718511	.....89	721105	.....84
713681	.....141	716185	.....107	716390	.....107	718512	.....89	721106	.....84
713682	.....91	716186	.....126	716391	.....107	718513	.....89	721114	.....89
713682	.....112	716187	.....126	716392	.....107	718514	.....89	721115	.....83
713682	.....141	716189	.....126	716393	.....107	718515	.....89	721119	.....85
713683	.....91	716190	.....126	716395	.....125	718516	.....89	721122	.....83
713683	.....112	716191	.....126	716396	.....125	718517	.....89	721862	.....121
713683	.....141	716192	.....126	716397	.....125	718518	.....89	721863	.....121

721864.....	121	725357.....	84	727348.....	138	731717.....	85	732493.....	106
721865.....	121	725358.....	84	727349.....	138	731719.....	103	732494.....	106
721866.....	121	725359.....	84	727350.....	138	731721.....	85	732495.....	106
721867.....	121	725360.....	84	727351.....	138	731724.....	123	732977.....	120
721869.....	84	725361.....	84	727352.....	138	731727.....	136	732978.....	120
721870.....	84	725362.....	85	727353.....	138	731745.....	106	732983.....	109
721871.....	84	725363.....	83	727354.....	138	731746.....	106	733487.....	105
721872.....	84	725557.....	135	727355.....	138	731747.....	109	734171.....	112
721873.....	84	725558.....	135	727356.....	138	731748.....	109	734172.....	112
721945.....	121	725559.....	135	727357.....	138	731749.....	109	734173.....	112
721960.....	94	725560.....	135	727358.....	139	731750.....	109	734174.....	112
721961.....	107	725561.....	135	727359.....	139	731791.....	104	734225.....	87
721962.....	108	725562.....	135	727360.....	139	731792.....	124	734226.....	87
721963.....	109	725563.....	135	727361.....	139	731793.....	136	734488.....	82
721964.....	106	725564.....	135	727362.....	139	731837.....	99	734489.....	82
723057.....	107	725565.....	135	727363.....	139	731911.....	120	734490.....	82
723061.....	87	725566.....	135	727364.....	139	731914.....	134	734491.....	82
723062.....	87	725567.....	135	727365.....	139	731961.....	87	734492.....	82
723063.....	87	725568.....	135	727366.....	139	731962.....	87	734494.....	93
723064.....	87	725569.....	135	727367.....	139	731994.....	91	734495.....	93
723065.....	87	725570.....	135	727368.....	139	731994.....	113	734496.....	93
723212.....	83	725571.....	135	727369.....	139	731994.....	128	734497.....	93
723260.....	107	725572.....	135	727370.....	138	731994.....	142	734498.....	93
723390.....	119	725573.....	136	727371.....	138	732151.....	91	734646.....	114
723391.....	119	725574.....	136	727372.....	138	732151.....	113	734713.....	98
723392.....	119	725575.....	136	727373.....	138	732151.....	128	734744.....	114
723393.....	119	725576.....	136	727374.....	138	732151.....	142	734864.....	92
723394.....	119	725577.....	136	727375.....	138	732177.....	85	734983.....	92
723432.....	100	725578.....	136	727376.....	132	732214.....	88	734986.....	142
723433.....	100	725579.....	136	727377.....	132	732215.....	88	735433.....	128
723434.....	100	725582.....	143	727378.....	132	732216.....	88	735434.....	128
723435.....	100	725587.....	137	727379.....	132	732217.....	88	735435.....	128
723436.....	100	725589.....	142	727380.....	132	732218.....	88	735436.....	128
723437.....	100	725590.....	139	727381.....	132	732219.....	88	735446.....	91
723438.....	100	725591.....	139	727382.....	131	732220.....	88	735446.....	113
723439.....	100	725592.....	139	727383.....	131	732221.....	88	735446.....	128
723440.....	121	725593.....	139	727384.....	131	732222.....	88	735446.....	142
723441.....	121	725594.....	139	727385.....	131	732264.....	110	735998.....	92
723442.....	121	725618.....	135	727386.....	131	732265.....	110	735998.....	116
723443.....	121	725619.....	135	727387.....	131	732266.....	110	735998.....	129
723444.....	121	725620.....	135	727582.....	84	732267.....	110	735998.....	143
723445.....	121	725621.....	135	727583.....	84	732268.....	110	736440.....	137
723446.....	121	725622.....	135	727584.....	84	732269.....	110	736441.....	137
723447.....	121	725623.....	135	727585.....	84	732270.....	110	736442.....	137
723450.....	101	725624.....	135	727586.....	84	732291.....	140	736443.....	137
723451.....	101	725625.....	135	727777.....	83	732292.....	140	736444.....	137
723904.....	93	725636.....	136	727778.....	83	732293.....	140	736445.....	137
723905.....	93	725751.....	134	727779.....	83	732294.....	140	736446.....	137
723906.....	93	725760.....	134	727780.....	83	732295.....	140	736447.....	137
723907.....	93	725763.....	134	727781.....	83	732296.....	140	736448.....	137
723908.....	93	725774.....	135	727782.....	121	732297.....	140	736449.....	137
724806.....	85	725775.....	135	727783.....	121	732322.....	88	736450.....	137
725000.....	115	725776.....	138	727784.....	121	732323.....	88	736451.....	137
725065.....	87	725777.....	138	727785.....	121	732324.....	88	736452.....	137
725066.....	87	725785.....	87	728033.....	117	732325.....	88	736453.....	137
725067.....	87	726416.....	95	728034.....	125	732326.....	88	736454.....	137
725079.....	85	726417.....	95	728043.....	125	732327.....	88	736455.....	137
725083.....	85	726419.....	95	728052.....	126	732328.....	88	736456.....	137
725096.....	99	726420.....	95	728053.....	126	732345.....	88	737198.....	137
725105.....	100	726421.....	95	728584.....	110	732346.....	88	737704.....	92
725106.....	100	726422.....	95	728586.....	141	732347.....	88	737704.....	115
725107.....	100	726433.....	135	728595.....	136	732348.....	88	737704.....	129
725108.....	100	726434.....	135	728596.....	142	732349.....	88	737704.....	143
725109.....	100	726435.....	135	728598.....	142	732350.....	88	737705.....	92
725110.....	100	726436.....	135	728622.....	143	732351.....	88	737705.....	115
725111.....	100	726437.....	135	728642.....	106	732475.....	89	737705.....	129
725112.....	100	726438.....	135	728649.....	143	732476.....	89	737705.....	143
725113.....	121	726484.....	136	728651.....	134	732477.....	89	737706.....	92
725114.....	121	726485.....	136	728652.....	134	732478.....	89	737706.....	115
725115.....	121	726668.....	91	728653.....	99	732479.....	89	737706.....	129
725116.....	121	726668.....	113	728654.....	99	732481.....	141	737706.....	143
725117.....	121	726668.....	129	728767.....	143	732482.....	141	737707.....	92
725118.....	121	726668.....	142	729045.....	128	732483.....	141	737707.....	115
725119.....	121	727125.....	100	729217.....	88	732484.....	141	737707.....	129
725120.....	121	727126.....	100	730188.....	110	732485.....	141	737707.....	143
725350.....	82	727127.....	100	730190.....	140	732486.....	86	737708.....	92
725351.....	82	727128.....	100	730192.....	111	732487.....	86	737708.....	115
725352.....	82	727195.....	134	730193.....	111	732488.....	86	737708.....	129
725353.....	82	727197.....	141	730194.....	111	732489.....	86	737708.....	143
725354.....	82	727340.....	141	730195.....	111	732490.....	86	739713.....	129
725355.....	82	727346.....	138	730196.....	111	732491.....	106	768001.....	95
725356.....	82	727347.....	138	730245.....	86	732492.....	106	768002.....	95

768004.....95	782214.....127	788642.....140	1149291.....106	CSU795166.....112
768005.....95	782353.....104	788643.....140	1149359.....141	CSU795167.....112
768006.....95	782365.....127	788644.....140	1149391.....141	CSU795168.....100
768007.....95	782366.....127	788645.....140	1149405.....86	CSU795180.....92
768063.....103	782367.....127	788646.....140	1149456.....86	CSU795181.....92
768733.....89	782368.....127	788647.....140	1149464.....86	CSU795205.....99
768738.....106	782369.....127	788648.....140	1149466.....86	CSU795206.....107
769000.....90	782370.....127	788649.....140	1149551.....137	CSU795207.....107
769001.....90	782371.....127	788650.....140	1149552.....137	CSU795208.....107
769002.....90	782382.....127	788651.....140	1149554.....137	CSU795209.....105
769003.....90	782384.....127	788652.....140	1149555.....72	CSU795210.....99
769004.....90	782569.....127	788653.....140	1149555.....80	CSU795211.....99
769005.....90	782570.....127	788654.....140	1149555.....137	CSU795220.....85
769006.....90	782571.....127	789875.....91	1149561.....137	CSU795221.....85
769007.....90	782572.....127	789875.....113	1149562.....137	CSU795239.....83
769008.....90	782573.....127	789875.....128	1149564.....137	CSU795240.....83
769009.....90	782574.....127	789875.....142	1149565.....72	CSU795241.....99
769010.....90	782575.....127	789876.....91	1149565.....80	CSU795242.....99
769011.....90	782576.....127	789876.....113	1149565.....137	CSU795243.....120
769012.....90	782585.....140	789876.....129	CSU734698.....58	CSU795277.....114
769013.....90	782586.....140	789876.....142	CSU734698.....115	WBE782561.....109
769014.....90	782587.....140	790906.....120	CSU794202.....102	WBE782562.....109
769015.....90	782588.....140	791063.....101	CSU794203.....102	WBE782563.....109
769016.....90	782589.....140	791064.....101	CSU794204.....102	WBE782564.....109
780162.....84	782590.....140	791065.....101	CSU794205.....102	WBE782565.....109
780163.....84	782591.....140	791066.....101	CSU794206.....102	WBE782566.....109
780186.....92	782592.....140	791067.....101	CSU794207.....102	WBE782567.....109
780186.....116	783155.....82	791068.....101	CSU794439.....130	WBE782568.....109
780186.....129	783156.....82	791092.....101	CSU794440.....130	
780186.....143	783157.....82	791199.....98	CSU794441.....130	
780187.....92	783158.....82	791200.....120	CSU794442.....130	
780187.....116	783159.....82	791350.....105	CSU794443.....130	
780187.....129	783374.....134	791401.....124	CSU794445.....130	
780187.....143	783375.....140	791413.....84	CSU794446.....130	
780452.....110	783460.....86	791414.....84	CSU794447.....130	
780453.....110	783461.....86	791415.....84	CSU794448.....130	
780454.....110	783484.....139	792554.....85	CSU794449.....130	
780455.....110	783516.....94	792723.....84	CSU794520.....91	
780456.....110	783517.....94	792724.....84	CSU794520.....113	
780457.....110	783518.....94	792725.....84	CSU794520.....129	
780874.....120	783519.....94	792726.....84	CSU794520.....142	
781099.....82	783520.....94	792727.....85	CSU794697.....58	
781433.....110	783521.....94	792728.....85	CSU794697.....115	
781434.....110	783522.....94	792729.....85	CSU794699.....58	
781435.....110	783523.....94	792863.....112	CSU794699.....115	
781436.....110	783524.....117	792864.....141	CSU794715.....58	
781437.....110	783525.....117	792865.....112	CSU794715.....115	
781438.....110	783526.....117	792866.....141	CSU795050.....83	
781439.....110	783527.....117	792867.....112	CSU795050.....98	
781440.....110	783528.....117	792868.....141	CSU795051.....83	
781441.....110	783529.....117	792873.....134	CSU795051.....98	
781442.....110	783530.....117	792875.....136	CSU795138.....97	
781443.....110	783531.....117	792877.....134	CSU795139.....97	
781444.....110	784066.....133	792880.....138	CSU795140.....97	
781445.....110	784067.....133	792881.....138	CSU795141.....97	
781446.....110	784068.....133	792882.....138	CSU795142.....97	
781751.....127	784069.....133	792883.....138	CSU795143.....97	
781752.....127	784070.....133	792884.....138	CSU795144.....97	
781753.....127	784071.....133	792885.....138	CSU795145.....108	
781754.....127	784072.....133	792886.....138	CSU795146.....108	
781755.....127	786738.....89	792888.....134	CSU795147.....108	
781756.....127	786739.....89	792893.....134	CSU795148.....108	
781757.....127	786746.....110	792895.....115	CSU795149.....108	
781765.....127	786747.....110	792903.....139	CSU795150.....108	
781766.....127	786768.....105	792904.....139	CSU795151.....108	
781767.....127	786860.....92	792905.....139	CSU795152.....108	
781768.....127	786860.....115	792906.....139	CSU795153.....108	
781769.....127	786860.....129	792907.....139	CSU795154.....108	
781770.....127	786860.....143	792908.....139	CSU795155.....108	
781771.....127	787223.....104	792909.....139	CSU795156.....108	
781793.....110	787276.....102	792920.....139	CSU795157.....108	
781794.....127	787277.....122	792921.....139	CSU795158.....108	
781796.....110	787278.....135	792922.....139	CSU795159.....107	
781797.....127	788164.....105	792923.....139	CSU795160.....107	
781802.....88	788165.....105	792924.....139	CSU795161.....107	
781803.....88	788638.....109	792925.....139	CSU795162.....107	
782128.....131	788639.....140	1149159.....86	CSU795163.....107	
782129.....131	788640.....140	1149191.....86	CSU795164.....107	
782213.....110	788641.....140	1149259.....106	CSU795165.....107	

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