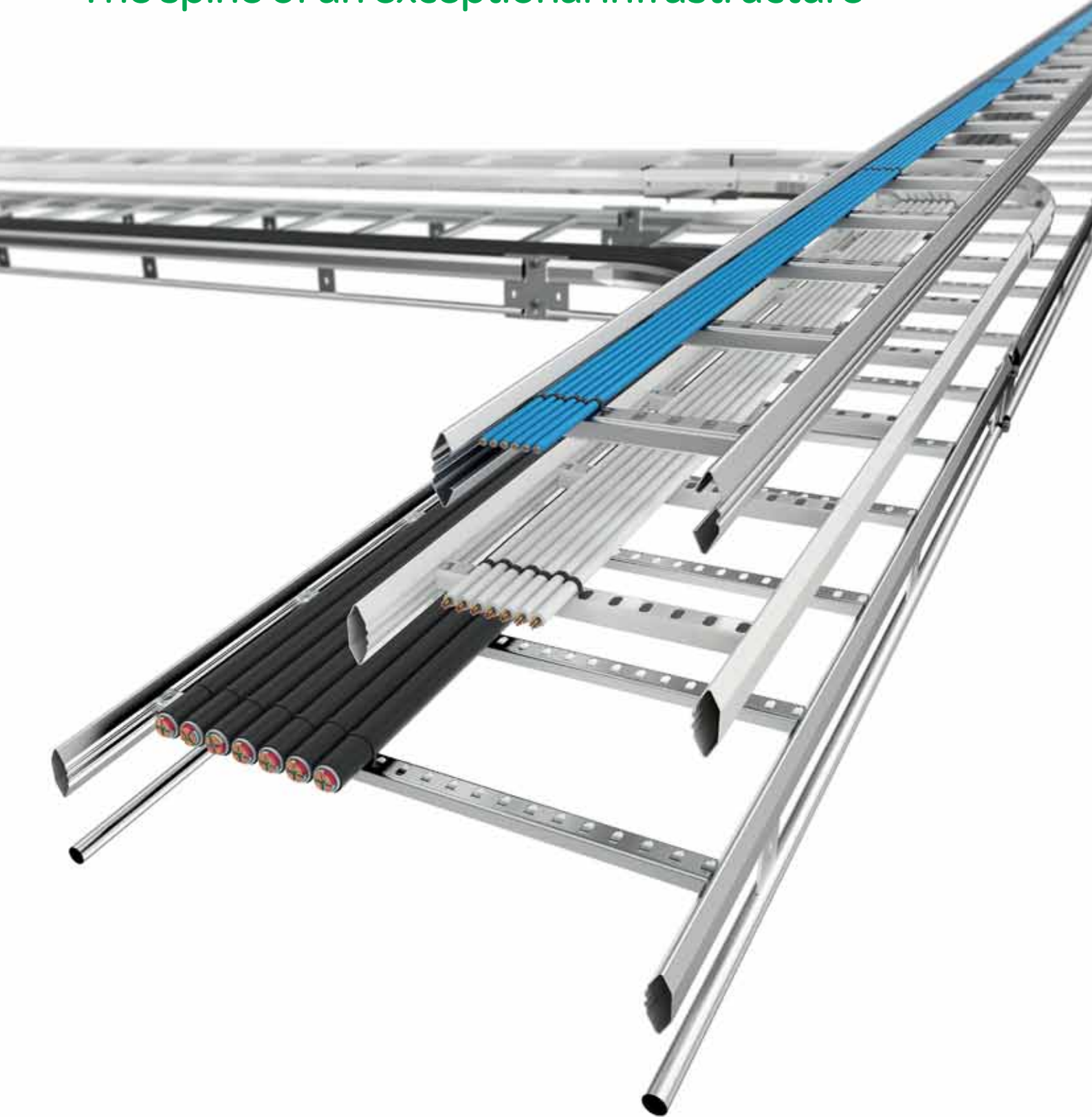


Cable Support Solutions

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®, Thermo plastic coating

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, Thermo plastic coating

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, Thermo plastic coating, 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

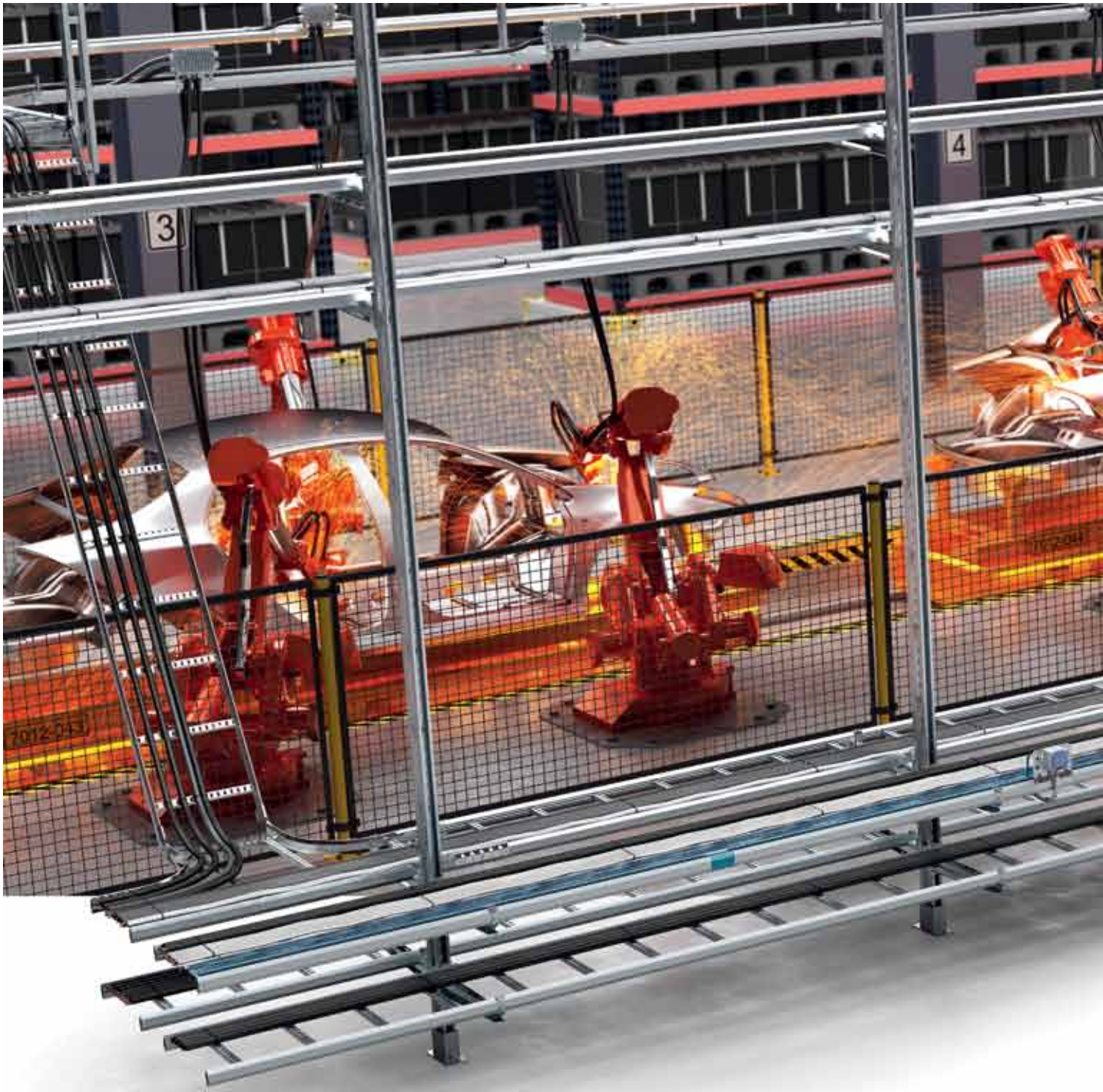
Length: 6 m.
Width: 200-1000 mm
Corrosion class: C3 to C5-M
Surface treatment: Hot-dip galvanized, Zinkpox®, Stainless steel AISI 316L

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



P135798

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

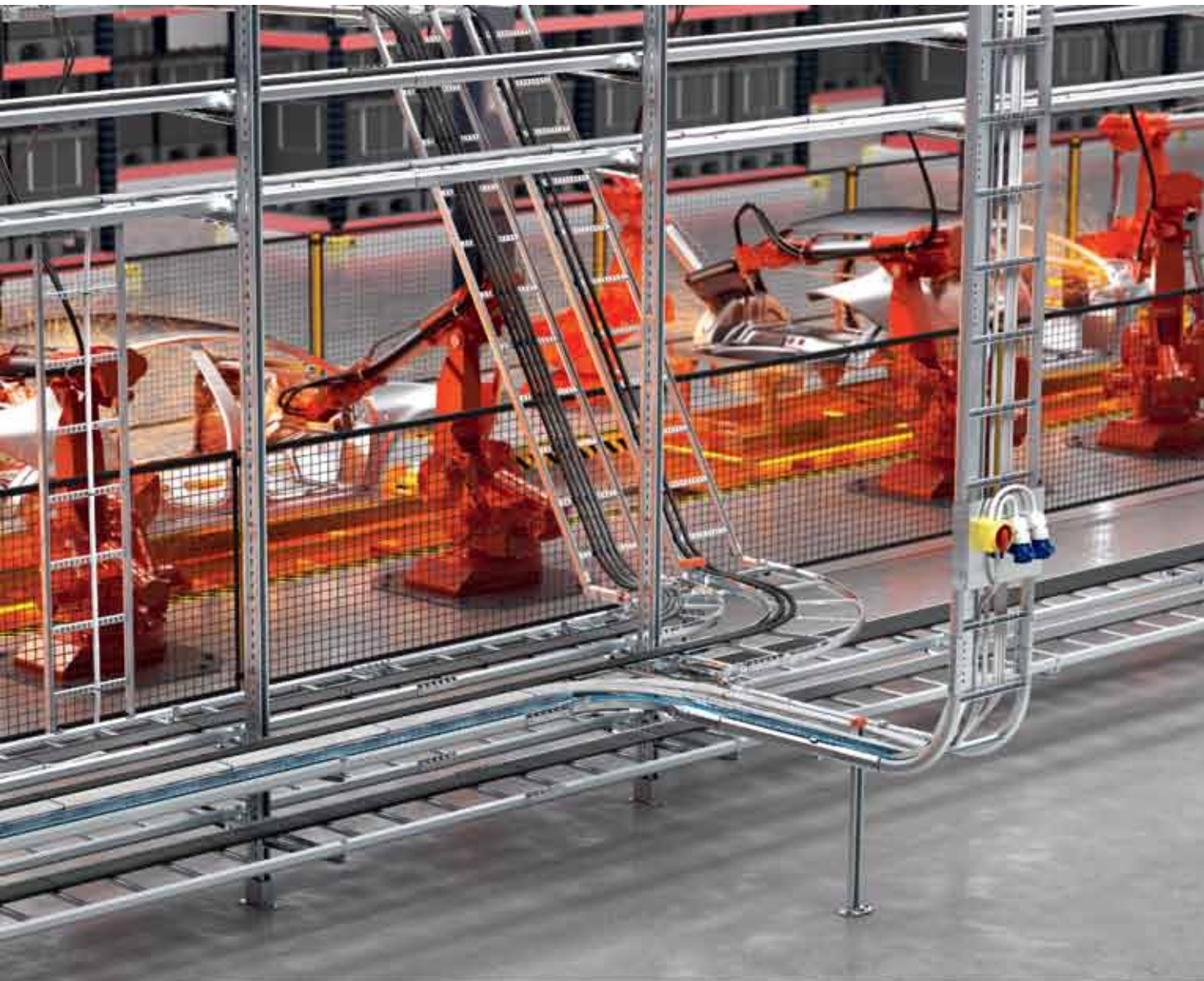
Versatile joint for horizontal or vertical branches in any angle. Suitable for 90 bend, T- or X-junctions, or as a riser.



P135711

Vertical piece

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

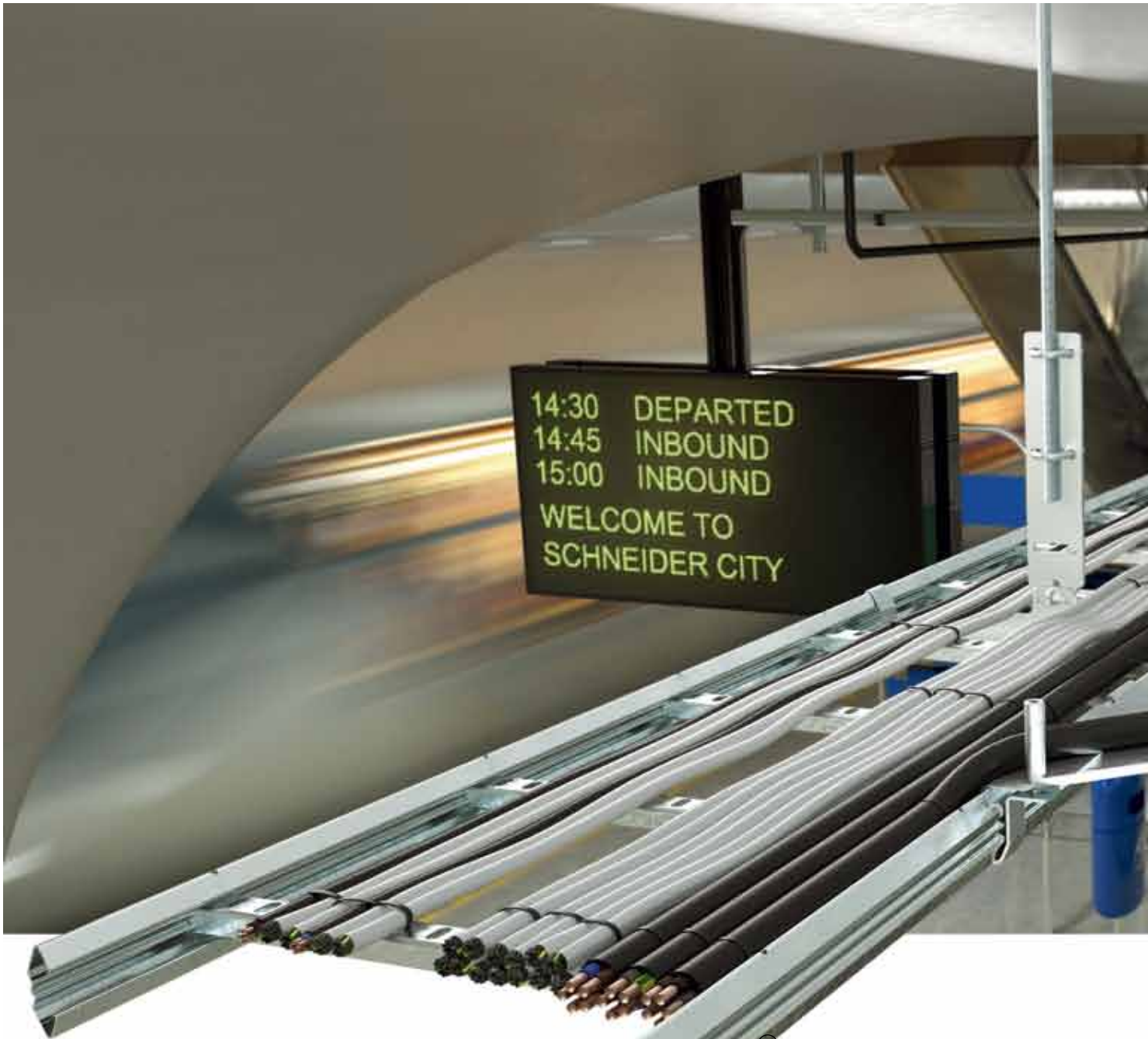


Organised and ready for constant change

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

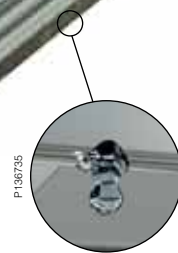
bends, raisers, cantilever arms, brackets, joints, couplings and much more, making the entire solution flexible and adjustable enough to take on any challenging task.



P1195725

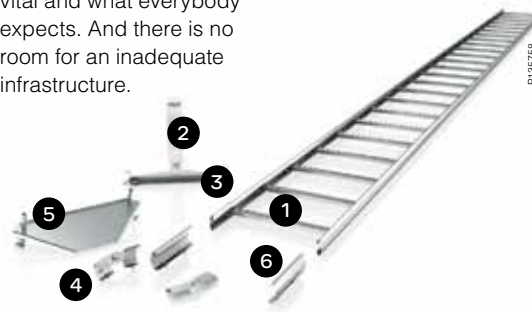
The challenge

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.



P1195725

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.



P1195758

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

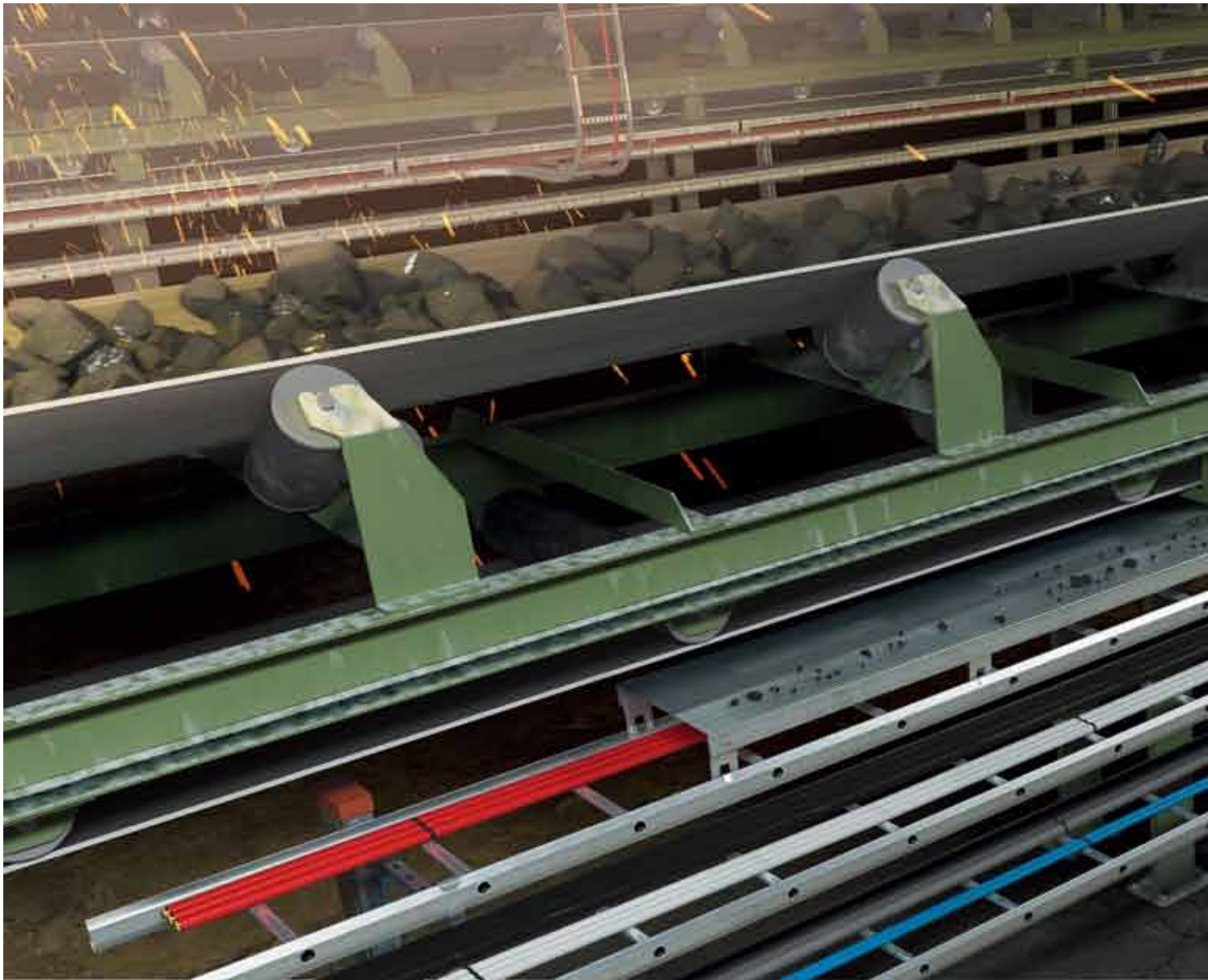


On track with the future

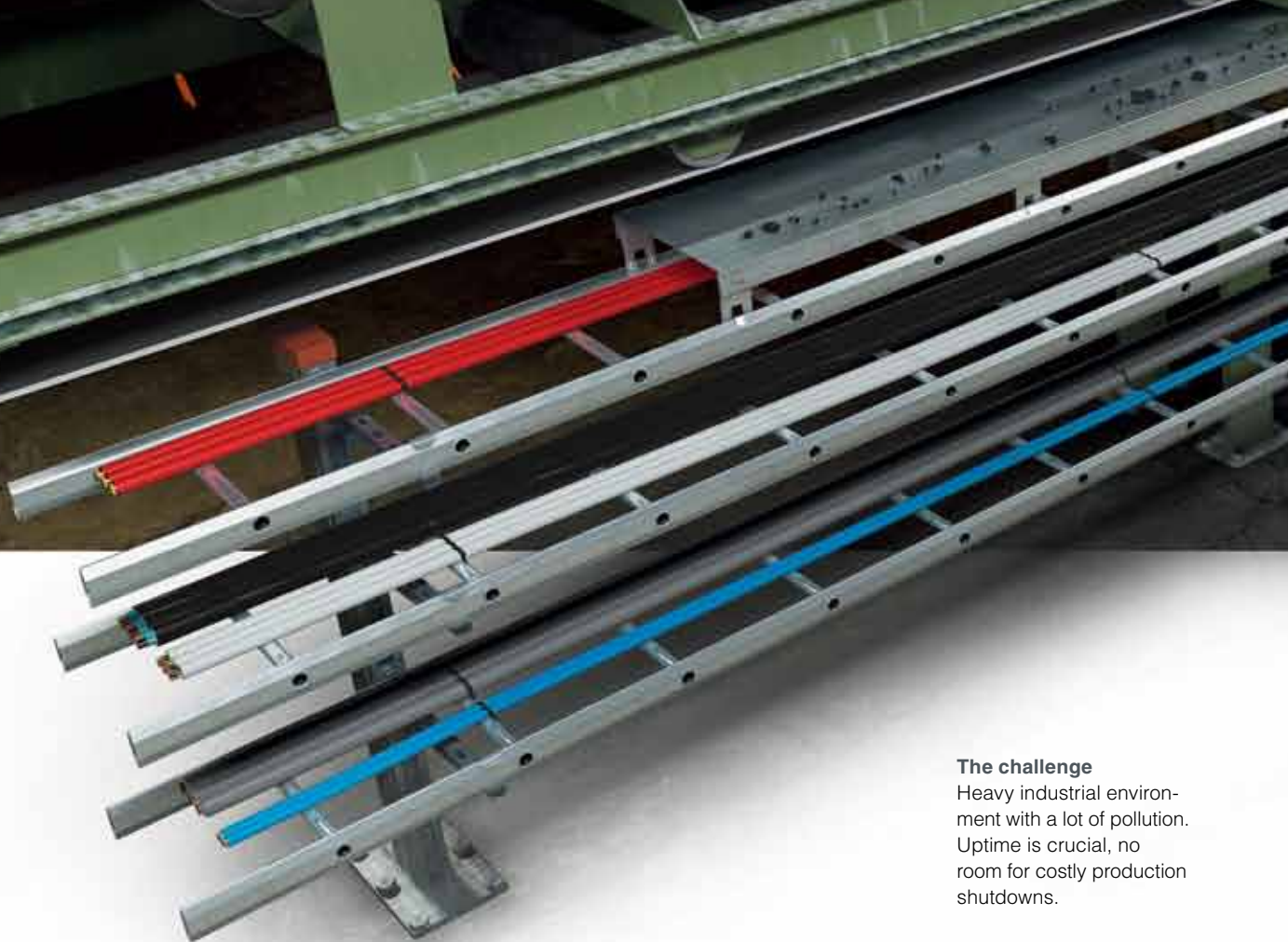
Today we constantly meet increasing expectations on performance, flexibility and sustainability. Advanced constructions require top quality in every detail and keeping up with technical development is a challenging task. Our goal is to prosper business performance while conserving environmental resources.

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

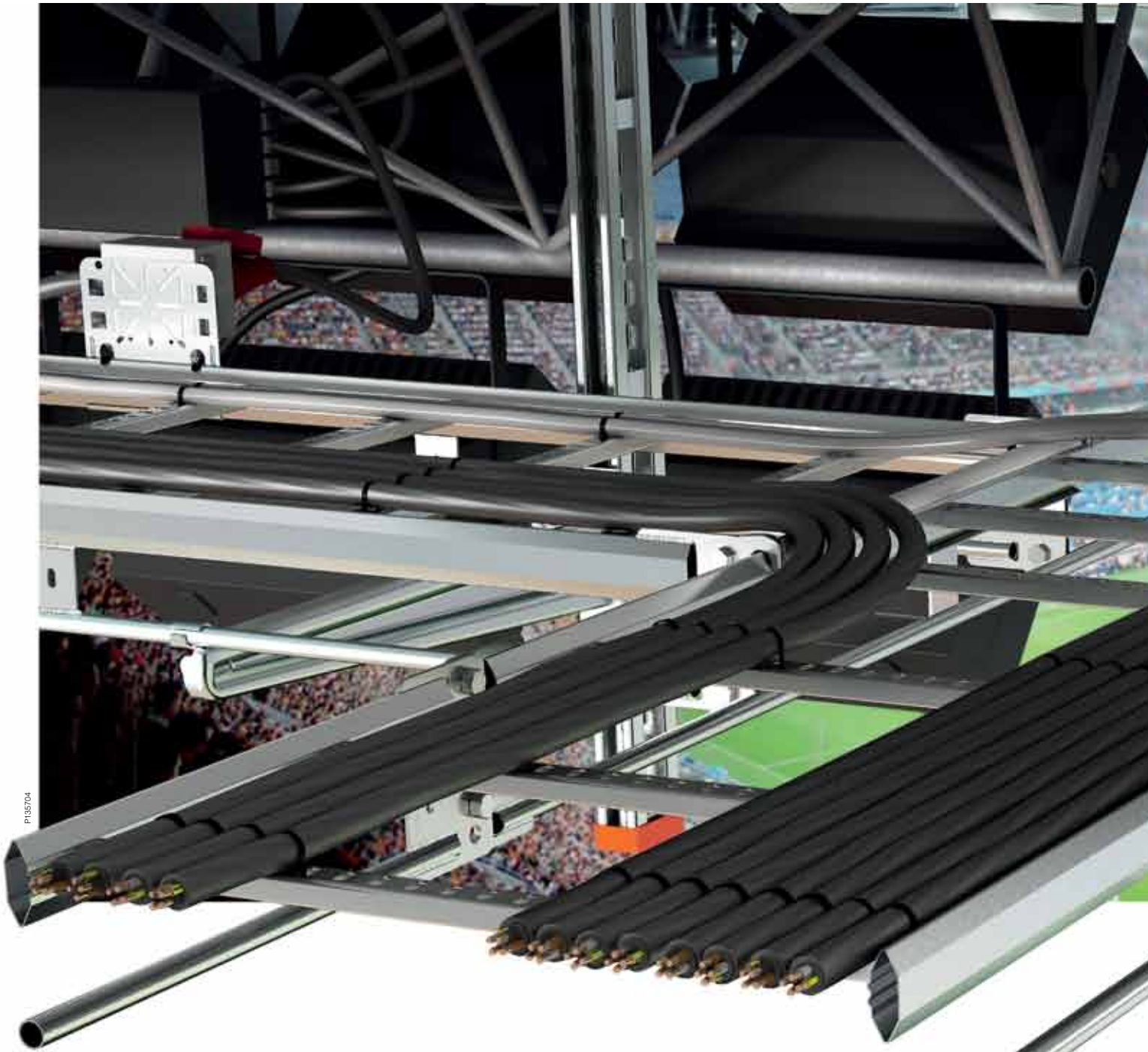


Breaking ground for heavy-duty applications

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

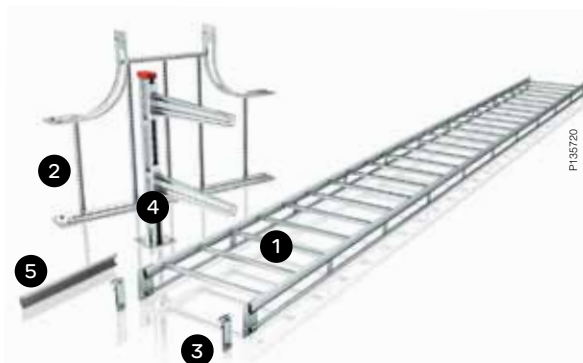
The challenge

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.



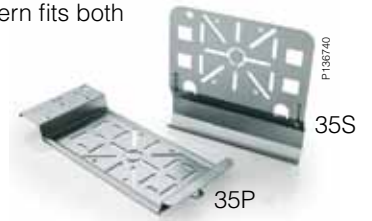


P138745

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

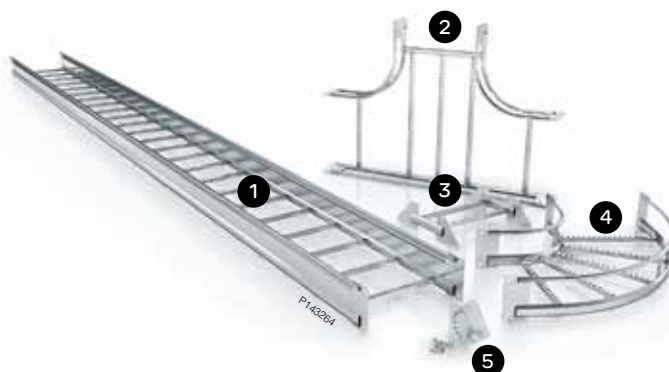
The cable rollers simplify pulling of cables. The rollers are adjustable in height to allow cables to pass underneath. Suitable for 90° bends, T- and X-junctions as well as risers.



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

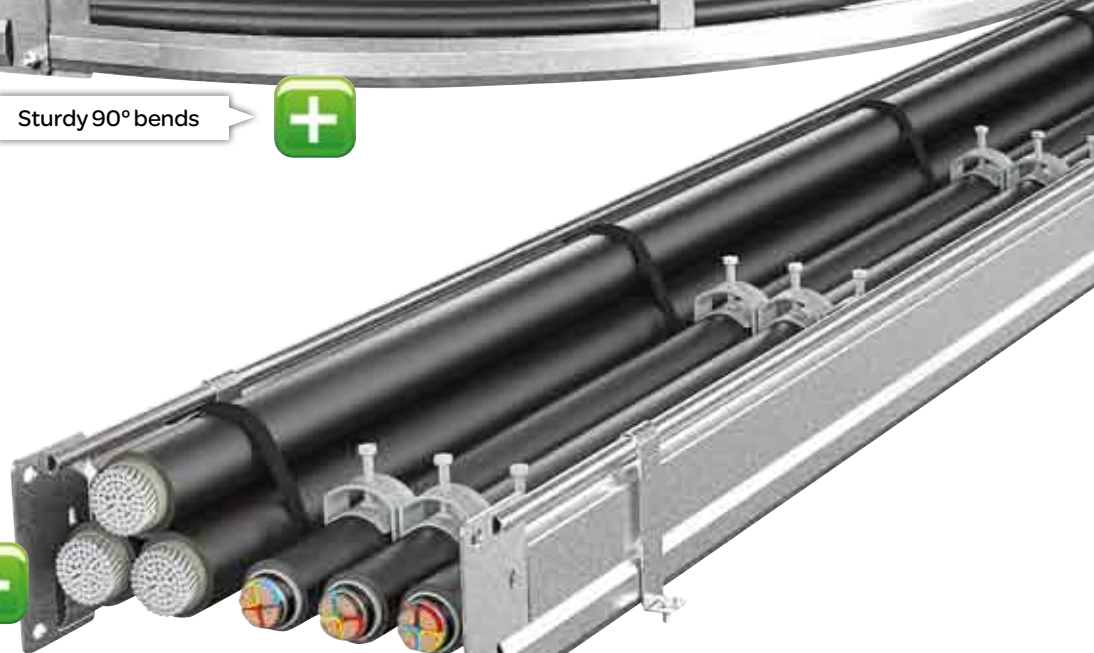
The KHZP 20C has evolved from many years of renowned development. With impressive dimensions and easy-to-apply accessories, such as bends, risers, T-junctions, couplings and reducers, the KHZP 20C is the ultimate durable solution for demanding installations.



Sturdy 90° bends

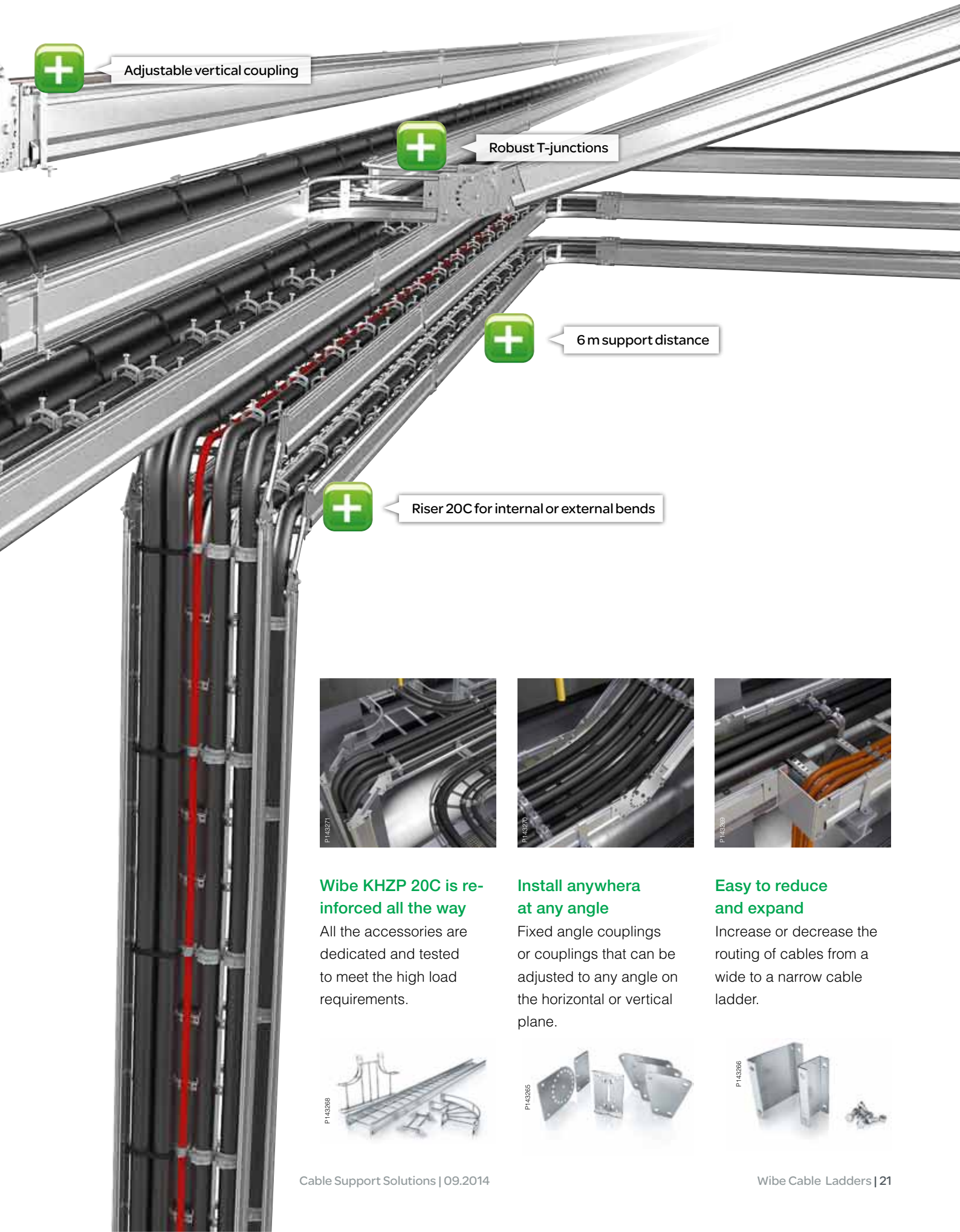


Width 200–1000 mm



Integrated couplers





Adjustable vertical coupling



Robust T-junctions



6 m support distance



Riser 20C for internal or external bends



Wibe KHZP 20C is reinforced all the way

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



Install anywhere at any angle

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



Easy to reduce and expand

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

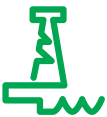


Certified according to DIN4102-12 for fire resistance E30 and E90

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.

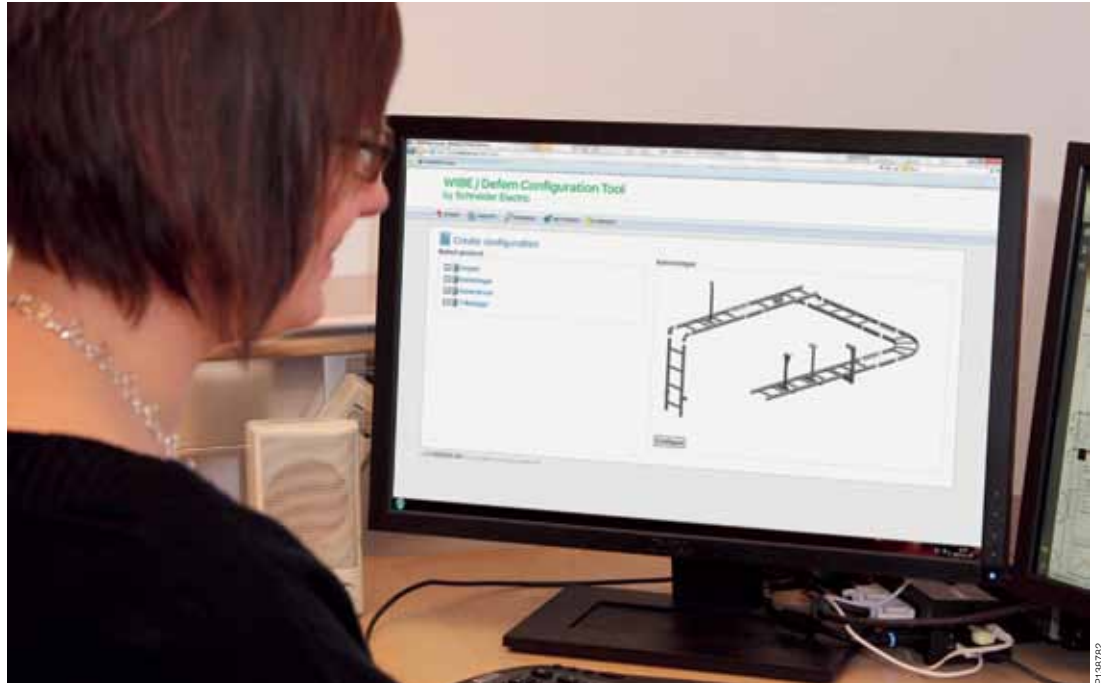
The cable ladders with supporting system and Dätwyler Pyrofil KERAM E30 and E90 cables were tested for 90 minutes in a temperature of up to 1000°C without collapsing, with the electrical performance still remaining intact.

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.

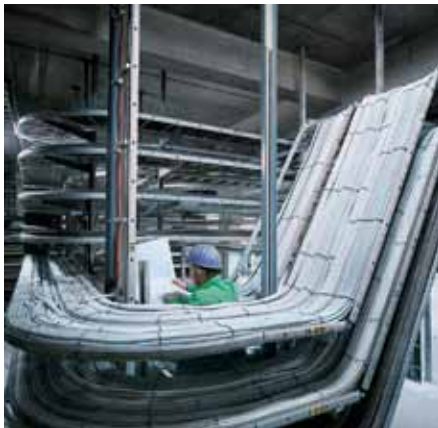
Experience and knowledge take you higher

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.



P129658

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

Thermoplastic..... 74

Stainless steel 78

Range

Pre-galvanized 86

Hot-dip galvanized 97

Zinkpox..... 120

Thermoplastic..... 133

Stainless steel 137

Technical description

Corrosion classes 152

Surface treatments 155

Installation regulations 156

Loading capacity 156

Electro-magnetic compatibility.. 157

Potential balancing 158

E-90 fire test 160

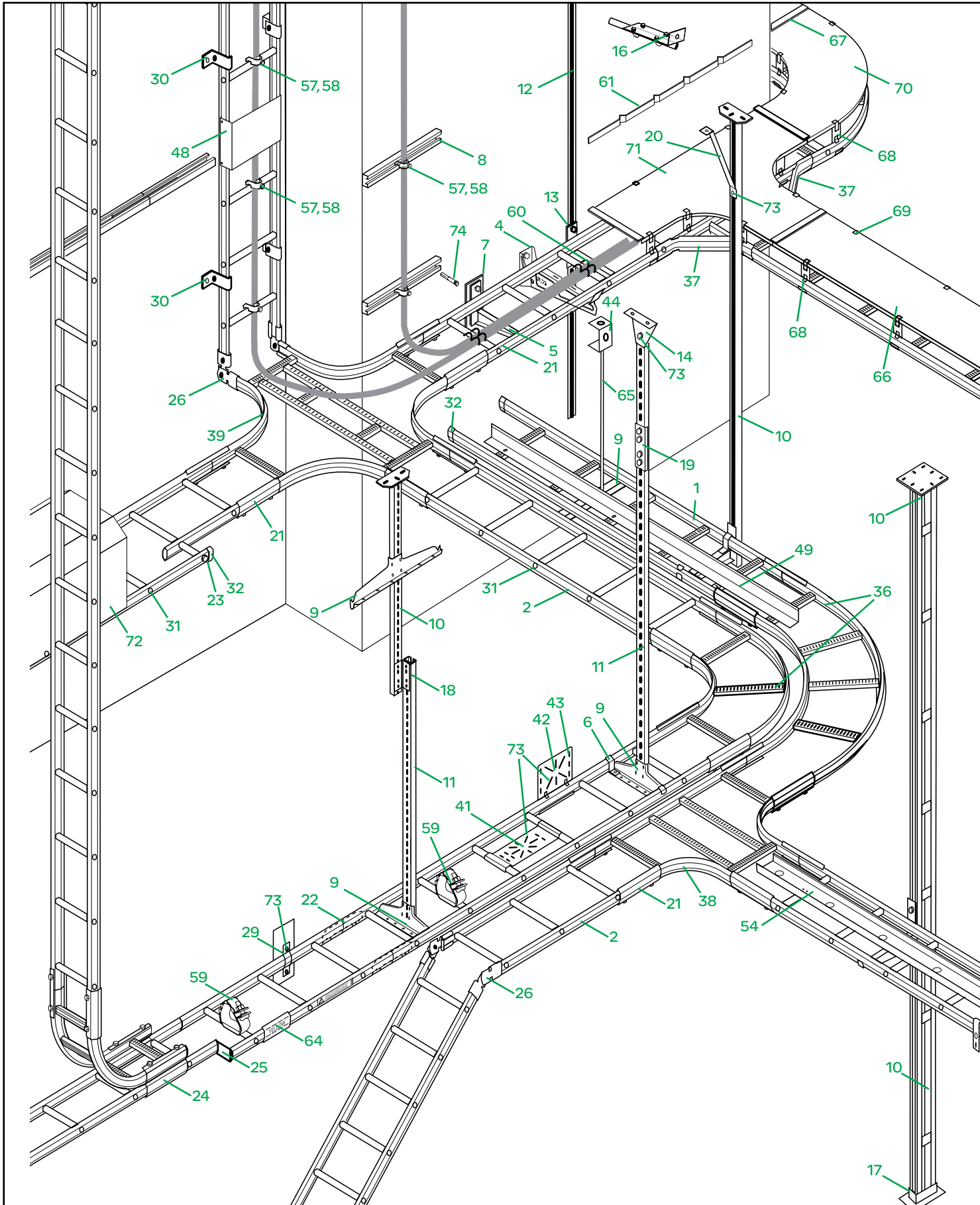
Standards and quality..... 162

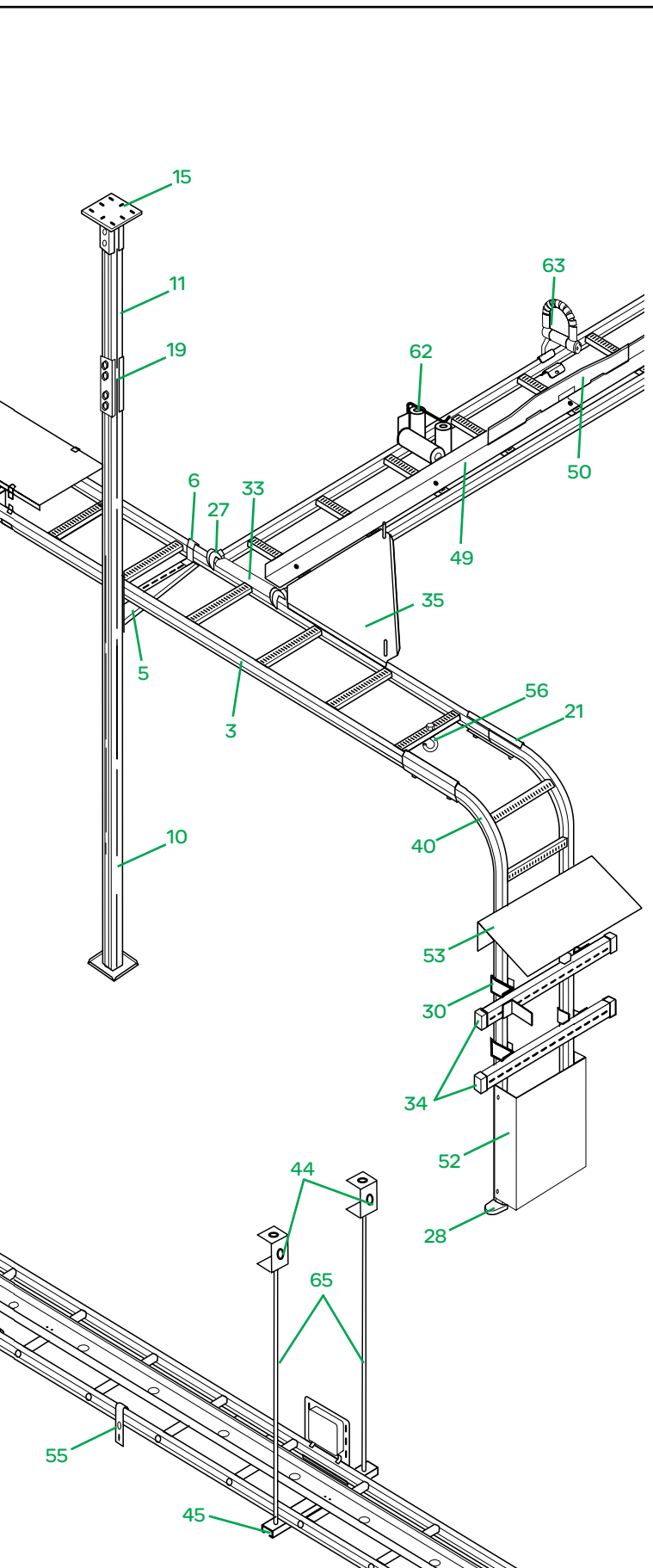
Use and installation 163

Reference number overview..... 240

Installation summary

KHZSP, KHZSPZ, KHZPS, KHZ, KHZP



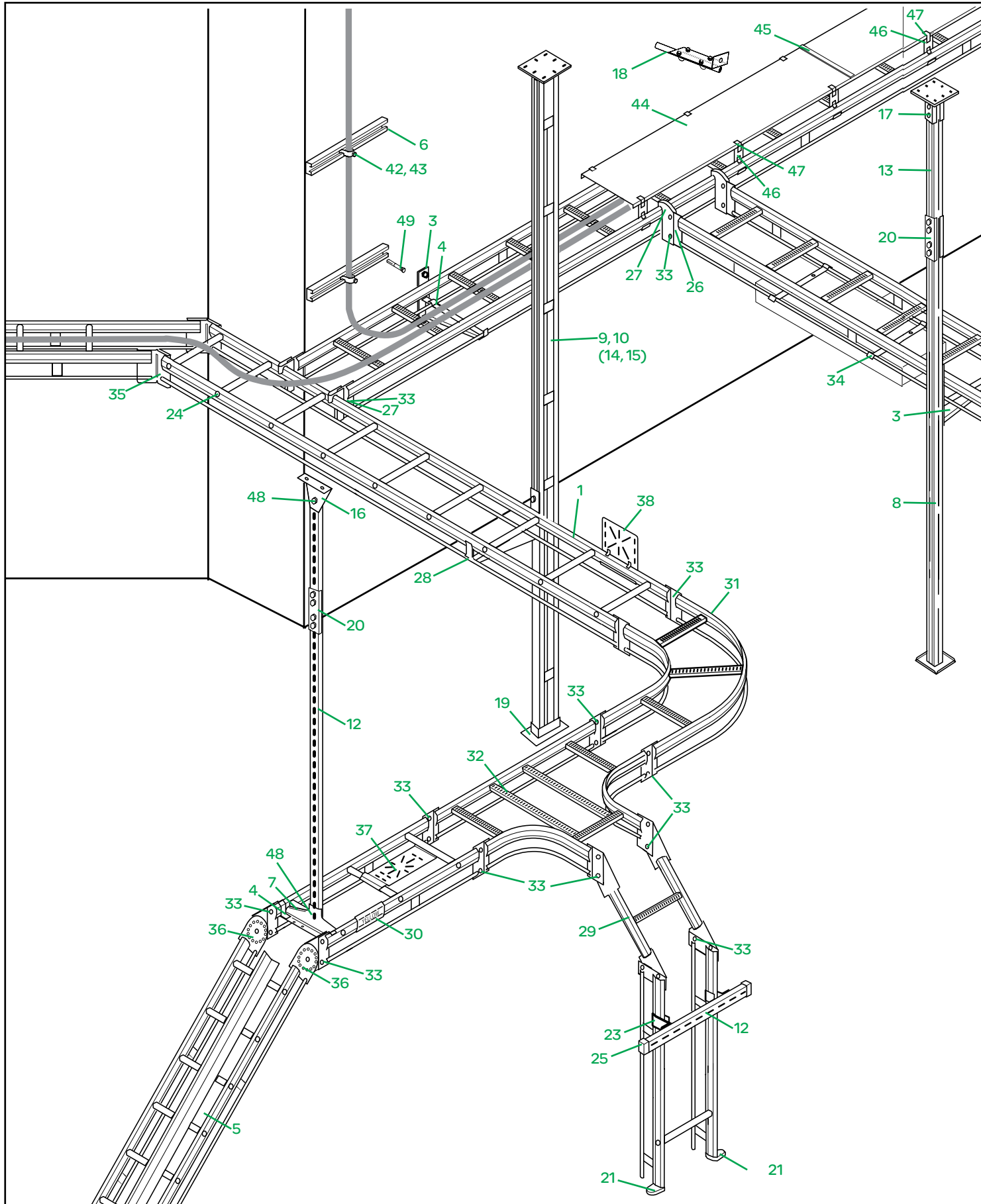


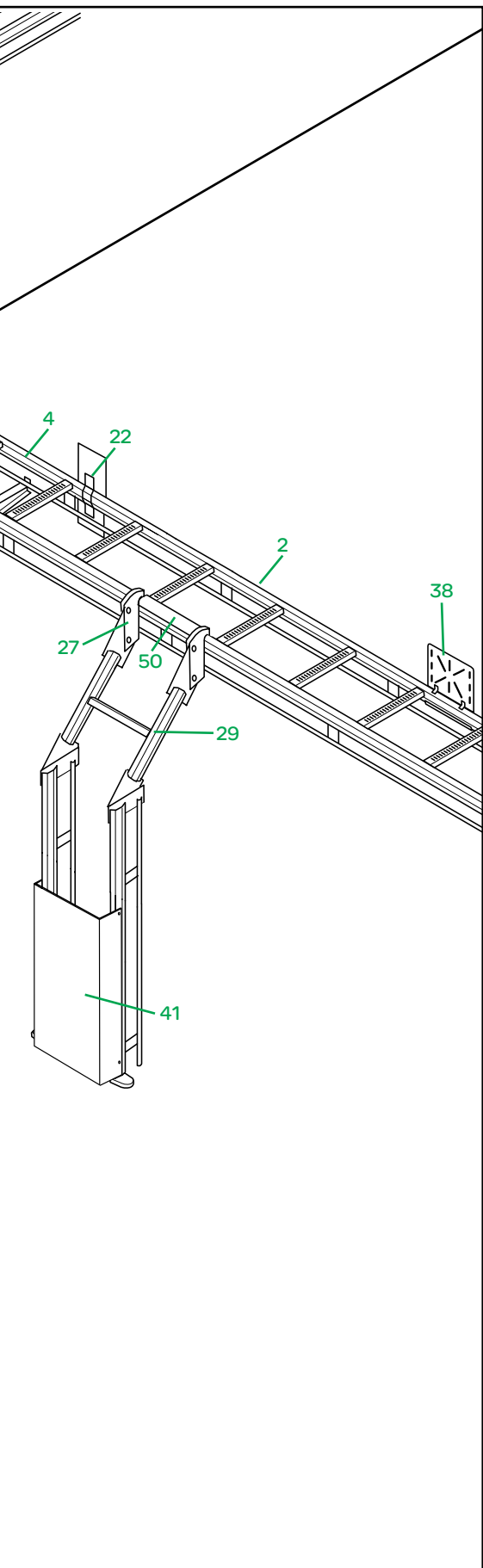
Components

- 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

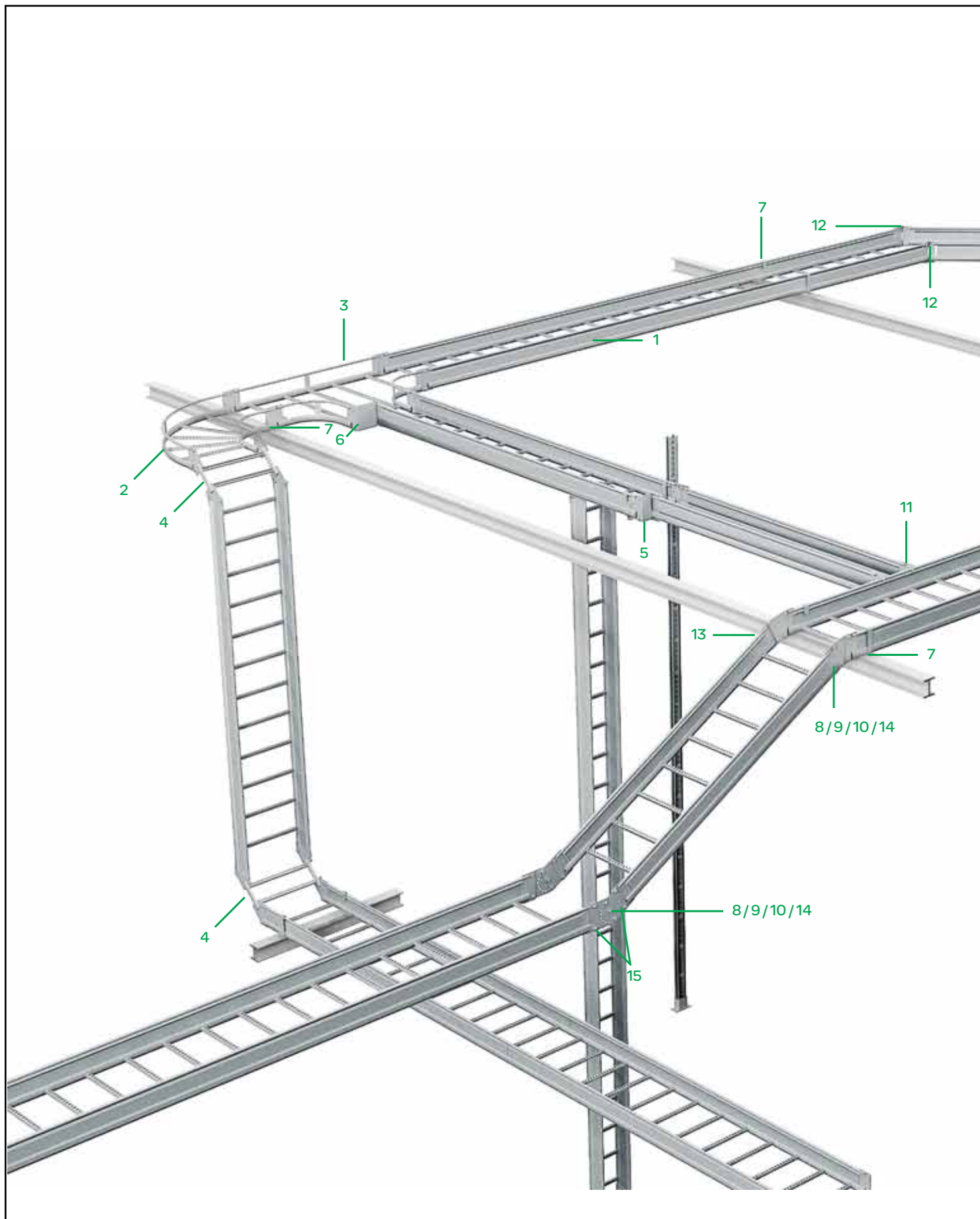
KHZV, KHZPV

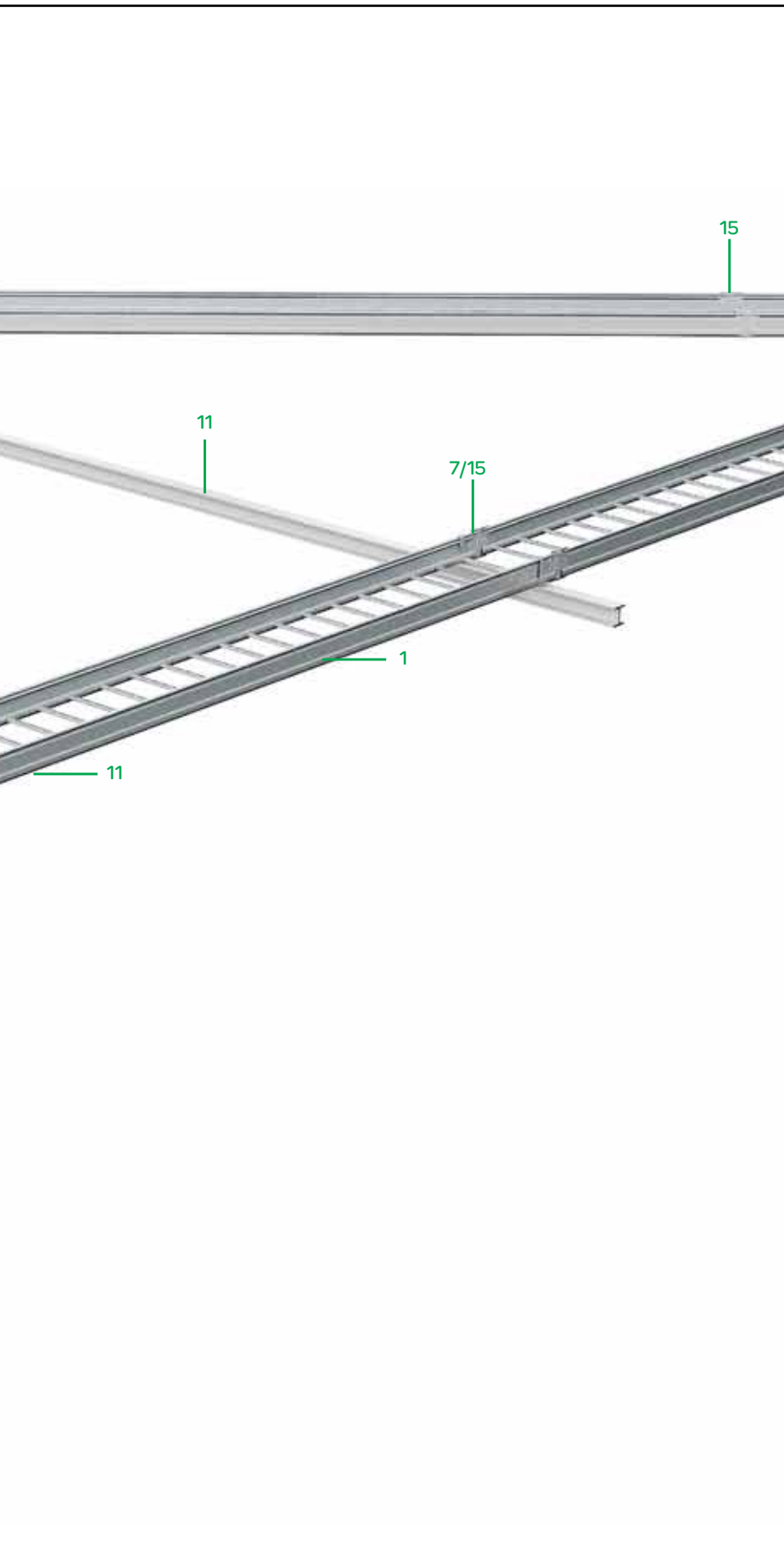




Components

- 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



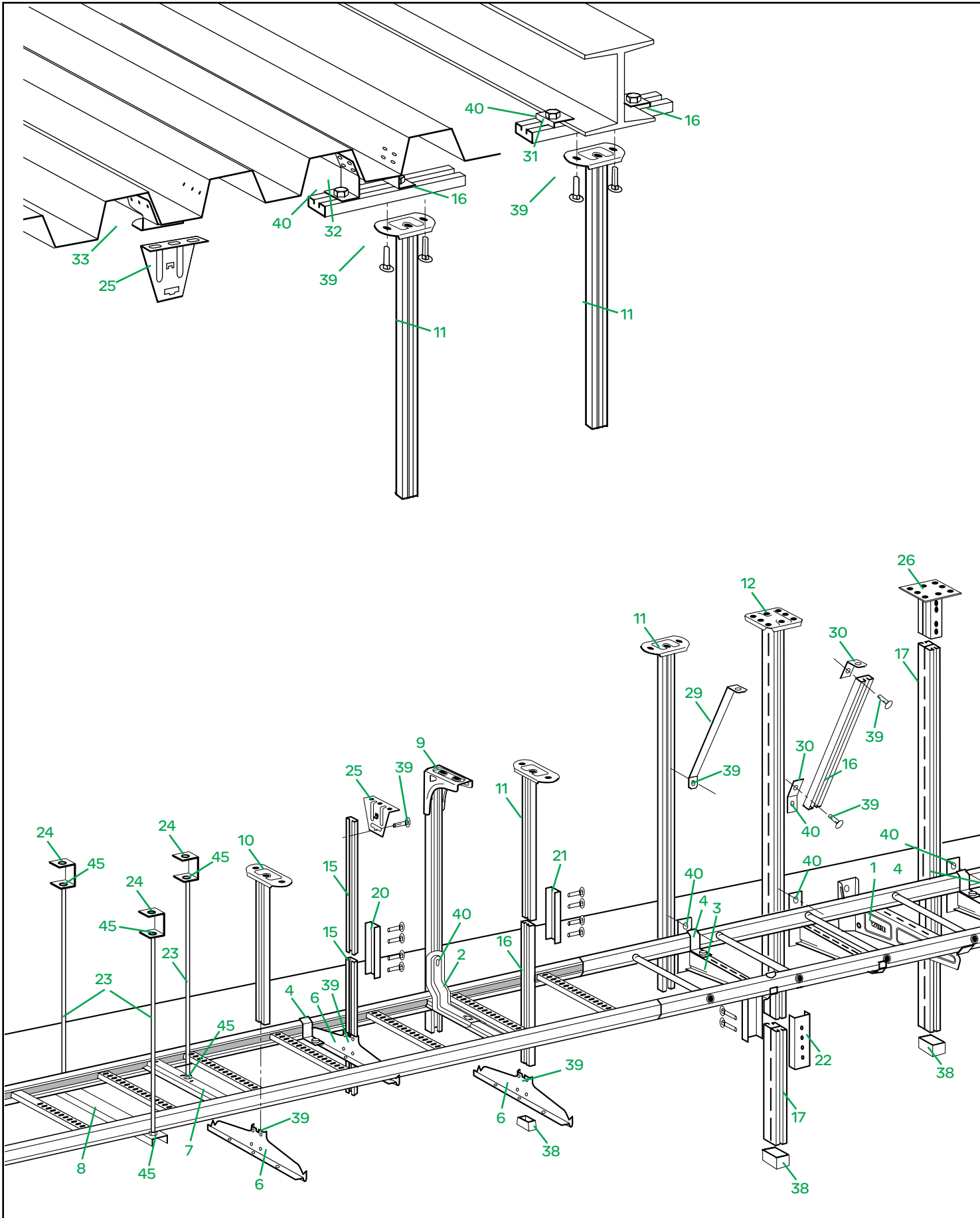


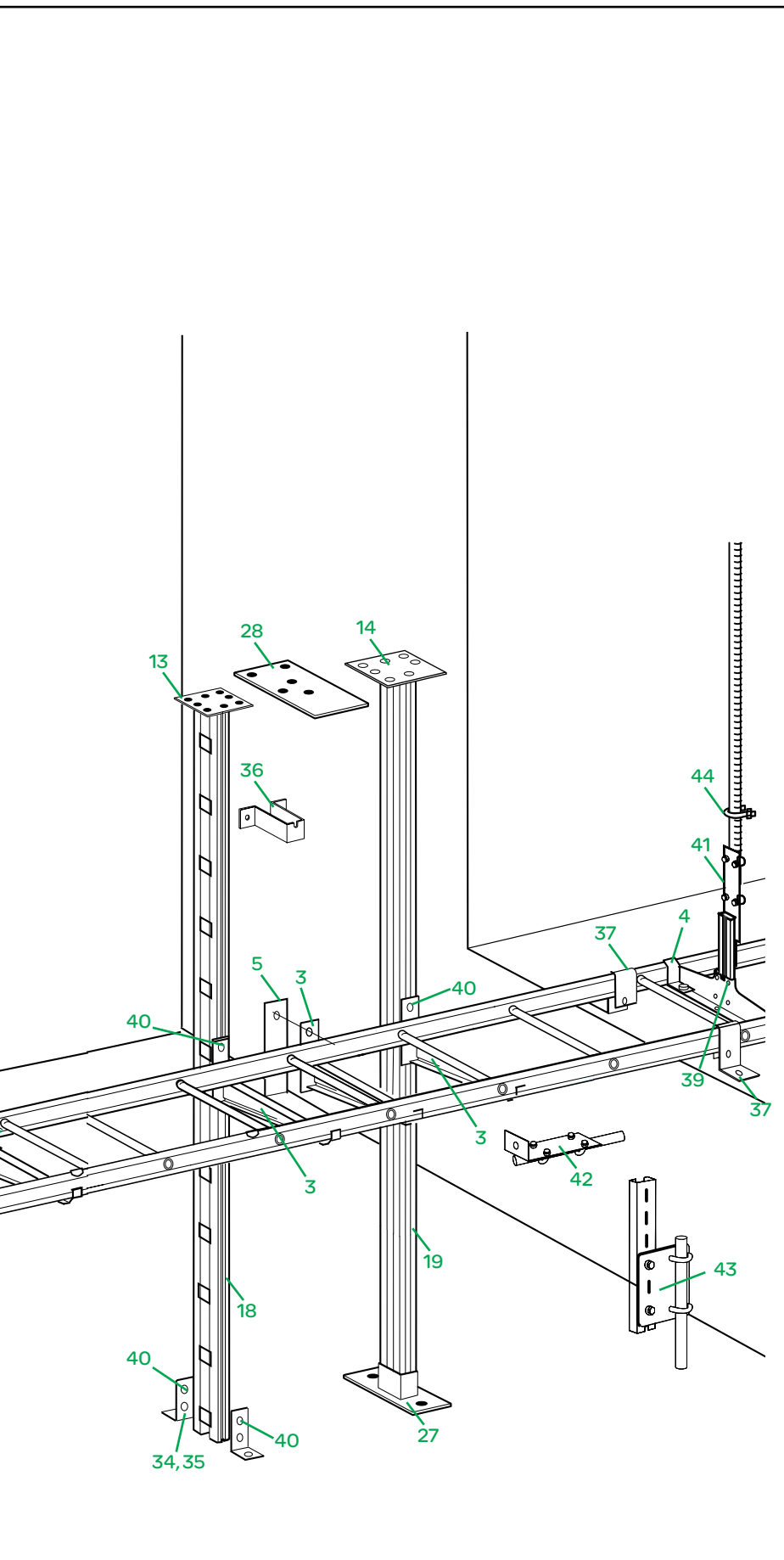
Suspension

- 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








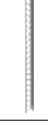



Pre-galvanized

	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 	721121		727777	727778	727779	727780	727781	
Cantilever arm 50i/81 	721121		791413	791414	791415	780162	780163	
Cantilever arm 50 HDG 	721121		723434	723436	723437	723438	723439	
Wall bracket 11/25 			721105	721105	721105	721105	721105	
Wall bracket 11/75 			721106	721106	721106	721106	721106	

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

Choice guide

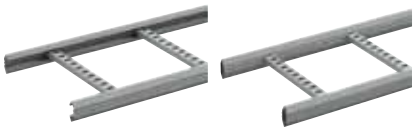



















Pre-galvanized

		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		721121	M8 734983 M10 734864	727777	727778	727779	727780	727781	
Cantilever arm 50i/81		721121	M8 734983 M10 734864	791413	791414	791415	780162	780163	
Cantilever arm 50 HDG		721121	M8 734983 M10 734864	723434	723436	723437	723438	723439	
Support bracket 3		721121	22S for VP 2/2F 20S for VP 20	721869	721870	721871	721872	721873	
Support bracket 6		721121	Threaded rod M10	727582	727583	727584	727585	727586	
Vertical piece 2Fi-300				792723	792723	792723	792723	792723	
Vertical piece 2Fi--500				792724	792724	792724	792724	792724	
Vertical piece 2Fi--750				792725	792725	792725	792725	792725	
Vertical piece 2Fi--1000				792726	792726	792726	792726	792726	
Vertical piece 2-300 HDG				717191	717191	717191	717191	717191	
Vertical piece 2-400 HDG				717192	717192	717192	717192	717192	
Vertical piece 2-500 HDG				717193	717193	717193	717193	717193	
Vertical piece 2-700 HDG				717194	717194	717194	717194	717194	
Vertical piece 2-1000 HDG				717195	717195	717195	717195	717195	
Vertical piece 2F-280 HDG				717196	717196	717196	717196	717196	
Vertical piece 2F-370 HDG				717197	717197	717197	717197	717197	
Vertical piece 2F-505 HDG				717198	717198	717198	717198	717198	
Vertical piece 2F-640 HDG				CSU794202	CSU794202	CSU794202	CSU794202	CSU794202	
Vertical piece 2F-730 HDG				717199	717199	717199	717199	717199	
Vertical piece 2F-865 HDG				CSU794203	CSU794203	CSU794203	CSU794203	CSU794203	
Vertical piece 2F-1000 HDG				717200	717200	717200	717200	717200	
Longer - see page xx									
Vertical piece 20-280 HDG				CSU794204	CSU794204	CSU794204	CSU794204	CSU794204	
Vertical piece 20-370 HDG				CSU794205	CSU794205	CSU794205	CSU794205	CSU794205	
Vertical piece 20-500 HDG				715723	715723	715723	715723	715723	
Vertical piece 20-640 HDG				CSU794206	CSU794206	CSU794206	CSU794206	CSU794206	
Vertical piece 20-700 HDG				715724	715724	715724	715724	715724	
Vertical piece 20-865 HDG				CSU794207	CSU794207	CSU794207	CSU794207	CSU794207	
Vertical piece 20-1000 HDG				715725	715725	715725	715725	715725	
Longer - see page xx									
Dividers									
Dividing strip 39/24				718835	718835	718835	718835	718835	
Dividing strip 39/55				725785	725785	725785	725785	725785	
Tele-conduit 36-50				725065	725065	725065	725065	725065	
Tele-conduit 36-100				725066	725066	725066	725066	725066	
Tele-conduit 36-200				725067	725067	725067	725067	725067	

	KHZPS 150	KHZPS 200	KHZPS 300	KHZPS 400	KHZPS 500	KHZPS 600	KHZPS 800	KHZPS 1000
	725350	725351	725352	725353	725354	725355	781099	725356
		791413	791414	791415	780162	780163		
	723433	723434	723436	723437	723438	723439	727126	727128
		721869	721870	721871	721872	721873		
	792723	792723	792723	792723	792723	792723	792723	792723
	792724	792724	792724	792724	792724	792724	792724	792724
	792725	792725	792725	792725	792725	792725	792725	792725
	792726	792726	792726	792726	792726	792726	792726	792726
	717191	717191	717191	717191	717191	717191	717191	717191
	717192	717192	717192	717192	717192	717192	717192	717192
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	CSU794206	CSU794206	CSU794206	CSU794206	CSU794206	CSU794206	CSU794206	CSU794206
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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
	732216	732217	732218	732219	732220	732221		732222
	732322	732323	732324	732325	732326	732327	781802	732328
	732345	732346	732347	732348	732349	732350	781803	732351
	712639	712640	712642	712643	712644	712645		
	729217	729217	729217	729217	729217	729217		729217
	712668	712668	712668	712668	712668	712668		712668
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	709017	709017	709017	709017	709017	709017	709017	709017
	709018	709018	709018	709018	709018	709018	709018	709018
	711205	711205	711205	711205	711205	711205	711205	711205
	730245	730245	730245	730245	730245	730245	730245	730245
	718618	718618	718618	718618	718618	718618	718618	718618
	732151	732151	732151	732151	732151	732151	732151	732151
	768733	768733	768733	768733	768733	768733	768733	768733
	721114	721114	721114	721114	721114	721114	721114	721114









Choice guide

Pre-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













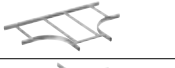
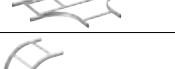









Marking identification		
Marking plate 93, Yellow		737704
Marking plate 93, Orange		737705
Marking plate 93, Blue		737706
Marking plate 93, Green		737707
Marking plate 93, Black		737708
Label Potentialutjämning, SE		786860
Label Equipotential Bonding, UK		On request
Label Potentialausgleich, DE		On request

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






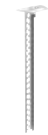


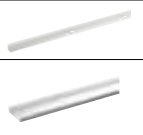






		Complementary accessories		KHZSPZ 200	KHZSPZ 300	KHZSPZ 400	KHZSPZ 500	KHZSPZ 600		
		Profile clamp 42 Profile clamp 43 Profile support piece 46	T-bolt or screw set							
Cable ladders Perforated rungs										
L=3 metres KHZP										
L=4 metres KHZSPZ										
L=6 metres KHZP/SPZ										
L=6 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		705611		723434	723436	723437	723438	723439		
		707511 708001								
Cantilever arm 50F		707511 708001								
Wall bracket 11/25				713204	713204	713204	713204	713204		
Wall bracket 11/75				713203	713203	713203	713203	713203		

	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
	CSU795050	CSU795050	CSU795050	CSU795050	CSU795050	CSU795050	CSU795050	CSU795050
	CSU795051	CSU795051	CSU795051	CSU795051	CSU795051	CSU795051	CSU795051	CSU795051
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	725096	725096	725096	725096	725096	725096	725096	725096
		706415	706415	706415	706415	706415	-	706415
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		731837	731837	731837	731837	731837	-	731837
		707609	707609	707609	707609	707609	-	707609
	716066	716067	716069	716070	716071	716072	721961	716073
	716179	716180	716182	716183	716184	716185	723057	723260
	716193	716194	716196	716197	716198	716199	721962	716200
	716209	716210	716212	716213	716214	716215	721963	716216
	718176	718177	718179	718180	718181	718182	721964	718183
		716241	716243	716244	716245	716246	-	716247
		716255	716257	716258	716259	716260	-	716261
		716389	716390	716391	720517	716392	-	716393
	723433	723434	723436	723437	723438	723439	727126	727128
		723434	723436	723437	723438	723439	-	727128
		718624	718625	718626	718627	718628	-	712465
	713204	713204	713204	713204	713204	713204	713204	713204
	713203	713203	713203	713203	713203	713203	713203	713203

Choice guide

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

	KHZP 150	KHZP 200	KHZP 300	KHZP 400	KHZP 500	KHZP 600	KHZP 800	KHZP 1000
	KHZPV 150	KHZPV 200	KHZPV 300	KHZPV 400	KHZPV 500	KHZPV 600		KHZPV 1000
	783516	783517	783518	783519	783520	783521	783522	783523
	718562	718563	718564	718565	718566	718567	721960	718568
		717982	717983	717984	717985	717986	-	716400
	723433	723434	723436	723437	723438	723439	727126	727128
		723434	723436	723437	723438	723439	-	727128
		718624	718625	718626	718627	718628	-	712465
	720761	720762	720763	720764	720765	720766		
	791063	791064	791065	791066	791067	791068		
	717191	717191	717191	717191	717191	717191	717191	717191
	717192	717192	717192	717192	717192	717192	717192	717192
	717193	717193	717193	717193	717193	717193	717193	717193
	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























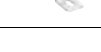
Hot-dip galvanized
Perforated rungs

		Complementary accessories		KHZSPZ 200	KHZSPZ 300	KHZSPZ 400	KHZSPZ 500	KHZSPZ 600		
		Profile clamp 42	T-bolt or screw set							
		Profile clamp 43								
Profile support piece 46										
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		705611		
		707511 708001		
Cantilever arm 50F		707511 708001		
Wall bracket 11/25				
Wall bracket 11/75				

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

Choice guide

Hot-dip 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		705611	M8 734744 M10 716794
		707511 708001	
Cantilever arm 50F		707511 708001	M8 734744 M10 716794
Support bracket 3		705611	22S for VP 2/2F 20S for VP 20
Support bracket HSO		705611	Threaded rod M10/M16
Vertical piece 2-300 HDG			
Vertical piece 2-400 HDG			
Vertical piece 2-500 HDG			
Vertical piece 2-700 HDG			
Vertical piece 2-1000 HDG			
Vertical piece 2F-280 HDG			
Vertical piece 2F-370 HDG			
Vertical piece 2F-505 HDG			
Vertical piece 2F-640HDG			
Vertical piece 2F-730HDG			
Vertical piece 2F-865 HDG			
Vertical piece 2F-1000 HDG			
Longer - see page xx			
Vertical piece 20-280 HDG			
Vertical piece 20-370 HDG			
Vertical piece 20-500 HDG			
Vertical piece 20-640 HDG			
Vertical piece 20-700 HDG			
Vertical piece 20-865 HDG			
Vertical piece 20-1000 HDG			
Longer - see page xx			
Dividers			
Dividing strip 39/24			
Dividing strip 39/55			
Tele-conduit 36-50			
Tele-conduit 36-100			
Tele-conduit 39-200			
Cover			
Cover W5			
Cover 90° bend			
Cover T-junction			
Cover joint			
Profile support piece 37			
Cover clamp			

	KHZ 150	KHZ 200	KHZ 300	KHZ 400	KHZ 500	KHZ 600
	KHZV 150	KHZV 200	KHZV 300	KHZV 400	KHZV 500	KHZV 600
	768001	768002	768004	768005	768006	768007
		712015	712017	712019	712018	712020
	723433	723434	723436	723437	723438	723439
		723434	723436	723437	723438	723439
		718624	718625	718626	718627	718628
	720761	720762	720763	720764	720765	720766
	791063	791064	791065	791066	791067	791068
	717191	717191	717191	717191	717191	717191
	717192	717192	717192	717192	717192	717192
	717193	717193	717193	717193	717193	717193
	717194	717194	717194	717194	717194	717194
	717195	717195	717195	717195	717195	717195
	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
	781440	781441	781442	781443	781444	781445
	780452	780453	780454	780455	780456	780457
	730188	730188	730188	730188	730188	730188
	728584	728584	728584	728584	728584	728584

Choice guide

Hot-dip 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				
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

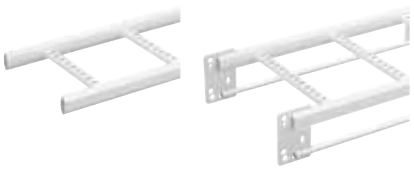


















Threaded rod		
Threaded rod W76 M8 8/1000		CSU794697
Threaded rod W76 M8 8/2000		CSU734698
Flange nut M8		CSU794715
Joint nut M8		CSU794699

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

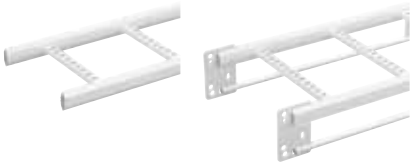











Zinkpox Perforated rungs

		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		714164		
		714165 714179		
Cantilever arm 50F		714165 714179		
Wall bracket 11/25				
Wall bracket 11/75				

	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
	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

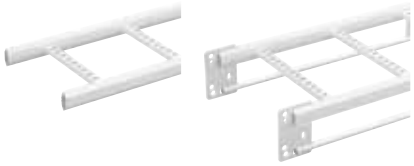











Zinkpox Perforated rungs

		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		714164	M8 734744 M10 716794
		714165 714179	
Cantilever arm 50F		714165 714179	
Support bracket 3		714164	22S for VP 2/2F 20S for VP 20
Vertical piece 2-300			
Vertical piece 2-400			
Vertical piece 2-500			
Vertical piece 2-700			
Vertical piece 2-1000			
Vertical piece 2F-280			
Vertical piece 2F-370			
Vertical piece 2F-505			
Vertical piece 2F-730			
Vertical piece 2F-1000			
Vertical piece 2F-1500			
Vertical piece 20-500			
Vertical piece 20-700			
Vertical piece 20-1000			
Vertical piece 20-1500			
Vertical piece 20-2000			
Vertical piece 20-3000			
Cover			
Cover W5			
Cover 90° bend			
Cover T-junction			
Profile support piece 37			
Cover clamp			

	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
	716276	716276	716276	716276	716276	716276	716276	716276
	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

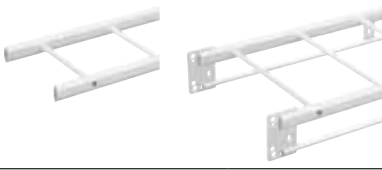













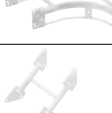






Zinkpox Perforated rungs

		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

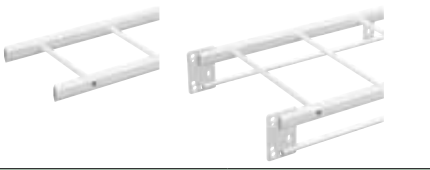











Zinkpox Round rungs

		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		714164		
		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

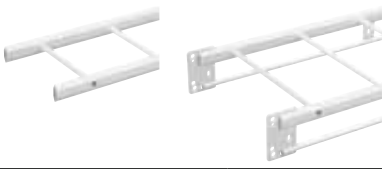











		Complementary accessories	
		Profile clamp 42, 43 Profile support piece 46	T-bolt or screw set
Cable ladders Round rungs			
L=6 meters KHZ			
L=6 metres KHZV			
Ceiling / floor support			
Cantilever arm 50		714164	M8 734744 M10 716794
		714165 714179	
Cantilever arm 50F		714165 714179	
Support bracket 3		714164	22S for VP 2/2F 20S for VP 20
Vertical piece 2-300			
Vertical piece 2-400			
Vertical piece 2-500			
Vertical piece 2-700			
Vertical piece 2-1000			
Vertical piece 2F-280			
Vertical piece 2F-370			
Vertical piece 2F-505			
Vertical piece 2F-730			
Vertical piece 2F-1000			
Vertical piece 2F-1500			
Vertical piece 20-500			
Vertical piece 20-700			
Vertical piece 20-1000			
Vertical piece 20-1500			
Vertical piece 20-2000			
Vertical piece 20-3000			
Cover			
Cover W5			
Cover 90° bend			
Cover T-junction			
Profile support piece 37			
Cover clamp			

	KHZ 150	KHZ 200	KHZ 300	KHZ 400	KHZ 500	KHZ 600
	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




Thermoplastic




	Complementary accessories		KHZSP 200	KHZSP 300	KHZSP 400	KHZSP 500	KHZSP 600	
	Profile clamp 42	T-bolt or screw set						
Cable ladders								
L=4 metres			783383	783384	783385	783386	783387	
L=6 metres			CSU794450	CSU794451	CSU794452	CSU794453	CSU794454	
Joints & Couplings								
Joint 21 P 			783449	783449	783449	783449	783449	
Coupling 22 P 			783772	783772	783772	783772	783772	
Wall support								
Cantilever arm 50/81 	783388		CSU794455	CSU794456	CSU794457	CSU794458	CSU794459	
Cantilever arm 50 	783388		783389	783390	783391	783392	783393	
Wall bracket 11/25 			CSU794480	CSU794480	CSU794480	CSU794480	CSU794480	
Wall bracket 11/75			CSU794481	CSU794481	CSU794481	CSU794481	CSU794481	
Ceiling / floor support								
Cantilever arm 50/81 	783388	M8 734986 M10 728596	CSU794455	CSU794456	CSU794457	CSU794458	CSU794459	
Cantilever arm 50 	783388	M8 734986 M10 728596	783389	783390	783391	783392	783393	
Support bracket 3 	783388	22S for VP 2/2F W37 for VP 20F	783404	783405	783406	783407	783408	
Vertical piece 2Fi-300 			CSU794465	CSU794465	CSU794465	CSU794465	CSU794465	
Vertical piece 2Fi-500			CSU794466	CSU794466	CSU794466	CSU794466	CSU794466	
Vertical piece 2Fi-750			CSU794467	CSU794467	CSU794467	CSU794467	CSU794467	
Vertical piece 2Fi-1000			CSU794468	CSU794468	CSU794468	CSU794468	CSU794468	
Vertical piece 2-300 			CSU794460	CSU794460	CSU794460	CSU794460	CSU794460	
Vertical piece 2-400			CSU794461	CSU794461	CSU794461	CSU794461	CSU794461	
Vertical piece 2-500			CSU794462	CSU794462	CSU794462	CSU794462	CSU794462	
Vertical piece 2-700			CSU794463	CSU794463	CSU794463	CSU794463	CSU794463	
Vertical piece 2-1000			CSU794464	CSU794464	CSU794464	CSU794464	CSU794464	
Vertical piece 2F-270 			783394	783394	783394	783394	783394	
Vertical piece 2F-370			783395	783395	783395	783395	783395	
Vertical piece 2F-505			783396	783396	783396	783396	783396	
Vertical piece 2F-730			783397	783397	783397	783397	783397	
Vertical piece 2F-1000			783398	783398	783398	783398	783398	
Vertical piece 2F-1500			783399	783399	783399	783399	783399	
Vertical piece 20F-1000 			783400	783400	783400	783400	783400	
Vertical piece 20F-1500			783401	783401	783401	783401	783401	
Vertical piece 20F-2000			783402	783402	783402	783402	783402	
Vertical piece 20F-3000			783403	783403	783403	783403	783403	



	Complementary accessories		KHZSP 200	KHZSP 300	KHZSP 400	KHZSP 500	KHZSP 600	
	Profile clamp 42	T-bolt or screw set						
Cable ladders								
L=4 metres			783383	783384	783385	783386	783387	
L=6 metres			CSU794450	CSU794451	CSU794452	CSU794453	CSU794454	
Dividers								
Dividing strip 39/24 			CSU794484	CSU794484	CSU794484	CSU794484	CSU794484	
Tele-conduit 36-50 			CSU794485	CSU794485	CSU794485	CSU794485	CSU794485	
Tele-conduit 36-100			CSU794486	CSU794486	CSU794486	CSU794486	CSU794486	
Pendant/Fixing-rail								
Pendant/Fixing-rail 24/34 0,3 m 			CSU794469	CSU794469	CSU794469	CSU794469	CSU794469	
Pendant/Fixing-rail 24/34 0,4 m			CSU794470	CSU794470	CSU794470	CSU794470	CSU794470	
Pendant/Fixing-rail 24/34 0,5 m			CSU794471	CSU794471	CSU794471	CSU794471	CSU794471	
Pendant/Fixing-rail 24/34 0,7 m			CSU794472	CSU794472	CSU794472	CSU794472	CSU794472	
Pendant/Fixing-rail 24/34 1 m			CSU794473	CSU794473	CSU794473	CSU794473	CSU794473	
Pendant/Fixing-rail 24/34 3 m			CSU794474	CSU794474	CSU794474	CSU794474	CSU794474	
Pendant/Fixing-rail 24/48 3 m			783773	783773	783773	783773	783773	
Fixing accessories								
Angle bracket 5L 			CSU794475	CSU794475	CSU794475	CSU794475	CSU794475	
Angle bracket 5LS 			CSU794476	CSU794476	CSU794476	CSU794476	CSU794476	
Round bar fixing - ceilings 			CSU794477	CSU794477	CSU794477	CSU794477	CSU794477	
Round bar fixing - floors 			CSU794478	CSU794478	CSU794478	CSU794478	CSU794478	
Round bar fixing - walls 			CSU794479	CSU794479	CSU794479	CSU794479	CSU794479	
Accessories holder								
Junction box plate 35S 			CSU794483	CSU794483	CSU794483	CSU794483	CSU794483	
Junction box plate 35P 			CSU794482	CSU794482	CSU794482	CSU794482	CSU794482	
Cabling support								
Profile protection 28P 			732151	732151	732151	732151	732151	





Choice guide




















Thermoplastic

Others		
Screw set 22S		725582
Screw set W37		725586
T-bolt 26F M8 30 mm		734986
T-bolt 26F M10 30 mm		728596
T-bolt 26F M10 50 mm		728598
Repair kit		783774

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

		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	

	KHZA 150	KHZA 200	KHZA 300	KHZA 400	KHZA 500	KHZA 600	KHZA 800	KHZA 1000
		KHZA 200	KHZA 300	KHZA 400	KHZA 500	KHZA 600	KHZA 800	KHZA 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
	725619	725620	725622	725623	725624	725625		
		725620	725622	725623	725624	725625		
	726433	726434	726435	726436	726437	726438		
	725557	725557	725557	725557	725557	725557	725557	725557
	725558	725558	725558	725558	725558	725558	725558	725558
	725559	725559	725559	725559	725559	725559	725559	725559
	725560	725560	725560	725560	725560	725560	725560	725560
	725561	725561	725561	725561	725561	725561	725561	725561
	725562	725562	725562	725562	725562	725562	725562	725562
	725563	725563	725563	725563	725563	725563	725563	725563
	725564	725564	725564	725564	725564	725564	725564	725564
	725565	725565	725565	725565	725565	725565	725565	725565
	725566	725566	725566	725566	725566	725566	725566	725566
	725568	725568	725568	725568	725568	725568	725568	725568
	725567	725567	725567	725567	725567	725567	725567	725567
	725568	725568	725568	725568	725568	725568	725568	725568
	725569	725569	725569	725569	725569	725569	725569	725569
	725570	725570	725570	725570	725570	725570	725570	725570
	725571	725571	725571	725571	725571	725571	725571	725571
	725572	725572	725572	725572	725572	725572	725572	725572
	725593	725593	725593	725593	725593	725593	725593	725593
	725594	725594	725594	725594	725594	725594	725594	725594
	725590	725590	725590	725590	725590	725590	725590	725590
	725591	725591	725591	725591	725591	725591	725591	725591
	725592	725592	725592	725592	725592	725592	725592	725592
	732291	732292	732293	732294	732295	732296	783375	732297
	788639	788640	788641	788642	788643	788644	788645	788646
	788647	788648	788649	788650	788651	788652	788653	788654
	730190	730190	730190	730190	730190	730190	730190	730190
	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	



	KHZZ 150	KHZZ 200	KHZZ 300	KHZZ 400	KHZZ 500	KHZZ 600	KHZZ 800	KHZZ 1000
		KHZZ 200	KHZZ 300	KHZZ 400	KHZZ 500	KHZZ 600	KHZZ 800	KHZZ 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
	725776	725776	725776	725776	725776	725776	725776	725776
	725777	725777	725777	725777	725777	725777	725777	725777
	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



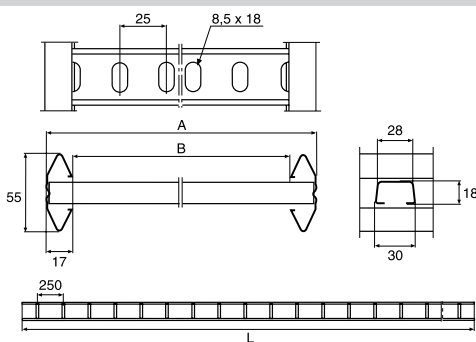
Cable ladders KHZPS

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

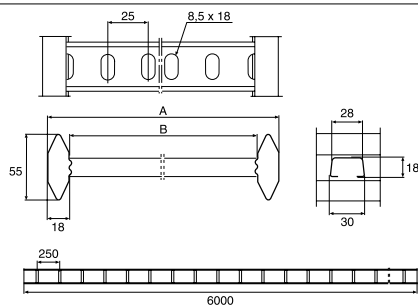
Dimension table

B224475



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

Joints						
	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.					
P140336	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.					
P140339	42	54/58/30		11	7321677211210	721121
	Profile clamp 41					
	Profile clamp to be used to install a pendant/fixing rail or mounting plate, etc., on the cable ladder profile. Material: Steel, pre-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.					
P140088	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
	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.					
P138932	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
P138933	81-600	150/658/40		140	7321677801633	780163

Wall and support brackets

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Wall bracket 11/25 and 11/75					
Wall bracket to be used for vertical or horizontal installations of cable ladders against a wall. Maximum loads for vertical mounting: 300 kg (3 kN). For mounting against a rung the max. load is 500 kg (5 kN) for 11/25. Maximum loads for horizontal mounting: 11/25 250 kg (2.5 kN), 11/75 100 kg (1 kN). Material: Steel, pre-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/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 bars

Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Pendant bar 1				
Pendant bar to be installed in order to reduce the deflection of heavily loaded vertical pieces. Installed with T-bolt and Expansion bolt. Material: Steel, pre-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 plate

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). 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

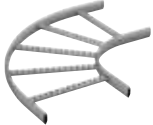
Installation and box plates

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	164/56/170	34	7321677319626	731962
With junction box MP				
35S	164/56/170	32	7321677319619	731961
With junction box UP				
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

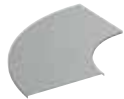
Covers/Cover plates

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.					
W5-60	11/63/2000		90	7321677322138	732213
W5-70	11/73/2000		100	7321677322145	732214
W5-100	11/103/2000		140	7321677322152	732215
W5-150	11/153/2000		190	7321677322169	732216
W5-200	11/203/2000		250	7321677322176	732217
W5-300	11/303/2000		360	7321677322183	732218
W5-400	11/403/2000		680	7321677322190	732219
W5-500	11/503/2000		840	7321677322206	732220
W5-600	11/603/2000		700	7321677322213	732221
W5-1000	11/1003/2000		1150	7321677322220	732222
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



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
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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, KHZSP 200 thermo-plastic, 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

Cable ladders

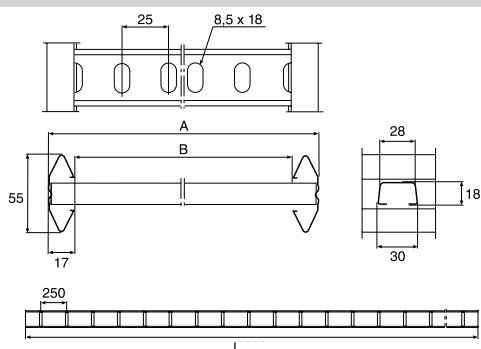
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Type	Dimensions A/B/C mm	Weight kg/100 m	EAN code	Ref. No.
Cable ladders KHZSPZ				
Cable ladder for indoor or outdoor industrial applications. With open side profiles and profile-shaped rungs. Must not be used as walkway. Material: Steel, hot-dip 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

B223676



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

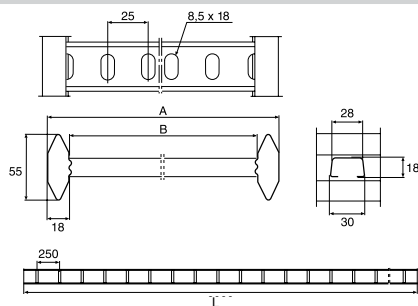
P139625



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

B228677



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

P139633



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

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

Material: Steel, hot-dip 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

P139839



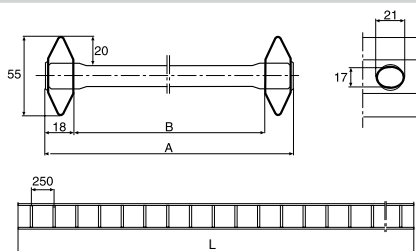
Cable ladder for indoor or outdoor industrial applications. With closed side profiles and round rungs that do not penetrate the outer side of the side profile. Must not be used as walkway.

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

B223589



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

P139645



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

P139851



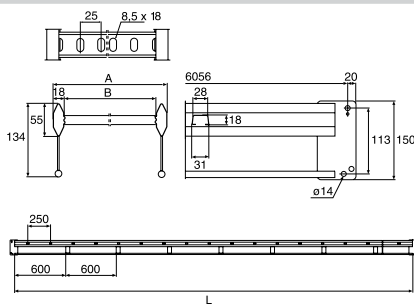
Cable ladders KHZV

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

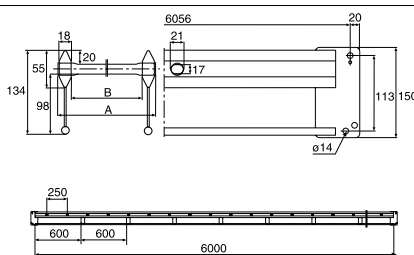
Dimension table

B226376



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

B226353



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

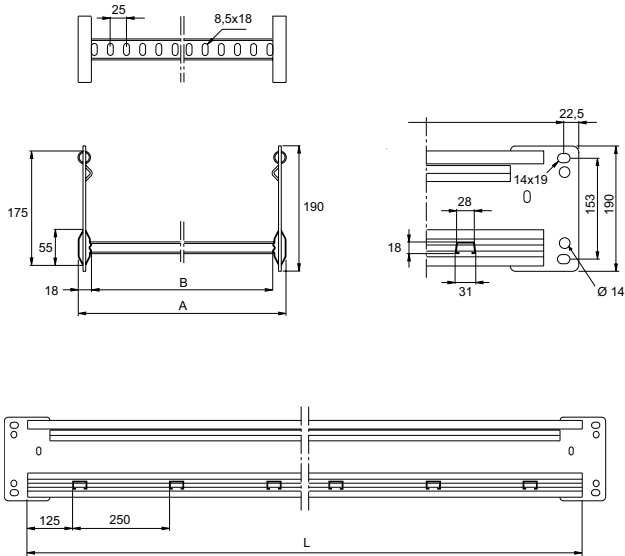
Cable ladders

P14317



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.
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
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
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
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	180/18/120		100	3606480739583	CSU795210
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	180/18/120		100	3606480739590	CSU795211
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
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. Material: Steel, hot-dip galvanized.					
20C	190/4/250		100	3606480739538	CSU795205

Clamps, support piece

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Profile clamp 42					
Profile clamp to be used for installations where the cable ladder is to be fixed to cantilever arms, support brackets, etc. Screw M8 and nut included. Material: Steel, hot-dip galvanized.					
42	54/57/30		11	7321677056118	705611
Profile clamp 43					
Profile clamp to be used for installations where the cable ladders KHZV and KHZPV are to be fixed to cantilever arms, support brackets, etc. Screw M8 and nut included. Material: Steel, hot-dip galvanized.					
43	21/43/30		5	7321677075119	707511
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

Steel cable ladders

Hot-dip galvanized
Corrosion class C3, C4


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	100	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

Steel cable ladders

Hot-dip galvanized

Corrosion class C3, C4

Vertical pieces

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

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

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

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

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

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

P 139637



P 139638



P 139642




P 139643




P 139644



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

P139961	Ceiling bracket 5				
	Ceiling bracket to be used for installations with Pendant/Fixing rails 24/34 and 24/48. Screw not included. Material: Steel, hot-dip galvanized.				
	5	100/135/40	35	7321677186402	718640
P139962	Ceiling bracket 5TPA				
	Ceiling bracket with telescopic function, to be used for mounting of various sizes of trapezoid plates. Including screw MVBF 8x16 and nut M6MF8. Breaking load: 150 kg without deformation. Material: Steel, hot-dip galvanized.				
	5TPA	50/76/79-118	14	7321677334872	733487
P139963	Ceiling bracket 5TP				
	Ceiling bracket to be used for installations of Vertical pieces 2, 2F and 20 in ceilings with a trapezoidal sheet profile. Material: Steel, hot-dip galvanized.				
	5TP	75/35/50	12	7321677131532	713153
P139938	Ceiling brackets TF-10 and TF-16				
	Ceiling bracket to be used for installation with Threaded rods. Nut included. Material: Steel, hot-dip galvanized.				
	TF-10 (with nut M10)	55/40/45	15	7321677881642	788164
P139939	TF-16 (with nut M16)	75/50/50	30	7321677881659	788165

Take-off hook, end connection

P139957	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
P139958	Take-off hook 47				
	Take-off hook to be used on cable ladders KHZV and KHZPV to make 90° branches. Screw M12 and nuts are included. Material: Steel, hot-dip galvanized.				
	47	155/10/73	27	7321677913503	791350
P143549	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. Material: Steel, hot-dip galvanized.				
	20C	205/10/78	100	3606480739576	CSU795209
P139964	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 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		300	3606480739439	CSU795159
20C-300	170/330/550		300	3606480739446	CSU795160
20C-400	170/400/550		300	3606480739453	CSU795161
20C-500	170/500/550		400	3606480739460	CSU795162
20C-600	170/600/550		400	3606480739477	CSU795163
20C-800	170/800/550		400	3606480739484	CSU795164
20C-1000	170/1000/550		500	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		100	3606480739545	CSU795206
20C 45°	190/5/220		100	3606480739552	CSU795207
20C 30°	195/5/180		100	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



Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
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	700	3606480739293	CSU795145
20C-300	190/725/725	700	3606480739309	CSU795146
20C-400	190/825/825	700	3606480739316	CSU795147
20C-500	190/925/925	800	3606480739323	CSU795148
20C-600	190/1025/1025	800	3606480739330	CSU795149
20C-800	190/1225/1225	800	3606480739347	CSU795150
20C-1000	190/1425/1425	800	3606480739347	CSU795151

P140037



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




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




Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
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	900	3606480739361	CSU795152
20C-300	190/725/1150	900	3606480739378	CSU795153
20C-400	190/825/1250	900	3606480739385	CSU795154
20C-500	190/925/1350	1000	3606480739392	CSU795155
20C-600	190/1025/1450	1000	3606480739408	CSU795156
20C-800	190/1225/1650	1000	3606480739415	CSU795157
20C-1000	190/1425/1850	1000	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

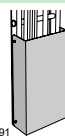


P140051




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




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


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

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

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



P140227

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



P140061

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



P140062

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		100	3606480739507	CSU795166
20C-200	40/200/200		100	3606480739514	CSU795167



P143145
P143146

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






P131546


P131551

P131555









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.					
 P140226 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.					
 P140083	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	28, red	59/25/22	0.8	7321677090198	709019
	 P140065 P140066	28i, white	54/14/19	0.4	7321677354467
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.					
 P140067	28C for Vertical piece 2 and Pendant/fixing rail 24/34	25/19/46	0.5	7321677898756	789875
	 P140068	28D for Vertical piece 20 and Pendant/fixing rail 24/20	25/52/58	1	7321677090204
 P140069		28E for Vertical piece 2F and Pendant/fixing rail 24/48	24/30/52	0.5	7321677090211
	 P140070	28F for Vertical piece 20FS and 30/53/110 Pendant/fixing rail 24/20FS		4	7321677898763
 P138758		28J for Vertical piece 20F and Pendant/Fixing rail 24/20F	27/53/95	2.1	3606480457531
	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 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

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

Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Marking label, equipotential				
Label to be used to show that a construction is equipotentially bonded. Available in Swedish (other languages on request). Printed on self-adhesive yellow vinyl, 250 labels per roll. Material: Self-adhesive vinyl.				
Marking label	25/-/86	-	7321677868605	786860



Mounting accessories

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

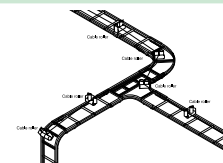
Paint

Anti-corrosive repair paint				
Anti-corrosive repair paint Galvafruid for the repair of damages on pre-galvanized or hot-dip galvanized ladders and accessories.				
Galvafruid, 0.4 litre tin	—	104	7321677176373	717637



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



Steel cable ladders

Zinkpox
Corrosion class C5-I

Cable ladders

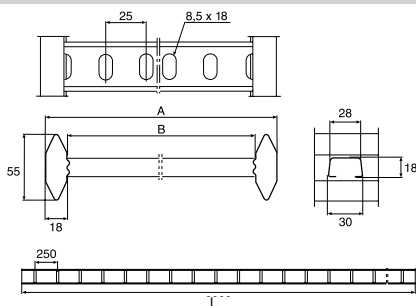
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Type	Dimensions A/B/C mm	Weight kg/100 m	EAN code	Ref. No.
Cable ladders KHZP				
Cable ladder for indoor or outdoor industrial applications. With closed side profiles and profile-shaped rungs. Must not be used as walkway. Material: Steel, Zinkpox 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

Cable ladders

PI40394



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

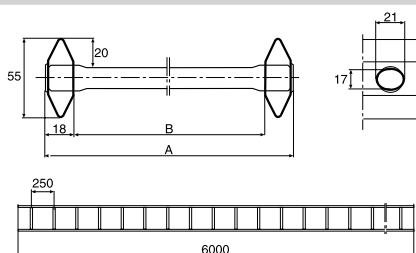
Cable ladder for indoor or outdoor industrial applications. With closed side profiles and round rungs. Must not be used as walkway.

Material: Steel, 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

B223690



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



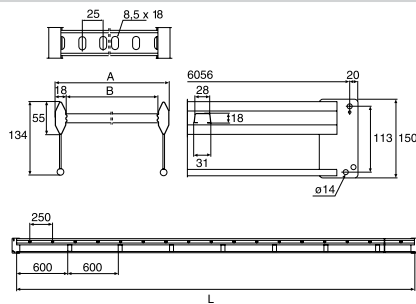
Cable ladders KHZV

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

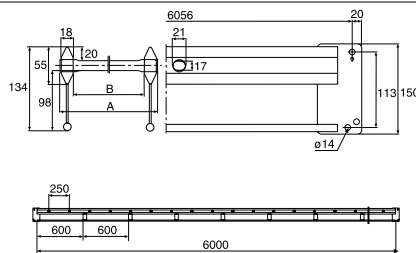
Dimension table

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
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					
	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.					
P140401	21	64/22/300		46	7321677912001	791200
	Joint 9					
	Joint to be used for straight joining of cable ladders KHZ, KHZP and KHZPS. The teeth of the joint should face downwards. Under load, the ladders are prevented from slipping apart. If the joint is above a bracket, the teeth should face upwards. Material: Steel, Zinkpox coated white.					
P140402	9	52/4/200		16	7321677140664	714066
	Dropper joint 32					
	Dropper joint used to form vertical branches in centre position under/on top of cable ladders. Screw M6 included. Material: Steel, Zinkpox coated white.					
P140403	32	130/22/200		75	7321677808748	780874
	Joint 45					
	Joint to be fitted as a joining plate in a cut KHZV/KHZPV ladder. Screws M8 and M12 + nuts are included. Material: Steel, Zinkpox coated white.					
P140404	45	150/4/95		50	7321677142279	714227


Couplings

	Coupling 22					
	Coupling to be used for horizontal or vertical branches at any desired angle. M6 screws included. Material: Steel, Zinkpox coated white.					
P140405	22	60/24/150		21	7321677184101	718410
	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, Zinkpox coated white.					
P140406	14	65/73/350		49	7321677909063	790906
	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, Zinkpox coated white.					
P140407	44	135/-/120		50	7321677208166	720816
	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, Zinkpox coated white.					
P140408	51	150/-/193+138		150	7321677319114	731911

Clamps

	Profile clamp 42					
	Profile clamp to be used for installations where the cable ladder is to be fixed to cantilever arms, support brackets, etc. Screw M8 and nut included. Material: Steel, Zinkpox coated white.					
P140409	42	54/57/30		11	7321677141647	714164
	Profile clamp 43					
	Profile clamp to be used for installations where the cable ladders KHZV and KHZPV are to be fixed to cantilever arms, support brackets, etc. Screw M8 and nut included. Material: Steel, Zinkpox coated white.					
P140410	43	21/43/30		5	7321677141654	714165
	Clamp 12					
	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
P140411	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

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

Steel cable ladders

Zinkpox
Corrosion class C5-I

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

P140427



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

P140428



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

P140429



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

P140430



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

P140431



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

P140432



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 and 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

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

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

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


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

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

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

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

Covers/Cover plates

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

Cover to be used for vertically mounted cable ladders.
Material: 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
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Cover clamp

Cover clamps to be used when installing a cover on a Profile support piece 37.
Material: Steel, Zinkpox coated white.

Cover clamp	32/10.5/20		1.5	7321677823840	782384
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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

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

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

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

P140226
P140225



P140226
P140225



Profile protection

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

Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
End plug 28/28i				
End plug to be mounted on ladder ends for sealing or protection. Material: PP/TPE.				
28, red	59/25/22	0.8	7321677090198	709019
28i, white	54/14/19	0.4	7321677354467	735446
28i, red			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.
P140070 P138758	End plug 28F and J				
	28F for Vertical piece 20FS and 30/53/110 Pendant/fixing rail 24/20FS		4	7321677898763	789876
P140071	Cross member plug 27				
	28J for Vertical piece 20F and 27/53/95 Pendant/Fixing rail 24/20F		2.1	3606480457531	CSU794520
	Cross member plug 27				
	Cross member plug to be installed at the ends of the rungs of KHZ and KHZV. Used in premises with a high corrosion risk. Material: PE, grey.				
	27	Ø20/10	0.15	7321677266685	726668

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					
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.					
P138944	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					
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.					
P129977	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

Thermoplastic

Corrosion class C5-M

Cable ladders

Type	Dimensions A/B/C (mm)	 Weight kg/100 m	EAN code	Ref. No.
Cable ladder KHZSP				
Thermoplastic coated cable ladder with open side profiles. Intended for industrial applications both indoors and outdoors. NOTE! Must not be used as a walkway. Material: Steel, pre-galvanized, with thermoplastic coating.				
KHZSP-200	55/200/4000 55/200/6000	210	7321677833832 3606480446412	783383 CSU794450
KHZSP-300	55/300/4000 55/300/6000	230	7321677833849 3606480446429	783384 CSU794451
KHZSP-400	55/400/4000 55/400/6000	253	7321677833856 3606480446436	783385 CSU794452
KHZSP-500	55/500/4000 55/500/6000	273	7321677833863 3606480446443	783386 CSU794453
KHZSP-600	55/600/4000 55/600/6000	295	7321677833870 3606480446450	783387 CSU794454

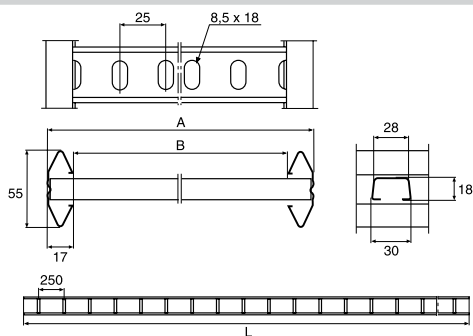
P140223




Dimension table

Type	A mm	B mm	L mm	Ref. No.
KHZSP-200	200	166	4000 6000	783383 CSU794450
KHZSP-300	300	266	4000 6000	783384 CSU794451
KHZSP-400	400	366	4000 6000	783385 CSU794452
KHZSP-500	500	466	4000 6000	783386 CSU794453
KHZSP-600	600	566	4000 6000	783387 CSU794454

B224475



Joint and coupling

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 thermoplastic coated cable ladders KHZSP. Including screw and nut. Material: Steel, pre-galvanized, with thermoplastic coating.					
21P	55/43/200		47	7321677834495	783449
Coupling 22					
Coupling to be used for horizontal or vertical branching to get the required angle. Including screw and nut. Material: Steel, pre-galvanized, with thermoplastic coating.					
22P	85/25/140		33	7321677837724	783772

Profile clamp

Profile clamp 42					
Profile clamp to be used for installations where the cable ladder is to be fixed to cantilever arms, support brackets, etc. Material: Steel, pre-galvanized, with thermoplastic coating.					
42	54/57/30		8	7321677833887	783388

Cantilever arms

Cantilever arm 50i, 81 and 50					
Cantilever arm to be used for lighter mountings on walls, vertical pieces or pendant/fixing rails. Cantilever arm 81 is used for widths 500-600 mm. Material: Steel, pre-galvanized, with thermoplastic coating.					
50i-200	85/250/43		32	3606480446467	CSU794455
50i-300	110/350/43		51	3606480446474	CSU794456
50i-400	115/450/44		91	3606480446481	CSU794457
81-500	150/568/40		110	3606480446498	CSU794458
81-600	150/658/40		154	3606480446504	CSU794459
Cantilever arm to be used for mountings on walls, vertical pieces or pendant/fixing rails. Material: Steel, pre-galvanized, with thermoplastic coating.					
50-200	85/250/40		40	7321677833894	783389
50-300	105/350/40		70	7321677833900	783390
50-400	120/450/50		130	7321677833917	783391
50-500	140/550/50		180	7321677833924	783392
50-600	160/650/50		230	7321677833931	783393


Support and wall brackets

Support bracket 3					
Thermoplastic coated support bracket for centre installation of cable ladders on pendant/fixing rails and vertical pieces. Material: Steel, pre-galvanized, with thermoplastic coating.					
3-200	92/-/200		30	7321677834044	783404
3-300	92/-/300		50	7321677834051	783405
3-400	92/-/400		70	7321677834068	783406
3-500	92/-/500		120	7321677834075	783407
3-600	92/-/600		140	7321677834082	783408
Wall bracket 11/25 and 11/75					
Wall bracket to be used for vertical or horizontal installation of cable ladders against a wall. Material: Steel, pre-galvanized, with thermoplastic coating.					
11/25	85/71/40		26	3606480446719	CSU794480
11/75	135/71/40		33	3606480446726	CSU794481

Vertical pieces

Vertical piece 2					
Vertical piece to be used for installation of Support bracket 3 or Cantilever arm 50 and 50i. Symmetrical loading. Material: Steel, pre-galvanized, with thermoplastic coating.					
2-300	279/80/135		57	3606480446511	CSU794460
2-400	392/80/135		68	3606480446528	CSU794461
2-500	504/80/135		79	3606480446535	CSU794462
2-700	729/80/135		102	3606480446542	CSU794463
2-1000	1022/80/135		132	3606480446559	CSU794464

Vertical pieces

Type	Dimensions A/B/C mm		Weight kg/100 pcs	EAN code	Ref. No.
Vertical piece 2Fi, 2F and 20F					
Vertical piece to be used for installation of Support bracket 3 or Cantilever arm 50 and 50i. Symmetrical loading. Material: Steel, pre-galvanized, with thermoplastic coating.					
2Fi-300	272/134/48		107	3606480446566	CSU794465
2Fi-500	497/134/48		151	3606480446573	CSU794466
2Fi-750	722/134/48		195	3606480446580	CSU794467
2Fi-1000	992/134/48		247	3606480446597	CSU794468
Vertical piece to be used for installation of Support bracket 3 or Cantilever arm 50 and 50i. Symmetrical loading. Material: Steel, pre-galvanized, with thermoplastic coating.					
2F-280	280/80/135		90	7321677833948	783394
2F-370	370/80/135		110	7321677833955	783395
2F-505	505/80/135		140	7321677833962	783396
2F-730	730/80/135		180	7321677833979	783397
2F-1000	1000/80/135		230	7321677833986	783398
2F-1500	1500/80/135		310	7321677833993	783399
Vertical piece to be used for mounting in ceiling or on floor. Suitable for rather heavy loads. Material: Steel, pre-galvanized, with thermoplastic coating.					
20F-1000	1000/160/160		630	7321677834006	783400
20F-1500	1500/160/160		840	7321677834013	783401
20F-2000	2000/160/160		1050	7321677834020	783402
20F-3000	3000/160/160		1320	7321677834037	783403

Pendant/Fixing rails

Pendant/Fixing rail 24/34 and 24/48					
Pendant/Fixing rail to be used for mounting of support brackets, cantilever arms etc. Material: Steel, pre-galvanized, with thermoplastic coating.					
24/34 L= 0.3 m	293/16/42		20	3606480446603	CSU794469
24/34 L= 0.4 m	383/16/42		30	3606480446610	CSU794470
24/34 L= 0.5 m	495/16/42		40	3606480446627	CSU794471
24/34 L= 0.7 m	698/16/42		60	3606480446634	CSU794472
24/34 L= 1 m	990/16/42		80	3606480446641	CSU794473
24/34 L= 3 m	2970/16/42		250	3606480446658	CSU794474
Pendant/Fixing rail to be used for mounting of support brackets, cantilever arms etc. Material: Steel, pre-galvanized, with thermoplastic coating.					
24/48	2970/26/48		550	7321677837731	783773


Angle brackets

Angle bracket 5L and 5LS					
Angle bracket to be used when assembling pendant/fixing rails to frames for switching cabinets and electrical control centres. Assembled with a T-bolt. Adjustability 0-35 mm. Material: Steel, pre-galvanized, with thermoplastic coating.					
5L	70/45/49		16.5	3606480446665	CSU794475
Angle bracket to be used when assembling pendant/fixing rails to frames for switching cabinets and electrical control centres. Assembled with a T-bolt. Material: Steel, pre-galvanized, with thermoplastic coating.					
5LS	111/71/60		55	3606480446672	CSU794476

Box plates

Junction box plate 35P and 35S					
Junction box plate to be installed between rungs. Locked with appropriate locking tabs for each ladder. Material: Steel, pre-galvanized, with thermoplastic coating.					
35P	21/106/250		31	3606480446733	CSU794482
Junction box plate to be installed upright or hanging from the side profile. Locked with locking tabs. Material: Steel, pre-galvanized, with thermoplastic coating.					
35S	164/20/170		24	3606480446740	CSU794483

Tele-conduits

Type	Dimensions A/B/C mm		Weight kg/100 m	EAN code	Ref. No.
Tele-conduit 36					
Tele-conduit to be installed where a separate tray is required for low-tension cables. Material: Steel, pre-galvanized, with thermoplastic coating.					
36-50 L= 2 m	24/50/2000		103	3606480446764	CSU794485
36-100 L= 2 m	24/100/2000		156	3606480446771	CSU794486

Divider

Dividing strip 39					
Dividing strip to be used to separate low-tension and high-tension cables. Material: Steel, pre-galvanized, with thermoplastic coating.					
39/24 L=1.75 m	24/24/1750		51	3606480446757	CSU794484

Bar fixings

Round bar fixing					
Round bar fixing to be used for mounting in underground cavities and tunnels. Material: Steel, pre-galvanized, with thermoplastic coating.					
For ceilings	6/60/325		99	3606480446689	CSU794477
For floors	6/140/130		100	3606480446696	CSU794478
For walls	61/60/161		75	3606480446702	CSU794479

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

Screw

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. Material: Stainless steel AISI316.					
W37	–		2.8	7321677255863	725586

Repair kit

Repair kit including 0.125L paint, to be used for repairing of clean metal areas, e.g. from cutting.					
Repair kit	–		–	7321677837748	783774

Cable ladders

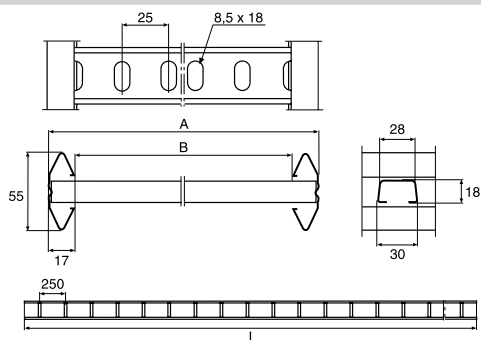
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Type	Dimensions A/B/C mm	Weight kg/100 m	EAN code	Ref. No.
Cable ladder KHZSP				
Cable ladder for both indoor and outdoor applications having high demands on corrosion resistance. With open side profiles provided with draining holes and profile-shaped 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

Steel cable ladders

Stainless steel AISI 316L
Corrosion class C5-M

Cable ladders

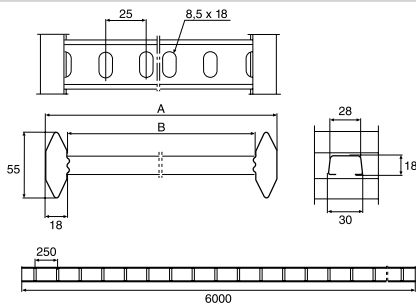
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Type	Dimensions A/B/C mm	Weight kg/100 m	EAN code	Ref. No.
Cable ladders KHZP				
Cable ladder for indoor or outdoor industrial applications. With closed side profiles and profile-shaped rungs. Must not be used as walkway. Material: Stainless steel 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

B223677



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

Cable ladders

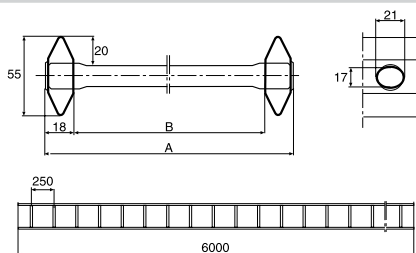
P139638



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

B2223589



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

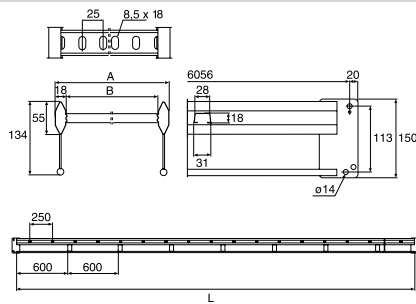
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Type	Dimensions A/B/C mm	Weight kg/100 m	EAN code	Ref. No.
Cable ladders KHZPV				
Reinforced cable ladder for indoor or outdoor industrial applications. Designed for extreme support distances and loadings. With closed side profiles and profile-shaped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

B222876







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.					
P139919 	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.					
P139656 	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.					
P139921 	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.					
P139922 	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.					
P139923 	42	54/57/30	11	7321677257638	725763
Profile clamp 43					
Profile clamp to be used for installations where the cable ladders KHZV and KHZPV are to be fixed to cantilever arms, support brackets, etc. Screw M8 and nut included. Material: Stainless steel AISI316L.					
P139924 	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.					
P139925 P139926 	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.					
P139927 	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.					
P139928 	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

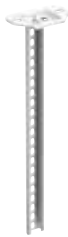
P139834
P139833



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

P139842



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 and nuts are included. Material: Stainless steel AISI316L.					
47	155/10/73		27	7321677928750	792875

Steel cable ladders

Stainless steel AISI 316L

Corrosion class C5-M


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

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

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

P140036



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

P140037



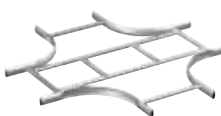
T-junction 16				
T-junction piece to be fitted to the cable ladders by using Joint 21. Material: Stainless steel AISI316L.				
16-150	55/944/547	300	7321677273584	727358
16-200	55/997/597	320	7321677273591	727359
16-300	55/1097/697	390	7321677273607	727360
16-400	55/1197/797	440	7321677273614	727361
16-500	55/1297/897	530	7321677273621	727362
16-600	55/1397/997	600	7321677273638	727363

P140038



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

P140039



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

P140041



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

P140042



P140043



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

P140044



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

P140045



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

P140046



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

P140105



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

P140106






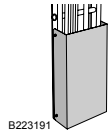
Type	Dimensions A/B/C mm	Weight kg/100 pcs	EAN code	Ref. No.
Profile support piece 37				
Profile support piece to be used when installing covers. To be mounted on approximately every 0.5 m along both sides of the cable ladder. Used together with cover clamp for locking covers. Material: Stainless steel AISI316L.				
37	136/20/50	6	7321677301904	730190

P138935




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.					
 P140048	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

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

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.					
 P140027	HT-2322	Dim. 2.5	3.9/100 m	7321677136810	713681
	Breaking load 450 kg				
	HT-2323	Dim. 3.0	5.6/100 m	7321677136827	713682
	Breaking load 700 kg				
	HT-2324	Dim. 4.0	10.0/100 m	7321677136834	713683
	Breaking load 1200 kg				


Bar fixings

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.
 P140226 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

	Profile protection 28P				
 P140063	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				
 P140064 P140065 P140066	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 28i, red	54/14/19	0.4	7321677354467 7321677319947	735446 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

	T-bolt 26F				
 P140072	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 Thermo plastic coating

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



C5-M Stainless steel, AISI 316L Thermo plastic coating

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

- Very high (marine) environmental corrosion.
- Areas with almost permanent condensation and large quantities of airborn pollution. Atmospheres with high salt content.
- SS2348 SF/AISI 316L



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	Thermoplastic coating
				Stainless steel SS2333 AISI 304	
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 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 • Thermoplastic coating (typical 200 µm), graphite grey RAL7024 • Passivated (Stainless steel), except KHZSP ladder range
Resistance to impact:	20 J (IEC 61537)
Temperature range:	From -40°C to +120°C. From -40°C to +65°C for the thermoplastic range

Electro-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.

Thermoplastic coating

An option for corrosive environments. Thermoplastic coating is a thermal process in which a plastic powder is melted to give the component (most usually metal) a special coat. Thermoplastics are predominantly employed in aggressive environments up to and including corrosion class C5-M (ISO 12944-6), where they provide hardwearing, long-lasting and environment-friendly protection against, among other things, corrosion. Because the coating process is thermal with no solvents, it has minimal impact on the environment. Thermoplastic coatings meet the requirements

of the most aggressive environments, e.g. wet, humid environments and those with large temperature variations and concentrations of chemicals. Besides durability, the coatings also have high impact resistance. As the coating provides complete cover, is pore-free and strong, it is also hygienic and dirt repellent. V0 fire rating (UL94), UV resistant.

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.

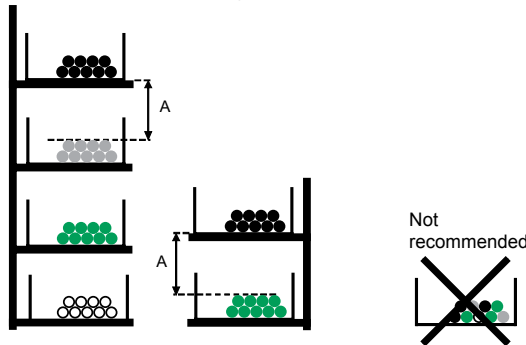
Method of installation	Correction Factor Cg							
	Number of circuits of multicore cables							
	2	3	4	5	6	7	8	9
Single layer multicore touching on ladder supports	0,87	0,82	0,80	0,80	0,79	0,79	0,78	0,78

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

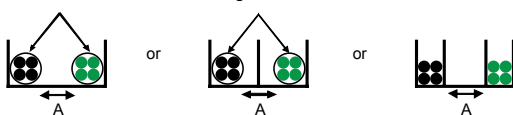
Communication cable type	Number of power circuits (1-phase 20A, 230V)									
	1-3	4-6	7-9	10-12	13-15	16-30	31-45	46-60	61-75	>75
	Minimum separation distance (mm), see figure A below this table									
Category 5e/6 unshielded	20	40	60	80	100	200	300	400	500	600
Category 5e/6/6 _A shielded	10	20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

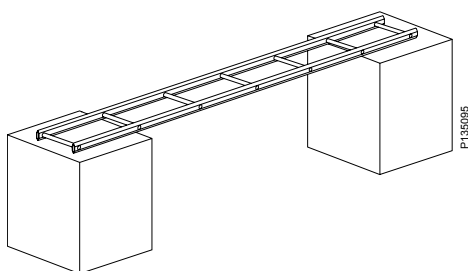
The cable ladders should be installed in such a way that, as often as possible, the cables can be laid directly in place rather than being pulled through. Ladders for current carrying cables along the ceiling should be installed in such a way that the distance from the top of the ladder to the ceiling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

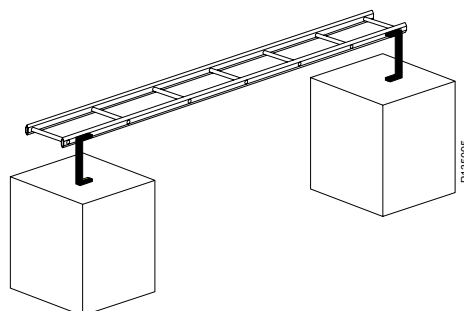
Schneider Electric has performed measurements at EMC Services in Gothenburg regarding EMC requirements, report RE-10273-17181. The results show that the shielding performance of both incoming and emitted fields is good concerning Wibe cable ladders.

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

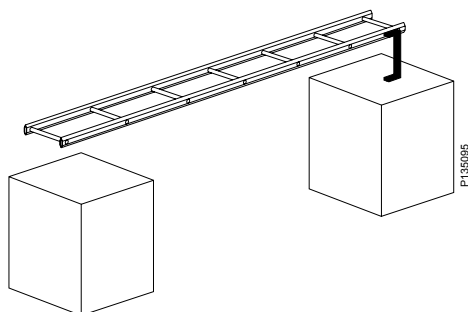


Metal against metal connection
- the ultimate installation

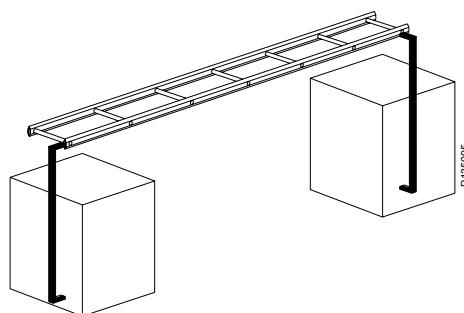


Short double connection
- realistic installation

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.

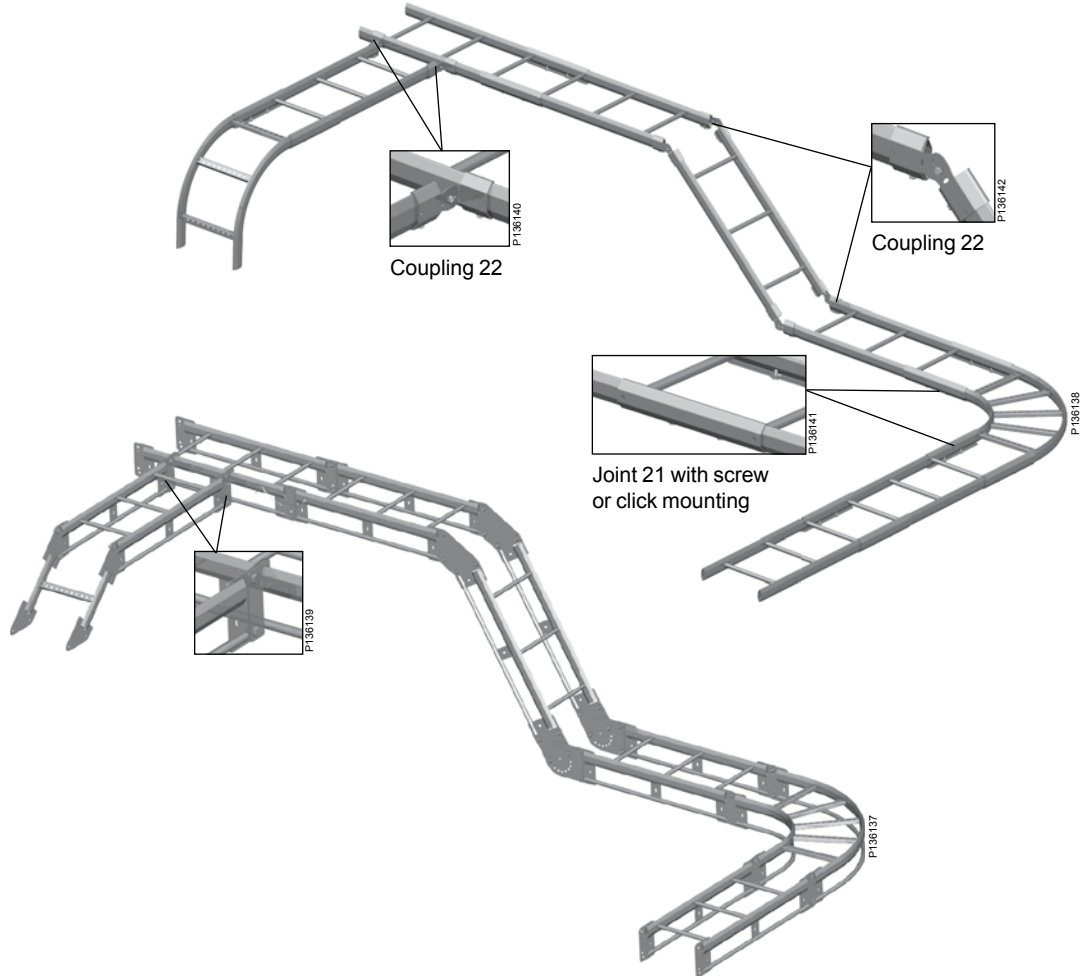
To guarantee a safe installation, Schneider Electric recommends a proper earthing of all the elements that make up the system (sections and accessories), using the accessories designed specifically for this purpose.

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

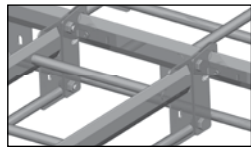
For pre-galv, hot-dip galv and stainless steel AISI 316L

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.

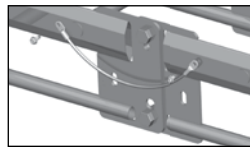


For zinkpox coating

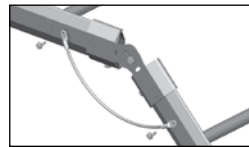
Installation of cable ladders with Zinkpox coating



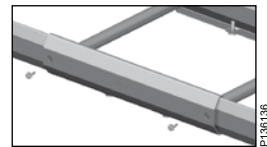
Take-off hook 47 is mounted with self-drilling screw 4.8x13



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.

For thermoplastic coating

Installation of cable ladders with Thermoplastic coating



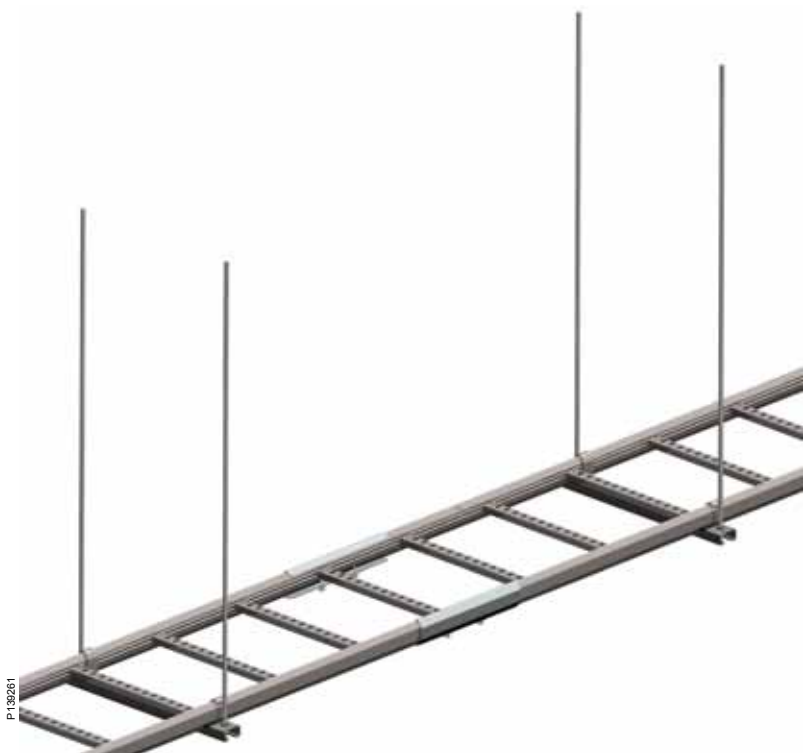
The cable ladder has provision for equipotential bonding, threaded M8 at both ends.



P133260

Ceiling suspended, vertical piece, cantilver arm

Cable ladder KHZPS-150, 6 m	725350
Cable ladder KHZPS-200, 6 m	725351
Cable ladder KHZPS-300, 6 m	725352
Cable ladder KHZPS-400, 6 m	725353
Joint 21	791196
Joint 21 ZM	CSU795051
Cantilever arm 50-150	723433
Cantilever arm 50-200	723434
Cantilever arm 50-300	723436
Cantilever arm 50-400	723437
Profile clamp 42	721121
Vertical piece 2F-280	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	721121
Threaded rod W76-1000	725079
Threaded rod W76-2000	716792
Nut M10	723938
Nut M10	1149464



Test conditions

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



Wibe Cable ladder system meets the following standards:

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

Tests and Certificates	Test made by
Test concerning fire resistance according to E30-E90.	IBMB, Germany
Wibe cable ladder as conductor of equipotential bonding according to IEC 61537,11:1.	SP, Sweden
Wibe cable ladder is approved for use in USA and Canada according to Underwriters Laboratories, UL E-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.

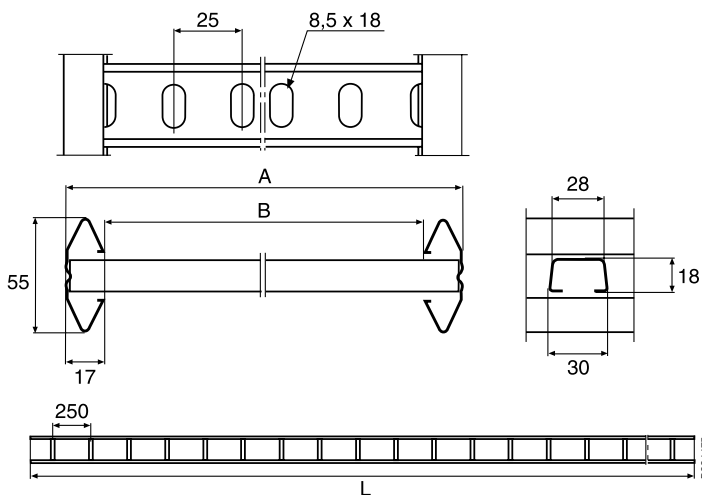
Low voltage directive 73/23 EEC
 According to the low voltage directive we refer to: SFS 1993:1068 Regulations concerning electrical material.
 SFS 1993:1068 General obligations regarding electrical material.
 Schneider Electric fulfills the demands according to the harmonized standard SS-EN 6153 Edition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

Installation instructions

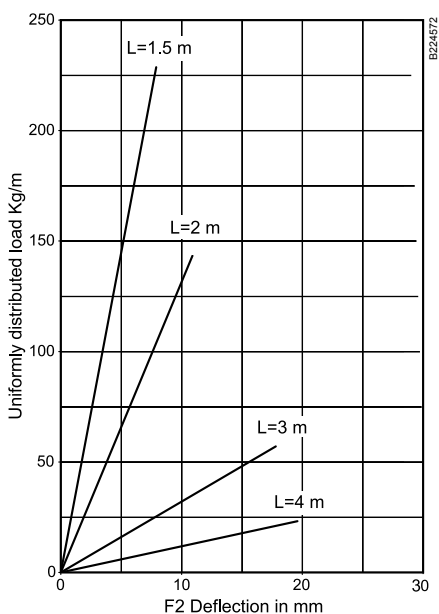
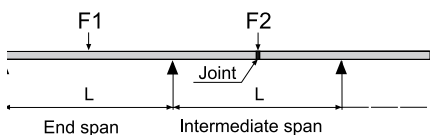
Use and Installation

90° bend 15, interior and exterior	214	Insert piece EM	230	Support bracket 6	188
90° bend 20C, interior	215	Installation plate 61	212	Support bracket HSO	189
90° bend 55 interior	214	Intermediate connection bolt 29	236	Take-off hook 20C	210
Angle bracket 5L and 5LS	206	Joint 9	171	Take-off hook 47	210
Angle plate 20C	176	Joint 21P	171	T-bolt 26F	234
Angle plate 33/1 and 33/2	223	Joint 21, with screws or screwless	171	Tele-conduit 36 with	
Back nut M8	235	Joint 45	172	knock-out holes	218
Back plate 40	184	Joint nut M8, M10	190	Threaded rod B41 and W76 M8, M10	190
Beam clamp 5BK	237	Junction box plate 35P	212	Thread lock B50 M8, M10	190
Bracket 60/40	207	Junction box plate 35S	211	Thread lock B50 M8, M10	235
Cable clamp ER	231	Junction coupling 14	174	Tightening loop HT	225
Cable clamp type A	229	KHZ	168	T-junction 16	215
Cable clamp type R	229	KHZP-20C	170	T-junction 20C	216
Cable roller 38 Rig'n roll	239	KHZP / KHZPS	166	T-junction 56	216
Cable roller S	238	KHZPV	167	Wall bracket 11/25 and 11/75	191
Cantilever arm 30	179	KHZSP / KHZSPZ	165	Wall bracket 20	191
Cantilever arm 50i	180	KHZV	169	Wall bracket 20F	191
Cantilever arm 50L, 50 and 50F	182	Lashing wire	230	Wall bracket HT-14	223
Cantilever arm 81	181	Lighting bracket 200	223	Washer HSO M16	189
Carrying bracket HT-31	224	Marking plate 93	233	Vertical coupling 20C	176
Carrying bracket HT-33/34	224	Mounting rail 40	184	Vertical piece 2	192
Carrying bracket HT-152	224	Mounting rail WMS15	232	Vertical piece 2F	194
Carrying sling HT-51	224	Mounting rail WMS25	232	Vertical piece 2Fi	193
Ceiling bracket 2Fi	204	Pendant bar 1	205	Vertical piece 20	196
Ceiling bracket 5	208	Pendant base plate 520	204	Vertical piece 20F	198
Ceiling bracket 5TP	209	Pendant/Fixing rail 24/20	201	Vertical piece 20FS	199
Ceiling bracket 5TPA	209	Pendant/Fixing rail 24/20F	202	X-junction 17	217
Ceiling bracket TF-10 and TF-16	190	Pendant/Fixing rail 24/20FS	202		
Ceiling plate 20F	203	Pendant/Fixing rail 24/34	200		
Ceiling plate 20FS	203	Pendant/Fixing rail 24/48	200		
Clamp 12	178	Pendant joint 2J, 2FJ and 20J	205		
Clamp set M6	228	Pipe HT-68 and HTR-68	225		
Combi bracket 53	207	Profile clamp 20C	177		
Combi Fitting B21	211	Profile clamp 41	178		
Combi Fitting B2190 degree	211	Profile clamp 42	177		
Coupling 22	173	Profile clamp 43	177		
Coupling 22P	172	Profile protection 28P	232		
Coupling 44	174	Profile support piece 37	221		
Coupling 51	175	Profile support piece 46	178		
Cover 64	222	Protecting cover	222		
Cover 90° bend	220	Rail fixing support			
Cover clamp	221	24/20F, 24/20FS	204		
Cover joint	221	Reducer 20C	226		
Cover plate 65	222	Reducer 31	226		
Cover T-junction	220	Riser 18	213		
Cover W5	219	Riser coupling 20C	213		
Cross member plug 27	233	Riser coupling 49	213		
Distance piece W39	219	Rod bracket 82	208		
Dividing strip 39	218	Round bar fixing for ceilings	227		
Dropper joint 32	172	Round bar fixing for floors	228		
Earth clamp W79	212	Round bar fixing for walls	228		
End bracket HT-11	225	S-bend 67	217		
End connection 10	210	Screw set 22S	235		
End plug 28 and 28i	233	Screw set 2S	235		
End plug 28C, D, E, F and J	233	Screw set 20S	235		
Fixed take-off hook 4	210	Screw set M10 x 20	235		
Fixing rail 24/26x53 for casting-in	203	Screw set M12	234		
Flange nut B43 M8, M10	190	Screw set W34	235		
Flange nut B43 M8, M10	235	Screw set W37	235		
Hook 8	237	Spring nut M8/M10	235		
Horizontal coupling 20C/Horizontal		Steel wire	226		
coupling bending 20C	175	Support bracket 3	186		

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

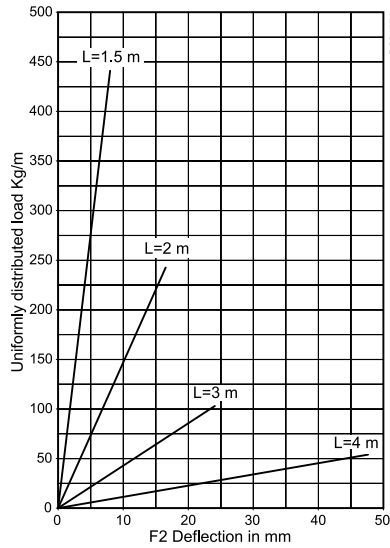
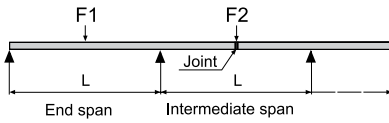
Guaranteed uniformly distributed load includes a minimum safety factor of 1.7 towards rupture. The diagram shows the deflection with Joint 21 for all ladder widths.

The cable ladders must not be used as walkways.

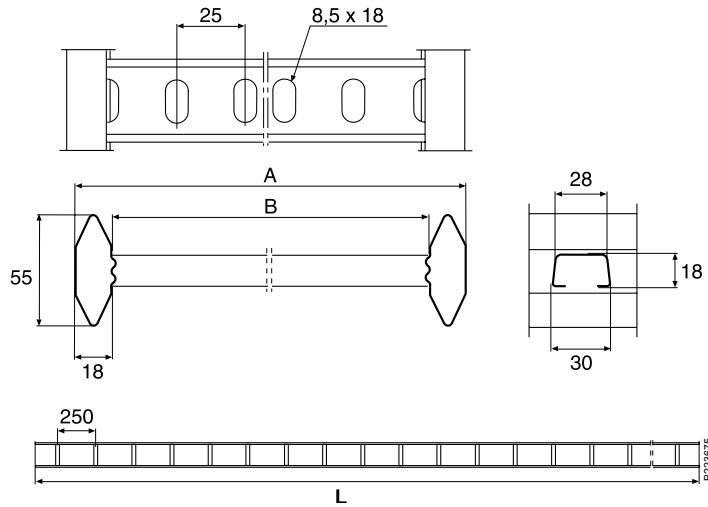
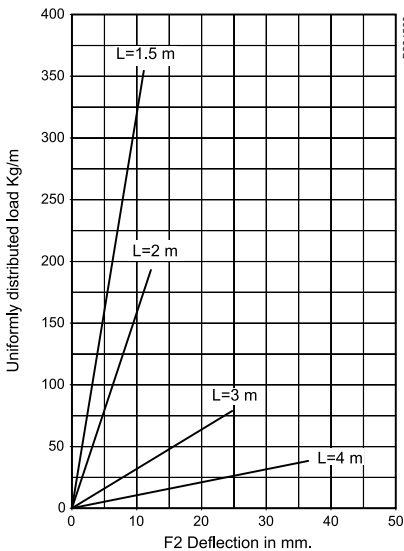
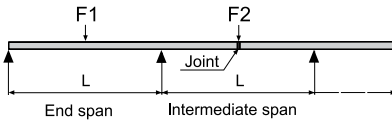
KHZP / KHZPS



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).

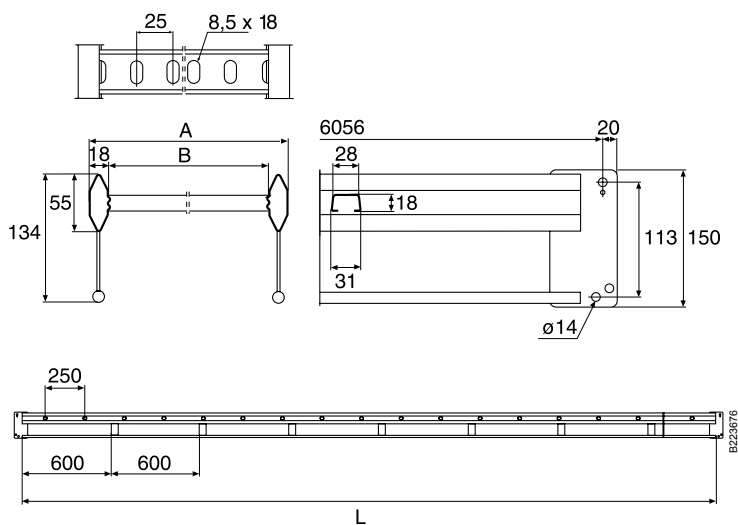
Guaranteed load

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.

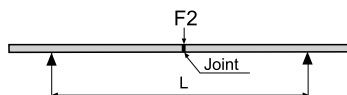
The cable ladders must not be used as walkways.



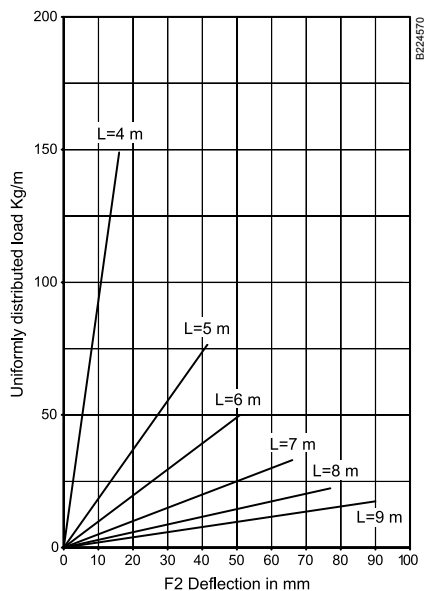
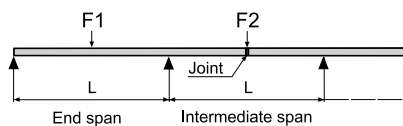
KHZPV



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

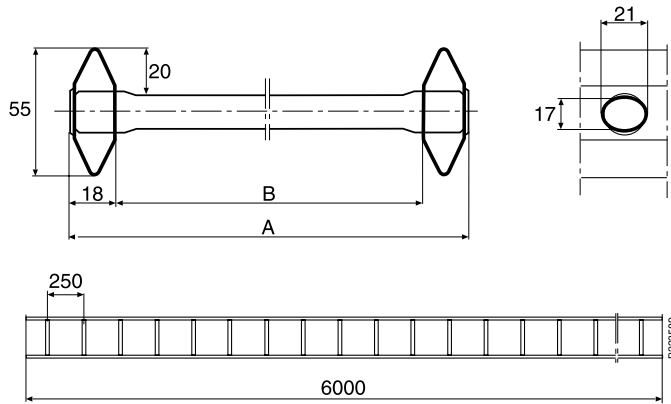
The ladders are tested according to IEC 61537, test model II for bracket distance up to and including 4 m, test type V for bracket distance more than 4 m.

Guaranteed load

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

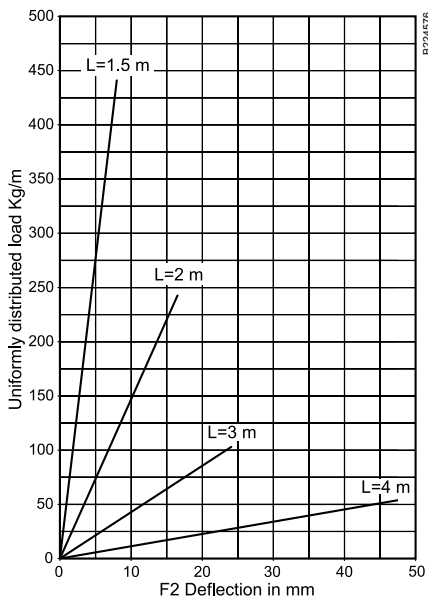
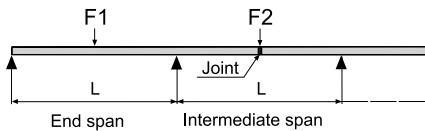
The cable ladders must not be used as walkways.

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

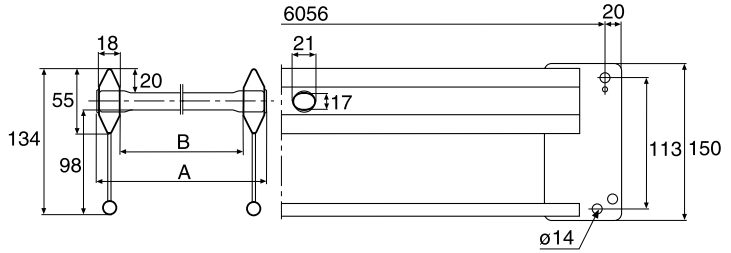
The ladders are tested according to IEC 61537, test model II - a joint in the intermediate span (F2).

Guaranteed load

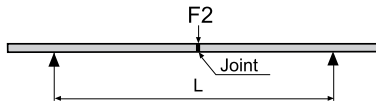
Guaranteed uniformly distributed load includes a minimum safety factor of 1.7 towards rupture. The diagrams shows the deflection with Joint 21 for cable ladder widths up to 600 mm. For widths greater than 600 mm contact Schneider Electric or distributor.

The cable ladders must not be used as walkways.

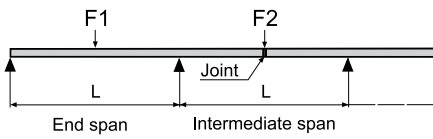
KHZV



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

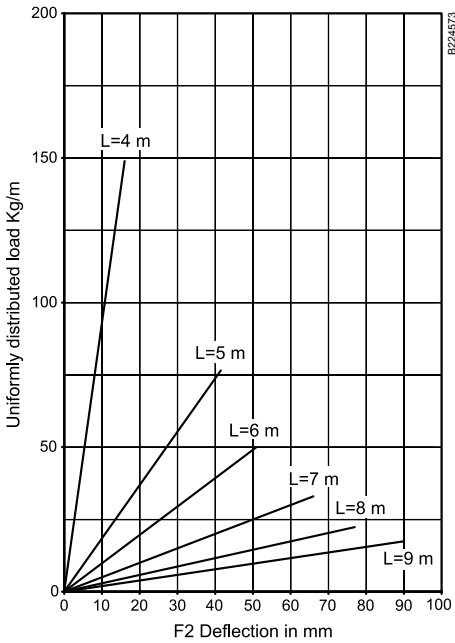
Loadings

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.

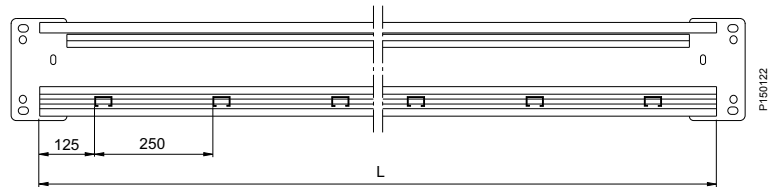
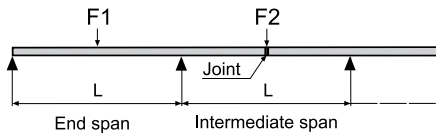
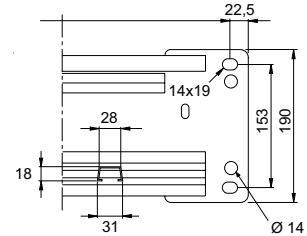
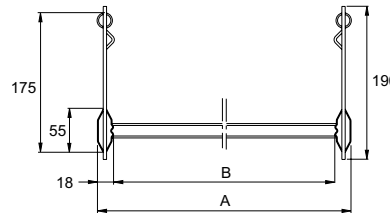
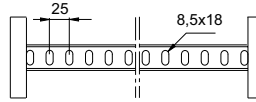
The cable ladders must not be used as walkways.



KHZP-20C



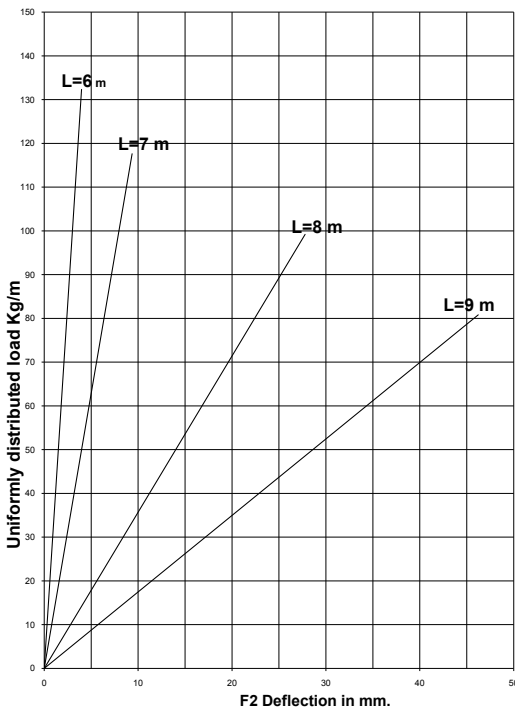
P148117



P150122

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.

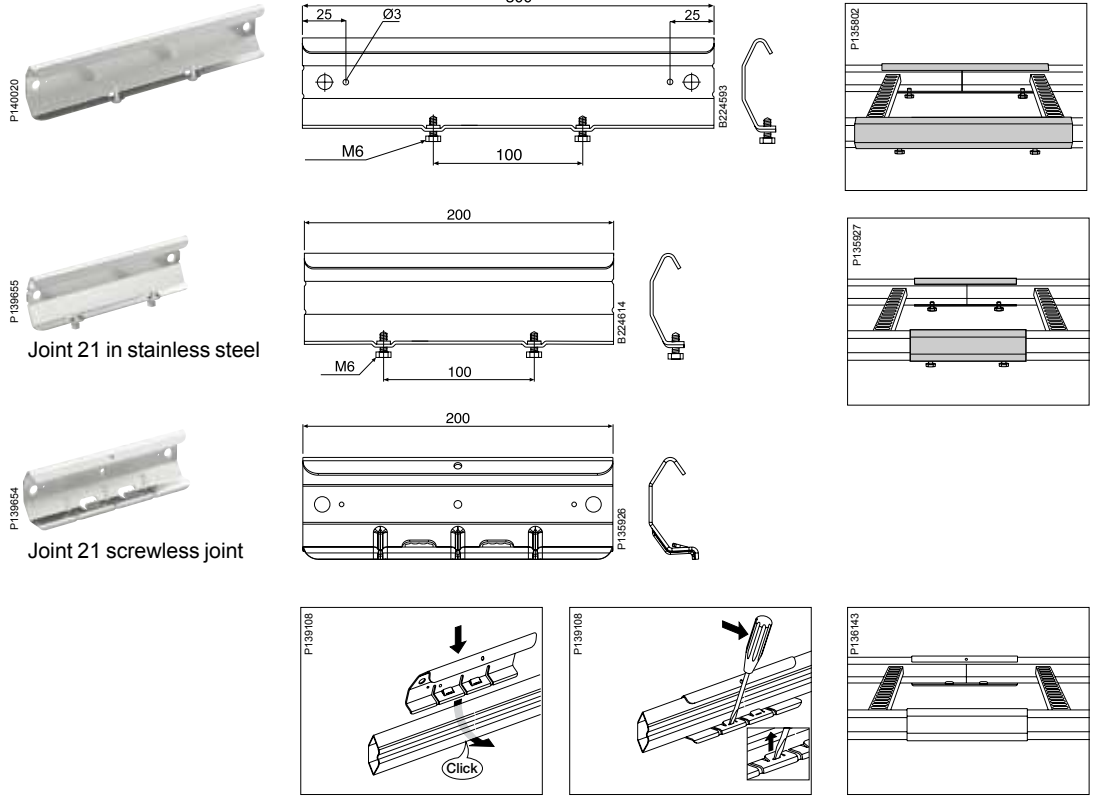
Loadings according NEMA V1 20C

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

The cable ladders must not be used as walkways.

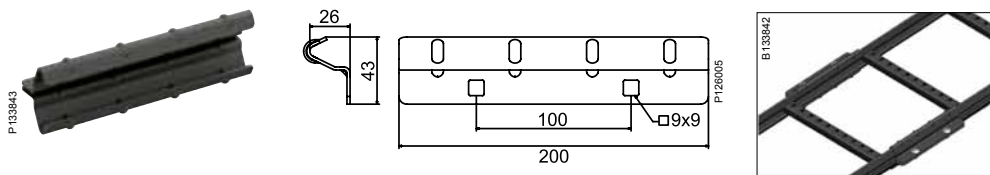
Joint 21, with screws or screwless

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



Joint 21P

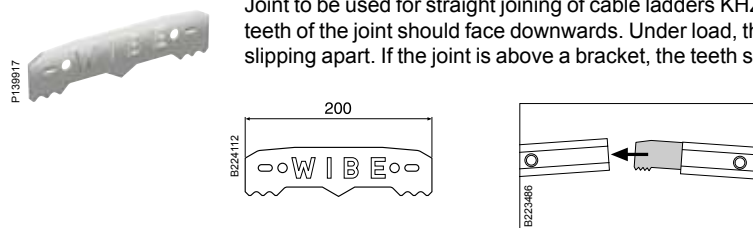
Joint to be used for straight, rigid joining of thermoplastic coated cable ladders KHZSP.



Joint 21P is used for straight joining of thermoplastic coated cable ladders without affecting the surface treatment.

Joint 9

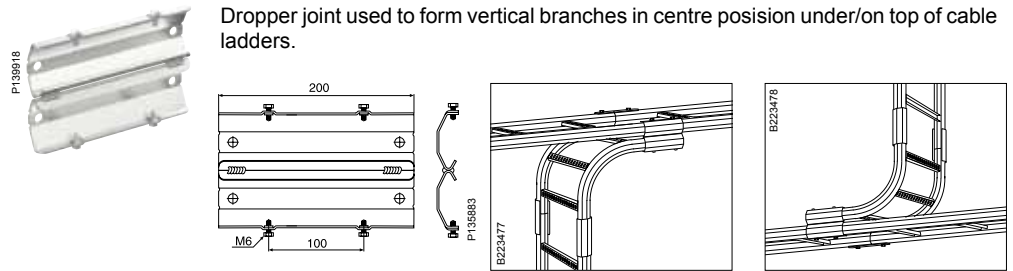
Joint to be used for straight joining of cable ladders KHZ, KHZP and KHZPS. The teeth of the joint should face downwards. Under load, the ladders are prevented from slipping apart. If the joint is above a bracket, the teeth should face upwards.



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.

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

Dropper joint 32



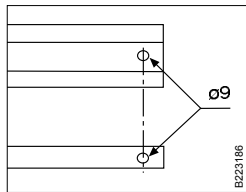
Dropper joint used to form vertical branches in centre position under/on top of cable ladders.

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.

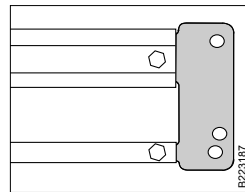
Joint 45

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

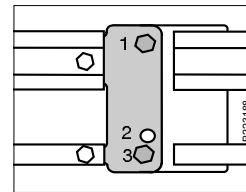


Cable ladders can be joined using separate joints.

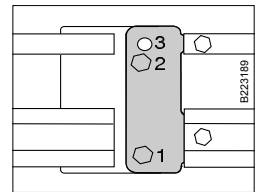
- Cut the ends clean.
- Place the joints outside the ladders and mark where the holes shall be drilled.
- Drill 9 mm dia. holes.



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



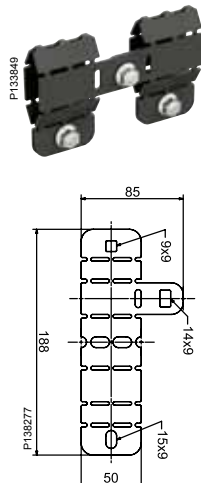
The holes are laterally displaced to avoid play in joints. If the ladders are mounted with arch pipes facing downwards, use holes 1 and 3.



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

Coupling 22P

Thermoplastic coated coupling to be used for horizontal or vertical branching to get the required angle.



Coupling 22P is mounted by forming the coupling around the side profile.



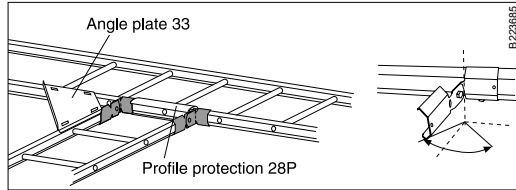
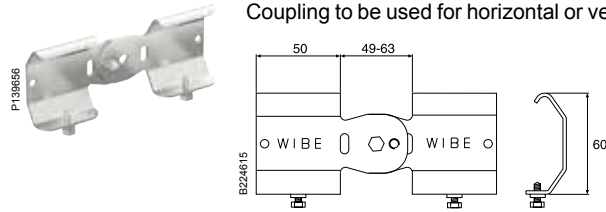
Coupling 22P is used for horizontal or vertical branching to the required angle.



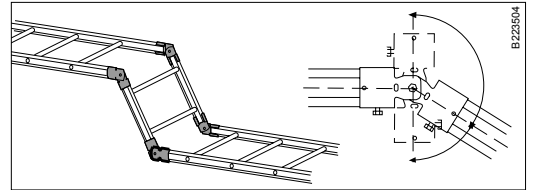
Coupling 22P can also be used as a connection vertically against floors or horizontally against walls.

Coupling 22

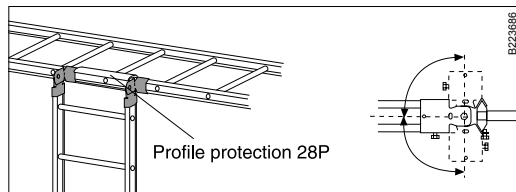
Coupling to be used for horizontal or vertical branches at any desired angle.



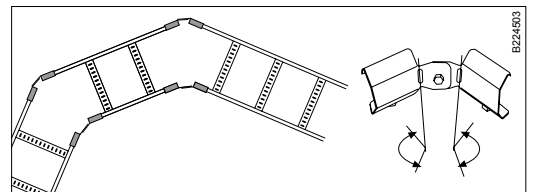
Coupling 22 is used for horizontal branching to the required angle. The cut length of the ladder ends determines the angle. Angle plate 33 is always recommended for horizontal branches. Use Profile protection 28P.



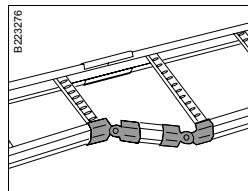
Coupling 22 is used to form vertical angles of the required size.



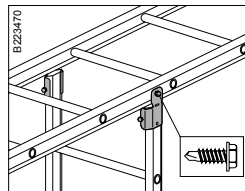
Coupling 22 is used to form vertical branches of the required angle. Mount Profile protection 28P. To be cut when required.



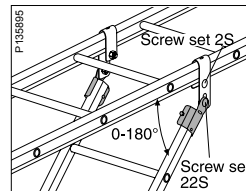
Use 4 Couplings 22 to form a horizontal bend in different angles. The cut lengths of the ladder ends determine the angle.



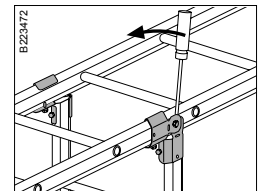
As an alternative at transition joining of KHZSP, KHZPS, KHZ and KHZP use 1 Joint 21 and 2 Couplings 22.



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°.

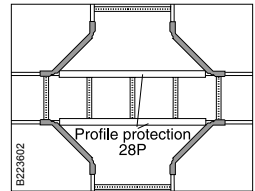
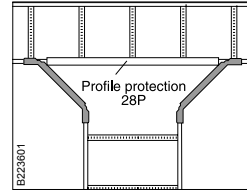
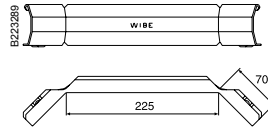


Use 2 Coupling 22 for vertical branching under the cable ladder. **Note!** The screw of Coupling 22 must be turned so that its head will be placed against the side profile of the cable ladder. Bend the coupling with a screwdriver.

Junction coupling 14



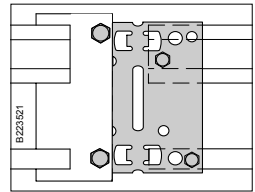
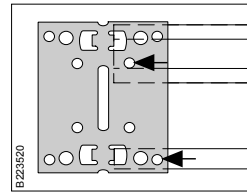
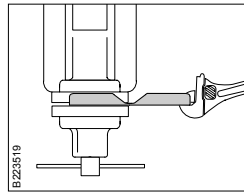
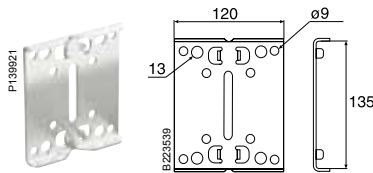
Junction coupling to be used for T- and X-junctions. Suitable for cable ladders KHZ, KHZP, KHZSP and KHZPS, all cable widths.



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

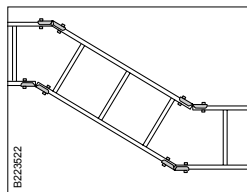
Coupling to be used for horizontal coupling of cable ladders KHZV/KHZPV. Also to be used for branches and as an end connection against a wall.



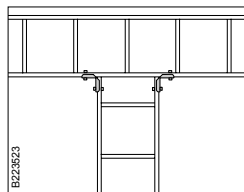
Coupling 44 may be bent to the required angle in a vice, using an adjustable spanner or similar.

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

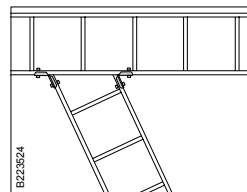
Assemble the cut and drilled ladders using M8x30 mm bolts. If the angle unit is mounted against a fixed joint plate use Screw set M12.



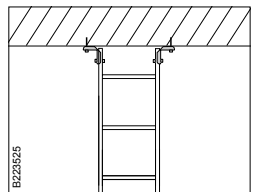
Angled cutting of the ladder ends determines the angle.



Straight branch.



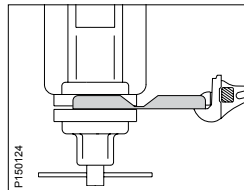
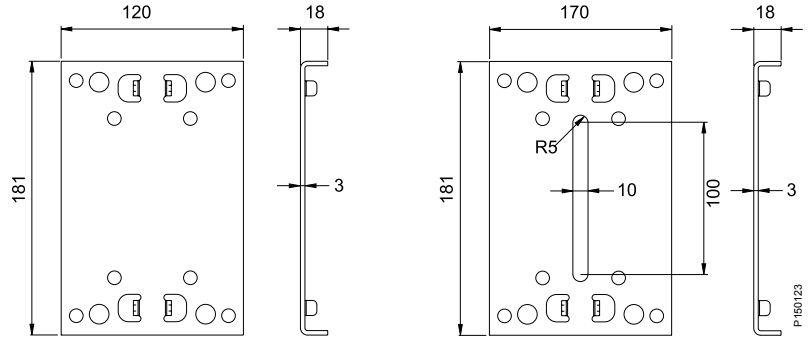
Angled branch.



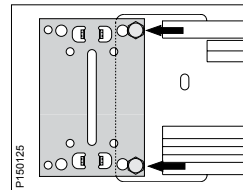
Use Coupling 44 as an end attachment for mounting ladders against walls or floors.

Horizontal coupling 20C/ Horizontal coupling bending 20C

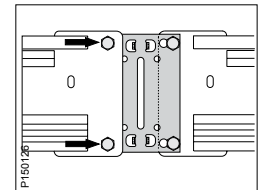
Coupling to be used for horizontal connection of cable ladders KHZP 20C range. Four screws M8x30 and nuts are included.



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



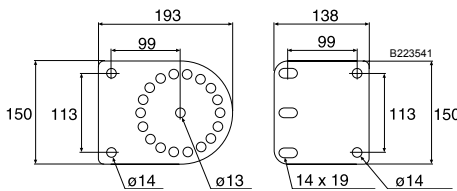
Use Coupling 44 as a drilling pattern on the cut ladder. Drill 9 mm dia. holes.



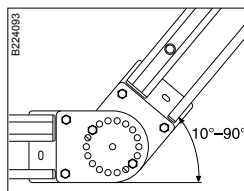
Assemble the cut and drilled ladders using M8x30 mm bolts. If the angle unit is mounted against a fixed joint plate use Screw set M12.

Coupling 51

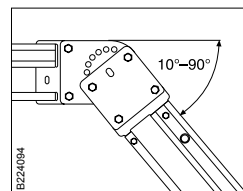
Coupling to be used as a self-supporting vertical coupling of cable ladders KHZV/KHZPV.



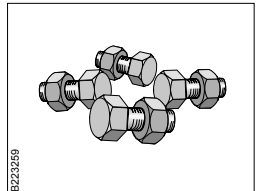
Screw set M12 for installation on the cable ladder is to be ordered separately.



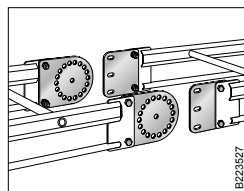
Rising. Adjustable from 10° to 90° gradually in steps of 20°.



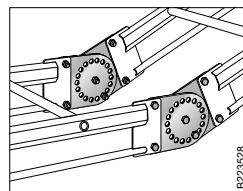
Sloping. Adjustable from 10° to 90° gradually in steps of 20°.



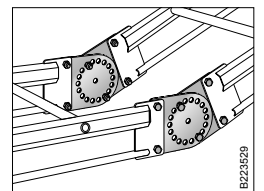
Screw set to be used for all joints with cable ladders KHZV and KHZPV.



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



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

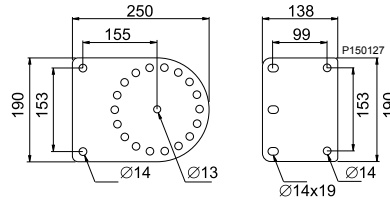


3. Move the nut in the centre hole to the opposite outer hole and tighten.

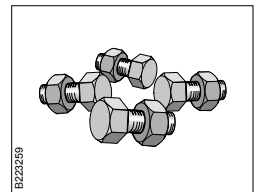
Vertical coupling 20C



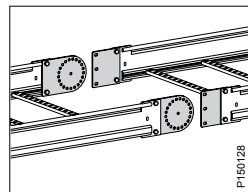
Coupling to be used as a self-supporting vertical coupling of cable ladders KHZP 20C range. Adjustable from 10° to 90° gradually in steps of 20°. Two screws M12 and nuts are included.



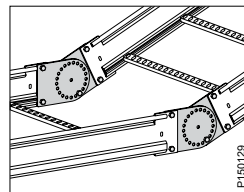
Rising and sloping adjustable from 10° to 90° gradually in steps of 20°. Screw set M12 for installation on the cable ladder is to be ordered separately..



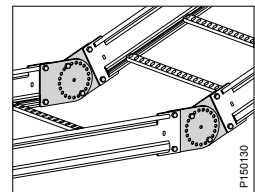
Screw set to be used for all joints with cable ladders KHZP 20C.



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.

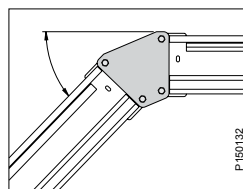
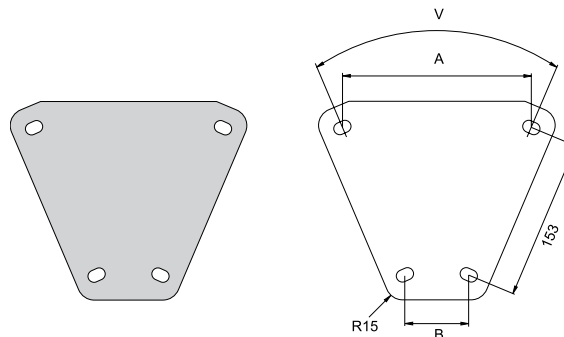


3. Move the nut in the centre hole to the opposite outer hole and tighten.

Angle plate 20C



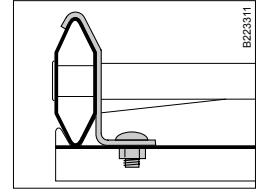
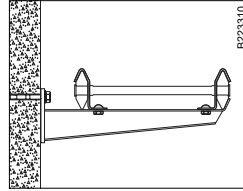
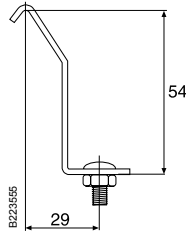
Angled coupling to be used for cable ladders KHZP 20C range. Four screws M12x30 and nuts are included.



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

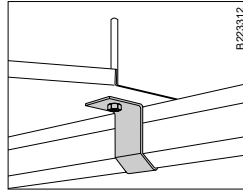
Profile clamp 42

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.

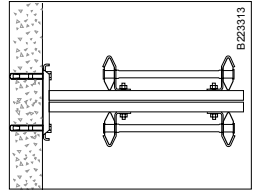


Use Profile clamp 42 for attaching KHZSP, KHZPS, KHZ and KHZP to Cantilever arm 50 and Support bracket 3. For small loads, mount the ladder with a clamp on each cantilever arm, alternately right side and left side.

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



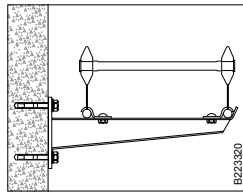
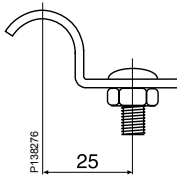
To lock Angle plate 33/2, fit 2 Profile clamp 42.



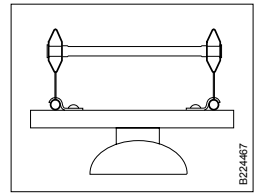
Cable ladders can be mounted directly on Vertical piece 20 or 20F with Profile clamp 42. Use T-bolt for mounting. Convenient at vertical installations in shafts.

Profile clamp 43

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



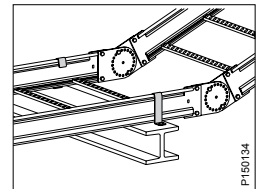
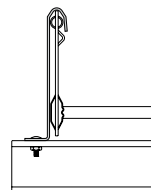
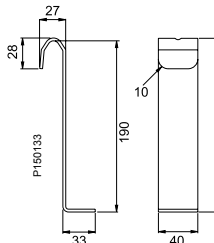
Use Profile clamp 43 to attach KHZV/KHZPV to Cantilever arm 50. For small loads, mount the ladder with a clamp on each cantilever arm, alternating right side and left side.



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

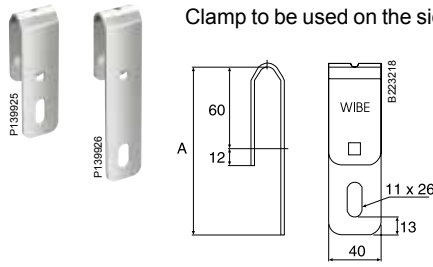
Profile clamp 20C

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 9 x 24 mm.



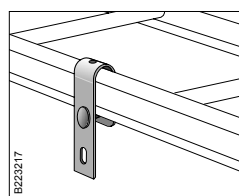
Clamp 12

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

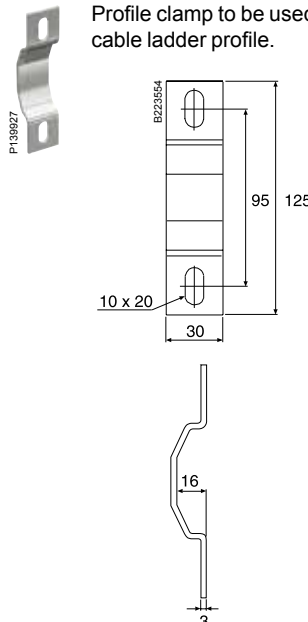


B223217

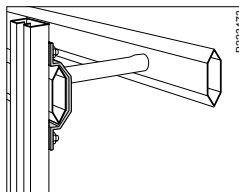
Clamp 12 can be used for installation of antenna brackets, junction boxes and so on. Bolt and nut included.

Profile clamp 41

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

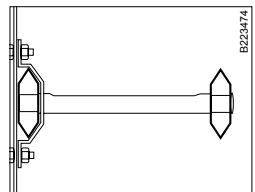


P139927
 B223854
 95
 125
 10 x 20
 30
 16
 3



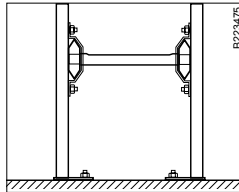
B223473

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



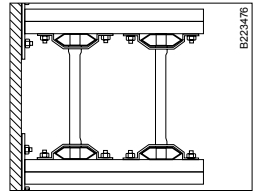
B223474

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.

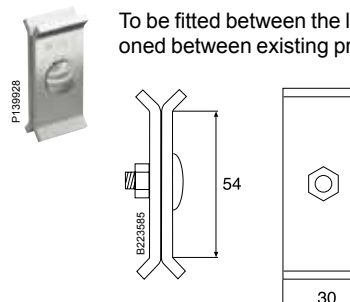


B223476

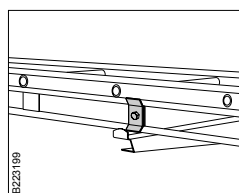
Mounting of cable ladders on wall pendants, such as in shafts. Use T-bolts against the opening of the fixing rail.

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.

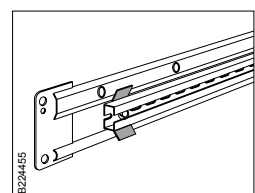


P139928
 B223585
 54
 30



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.

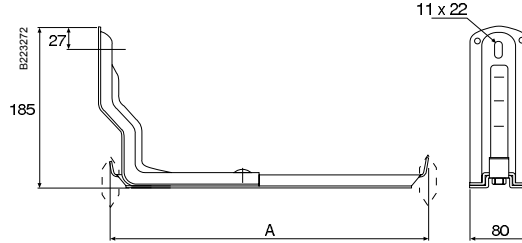


B224455

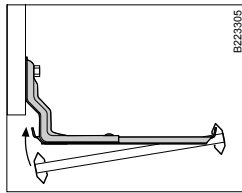
Profile support piece 46 can be installed as a fixing for different applications.

Cantilever arm 30

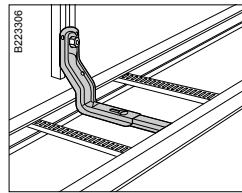
Cantilever arm for installation inside cable ladder KHZSP.



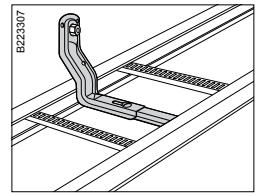
Cantilever arm type	A mm
30/200	184
30/300	284
30/400	384
30/500	484
30/600	584



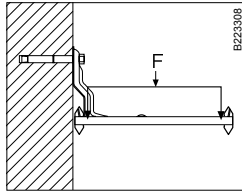
Installation of cable ladder KHZSP. Place the ladder on the outer tab and press it over the inner tab. When necessary, the ladder can be locked with a Profile clamp 43.



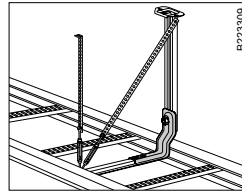
Installation on Vertical piece 2F. Cable ladder KHZSP can be adjusted max 40 mm.



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.



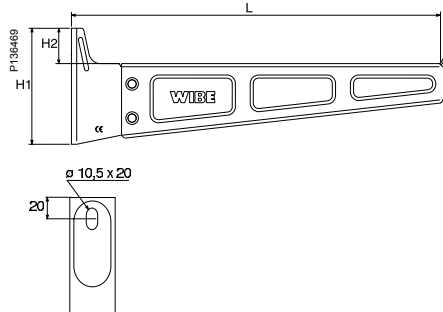
When you mount cable ladders that are 500-600 mm wide it might be necessary with a reinforcement of the outer edge of the cantilever arm. Installation band and stretching screw can be used for mounting in the ceiling or on a vertical piece.

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

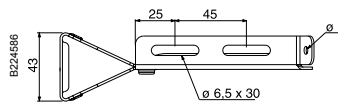
Cantilever arm 50i

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

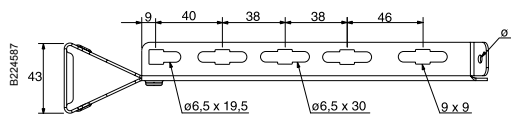


Cantilever arm type	Size		
	L mm	H1 mm	H2 mm
50i-200	250	85	28.5
50i-300	350	110	33.5
50i-400	450	115	31.0

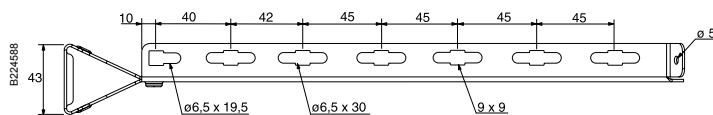
Widths = 100



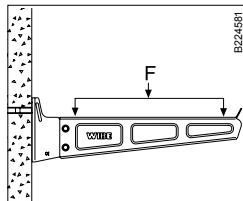
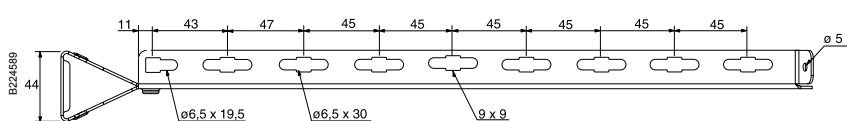
Widths = 200



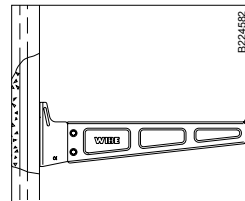
Widths = 300



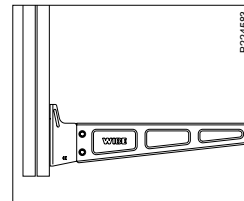
Widths = 400



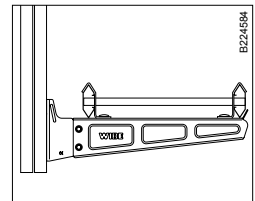
Installation of cantilever arm mounted to wall using Expansion bolt M8. Breaking load - See table below.



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.

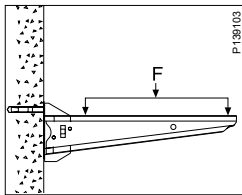
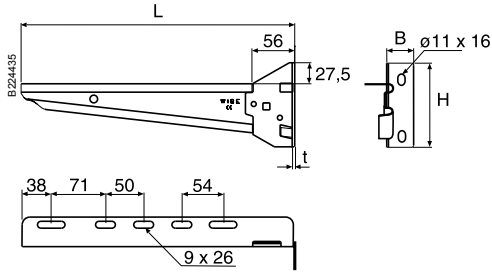


Cable ladder KHZSP mounted on Cantilever arm 50i, Profile clamp 42 is used.

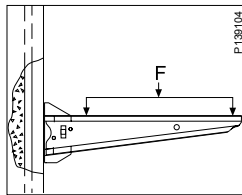
Breaking load F - Mounted on wall		
Type of cantilever arm	kN	kg
50i-100	2.30	230
50i-200	2.15	215
50i-300	2.20	220
50i-400	2.35	235

Cantilever arm 81

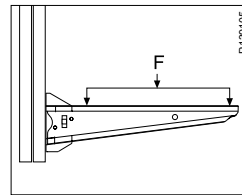
Cantilever arm to be used for lighter mountings on walls, vertical pieces or pendant/fixing rails. for widths 500-600 mm.



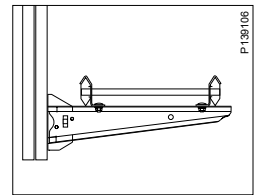
Installation of a cantilever arm to a wall using an Expansion bolt. Breaking load - see below.



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.

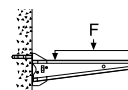
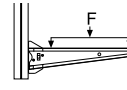


Installation of cantilever arm using T-bolt with vertical pieces. Breaking load - see below. Also check breaking load of the vertical piece.



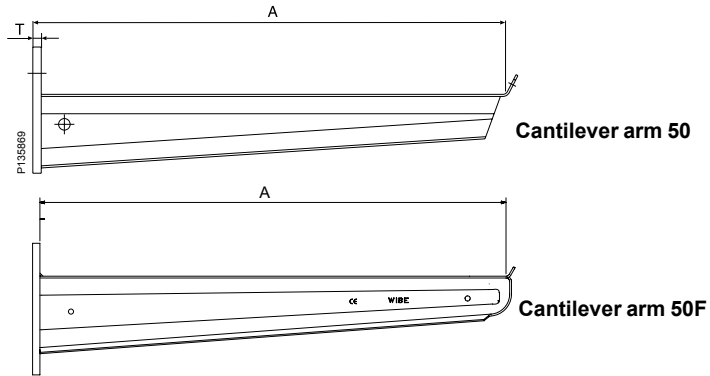
Cable ladder KHZSP mounted on Cantilever arm 81, Profile clamp 42 is used.

Size and Breaking load F

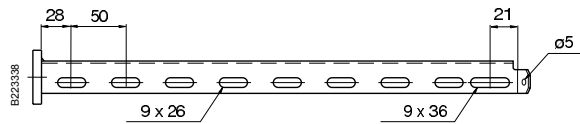
Type	Size							
	L mm	B mm	H mm	t mm	Mounted on wall kN	kg	Mounted on P/F rail 24/48 with T-bolt 26 kN	kg
Cantilever arm 81/500	568	40	150	3.0	1.9	190	1.9	190
Cantilever arm 81/600	658	40	150	3.0	1.9	190	1.9	190

Cantilever arm 50L, 50 and 50F

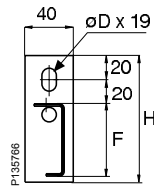
Cantilever arm for mounting on walls, pendant/fixing rails or vertical pieces.



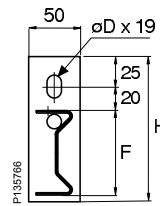
Cantilever arm 50L and 50



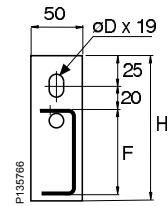
50L,50/100-300



50L,50/400-600



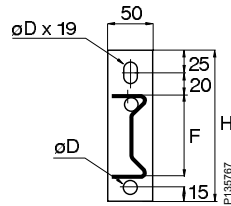
50/700-1000



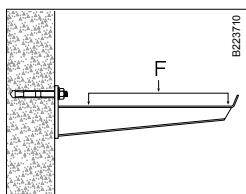
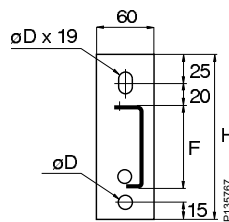
Cantilever arm 50F



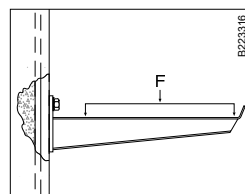
50F/200-600



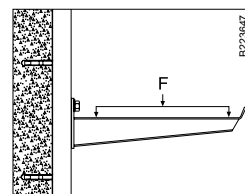
50F/1000



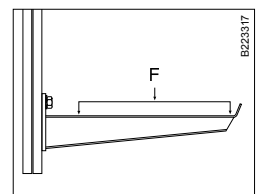
Installation of a cantilever arm to a wall using an Expansion bolt. Breaking load – see on next page.



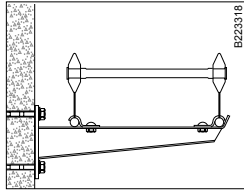
Installation of a cantilever arm using a T-bolt on a Fixing rail 24/26x53 rail for casting-in or Pendant/ Fixing rails mounted on the wall. Breaking load – see on next page.



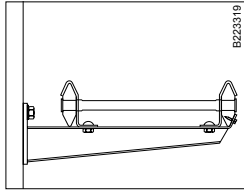
Mounting a cantilever arm using a T-bolt on a Pendant/Fixing rail mounted on a wall.



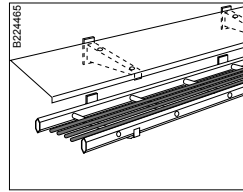
Installation of cantilever arm using T-bolt with vertical pieces. Breaking load – see on next page. Also check breaking load of the vertical piece.



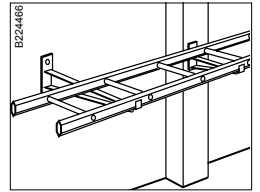
Profile clamp 43 is used for attaching a KHZV onto a Cantilever arm 50F.



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

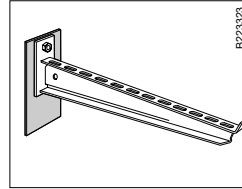
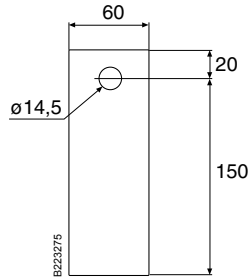
Type	A mm	D mm	F mm	H mm	T mm	Mounted on wall		Mounted on P/F rail 24/48 with T-bolt 26F	
						kN	kg	kN	kg
50L/100	150	12	34	85	4	1.5	150	1.5	150
50L/150	200	12	36	85	4	1.5	150	1.5	150
50L/200	250	12	39	85	4	1.5	150	1.5	150
50L/250	298	12	56	105	4	2.0	200	2.0	200
50L/300	348	12	60	105	4	2.0	200	2.0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

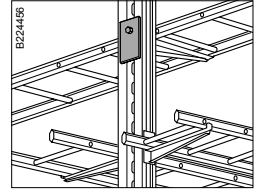
Back plate 40



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.

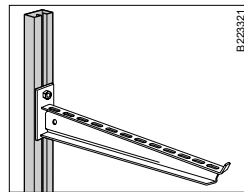
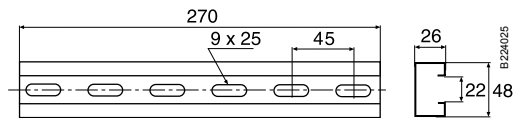


By using Back plate 40, a cantilever arm can be mounted on the side of Vertical piece 20F.

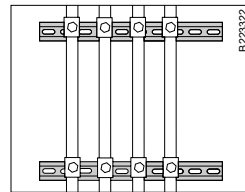
Mounting rail 40



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.

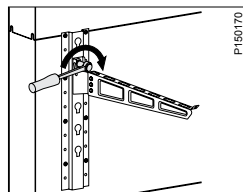
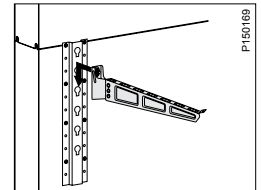
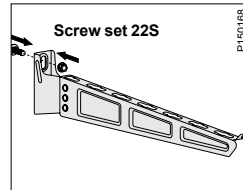
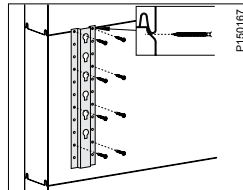


Cables may be mounted on walls using Mounting rail 40 and a suitable Cable clamp Type A.

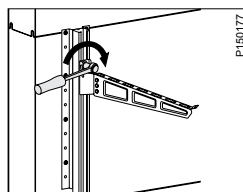
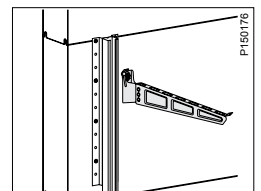
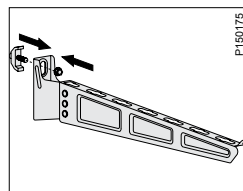
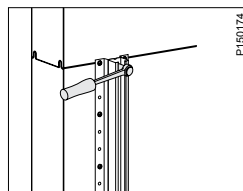
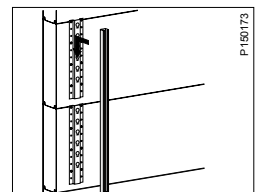
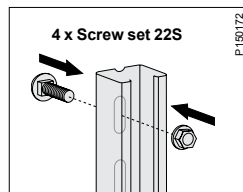
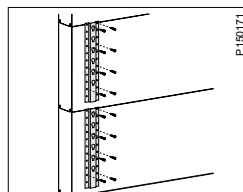
Wall support



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).

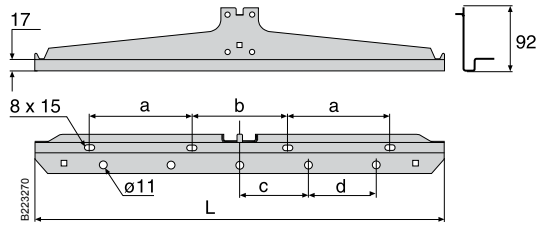


Two wall support plates can be combined with pendent rail 24/48 for extended mounting. for mounting of pendent rail use screw set 22S.



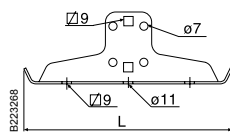
Support bracket 3

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

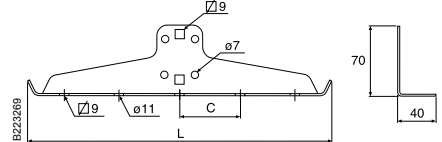


Stainless steel AISI 316L

3/150-200



3/300-600

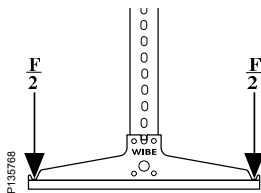


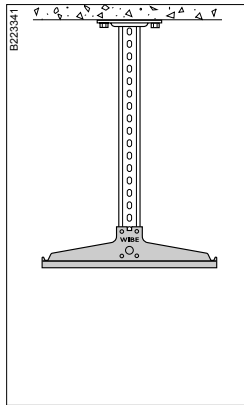
Size

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

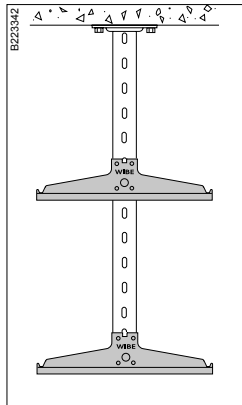
Breaking load for support bracket with symmetrical loading

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

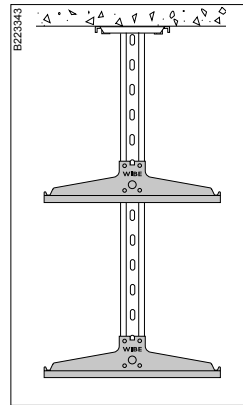




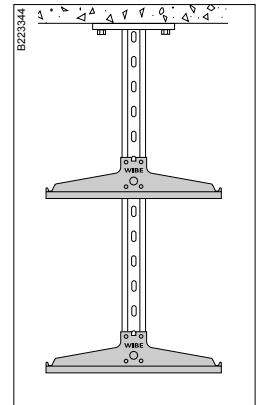
Mount Support bracket 3 on Vertical piece 2 with Screw set 22S.



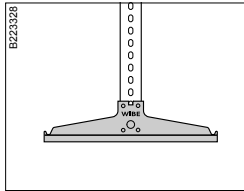
Mount Support bracket 3 on Vertical piece 2F with Screw set 22S.



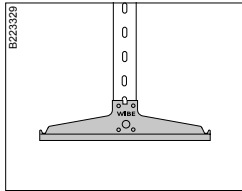
Mount Support bracket 3 on Vertical piece 20 with Screw set 20S.



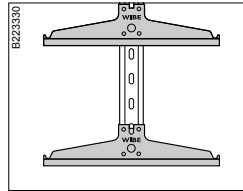
Mount Support bracket 3 on Vertical piece 20F with Screw set 2S.



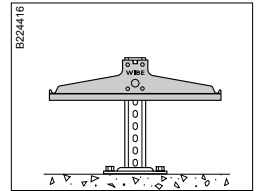
Mount Support bracket 3 on Pendant/Fixing rail 24/34 with Screw set 22S.



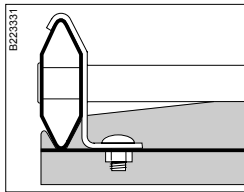
Mount Support bracket 3 on Pendant/Fixing rail 24/20 or 24/48 with Screw set 22S.



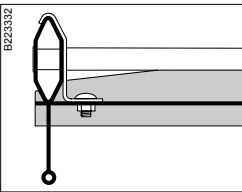
Support bracket 3 installed on Pendant/Fixing rail 24/20F with Screw set 2S.



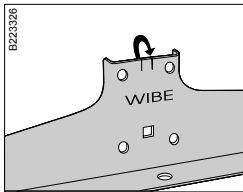
Support bracket 3 can be mounted on floor or under data floor with a suitable vertical piece.



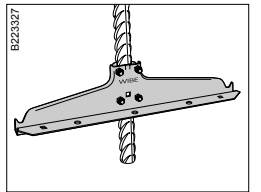
For installation of KHZSP, KHZ, KHZP and KHZPS on Support bracket 3 Profile clamp 42 is used.



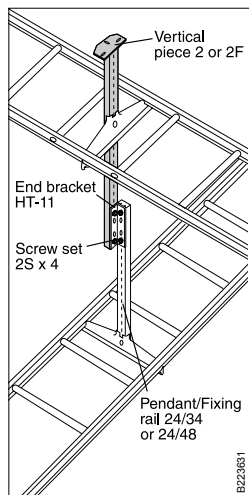
When attaching KHZV/KHZPV to Support bracket 3, use Profile clamp 42.



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



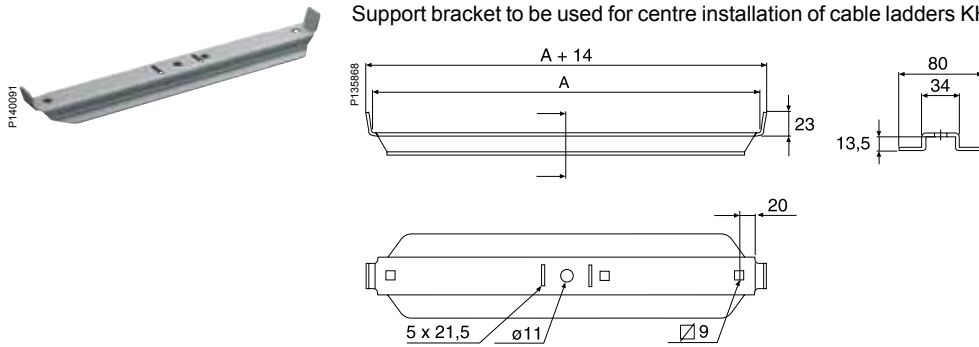
Support bracket 3 mounted on a rock bolt with Clamp set M6.



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.

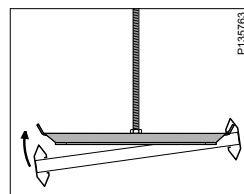


Size

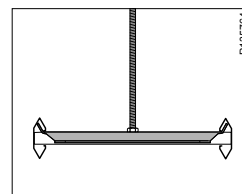
Type	A mm
Support bracket 6/200	170
Support bracket 6/300	270
Support bracket 6/400	370
Support bracket 6/500	470
Support bracket 6/600	570

Breaking load for Support bracket 6 – symmetrical loading

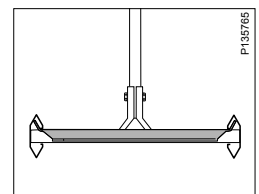
Support bracket	Breaking load with Threaded rod W76 M10		Breaking load with Pendant attachment W21	
	kN	kg	kN	kg
6/200	5.0	500	3.4	340
6/300	4.8	480	3.4	340
6/400	3.0	300	3.0	300
6/500	2.2	220	2.2	220
6/600	1.7	170	1.7	170



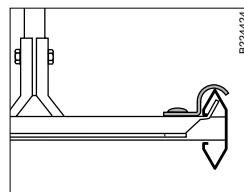
Support bracket 6 must be mounted inside cable ladder KHZSP.



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



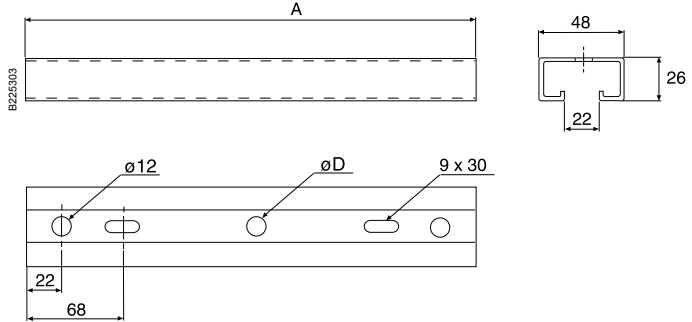
Support bracket 6 mounted with Pendant rail W32, Pendant attachment W21 and Screw set W37 from the Wibe Cable Tray range.



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.

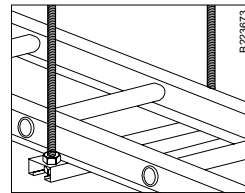
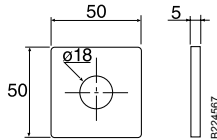


Size

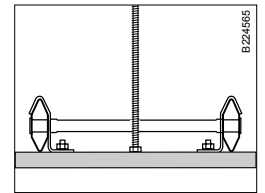
Type	A mm	D mm
Support bracket HSO/150 M10	210	12
Support bracket HSO/200 M10	260	12
Support bracket HSO/300 M10	360	12
Support bracket HSO/400 M16	460	18
Support bracket HSO/500 M16	560	18
Support bracket HSO/600 M16	660	18

Washer HSO M16

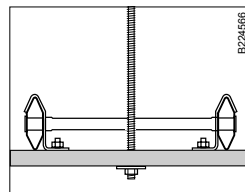
Washer to be used for centered mounting with Support bracket HSO M16 and Threaded rod M16.



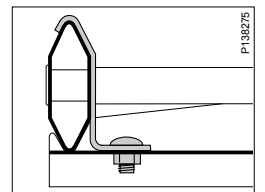
Support bracket HSO M10 installed with Threaded rod W76 M10.



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



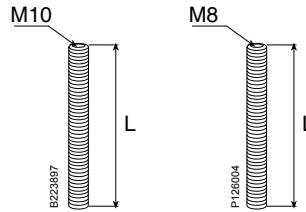
Centered installation with Support bracket HSO M16, widths 400-600, Threaded rod M16, 2 Nuts M16 and Washer HSO M16.



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.



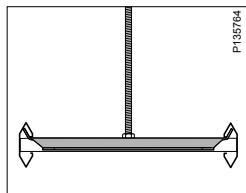
Flange nut B43 M8, M10

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

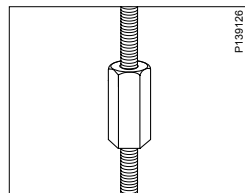


Thread lock B50 M8, M10

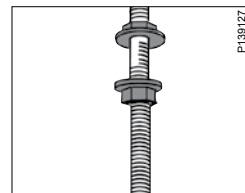
Used for joining of Threaded rod.



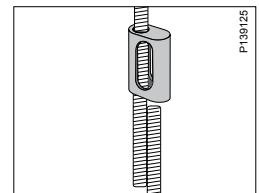
Support bracket 6 mounted with Threaded rod. Flange Nut B43 must be used.



Use Joint nut when joining 2 pieces of Threaded rod.



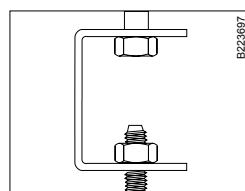
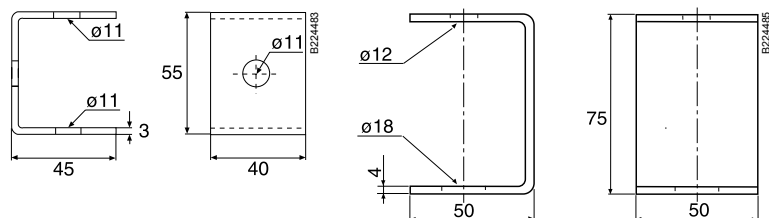
Flange nut B43 is mounted onto Threaded rod in order to lock support brackets and ceiling brackets.



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

Ceiling bracket TF-10 and TF-16

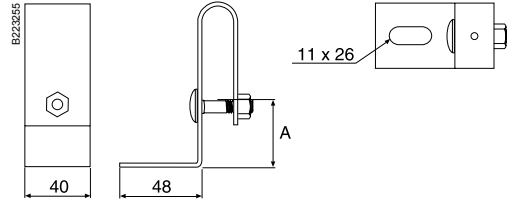
Ceiling bracket to be used for installation with Threaded rods.



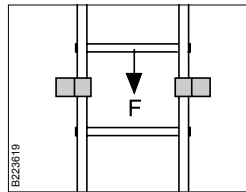
Ceiling bracket TF-10 or TF-16 installed with Threaded rod M10 or M16.

Wall bracket 11/25 and 11/75

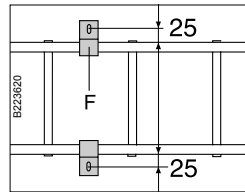
To be used for vertical or horizontal installations of cable ladders against a wall.



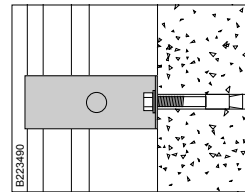
Type	A mm
Wall bracket 11/25	25
Wall bracket 11/75	75



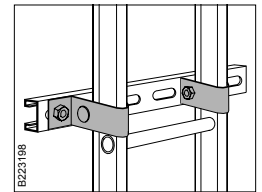
Vertical mounting
(max. load - F)
Wall bracket 11/25:
300 kg (3 kN)
Wall bracket 11/75:
300 kg (3 kN)
When mounting against a
rung the max load is 500
kg (5 kN) for wall bracket
11/25.



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



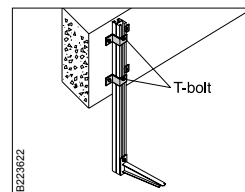
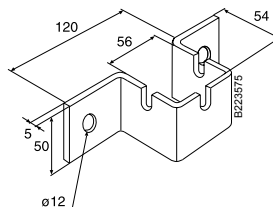
Mount wall brackets
against walls using
Expansion bolts.



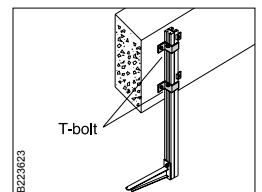
Pendant/fixing rails can
be mounted on cable
ladders using wall
brackets for mounting
equipment cubicles etc.
Mount wall brackets on
Pendant/fixing rails using
Screw set 22S.

Wall bracket 20

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



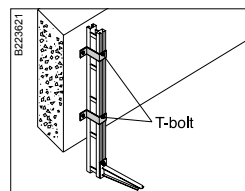
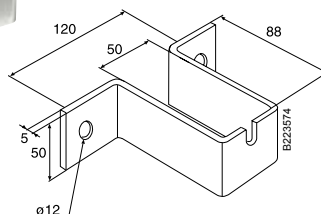
For cable ladder install-
ations along a beam.
Pendant/Fixing rail 24/20
must be mounted with 2
Wall brackets 20 and 2
T-bolts 26F-30 placed in
the centre outlet. This
installation is also used for
fixing to wall. Max vertical
load 700 kg (7 kN).



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

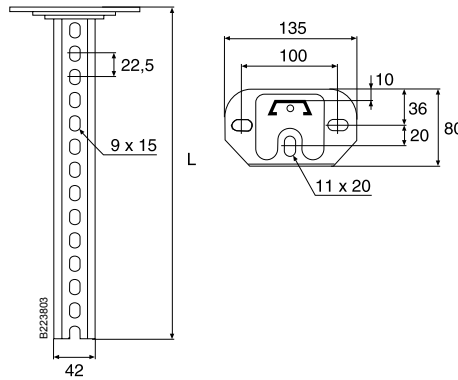
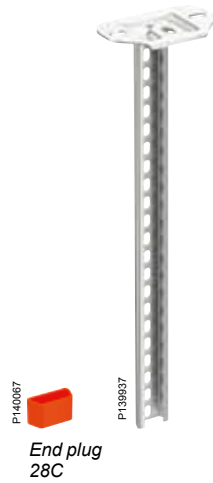
To be used at installation of Pendant/Fixing rail 20F to ceiling beam or wall.



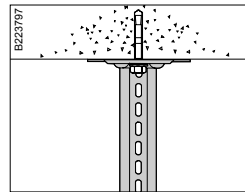
Pendant/Fixing rail
24/20F must be mounted
with 2 Wall brackets 20F
and 2 T-bolts 26F-30 for
cable ladders along
beams. This installation is
also used for fixing to
wall. Max. vertical load
700 kg (7 kN).

Vertical piece 2

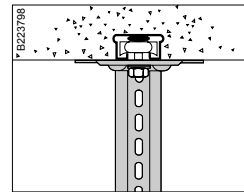
Vertical piece to be used for installation of Support bracket 3, symmetrical loading. Not suitable for cable ladders KHZV and KHZPV. Can be joined to Pendant/fixing rail 24/34 with Pendant joint 2J.



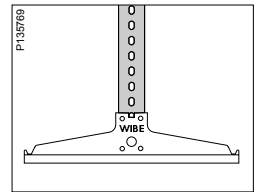
Type	L mm
Vertical piece 2/300	279
Vertical piece 2/400	392
Vertical piece 2/500	504
Vertical piece 2/700	729
Vertical piece 2/1000	1022



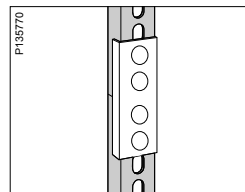
Mount Vertical piece 2 using an Expansion bolt or a concrete screw.



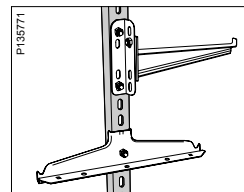
Mount Vertical piece 2 on a Fixing rail 24/26x53 for casting-in using T-bolt 26F.



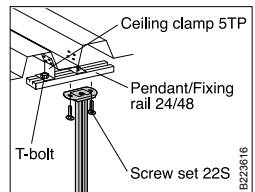
On Vertical piece 2, mount Support bracket 3 using Screw set 22S.



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

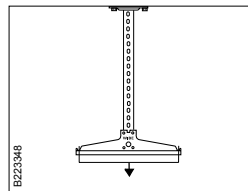


Cantilever arm 50 can, using End bracket HT-11, be mounted at 90° to the pendant/fixing rail. Only for lightweight mounting, such as data cables.

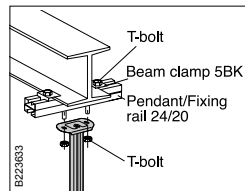


In ceilings with trapezoidal profile sheeting, mount Vertical piece 2 as shown above.

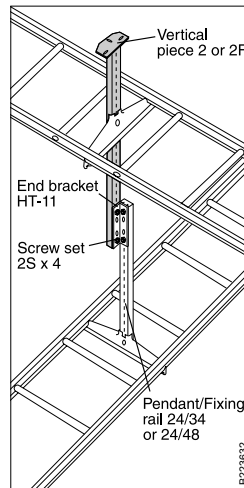
Breaking load



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



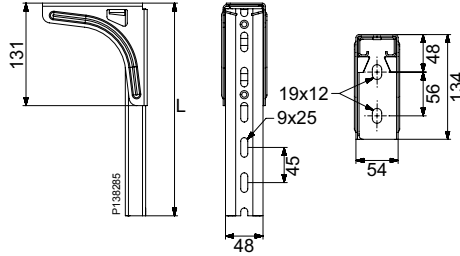
On beams in ceilings. When the beam flange thickness does not exceed 13 mm, use Beam clamp 5BK-10 and T-bolt 26F/40. For flange thicknesses not exceeding 30 mm use Beam clamp 5BK-30 and T-bolt 26F/50.



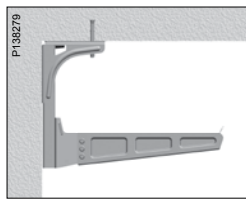
End bracket HT-11 permits the mounting of crossing cable ladders at different levels on the same pendant/fixing rail.

Vertical piece 2Fi

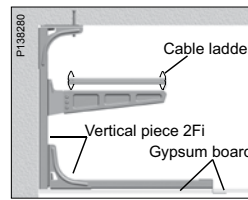
Vertical piece to be used for lighter mountings with Cantilever arm 50i and Cable ladder KHZSP.



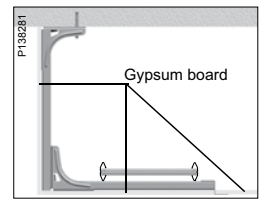
Type	L mm
Vertical piece 2Fi-300	272
Vertical piece 2Fi-500	497
Vertical piece 2Fi-750	722
Vertical piece 2Fi-1000	992



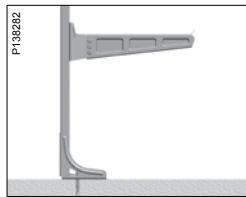
Vertical piece 2Fi can be mounted in ceiling close to wall.



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

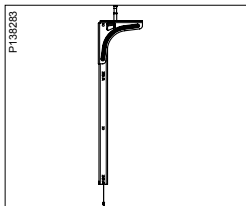


Vertical piece 2Fi can be used as carrier of gypsum boards in order to build in cable ladder passages.

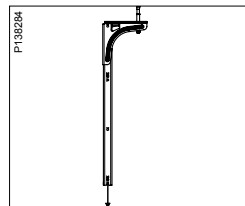


Vertical piece 2Fi is suitable for floor mounting.

Breaking load



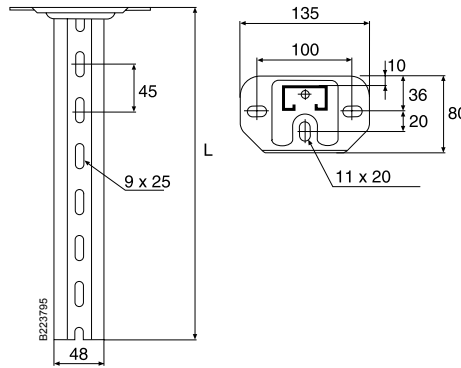
Vertical piece 2Fi mounted in the inner hole. Breaking load=500 kg (5 kN) at symmetrical loading.



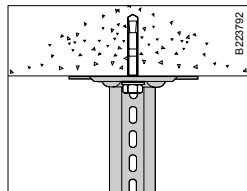
Vertical piece 2Fi mounted in the outer hole. Breaking load=100 kg (1 kN) at symmetrical loading.

Vertical piece 2F

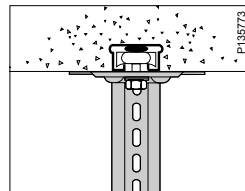
Vertical piece to be used for installation of Support bracket 3 or Cantilever arm 50. Can be joined to Pendant/fixing rail 24/48 with Pendant joint 2FJ. Can be mounted from the ceiling or on the floor. Can also be installed as a cantilever arm on a wall.



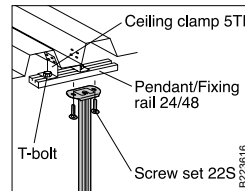
Type	L mm
Vertical piece 2F/280	280
Vertical piece 2F/370	370
Vertical piece 2F/505	505
Vertical piece 2F/640	640
Vertical piece 2F/730	730
Vertical piece 2F/865	865
Vertical piece 2F/1000	1000
Vertical piece 2F/1500	1495



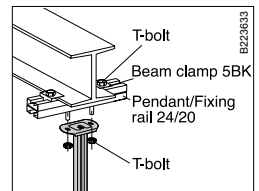
Mount Vertical piece 2F using Expansion bolt alt. Concrete screw.



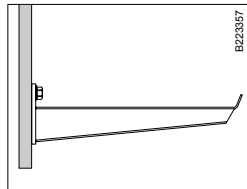
On Fixing rail forcasting-in, mount Vertical piece 2F using T-bolt.



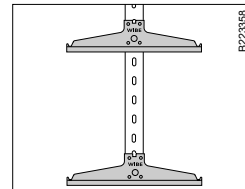
In ceilings with trapezoidal sheeting, mount Vertical piece 2F as shown above.



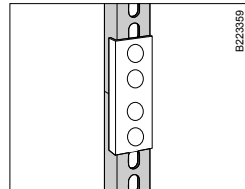
On beams in ceilings, mount Vertical piece 2F as shown in the figure above. When the beam flange thickness does not exceed 13 mm, use Beam clamp 5BK-10 and T-bolt 26F/40. For flange thicknesses not exceeding 30 mm use Beam clamp 5BK-30 and T-bolt 26F/50.



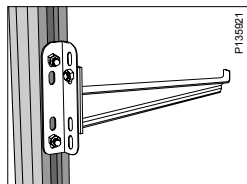
On Vertical piece 2F, mount Cantilever arm 50 using T-bolt.



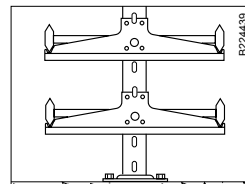
On Vertical piece 2F, mount Support bracket 3 using Screw set 22S.



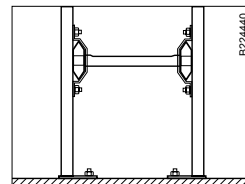
Vertical piece 2F can be joined to achieve the required length using Pendant/fixing rail 24/48 and Pendant joint 2FJ.



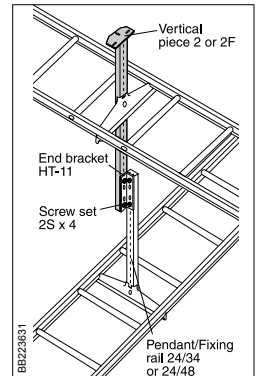
Cantilever arm 50 can, using End bracket HT-11, be mounted at 90° to the pendant/fixing rail. Only for lightweight installation of data cable type and suchlike.



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

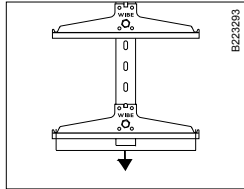


For installation on floor the cable ladders can be mounted with Vertical piece 2F, Profile clamp 41 and T-bolt.



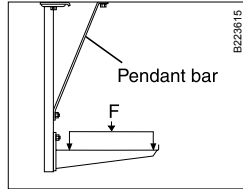
End bracket HT-11 permits mounting of crossing cable ladders on different levels on the same pendant/fixing rail.

Breaking load symmetrical loading*



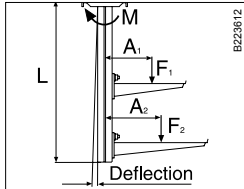
Breaking load for Vertical piece 2F (VP) = 2300 kg (23 kN) at symmetrical loading.

VP + Pendant bar for reduction of deflection

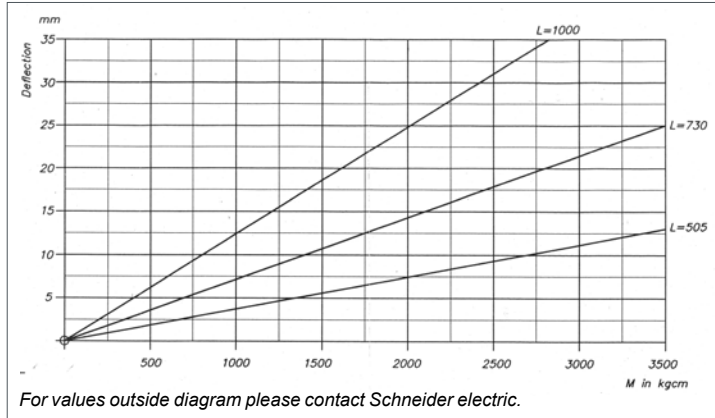


Deflection of Vertical piece 2F is reduced by installing Pendant bar 1 or Pendant/Fixing rail and Bracket 60/40. Loadings in accordance with chart below.

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?

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

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

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

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

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

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

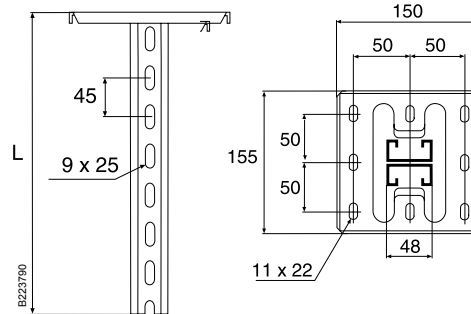
Vertical piece 2F with Pendant bar 1/300

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

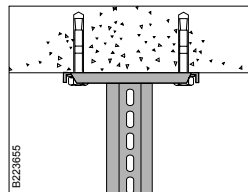
*Safe working load according to IEC 61537 is breaking load divided by 1,7.

Vertical piece 20

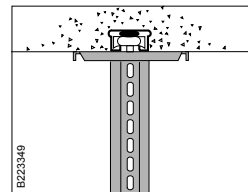
Vertical piece, two-sided, to be used for vertical installation together with Cantilever arm 50, from a ceiling or on a floor. Can also be installed as a cantilever arm on a wall.



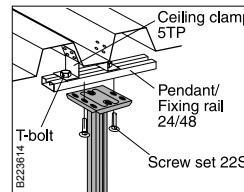
Type	L mm
Vertical piece 20/280	280
Vertical piece 20/370	370
Vertical piece 20/500	505
Vertical piece 20/640	640
Vertical piece 20/700	730
Vertical piece 20/865	865
Vertical piece 20/1000	1000
Vertical piece 20/1500	1495
Vertical piece 20/2000	1990
Vertical piece 20/3000	2980



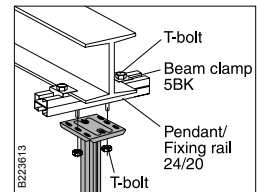
Mount Vertical piece 20 using Expansion bolt.



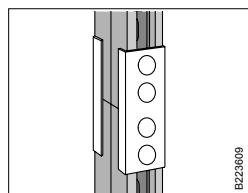
On fixing rail for casting-in, mount Vertical piece 20 using T-bolts.



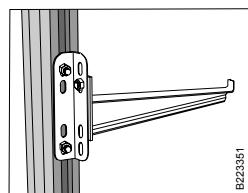
In ceilings with trapezoidal profile sheeting, mount Vertical piece 20 as shown above



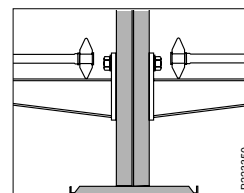
On beams in ceilings, mount Vertical piece 20 as shown in the figure above. When the beam flange thickness does not exceed 13 mm, use Beam clamp 5BK-10 and T-bolt 26F/40. For flange thicknesses not exceeding 30 mm use Beam clamp 5BK-30 and T-bolt 26F/50.



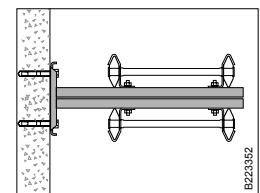
Vertical piece 20 can be joined to achieve the required length using Pendant/fixing rail 24/20 and Pendant joint 20J.



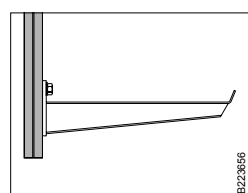
Using End bracket HT-11, Cantilever arm 50 can be mounted at 90° to the pendant/fixing rail. Only for lightweight mounting of data cable type and suchlike



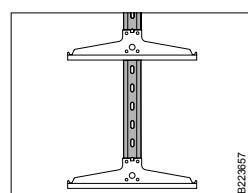
Vertical piece 20 is also suitable for floor mounting



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.

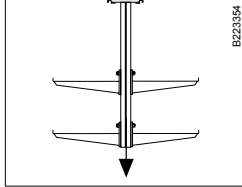


On vertical piece, mount Cantilever arm 50 using T-bolt. For loadings see Cantilever arm 50



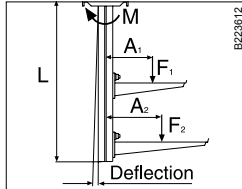
On Vertical piece 20, mount Support bracket 3 using Screw set 20S.

Breaking load symmetrical loading*

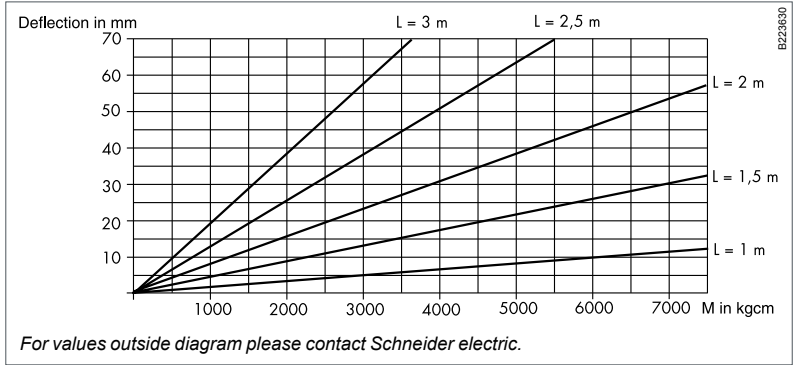


Breaking load for vertical piece (VP) = 3000 kg (30 kN).

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?

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

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

(F₁) (A₁) (F₂) (A₂)

M = 3924 kgcm - bendingas 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)
 $A = \frac{\text{Ladder width} + 7.7}{2}$
 L = VP length
 Break load torque 19 000 (kgcm)

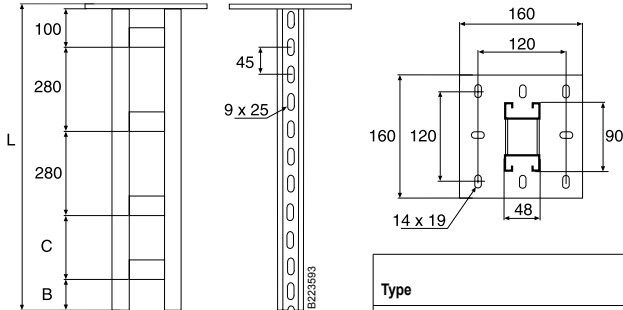
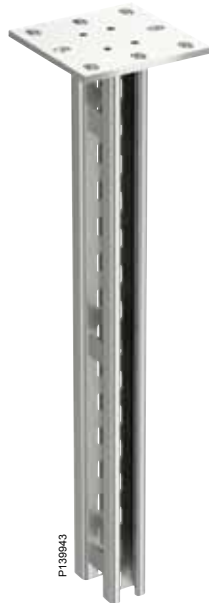
Loading table for Vertical piece 20 installed as a cantilever arm

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	—

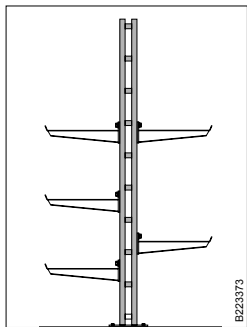
*Safe working load according to IEC 61537 is breaking load divided by 1,7.

Vertical piece 20F

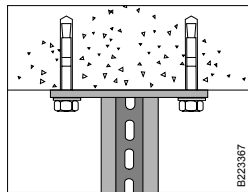
Vertical piece, two-sided, to be used for mounting from the ceiling or on the floor. Suitable for rather heavy loads.



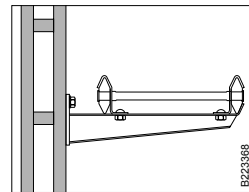
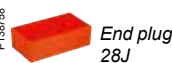
Type	B mm	C mm	L mm
Vertical piece 20F/1000	50	280	995
Vertical piece 20F/1500	70	195	1490
Vertical piece 20F/2000	5	195	1985
Vertical piece 20F/3000	70	280	2980



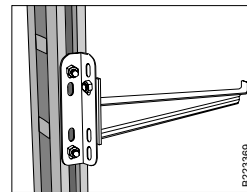
Floor mounting example.



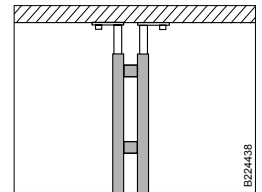
Mount Vertical piece 20F using Expansion bolt alt. Concrete screw.



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

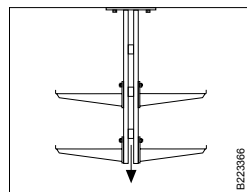


Using End bracket HT-11, Cantilever arm 50 can be mounted at 90° to the vertical piece. Only for lightweight mounting of data cable type or similar.



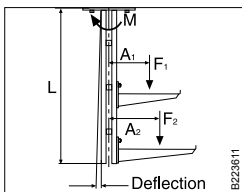
Vertical piece 20F mounted on floor can be fixed using Vertical piece 2 as ceiling bracket, adjustable in the pendant.

Breaking load Symmetrical loading*

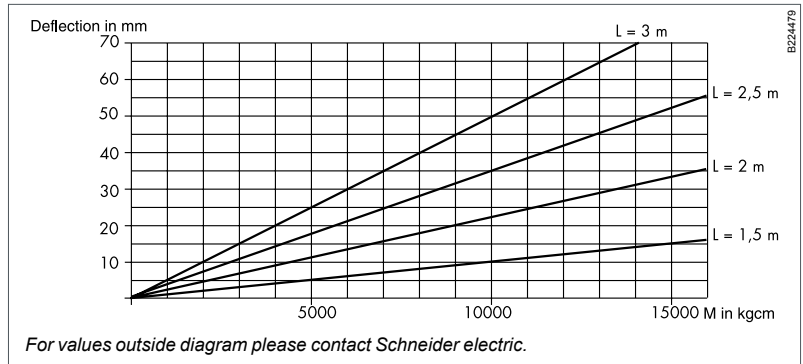


Breaking load for Vertical piece (VP) 20F = 5000 kg (50kN)

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?

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

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

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

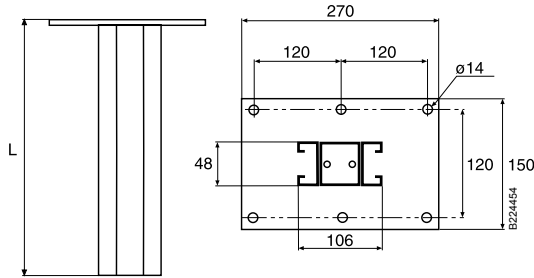
M = 6880 kgcm - bending as per diagram, about 6 mm.

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)

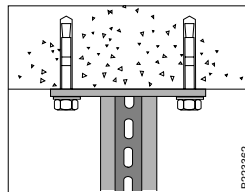
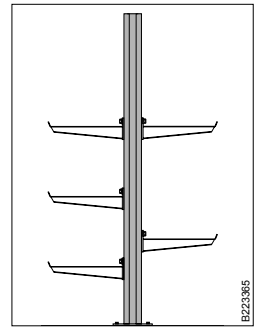
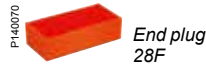
*Safe working load according to IEC 61537 is breaking load divided by 1,7.

Vertical piece 20FS

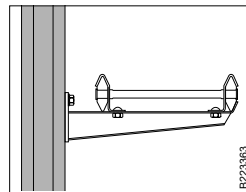
Vertical piece, two-sided, to be used for mounting from the ceiling or on the floor. Suitable for very heavy loads.



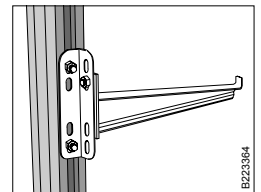
Type	L mm
VP 20FS/1500	1495
VP 20FS/2000	1990
VP 20FS/2500	2485
VP 20FS/3000	2980



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

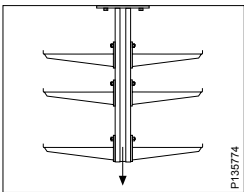


Mount Cantilever arm 50 using T-bolt. For loads on Cantilever arm 50, see Cantilever arm 50L, 50 and 50F.



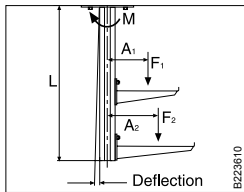
Using End bracket HT-11, Cantilever arm 50 can be mounted at 90° to the vertical piece. Only for lightweight mounting of data cable type or similar.

Breaking load Symmetrical loading

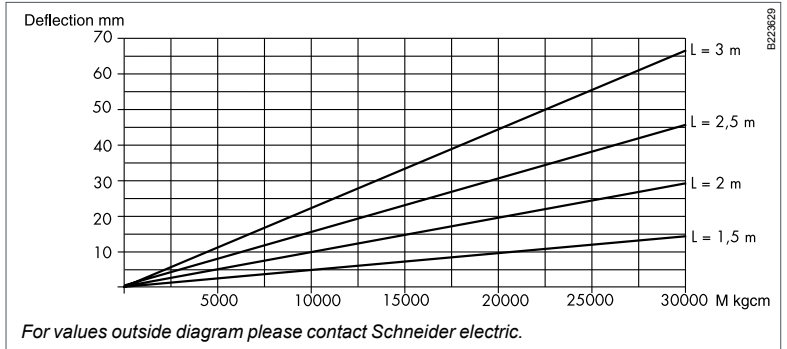


Symmetrical loading
Breaking load for Vertical piece (VP) 20FS = 5000 kg (50 kN)

Breaking load asymmetrical loading



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



Example

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

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

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

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

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

Bending torque M is total sum of F x A (kgcm).

F = Cantilever arm loading (kg)

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

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

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

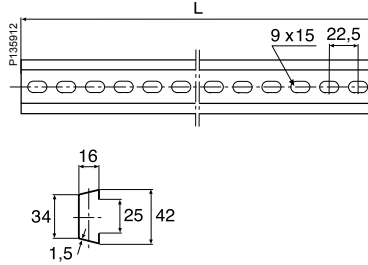
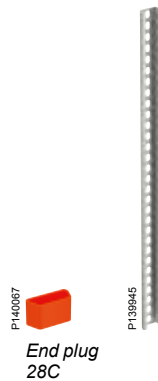
L = VP length

Break load torque 60 000 (kgcm)

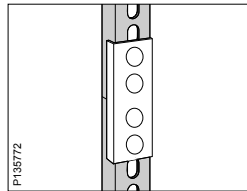
*Safe working load according to IEC 61537 is breaking load divided by 1,7.

Pendant/Fixing rail 24/34

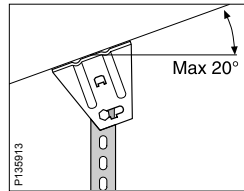
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc.



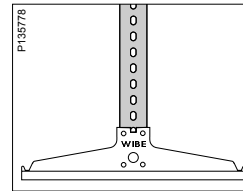
Type	L mm
Pendant/Fixing rail 24/34	292.5
Pendant/Fixing rail 24/34	382.5
Pendant/Fixing rail 24/34	495.0
Pendant/Fixing rail 24/34	697.5
Pendant/Fixing rail 24/34	990.0
Pendant/Fixing rail 24/34	2970.0



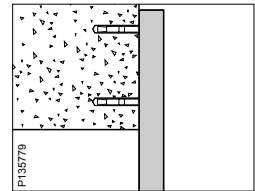
Vertical piece 2 may be joined to Pendant/Fixing rail 24/34 and Pendant joint 2J to achieve a suitable length.



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



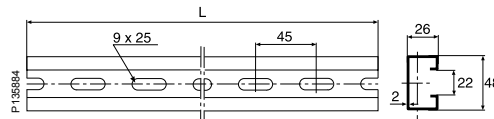
Mount Support bracket 3 using Screw set 22S.



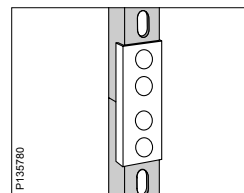
Side mounting of pendant/fixing rails may be done using 2 Expansion bolts alt. 2 Concrete screws.

Pendant/Fixing rail 24/48

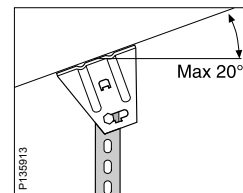
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc.



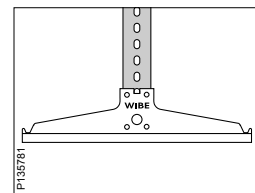
Type	L mm
Pendant/Fix. rail 24/48	2970
Pendant/Fix. rail 24/48	5940



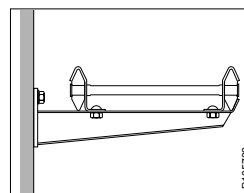
Vertical piece 2F may be joined using Pendant/Fixing rail 24/48 and Pendant joint 2FJ to achieve the required length.



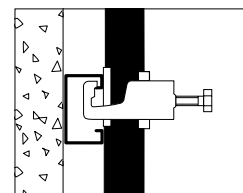
Ceiling bracket 5 and 1 Screw set 22S together provide a vertical piece that can be mounted with up to 20° slope. Only for mounting support brackets.



Mount Support bracket 3 using Screw set 22S.



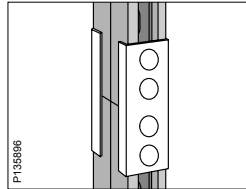
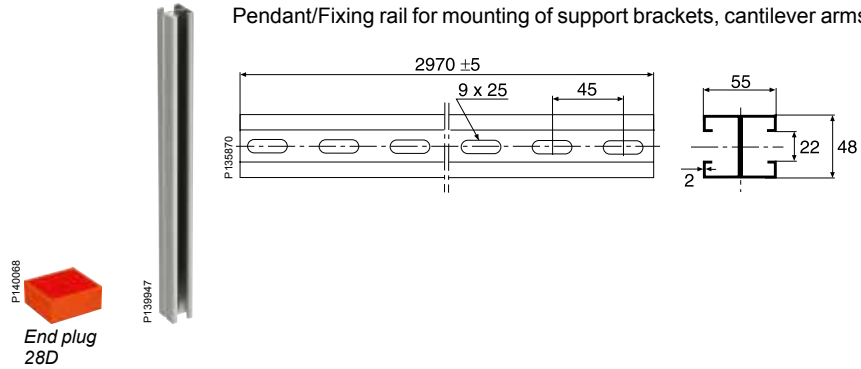
Mount Cantilever arm 50 using T-bolt.



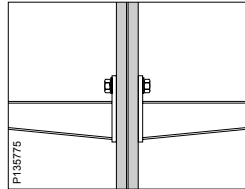
Cables are mounted on a Pendant/Fixing rail 24/48 using cable clamps of type A.

Pendant/Fixing rail 24/20

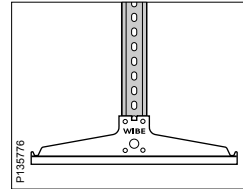
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc.



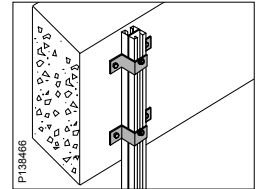
Vertical piece 20 may be joined using Pendant/Fixing rail 24/20 and Pendant joint 20J. Only for symmetrical loading.



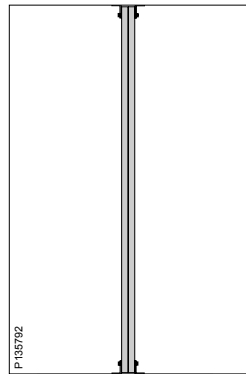
Mount Cantilever arm 50 using T-bolts.



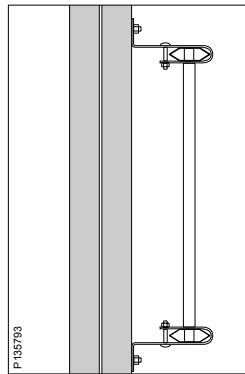
Mount Support bracket 3 using Screw set 20S.



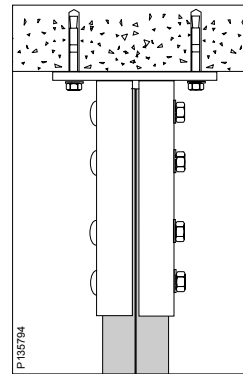
Pendant/Fixing rail can be mounted on beam or wall with Wall bracket 20.



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.



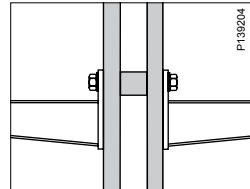
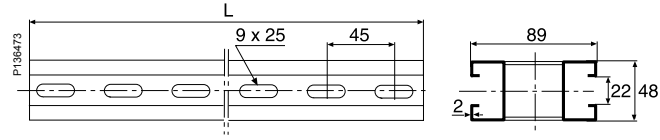
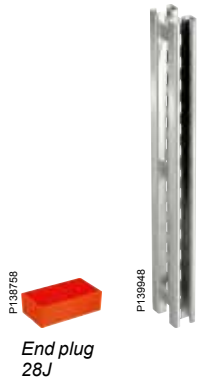
Cable ladder may be mounted vertically or horizontally on Pendant/Fixing rail 24/20 using Wall bracket 11/25 or 11/75 and T-bolt.



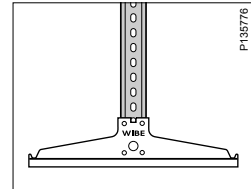
Pendant base plate 520 can be mounted as a ceiling or floor attachment.

Pendant/Fixing rail 24/20F

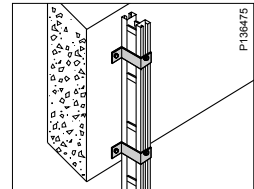
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc.



Mount Cantilever arm 50 using T-bolts.

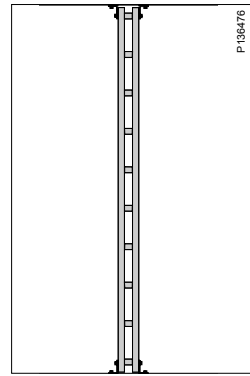


Mount Support bracket 3 using Screw set 2S.

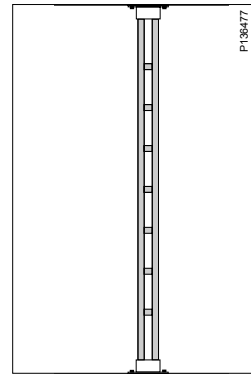


Pendant/Fixing rail 24/20F can be mounted on beam or wall with Wall bracket 20F

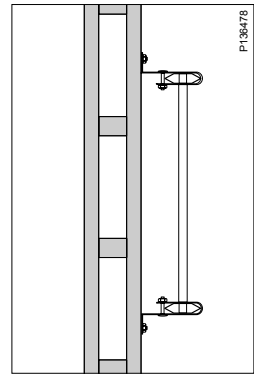
Type	L mm
Pendant/Fixing rail 24/20F-3000	2970
Pendant/Fixing rail 24/20F-6000	5940



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.



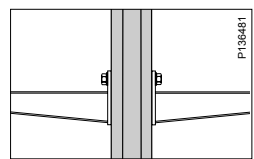
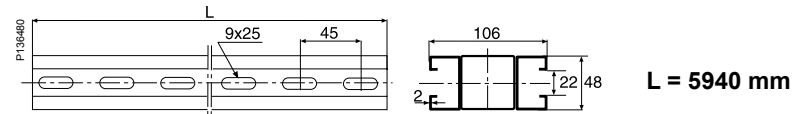
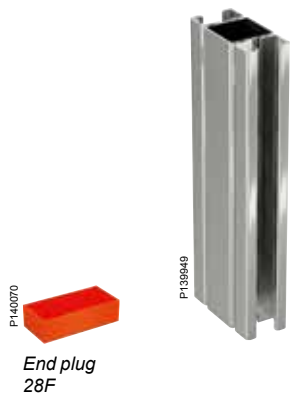
Mount Pendant/Fixing rail 24/20F between a floor and ceiling using 2 Rail fixing supports.



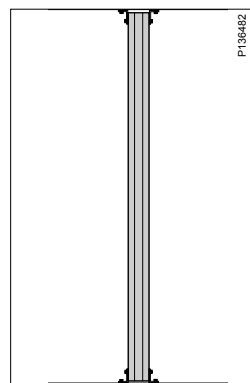
Cable ladder can be mounted vertically or horizontally on Pendant/Fixing rail 24/20F using Wall bracket 11/25 or 11/75.

Pendant/Fixing rail 24/20FS

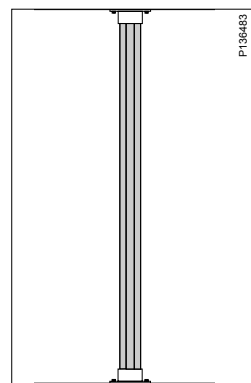
Pendant/Fixing rail for mounting of support brackets, cantilever arms, etc.



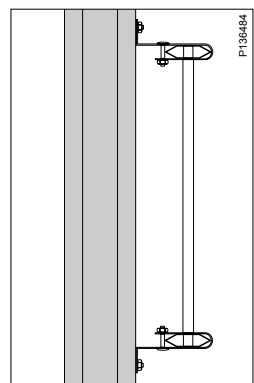
Mount Cantilever arm 50 using T-bolts.



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.



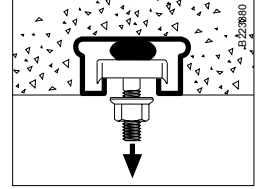
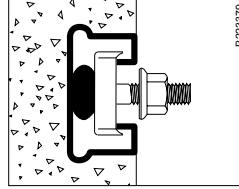
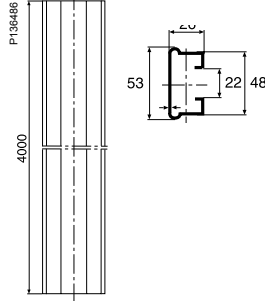
Mount Pendant/Fixing rail 24/20FS between floor and ceiling using 2 Rail fixing supports.



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.

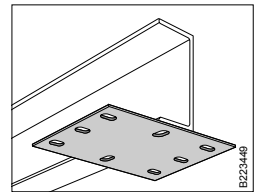
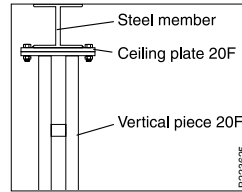
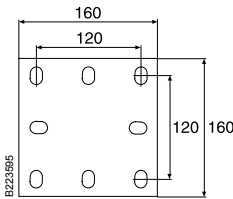


Fixing rail 24/26 x 53 for casting-in in walls and ceilings. Mount cantilever arms with T-bolt 26F.

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.

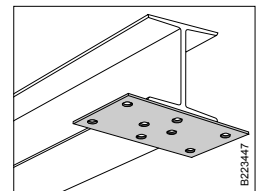
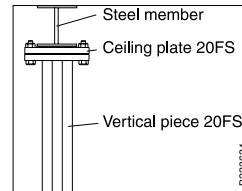
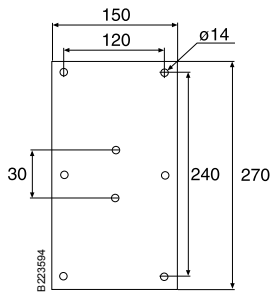


The ceiling plate is welded to the steel member. Permission to weld on the steel member is required. Remove all zinc at the weld. Post-treat using Galvafruid.

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.



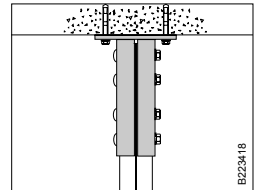
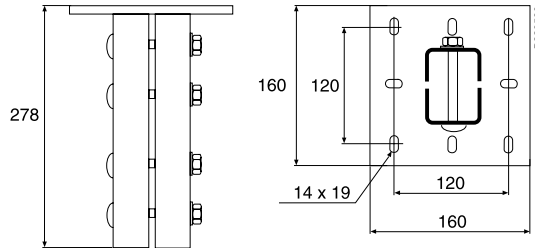
The ceiling plate is welded to the steel member. Permission to weld on the steel member is required. Remove all zinc at the weld. Post-treat using Galvafruid.

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.

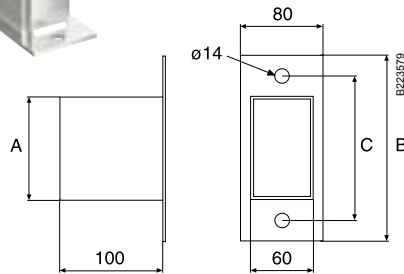


Vertical pieces of the required length can be mounted using Pendant base plate 520 and Pendant/Fixing rail 24/20.

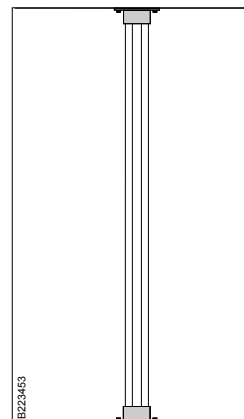


Rail fixing support 24/20F, 24/20FS

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



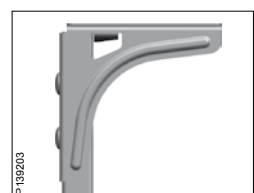
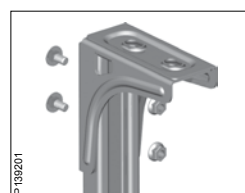
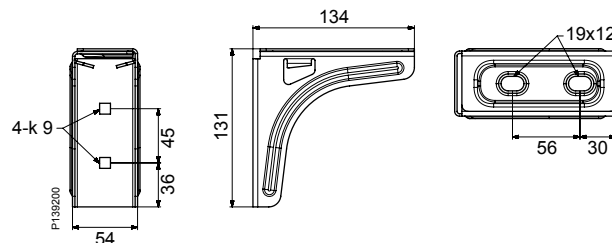
Type	A mm	B mm	C mm
Rail fix. support 24/20F	100	165	135
Rail fix. support 24/20FS	120	185	155



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

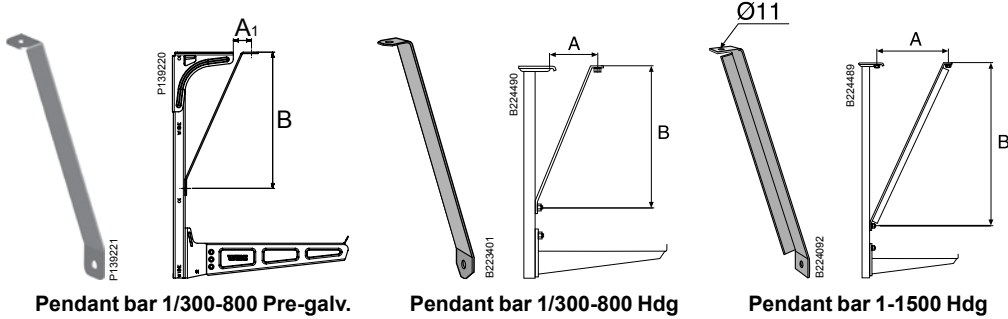
Ceiling bracket to be used on Pendant/fixing rail 24/48 to achieve the desired length of vertical pieces.



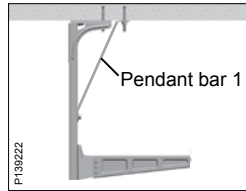
Ceiling bracket 2Fi and Pendant/Fixing rail 24/48, mounted together with 2 Screw sets 22S, are used when other lengths are required than those available for Vertical piece 2Fi.

Pendant bar 1

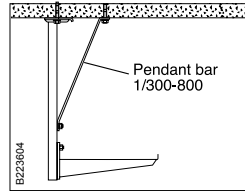
Pendant bar to be installed in order to reduce the deflection of heavily loaded vertical pieces. Installed with T-bolt and Expansion bolt.



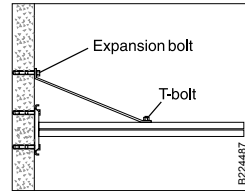
Type	A mm ¹	A mm	B mm
1/300	40	80	300
1/500	40	130	500
1/800	125	215	800
1/1500	Varies	Varies	Varies



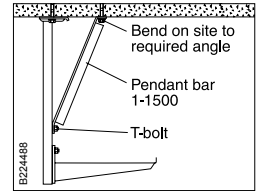
To reduce deflection of Vertical piece 2Fi at heavy loads on Cantilever arm 50i the Pendant bar 1 can be used. Install with T-bolt and Expansion bolt.



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.



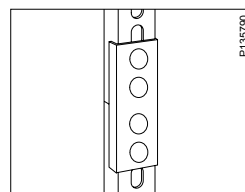
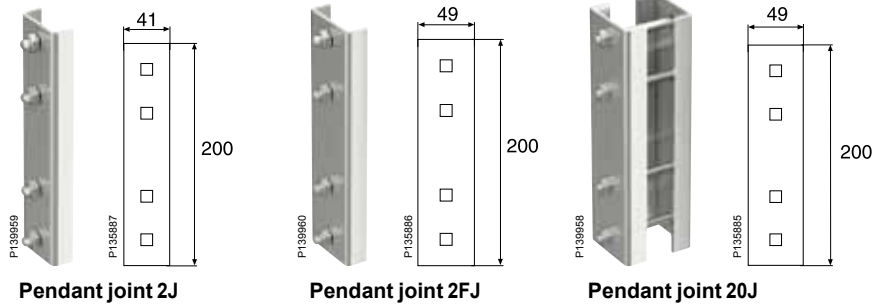
To be mounted to strengthen Vertical piece 20 when mounted horizontally. Use T-bolt and Expansion bolt.



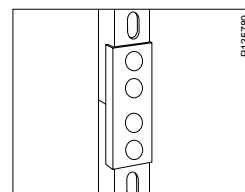
Mount this stay to reduce deflection of long Vertical pieces 2F, 20 and 20F.

Pendant joint 2J, 2FJ and 20J

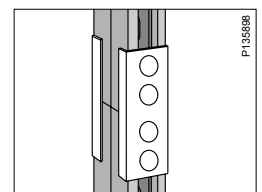
Pendant joint to be used for joining pendant/fixing rails and vertical pieces.



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.

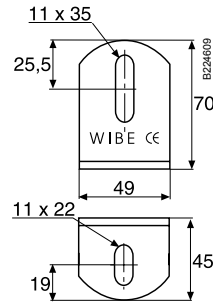
Angle bracket 5L and 5LS



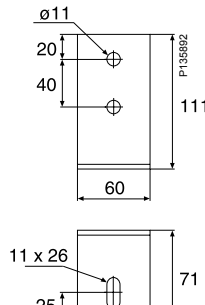
Angle bracket 5L



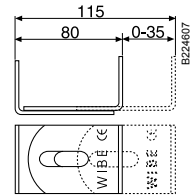
Angle bracket 5LS



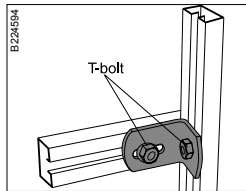
Angle bracket 5L



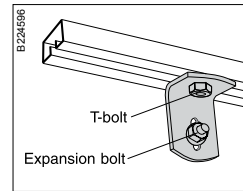
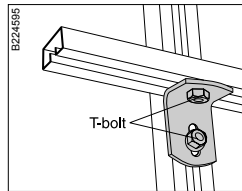
Angle bracket 5LS



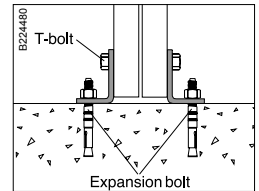
Adjustability 5L



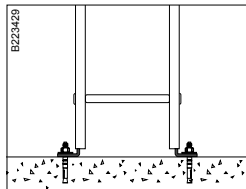
Installation examples for installation of pendant/fixing rails to different frameworks for installation of control panels, electric distribution boards, etc. Angle bracket 5L is used.



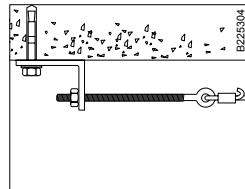
Mounting of a pendant/fixing rail on a wall. Use Angle bracket 5L or 5LS.



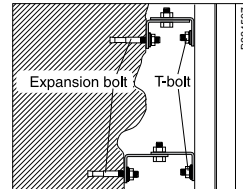
Mounting of a pendant/fixing rail against floor with Angle bracket 5L or 5LS.



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



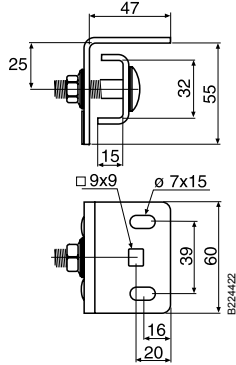
Angle bracket 5L is installed in ceiling with Expansion bolt or concrete screw. Max. permitted loading 600 kg (6 kN).



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.



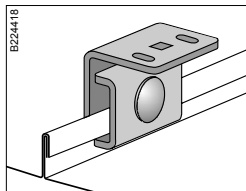
Breaking load*

	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

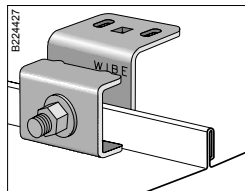
* Loading values and fixing of roof sheet - follow the supplier's recommendations

Test have been made of:

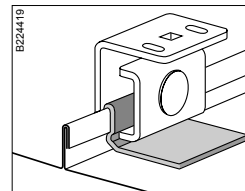
Bandsheet Prelac BLX t=0.6 SSAB tunnplåt Copper sheeting annealed SS 5015-80 t=0.6 Tightening torque at test=60Nm



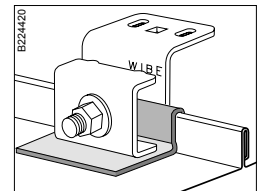
Combi bracket 53 mounted on seamed roofing sheet.



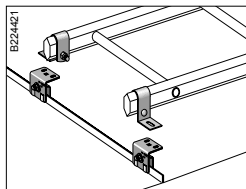
Alternative mounting of Combi bracket 53.



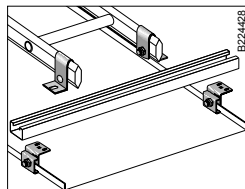
In order to avoid contact between Combi bracket 53 and copper sheeting, Insulating plate 54 must be used.



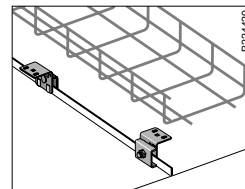
Alternative mounting of Combi bracket 53 and Insulating plate 54.



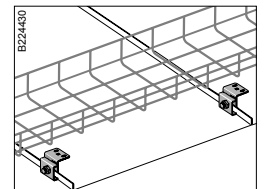
Cable ladder mounted across the seams of the roofing sheets with Combi bracket 53, Wall bracket 11/25 and Screw set 22S.



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.



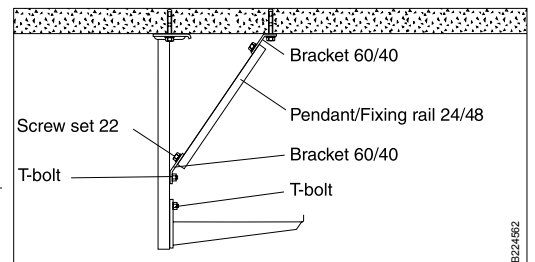
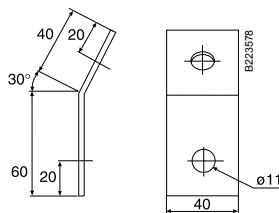
Mesh tray mounted along the seams of the roofing sheets with Combi bracket 53 and accessories from the Mesh tray programme.



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

Bracket 60/40

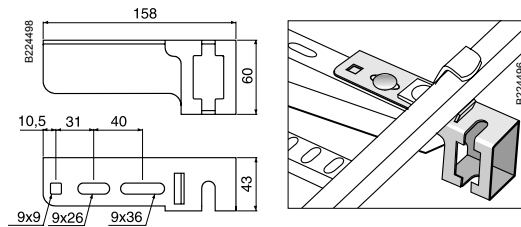
Bracket to be used together with Pendant/fixing rail 24/48 to reduce the deflection of long vertical pieces.



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

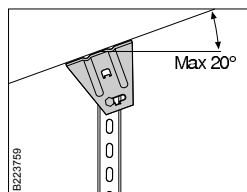
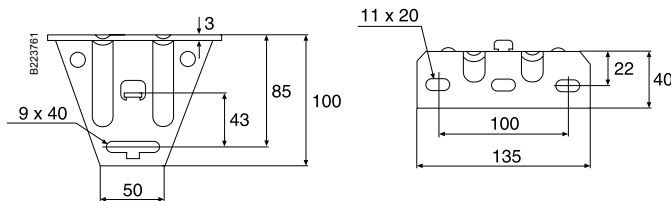
Rod bracket to be used together with Cantilever arm 50, in combination with threaded rod support.



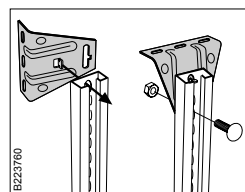
Rod bracket 82 mounted on Cantilever arm 50. Screw set 22S and Profile clamp 42 are to be used.

Ceiling bracket 5

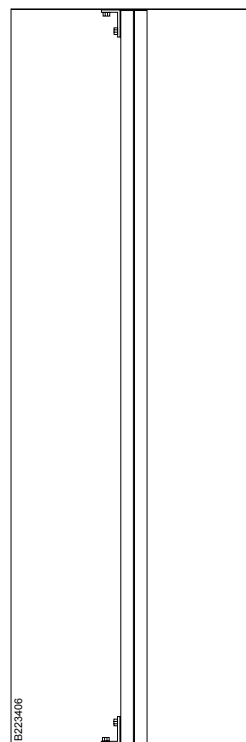
Ceiling bracket to be used for installations with Pendant/Fixing rails 24/34 and 24/48.



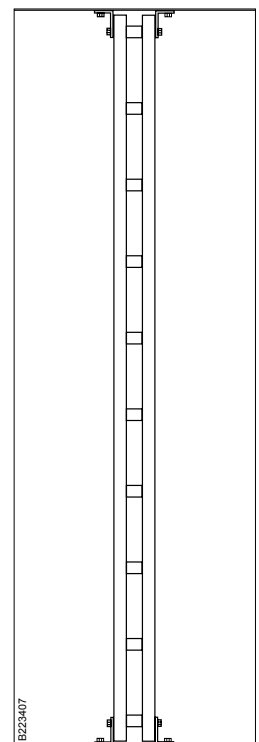
Using Pendant/Fixing rail 24/34 or 24/48, 1 Ceiling bracket 5 and 1 Screw set 22S it is possible to make a vertical piece that can be installed at an angle of up to 20°. Breaking load for rail 34 = 1000 kg (10 kN). Breaking load for rail 48 = 1200 kg (12 kN).



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°.



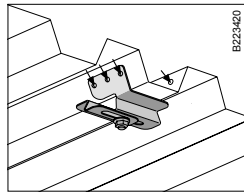
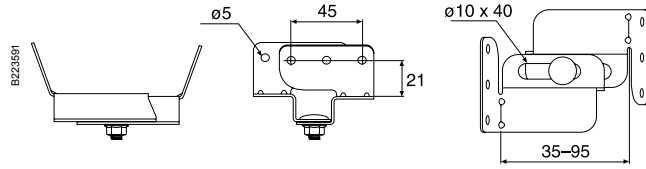
Pendant/Fixing rail 24/20 can, using 2 Ceiling brackets 5 and 2 T-bolts, be mounted between floor and ceiling (see also Angle bracket 5L).



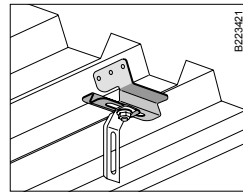
Pendant/Fixing rail 24/20F can, using 4 Ceiling brackets 5 and 4 T-bolts, be mounted between floor and ceiling (see also Angle bracket 5L).

Ceiling bracket 5TPA

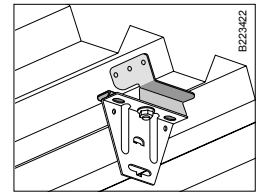
Ceiling bracket with telescopic function, to be used for mounting of various sizes of trapezoid plates.



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

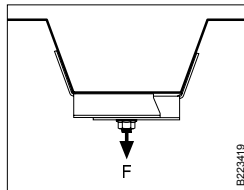


Pendant attachment W21 or Tube pendant attachment W73 (Wibe Cable Tray) can be mounted in Ceiling bracket 5TPA with the existing screw.

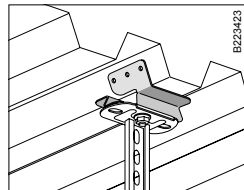


Ceiling bracket 5 or Ceiling attachment W31 can be mounted with the existing screw.

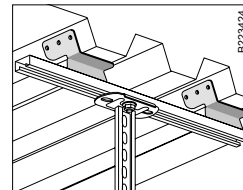
Breaking load



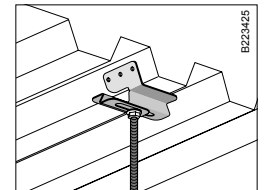
Ceiling bracket 5TPA can be loaded with $F=150$ kg without deformation. For loading figures for thin plate or fixing elements, follow suppliers recommendations.



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



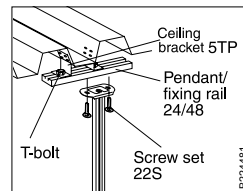
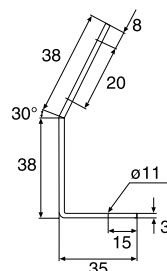
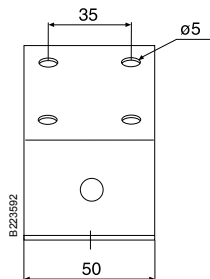
Install Mounting rail 40 between 2 Ceiling brackets 5TPA if the vertical piece must be adjusted sideways.



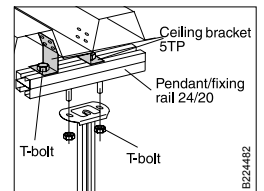
Pendant W76 M8 or M10 installed in Ceiling bracket 5TPA.

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.



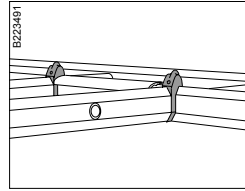
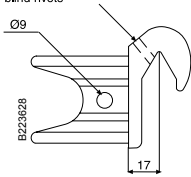
Alternatively Pendant/Fixing rail 24/20 may be used. This will require the use of 4 T-bolts.

Fixed take-off hook 4

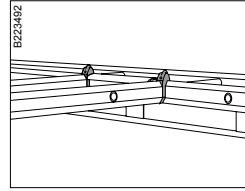
Fixed take-off hook to be used for 90° horizontal branches.



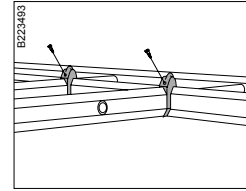
5 mm dia. hole for any locking against the ladder profile using sheet screws or blind rivets



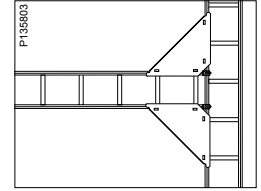
Fixed take-off hook 4 is used at 90° horizontal branches. Coupling 22 can also be used for straight angle formation.



KHZP, 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.



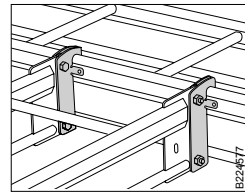
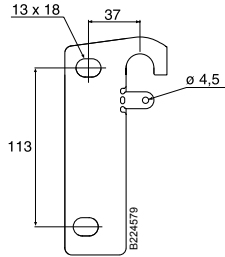
5 mm dia. hole for any locking against the section using sheet screws or blind rivets.



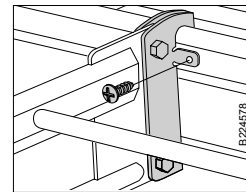
Angle plate 33 is always recommended at horizontal branches.

Take-off hook 47

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



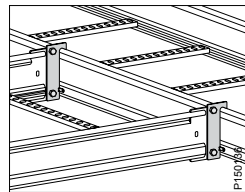
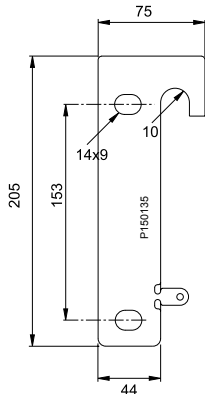
Use Take-off hook 47 to make 90° branches.



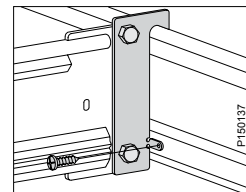
The extra hole, Ø 4.5, is to be used when earthing is demanded or if vertical locking of the ladder is needed. A self-drilling screw must be used.

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.



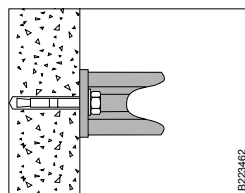
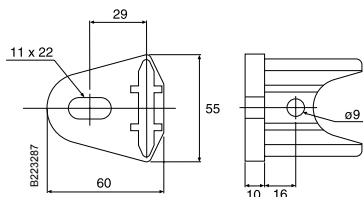
Use Take-off hook 20C to make 90° branches.



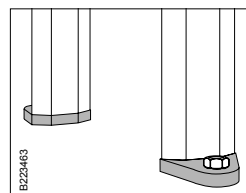
The extra hole, Ø 4.5, is to be used when earthing is demanded or if vertical locking of the ladder is needed. A self-drilling screw must be used.

End connection 10

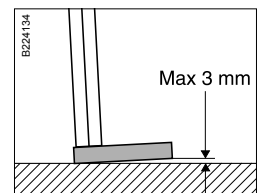
End connection to be used for the connection of a ladder vertically to a floor, or horizontally to a wall.



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



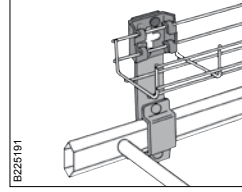
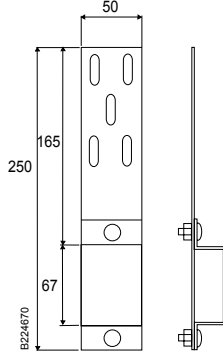
Mount the End connection 10 using Expansion bolts.



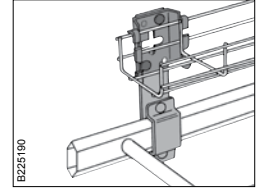
Max. tilt permitted = 3 mm before tightening the screw.

Combi Fitting B21

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



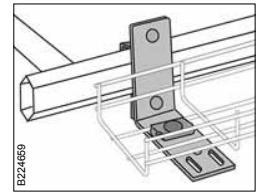
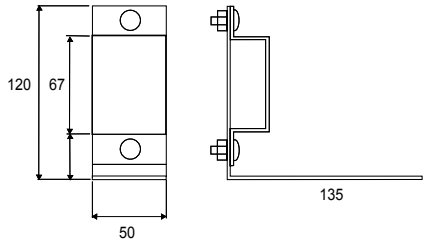
Defem Mesh tray 53 and 75 is mounted onto Combi Fitting B21 with Bracket B4 mini Bolt and Nut B13.



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

Combi Fitting B21 90 degree

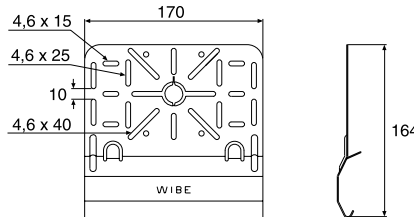
Combi-fitting to be used when mounting mesh trays onto cable ladders.



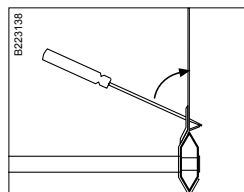
Defem Mesh tray 53, 75 and 120 is mounted onto Combi Fitting B21 90° with 1 Fitting B2, 1 Bolt and Nut B13.

Junction box plate 35S

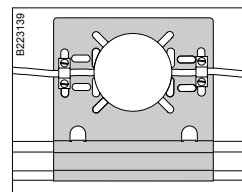
Installed upright or hanging from the profile. Locked with locking tabs.



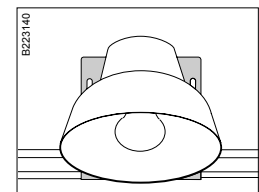
B223550



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



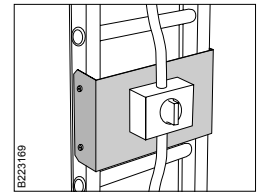
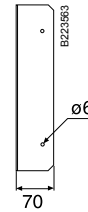
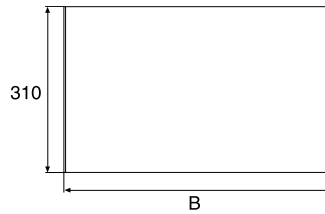
Junction box plates can be mounted in standing or hanging positions on the side sections. Strain-relief may be provided using the outermost holes and clamps or strips.



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.

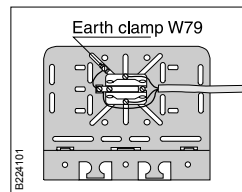
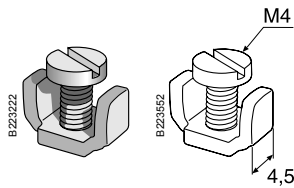


Used on vertical cable ladder installations for mounting of terminal boxes, contact breakers etc. Mount with self-tapping screw ST4.2 in the side profile.

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

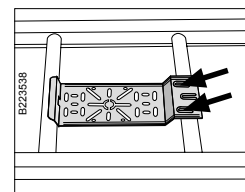
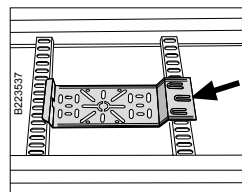
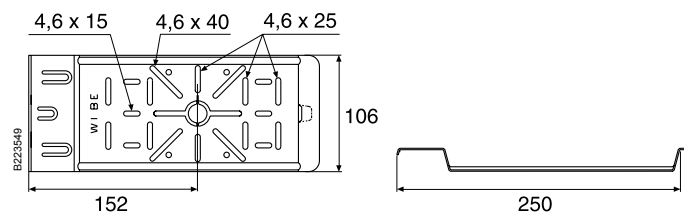
The earth clamp is used when protective earthing of the junction box plate is required.



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.

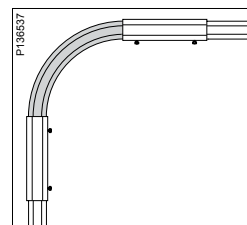
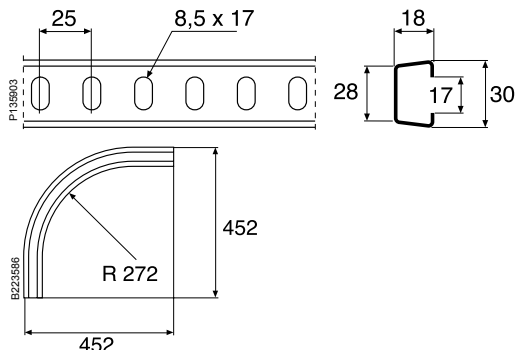


Mount junction box plates between the ladder rungs. On KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV attach junction box plates by bending the central tab into the rung perforation using a screwdriver or suchlike.

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

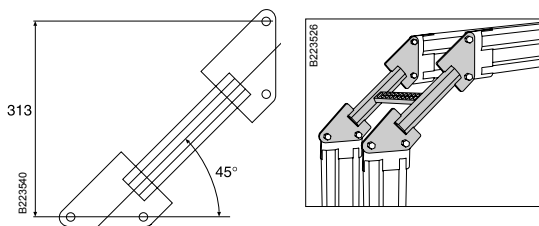
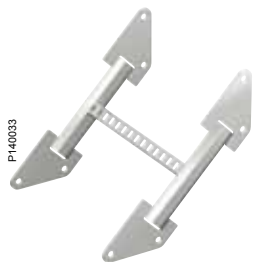
Riser piece to be fitted to the cable ladders by using Joint 21.



Join the cable ladders to Riser 18 using Joint 21.

Riser coupling 49

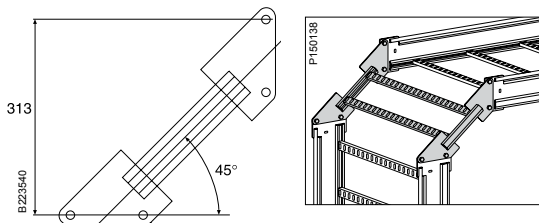
Coupling to be used as a self-supporting vertical coupling of cable ladders KHZV/ KHZPV. Two screws M12 and nuts are needed.



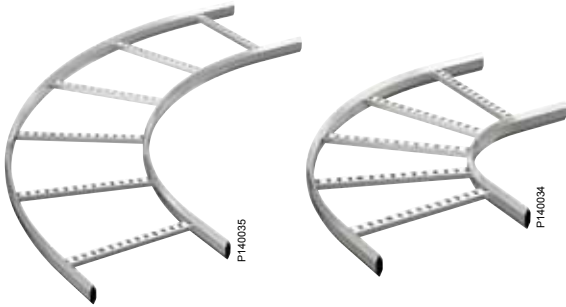
Mount Riser coupling 49 to form a 90° branch on KHZV/KHZPV using 2 Screw sets M12. This provides a large radius for cables.

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.



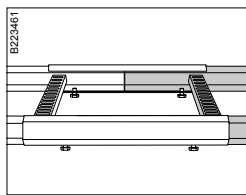
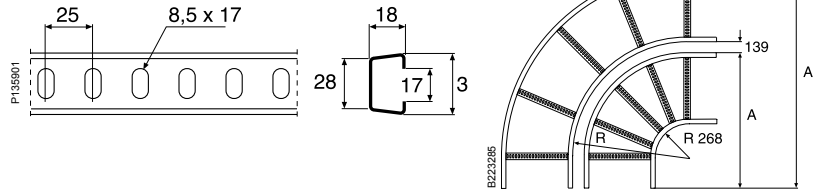
Mount Riser coupling 20C to form a 90° branch on KHZP 20C using 2 Screw sets M12. This provides a large radius for cables.



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.



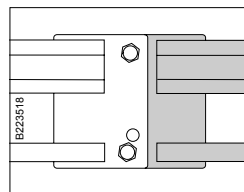
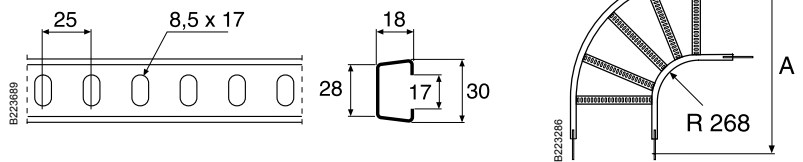
Join cable ladders to 90° bend using Joint 21.

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.

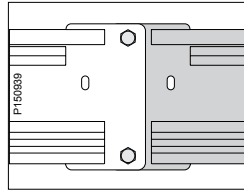
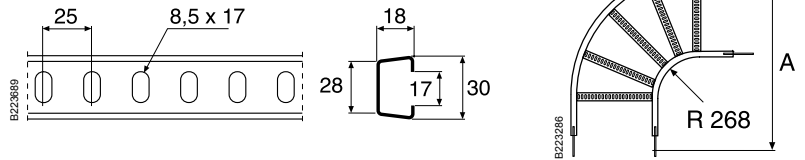


For joining to KHZV and KHZPV, use Screw set M12

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.

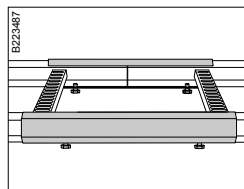
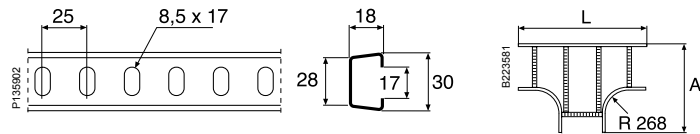


For joining to KHCP 20C/
KHZV and KHZPV, use
Screw set M12

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.



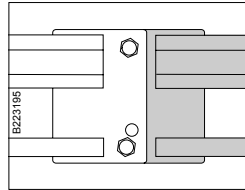
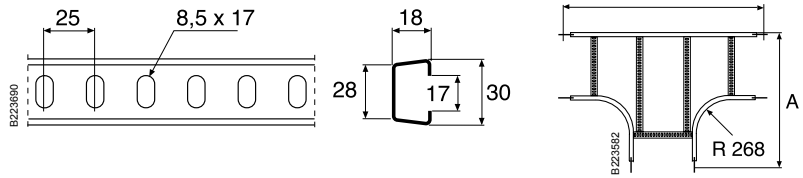
Join the cable ladders to
T-junction 16 using Joint
21.

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.



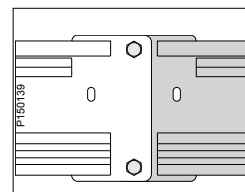
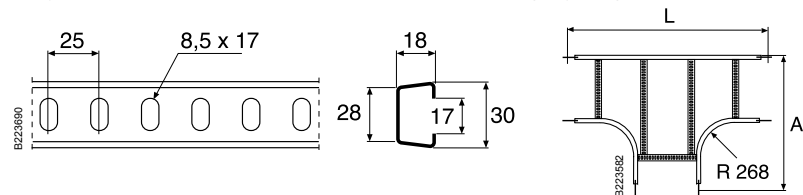
Type	A mm	L mm
T-junction 56/200	625	1050
T-junction 56/300	725	1150
T-junction 56/400	825	1250
T-junction 56/500	925	1350
T-junction 56/600	1025	1450
T-junction 55/800	1225	1650
T-junction 56/1000	1425	1850

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



T-junction 20C

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



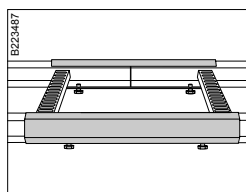
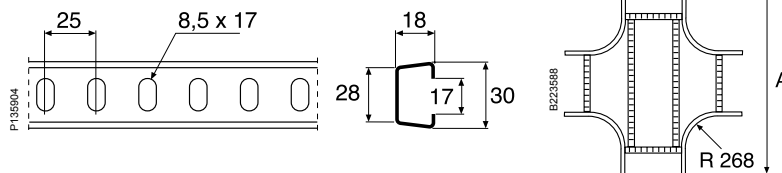
Type	A mm	L mm
T-junction 20C/200	625	1050
T-junction 20C/300	725	1150
T-junction 20C/400	825	1250
T-junction 20C/500	925	1350
T-junction 20C/600	1025	1450
T-junction 20C/800	1225	1650
T-junction 56/1000	1425	1850

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



X-junction 17

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



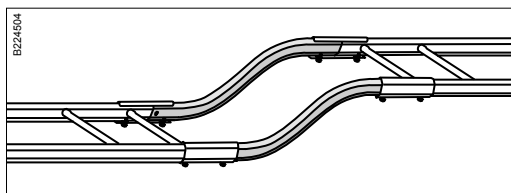
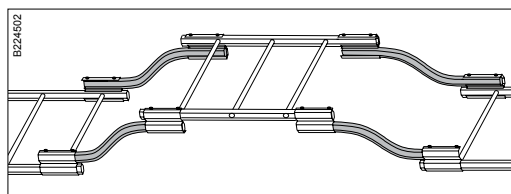
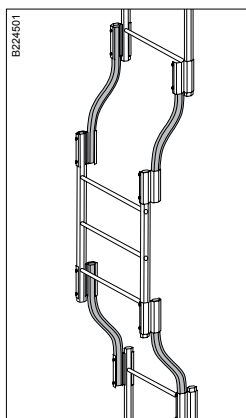
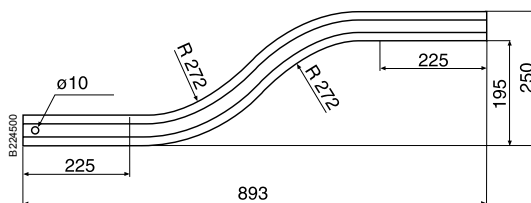
Join the cable ladders to X-junction 17 using Joint 21.

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

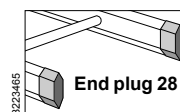


S-bend 67

S-bend piece to be used as a transition between cable ladders mounted on different levels. Can be mounted both vertically and horizontally.



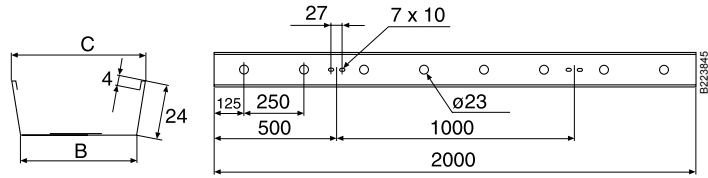
S-bend 67 can be mounted vertically or horizontally between cable ladders by using Dropper joint 32 or Joint 21.



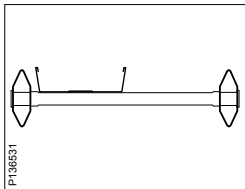
Tele-conduit 36 with knock-out holes



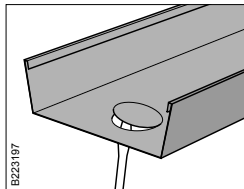
Tele-conduit to be used where a separate tray is required for low-tension cables. Knock-out holes in the bottom of the channel permit the cables to pass through.



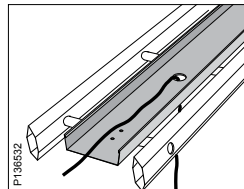
Type	B mm	C mm
Tele-conduit 36/50	42	50
Tele-conduit 36/100	92	100
Tele-conduit 36/200	192	200



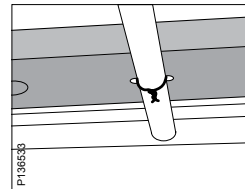
Mount Tele-conduit 36 whenever a special channel is required for low tension lines.



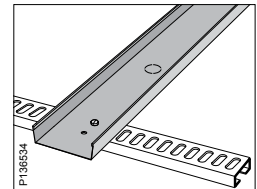
Whenever you wish to make a hole to let a cable through, press the knock-out piece from below using a screw-driver or suchlike



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



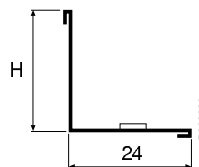
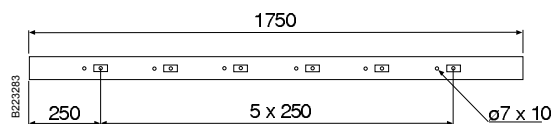
Attach Tele-conduit 36 onto KHZ and KHZV by tying with wire round rungs.



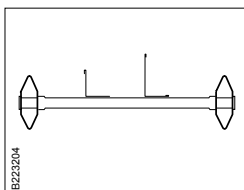
Attach Tele-conduit 36 to KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV using Screw set W34 through the rung perforations.

Dividing strip 39

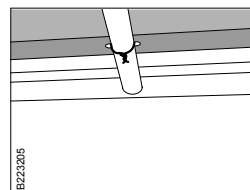
Dividing strip to be used to separate low-tension and high-tension cables.



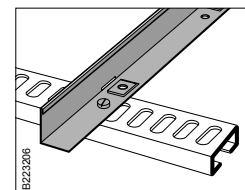
Type	H mm
Dividing strip 39/24	24
Dividing strip 39/55	55



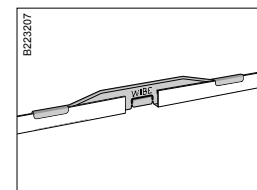
Mount one or more Dividing strips 39 to separate low and high tension cables.



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



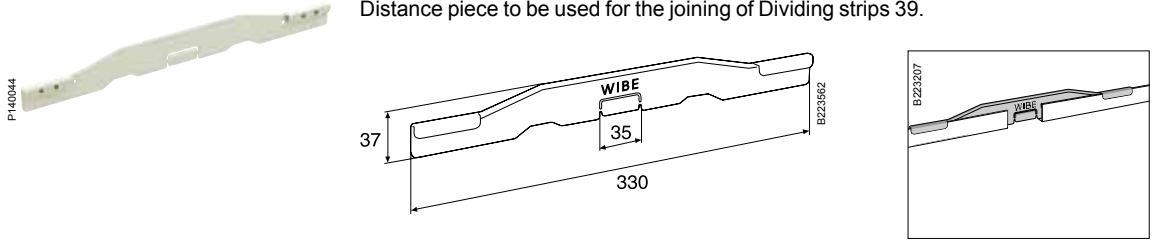
Attach Dividing strip 39 to KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV using Screw set W34 through the rung perforations.



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

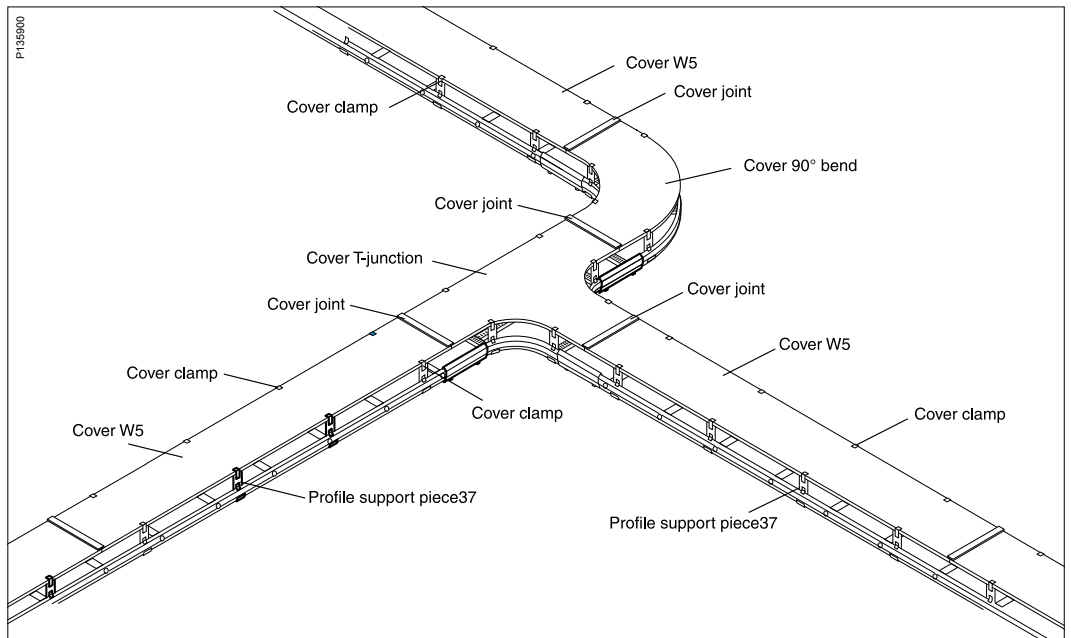
Distance piece W39

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

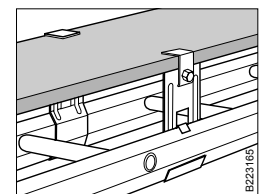
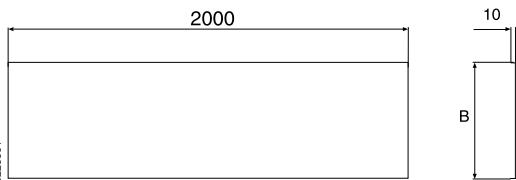


Mount one or more Dividing strips 39 to separate low and high tension cables.

Cover W5



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

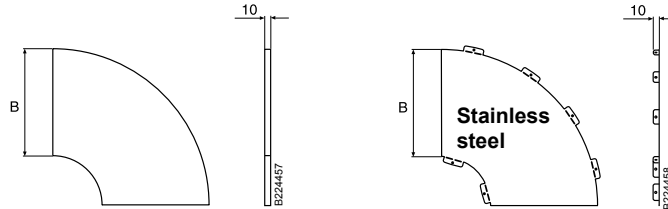


Type	Ladder width mm	B mm
Cover W5 - 150	150	151
Cover W5 - 200	200	201
Cover W5 - 300	300	301
Cover W5 - 400	400	401
Cover W5 - 500	500	501
Cover W5 - 600	600	601
Cover W5 - 800	800	801
Cover W5 - 1000	1000	1001

Mount covers to protect the cable routes from dust, waste, liquids, etc. Outdoors, covers protect against rain and sun. All Wibe cable ladders can be fitted with covers. Mount covers using Profile support piece 37 and Cover clamp.

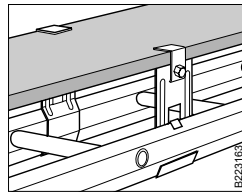
Cover 90° bend

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

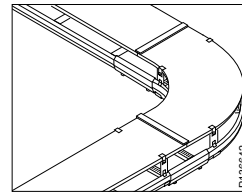


Type	Ladder width mm	B mm
90° bend - 150	150	151
90° bend - 200	200	201
90° bend - 300	300	301
90° bend - 400	400	401
90° bend - 500	500	501
90° bend - 600	600	601
90° bend - 800	800	801
90° bend - 1000	1000	1001

Stainless steel Type	Ladder width mm	B mm
90° bend - 150	150	147
90° bend - 200	200	197
90° bend - 300	300	297
90° bend - 400	400	397
90° bend - 500	500	497
90° bend - 600	600	597
90° bend - 800	800	797
90° bend - 1000	1000	997



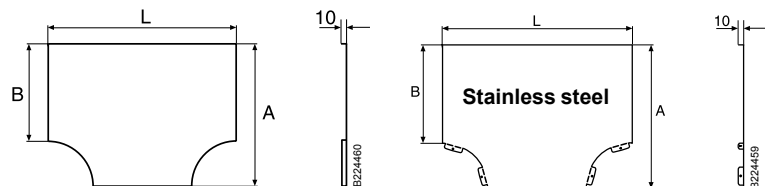
Fasten cover to Profile support piece 37 using Cover clamp.



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

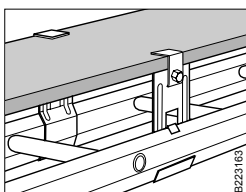
Cover T-junction

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

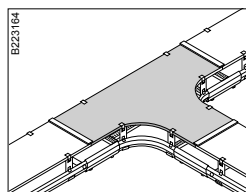


Type + ladder width	A mm	B mm	L mm
T-junction - 150	400	151	651
T-junction - 200	450	201	701
T-junction - 300	550	301	801
T-junction - 400	650	401	901
T-junction - 500	750	501	1001
T-junction - 600	850	601	1101
T-junction - 800	1050	801	1301
T-junction - 1000	1240	1001	1501

Type + ladder width Stainless steel	A mm	B mm	L mm
T-junction - 150	402	147	657
T-junction - 200	452	197	707
T-junction - 300	552	297	807
T-junction - 400	652	397	907
T-junction - 500	752	497	1007
T-junction - 600	852	597	1107
T-junction - 800	1052	797	1307
T-junction - 1000	1242	997	1507



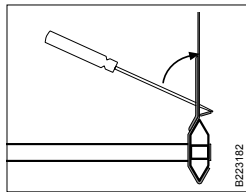
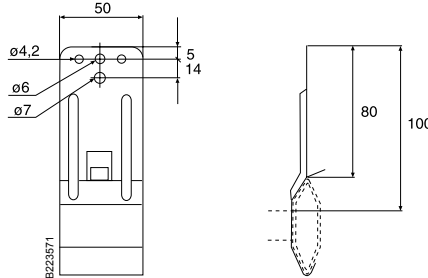
Fasten cover to Profile support piece 37 using Cover clamp.



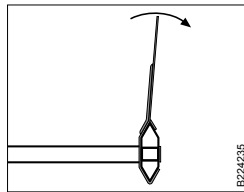
Mount with Profile support pieces 37, Cover clamps and Cover joints.

Profile support piece 37

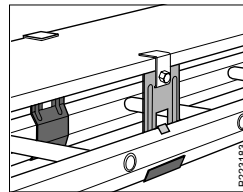
Profile support piece to be used when installing covers. To be mounted on approximately every 0.5 m along both sides of the cable ladder. Used together with cover clamp for locking covers.



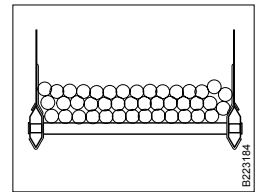
Mount Profile support piece 37 on the inside of the hexagonal section. Bend the tab towards the ladder section using a screwdriver as a lever.



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



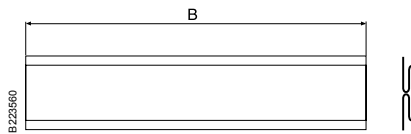
Lock the cover on the Profile support piece 37 using Cover clamps.



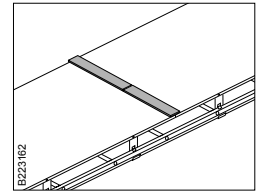
Profile support pieces 37 can be mounted as cable supports. Mount the attachments at about 0.5 m centres on both sides of the ladder.

Cover joint

Cover joint to be inserted between covers.



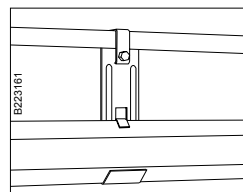
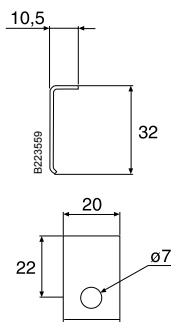
Type	Ladder width mm	B mm
Cover joint 150	10	125
Cover joint 200	200	175
Cover joint 300	300	275
Cover joint 400	400	375
Cover joint 500	500	475
Cover joint 600	600	575



For width 800 or 1000 mm, use a combination of two smaller joints (e.g. 400+600 mm). Insert joints between covers.

Cover clamp

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

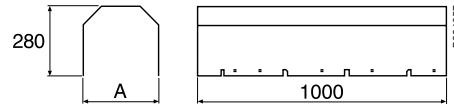


Cover clamps are required for mounting covers on Profile support piece 37.

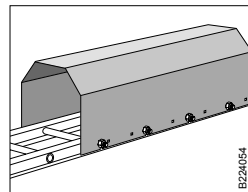
Protecting cover



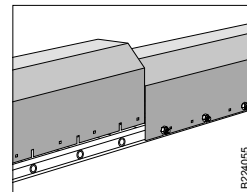
Cover to be used to protect the cable runs against ice and snow. Suitable for all cable ladder widths 300 and 400 respectively.



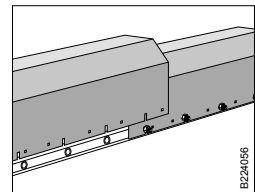
Type	A mm
Protecting cover 300	300
Protecting cover 400	400



To be mounted on ladder KHZ with Intermediate connection bolt 29. When mounted on other ladders or when needed, drilling screw $\text{Æ} 4.2$ is used.



The covers can be mounted edge to edge.

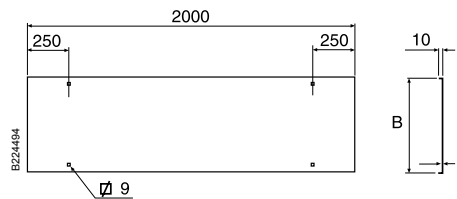


The covers can be mounted with overlap. The asymmetric hole pattern can be used to achieve a good fit.

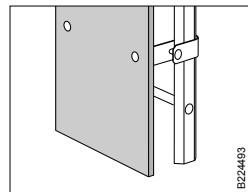
Cover 64



Cover to be used for vertically mounted cable ladders.



Type	B mm
Cover 64-150	151
Cover 64-200	201
Cover 64-300	301
Cover 64-400	401
Cover 64-500	501
Cover 64-600	601
Cover 64-800	801
Cover 64-1000	1001

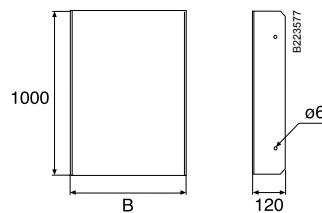


Cover 64 is to be mounted on the cable ladder with Wall bracket 11/25 or Wall bracket 11/75 and Screw set 22S. The covers are to be joined with Cover joints.

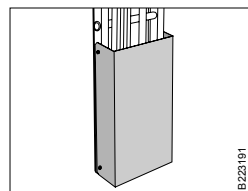
Cover plate 65



Cover plate to be used on vertical cable ladder installations as protection of cables near the floor. To be mounted in the side profile with self-tapping screw ST4.2.



Type	B mm
Cover 65-200	200
Cover 65-300	300
Cover 65-400	400
Cover 65-500	500
Cover 65-600	600



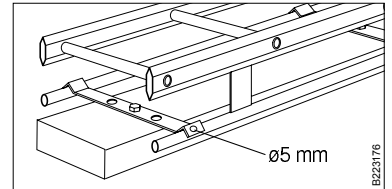
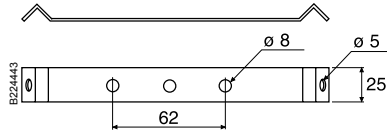
Used on vertical cable ladder installations as protection of cables near the floor. Mounted in the side profile with self-tapping screw ST4.2.

Lighting bracket 200



P140053

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



Mount Lighting bracket 200 for KHZV/ KHZPV between the two lower tubes. If necessary, 5 mm dia. holes can be used for locking against the arch tube by means of blind rivets or sheet screws.

Angle plate 33/1 and 33/2

Angle plate to be used together with 90° horizontal T-junctions. Recommended for all cable ladders.



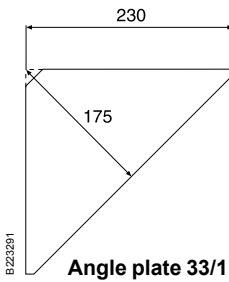
Angle plate 33/2

P140054



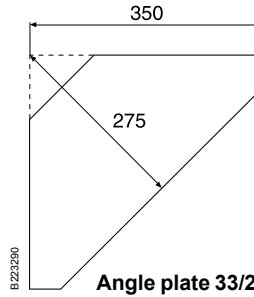
Angle plate 33/1

P140386



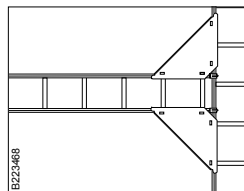
B223281

Angle plate 33/1



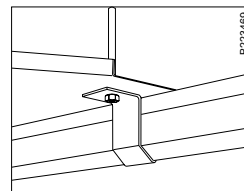
B223280

Angle plate 33/2



B223468

Angle plates are always recommended at 90° horizontal junctions.



B223469

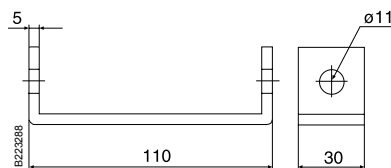
To lock Angle plate 33/2, fit Profile clamp 42.

Wall bracket HT-14

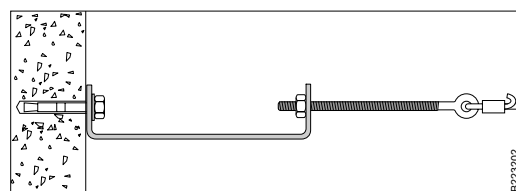
Bracket for wall installation



P140055



B223288

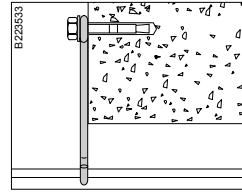
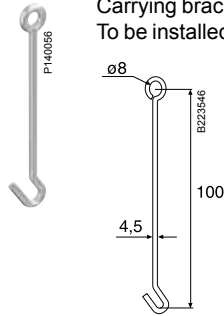


B223202

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

Carrying bracket HT-31

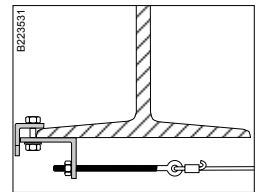
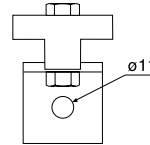
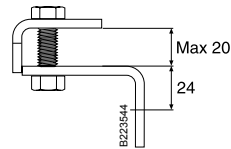
Carrying bracket to be used for ceiling installations.
To be installed with Expansion bolt or concrete screw.



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

Carrying bracket HT-152

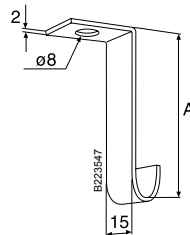
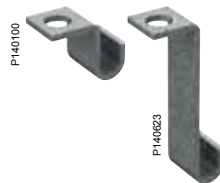
Carrying bracket to be used for easy I-beam installations.



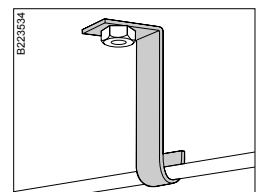
Carrying bracket is easily installed on I-beam.

Carrying bracket HT-33/34

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



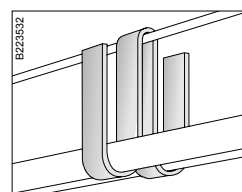
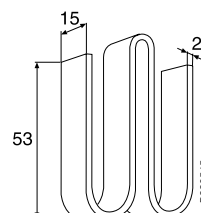
Type	A mm
HT-33	14
HT-34	38



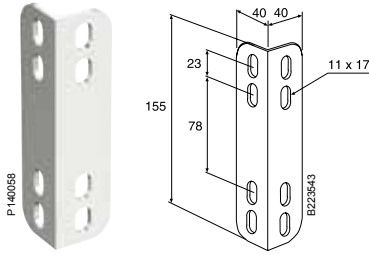
Carrying bracket is installed in ceiling with Expansion bolt or concrete screw.

Carrying sling HT-51

Carrying slings for cables.

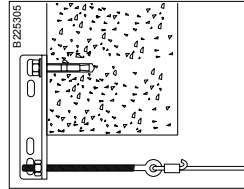


Carrying sling with space for 6 cables max. diam. 16 mm.

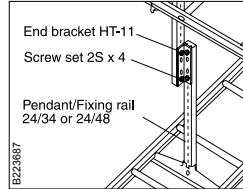


End bracket HT-11

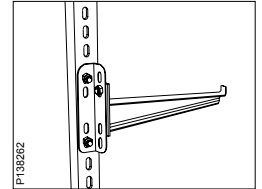
Used for assembling pendant/fixing rails to frames for switching cabinets and electrical control centres. Also suitable for assembling pendant rails for crossing cable runs. Also used as End Bracket for ceiling beam installation.



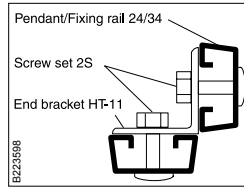
End bracket HT-11 is installed on ceiling beam with Expansion bolt or concrete screw.



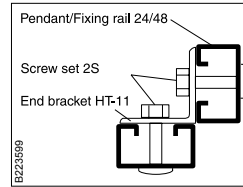
End bracket HT-11 permits mounting of crossing cable ladders in various planes on the same vertical piece.



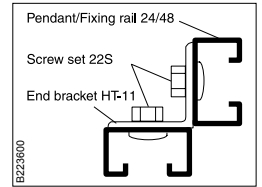
Cantilever arm 50 may, using End bracket HT-11, be mounted at 90° to the vertical piece. Only for lightweight mounting of data cable type or suchlike.



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



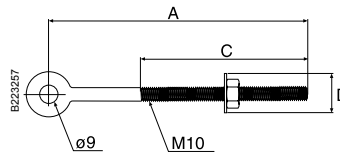
The HT-11 can be used when mounting together 2 Pendant/ Fixing rail 24/48 with the opening towards the attachment, for example when assembling a stand.



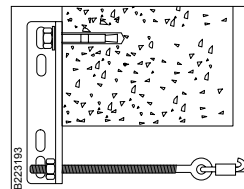
The HT-11 can be used when mounting together 2 Pendant/ Fixing rail 24/48, with the rear towards the attachment.

Tightening loop HT

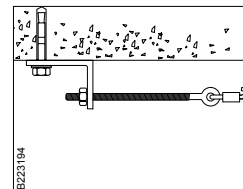
Tightening loop to be installed at the ends of steel wires.



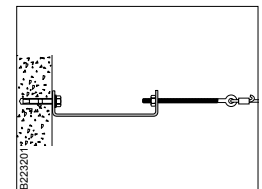
Type	A mm	C mm	D mm
Tightening loop HT-611	125	100	22
Tightening loop HT-621	270	100	50
Tightening loop HT-631	400	150	50



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



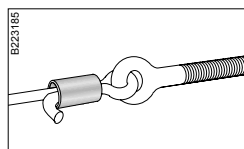
Tightening loop is installed in Angle bracket 5L for installation in ceiling.



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.



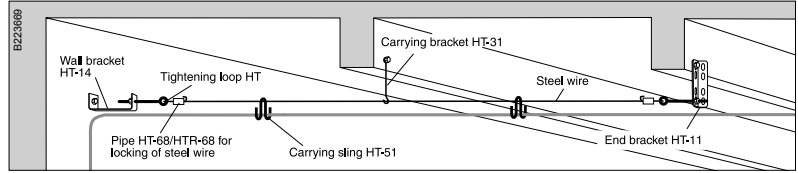
The steel cable is easily locked with the pipe.



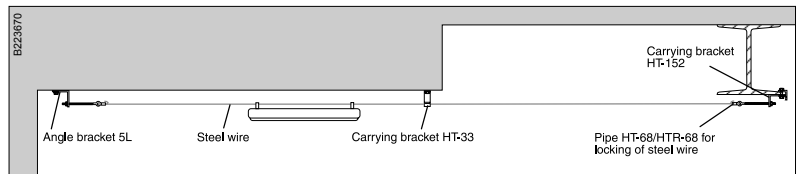
Type	Diam. mm	Breaking load kg
HT-2309	5.00	700
HT-2311	6.15	970
HTR-2322	2.50	450
HTR-2323	3.00	700
HTR-2324	4.00	1200

Steel wire

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



Steel wire installed in ceiling with beams.

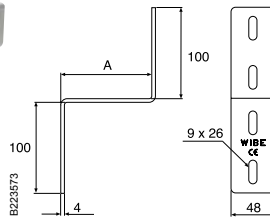


Steel wire installed in ceiling.

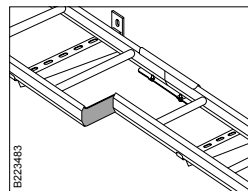


Reducer 31

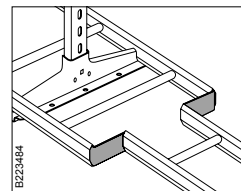
Reducer to be used for transition joining from a wide to a narrower cable ladder.



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



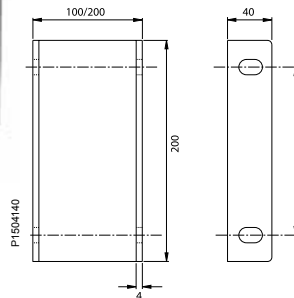
Reducer to be used for transition joining from a wide to a narrower cable ladder.



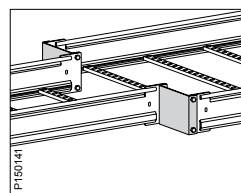
May also be used at centred transition joining

Reducer 20C

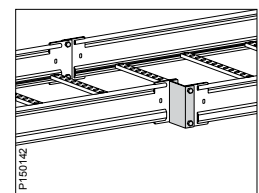
Reducer to be used for transition joining from a wide to a narrower cable ladder.



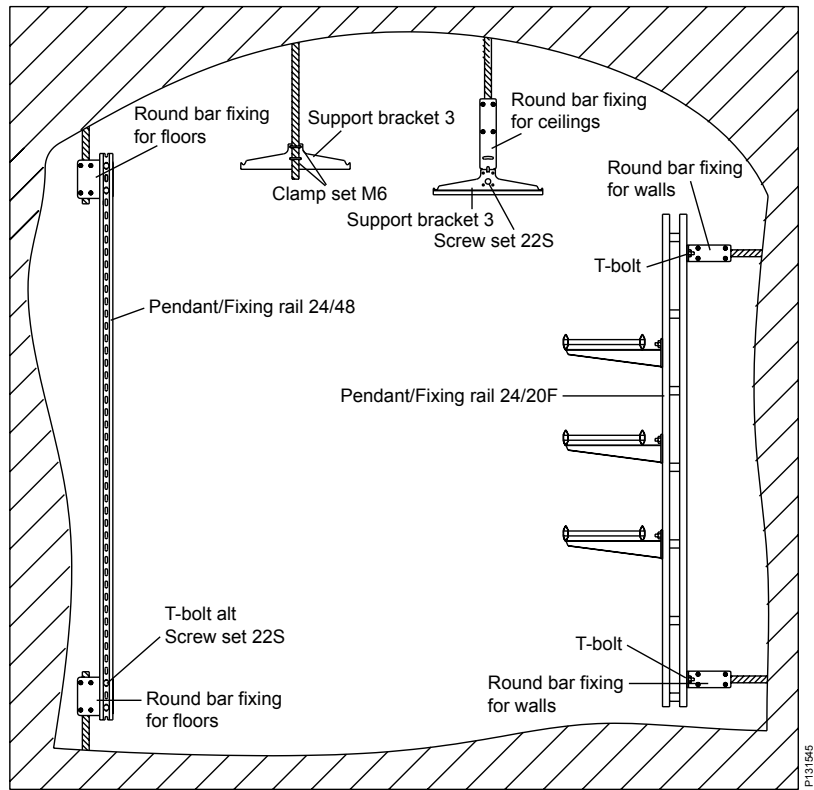
Type	A mm
Reducer 20C/100	100
Reducer 20C/200	200



May also be used at centred transition joining

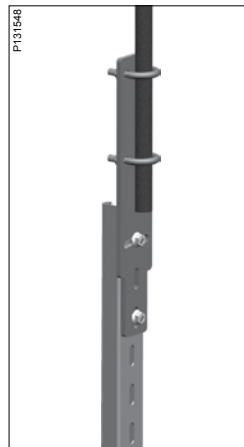
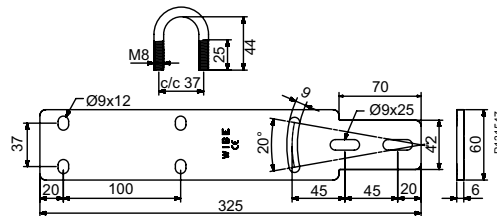


Reducer to be used for transition joining from a wide to a narrower cable ladder.



Round bar fixing for ceilings

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



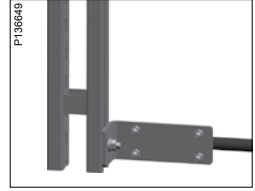
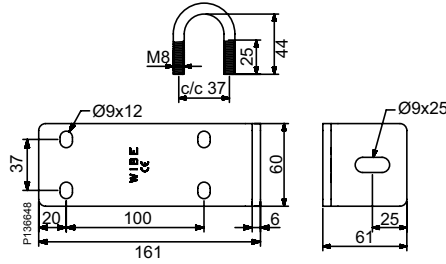
Round bar fixing for ceilings is mounted on pendant/fixing rail 24/48 with screw set 22S. Support bracket 3 is mounted directly on the fixing with Screw set 22S.



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

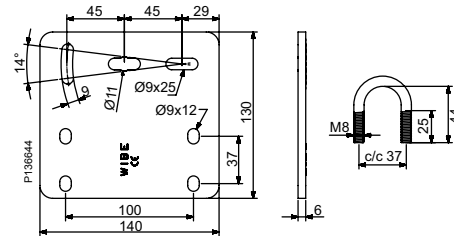
Round bar fixing to be used for mounting in underground cavities and tunnels.



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.



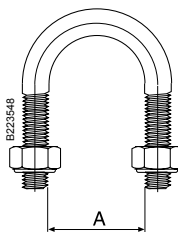
Round bar fixing for floors mounted on Pendant/ fixing rail 24/48 with Screw set 22S.



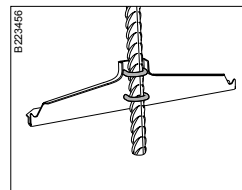
Round bar fixing for floors mounted on Pendant/ fixing rail 24/48 with T-bolt 26F

Clamp set M6

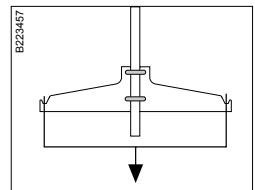
Clamp set to be used for the installation of Support bracket 3 directly on a roof bolt. The set includes two clamps and four locking nuts. M6-25 must be used for Support bracket 3 in hot-dip and pre-galvanized surface finish, whereas M6-20 must be used for Support bracket 3 in stainless steel and Installation plate 60 in all surface treatments.



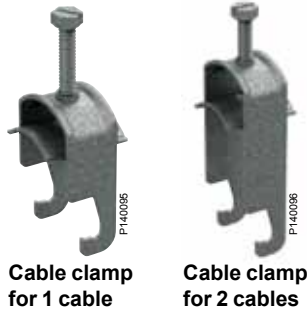
Type	Ø
M6-25	29
M6-20	24



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



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



Cable clamp for 1 cable

Cable clamp for 2 cables

Cable clamp type A

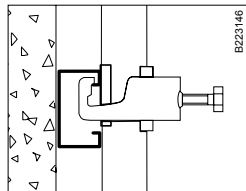
Cable clamp for fastening of cable on Pendant/Fixing rail 24/48 and on cable ladders KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV, in combination with Insert piece EM.

Cable clamp A for 1 cable

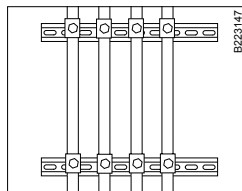
Type	For cable mm
Cable clamp A1-12	- 12
Cable clamp A1-16	13 - 16
Cable clamp A1-22	17 - 22
Cable clamp A1-28	23 - 28
Cable clamp A1-36	29 - 36
Cable clamp A1-44	37 - 44
Cable clamp A1-52	45 - 52
Cable clamp A1-60	53 - 60
Cable clamp A1-70	61 - 70

Cable clamp A for 2 cables

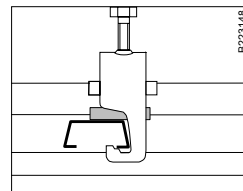
Type	For cable mm
Cable clamp A2-12	- 12
Cable clamp A2-16	13 - 16
Cable clamp A2-22	17 - 22
Cable clamp A2-28	23 - 28
Cable clamp A2-36	29 - 36
Cable clamp A2-44	37 - 44



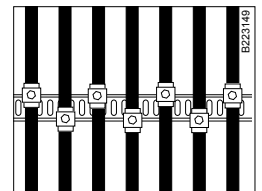
Use Cable clamp type A to attach cables to Pendant/Fixing rail 24/48. Use Insert piece EM.



Mounting rail 40 with Cable clamp type A.



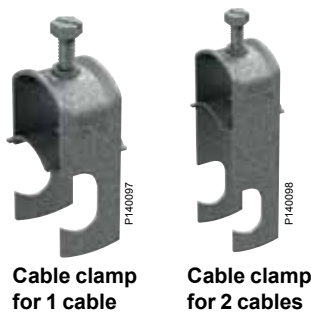
Use Cable clamp type A to attach cables to cable ladders KHZSP, KHZSPZ, KHZPS, KHZPV and KHZP. Use Insert piece EM.



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

Cable clamp 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

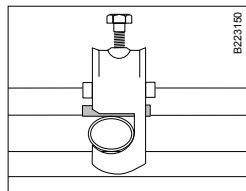
Cable clamp for 2 cables

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.

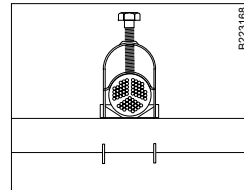
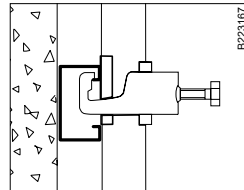
Tightening moment

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.

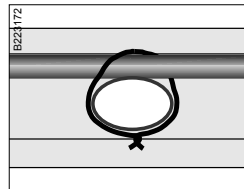
Type	For cable mm
EM - 12	- 12
EM - 16	13 - 16
EM - 22	17 - 22
EM - 28	23 - 28
EM - 36	29 - 36
EM - 44	37 - 44
EM - 52	45 - 52
EM - 60	53 - 60
EM - 70	61 - 70

Lashing wire

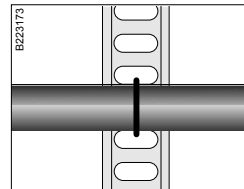
Lashing wire to be used for lashing of wires on cable ladders.



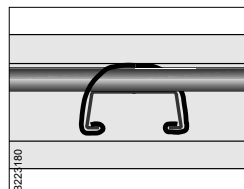
Type		Diam mm	Breaking load kg
HTR - 2303	Lashing wire, stainless steel, white PVC	1.25	92
HTR - 2313	Lashing wire, stainless steel, black PVC	1.25	92
HT - 2304	Lashing wire, white PVC	1.5	25
HT - 2314	Lashing wire, black PVC	1.5	25



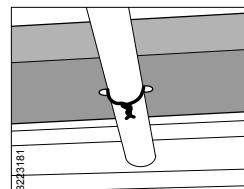
Cables are easily installed by lashing around the rungs of KHZ and KHZV.



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



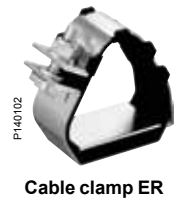
Cables are easily installed on KHZSP, KHZSPZ, KHZPS, KHZP and KHZPV by lashing in such a way that the lashing wire is pinched around the rung as shown.



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

Cable clamp ER

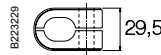
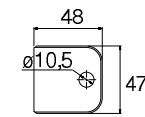
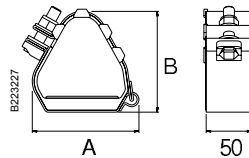
Cable clamp for the installation of cables on cable ladders with round or perforated rungs.



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

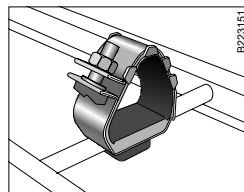
- 400 volt 58 kA symmetrical current (Peak 140 kA) during 0.1 second:
- All clamps remained secure
 - Some slight distortion of the ladder rungs
 - The cables were splayed out between the clamps but otherwise in good order.

Test report no. BS/F 1268

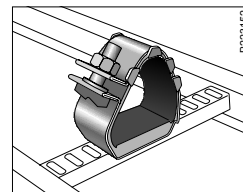
- Wibe cable ladder KHZ-600 and KHZP-600. Cable clamp ER mounted on every other rung

Condition after test

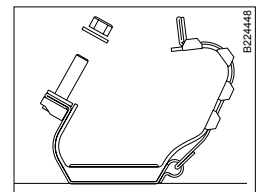
- 352 volt 64 kA symmetrical current (Peak 140 kA) during 0.1 second:
- All clamps remained secure
 - There was distortion of a number of the ladder rungs
 - The cables were splayed out between the clamps but otherwise in good order.



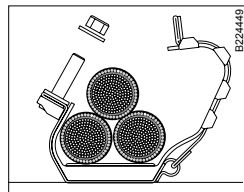
Remove the bottom plate of the clamp and mount it with Oval rung adapter on cable ladders with round rungs - KHZ and KHZV.



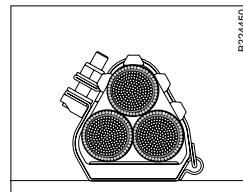
Remove the bottom plate of the clamp and mount it with 2 screw sets 74S on cable ladders with perforated rungs - KHZP, KHZPS, KHZSP, KHZSPZ and KHZPV.



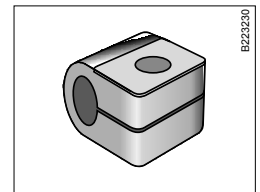
Remove the locking nut. Open the clamp.



Mount the cables.



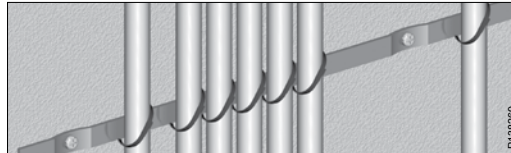
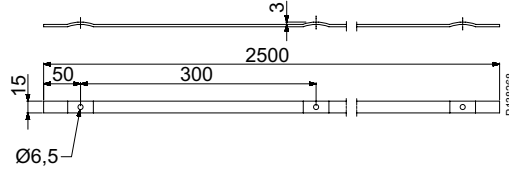
Lock the clamp with the locking nut. Turn the nut to max. 4-5 Nm. The rubber lining must touch the cables but not so tight that the cables will be deformed



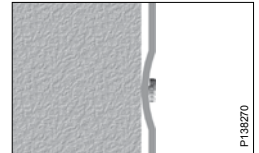
Oval rung adaptor, screw set included, to be used when mounting Cable clamp ER on oval rungs on the KHZ range.

Mounting rail WMS15

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



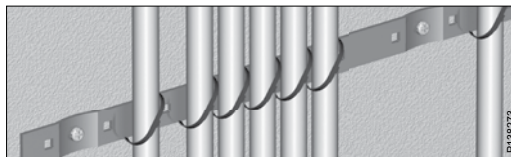
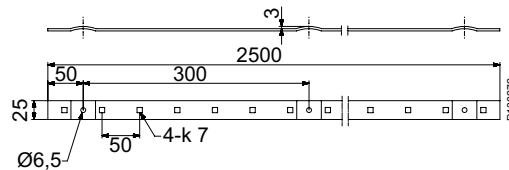
Mounting of cables with lashing wire, strips etc.



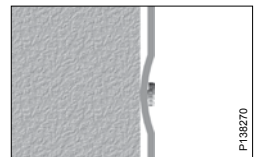
The mounting rail installed directly onto wall.

Mounting rail WMS25

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



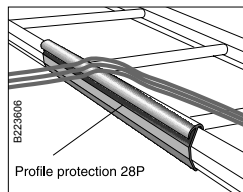
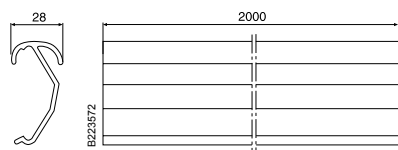
Mounting of cables with lashing wire, strips etc.



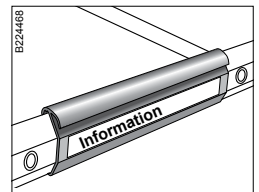
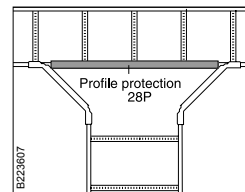
The mounting rail installed directly onto wall.

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.

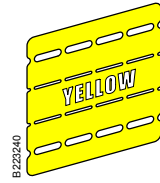


Mount Profile protection 28P in order to increase the contact surface of the cable, when pulled over the side profile of the ladder. Cut when required.

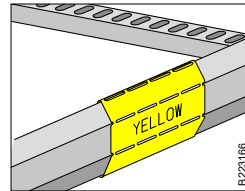
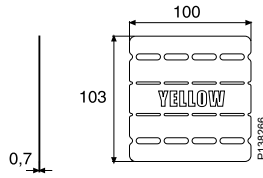


Can be cut in suitable lengths and equipped with an information label. Easy to mount on the ladder side profile.

Marking plate 93



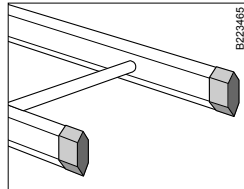
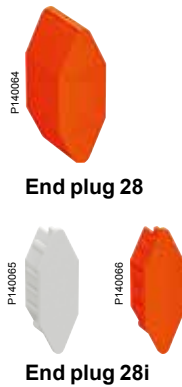
Marking plates are part of a colour marking system that is easy to use when you want to mark out the type of cable that is placed on the cable ladder



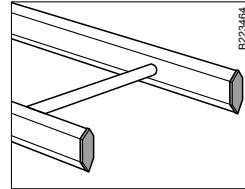
The Marking plate can be bent around the side profile on all Wibe cable ladders.

End plug 28 and 28i

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



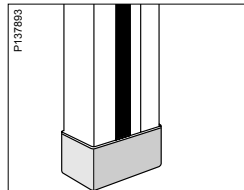
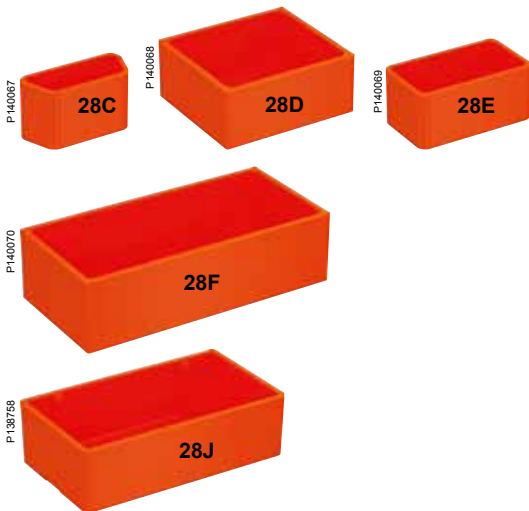
Mount End plug 28 in ladder ends as protection.



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.

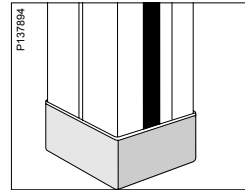
End plug 28C, D, E, F and J

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.



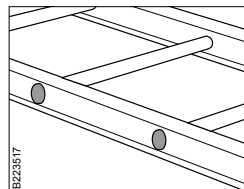
End plug **28D** fits Vertical piece 20 and Pendant/ Fixing rail 24/20.

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.

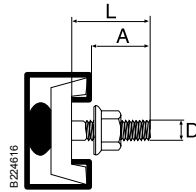


Mount Cross member plug 27 in KHZ and KHZV rung tube ends in premises with high relative humidity where the risk of corrosion is high

T-bolt 26F

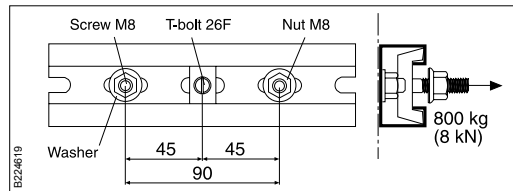


Easy to fit into the fixing rail. It is made to stick which makes it easier to mount and attach compared to a spring nut. It stays in place by itself even before it is fixed with the nut. To be used for the mounting of Cantilever arm 50 on Pendant/Fixing rail 24/48 and all vertical pieces except Vertical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

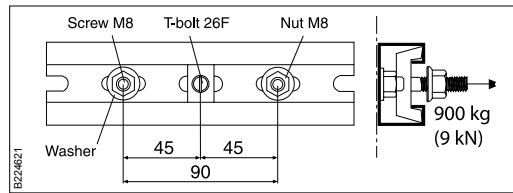


Type	L mm	A mm
M8	30	24
M10	30	24
M10	40	34
M8	50	44
M10	50	44

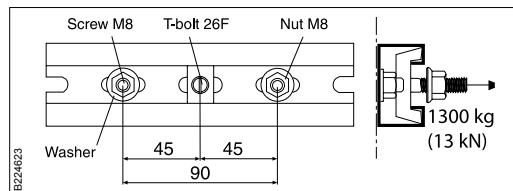
Max permitted extraction force



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



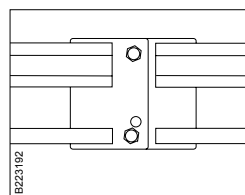
T-bolt 26F M8 + P/F-rail 24/48 + Washer 9x35x2



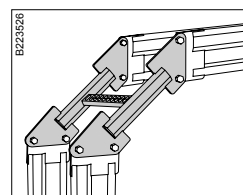
T-bolt 26F M10 + P/F-rail 24/48 + Washer 9x35x2

Screw set M12

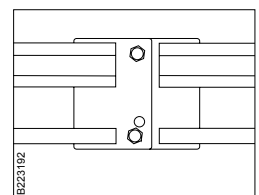
Screw set to be used for all joints with cable ladders KHZV and KHZPV.



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.



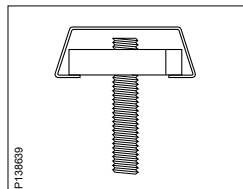
Spring nut M8/M10

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

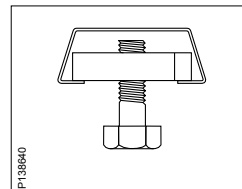


Back nut M8

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.

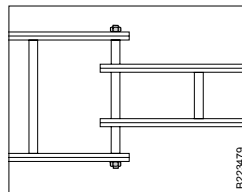


P1440073

Intermediate connection bolt 29

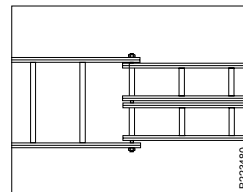
Intermediate connection bolt to be used at the transition from a broad to a narrower cable ladder KHZ.

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



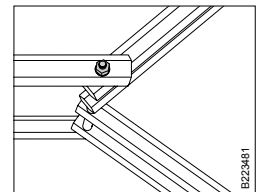
B2234179

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.



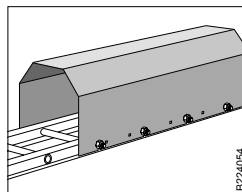
B2234680

Intermediate connection bolts can also be used for transition from one wide ladder to two narrower ones.



B2234681

Intermediate connection bolt also permits formation of angles.



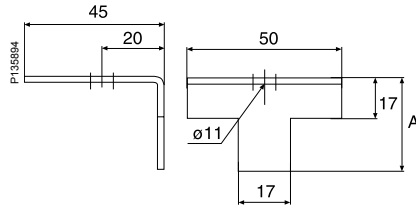
B2240354

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

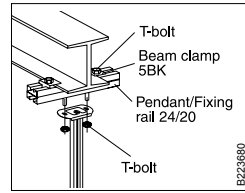
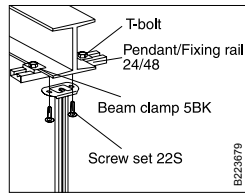
Beam clamp 5BK



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

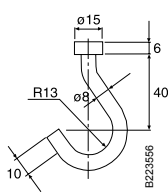


On ceiling beams, mount Vertical piece 2, 2F or 20 using 2 Beam clamps 5BK, Pendant/ Fixing rail 24/48 and Screw set 22S. For Beam clamp 5BK-10, use T-bolt 26F/40. For Beam clamp 5BK-30, use T-bolt 26F/50.

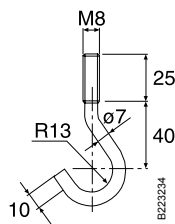
Alternatively, a Pendant/ Fixing rail 24/20 may be used. This will require 4 T-bolts.



Hot dip galv.

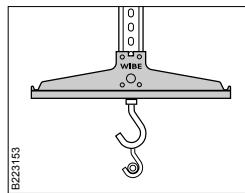


AISI 316L

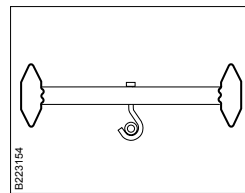


Hook 8

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

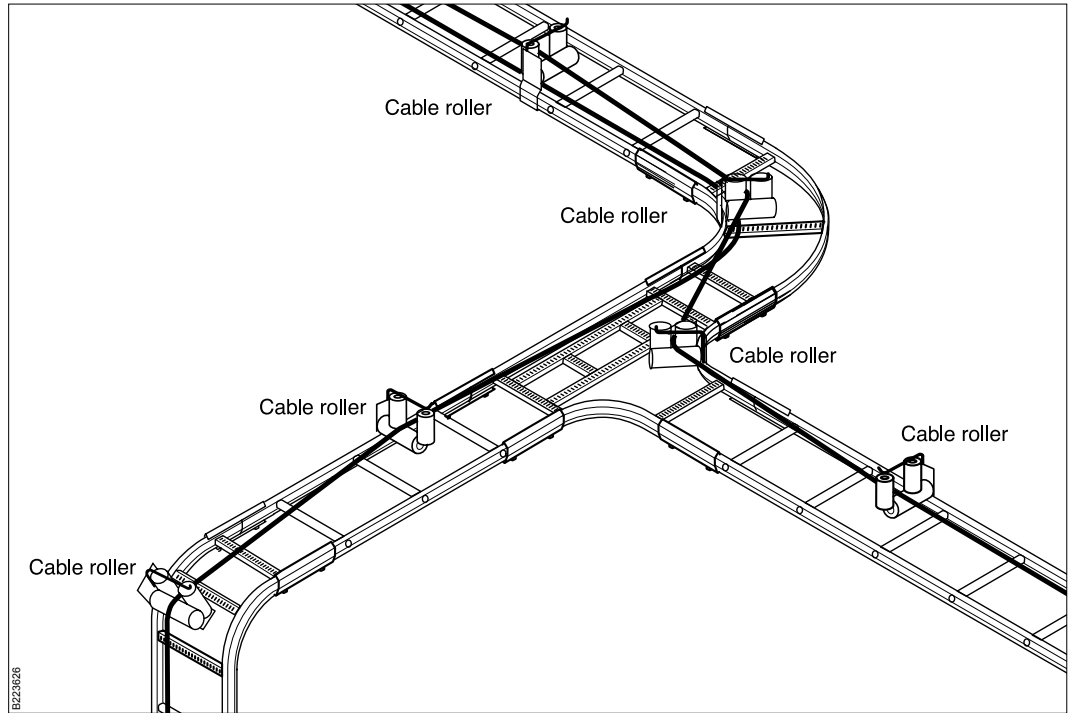


Hook 8 mounted beneath Support bracket 3 for installation of cables.

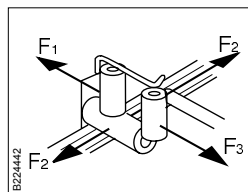
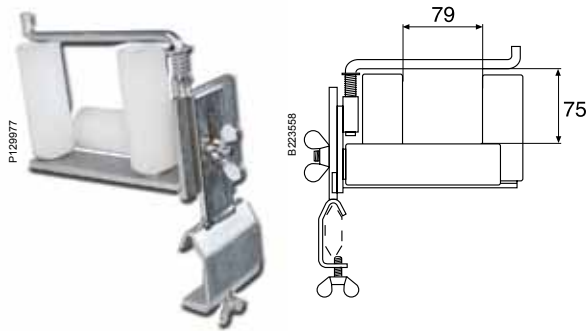


Hook 8 installed in a perforated rung.

Cable roller S

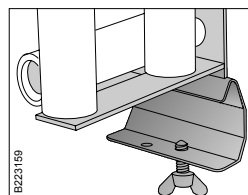


Cable roller used to facilitate the pulling of cables and lines. Easily installed on all Wibe cable ladders except the high-sided WHS ladders (outer mounting hole). Also suitable for external/internal profiles of all 90° bends, T-junctions, X-junctions and risers (inner mounting hole). With a height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

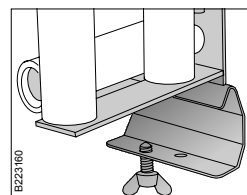


Load

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)



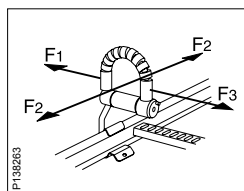
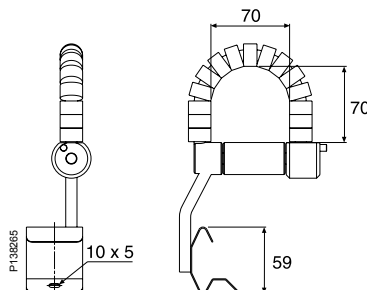
For fitting on 90°, T- and Xjunctions, use the inner mounting hole.



For mounting on ladders, use the outer mounting hole.

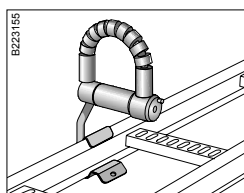
Cable roller 38 Rig'n roll

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

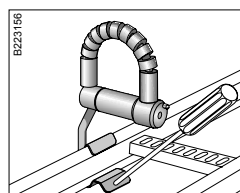


Load

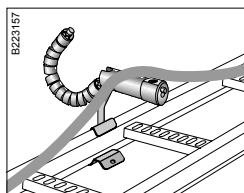
Permitted loading $F_1 = 20$ kg (KHZ, KHZP, KHZV, KHZSP)
 Permitted loading $F_2 = 50$ kg (KHZ, KHZP, KHZV, KHZSP)
 Permitted loading $F_3 = 50$ kg (KHZ, KHZP, KHZV)
 25 kg (KHZSP)



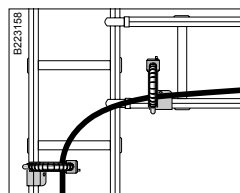
Cable roller 38 is to be mounted on the cable ladder profile.



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	107	713682	95	716071	111	716284	125	718187	128
705304	102	713682	116	716072	111	716285	125	718188	128
705392	118	713682	148	716073	111	716286	125	718189	128
705394	118	713683	95	716074	128	716287	125	718190	128
705395	118	713683	116	716075	128	716293	127	718191	128
705396	118	713683	148	716077	128	716294	128	718243	110
705397	118	713684	94	716078	128	716295	127	718249	106
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706415	118	713684	131	716080	128	716303	127	718251	106
707511	103	713684	136	716081	128	716304	127	718253	108
707609	102	713684	149	716179	111	716306	126	718409	103
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709019	95	713686	117	716187	129	716392	111	718488	126
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709053	94	714022	124	716206	129	716795	118	718562	98
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709056	94	714029	128	716209	113	716824	113	718563	98
709057	94	714058	121	716210	113	716824	147	718564	98
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732487.....	90	737705.....	96	781444.....	114	783390.....	134	786860.....	132
732488.....	90	737705.....	118	781445.....	114	783391.....	134	786860.....	150
732489.....	90	737705.....	132	781446.....	114	783392.....	134	787223.....	108
732490.....	90	737705.....	150	781751.....	130	783393.....	134	787276.....	106
732491.....	110	737706.....	96	781752.....	130	783394.....	135	787277.....	125
732492.....	110	737706.....	118	781753.....	130	783395.....	135	787278.....	142
732493.....	110	737706.....	132	781754.....	130	783396.....	135	788164.....	109
732494.....	110	737706.....	150	781755.....	130	783397.....	135	788165.....	109
732495.....	110	737707.....	96	781756.....	130	783398.....	135	788638.....	113
732977.....	123	737707.....	118	781757.....	130	783399.....	135	788639.....	147
732978.....	123	737707.....	132	781765.....	130	783400.....	135	788640.....	147
732983.....	113	737707.....	150	781766.....	130	783401.....	135	788641.....	147
733487.....	109	737708.....	96	781767.....	130	783402.....	135	788642.....	147
734171.....	116	737708.....	118	781768.....	130	783403.....	135	788643.....	147
734172.....	116	737708.....	132	781769.....	130	783404.....	134	788644.....	147
734173.....	116	737708.....	150	781770.....	130	783405.....	134	788645.....	147
734174.....	116	739713.....	132	781771.....	130	783406.....	134	788646.....	147
734225.....	91	768001.....	99	781793.....	114	783407.....	134	788647.....	147
734226.....	91	768001.....	99	781794.....	130	783408.....	134	788648.....	147
734488.....	86	768002.....	99	781796.....	114	783449.....	134	788649.....	147
734488.....	86	768002.....	99	781797.....	130	783460.....	90	788650.....	147
734489.....	86	768004.....	99	781802.....	92	783461.....	90	788651.....	147
734490.....	86	768004.....	99	781803.....	92	783484.....	146	788652.....	147
734491.....	86	768005.....	99	782128.....	138	783516.....	98	788653.....	147
734492.....	86	768005.....	99	782128.....	138	783516.....	98	788654.....	147
734493.....	86	768006.....	99	782129.....	138	783517.....	98	789875.....	95
734494.....	86	768006.....	99	782129.....	138	783517.....	98	789875.....	117
734495.....	86	768007.....	99	782213.....	114	783518.....	98	789875.....	131
734496.....	86	768007.....	99	782214.....	130	783518.....	98	789875.....	149
734497.....	97	768063.....	107	782353.....	108	783519.....	98	789876.....	95
734498.....	97	768733.....	93	782365.....	130	783519.....	98	789876.....	117
734499.....	97	768738.....	110	782366.....	130	783520.....	98	789876.....	132
734500.....	97	769000.....	94	782367.....	130	783520.....	98	789876.....	149
734501.....	97	769001.....	94	782368.....	130	783521.....	98	790906.....	123
734502.....	97	769002.....	94	782369.....	130	783521.....	98	791063.....	105
734503.....	97	769003.....	94	782370.....	130	783522.....	98	791064.....	105
734504.....	97	769004.....	94	782371.....	130	783522.....	98	791065.....	105
734505.....	97	769005.....	94	782382.....	130	783523.....	98	791066.....	105
734506.....	97	769006.....	94	782384.....	130	783523.....	98	791067.....	105
734507.....	118	769007.....	94	782569.....	130	783524.....	120	791068.....	105
734508.....	102	769008.....	94	782570.....	130	783524.....	120	791092.....	105
734509.....	118	769009.....	94	782571.....	130	783525.....	120	791199.....	102
734510.....	96	769010.....	94	782572.....	130	783525.....	120	791200.....	123
734511.....	96	769011.....	94	782573.....	130	783526.....	120	791350.....	109
734512.....	149	769012.....	94	782574.....	130	783526.....	120	791401.....	127
734513.....	131	769013.....	94	782575.....	130	783527.....	120	791413.....	87
734514.....	131	769014.....	94	782576.....	130	783527.....	120	791414.....	87
734515.....	131	769015.....	94	782585.....	147	783528.....	120	791415.....	87
734516.....	131	769016.....	94	782586.....	147	783528.....	120	792554.....	89
735446.....	95	780162.....	87	782587.....	147	783529.....	120	792723.....	88
735447.....	117	780163.....	87	782588.....	147	783529.....	120	792724.....	88
735448.....	131	780186.....	96	782589.....	147	783530.....	120	792725.....	88
735449.....	149	780186.....	119	782590.....	147	783530.....	120	792726.....	88
735998.....	96	780186.....	132	782591.....	147	783531.....	120	792727.....	89
735998.....	119	780186.....	150	782592.....	147	783531.....	120	792728.....	89
735998.....	132	780187.....	96	783155.....	86	783772.....	134	792729.....	89
735998.....	150	780187.....	119	783155.....	86	783773.....	135	792863.....	116
736440.....	144	780187.....	132	783156.....	86	783774.....	136	792864.....	148
736441.....	144	780187.....	150	783156.....	86	784066.....	140	792865.....	116
736442.....	144	780452.....	114	783157.....	86	784066.....	140	792866.....	148
736443.....	144	780453.....	114	783157.....	86	784067.....	140	792867.....	116
736444.....	144	780454.....	114	783158.....	86	784067.....	140	792868.....	148
736445.....	144	780455.....	114	783158.....	86	784068.....	140	792873.....	141
736446.....	144	780456.....	114	783159.....	86	784068.....	140	792875.....	143
736447.....	144	780457.....	114	783159.....	86	784069.....	140	792877.....	141
736448.....	144	780874.....	123	783374.....	141	784069.....	140	792880.....	145
736449.....	144	781099.....	86	783375.....	147	784070.....	140	792881.....	145
736450.....	144	781099.....	86	783383.....	133	784070.....	140	792882.....	145
736451.....	144	781433.....	114	783383.....	133	784071.....	140	792883.....	145
736452.....	144	781434.....	114	783384.....	133	784071.....	140	792884.....	145
736453.....	144	781435.....	114	783384.....	133	784072.....	140	792885.....	145
736454.....	144	781436.....	114	783385.....	133	784072.....	140	792886.....	145
736455.....	144	781437.....	114	783385.....	133	786738.....	93	792888.....	141
736456.....	144	781438.....	114	783386.....	133	786739.....	93	792893.....	141
737198.....	144	781439.....	114	783386.....	133	786746.....	114	792895.....	119
737704.....	96	781440.....	114	783387.....	133	786747.....	114	792903.....	146
737704.....	118	781441.....	114	783387.....	133	786768.....	109	792904.....	146

792905.....	146	CSU794461.....	134	CSU795181.....	96
792906.....	146	CSU794462.....	134	CSU795205.....	103
792907.....	146	CSU794463.....	134	CSU795206.....	111
792908.....	146	CSU794464.....	134	CSU795207.....	111
792909.....	146	CSU794465.....	135	CSU795208.....	111
792920.....	146	CSU794466.....	135	CSU795209.....	109
792921.....	146	CSU794467.....	135	CSU795210.....	103
792922.....	146	CSU794468.....	135	CSU795211.....	103
792923.....	146	CSU794469.....	135	CSU795220.....	89
792924.....	146	CSU794470.....	135	CSU795221.....	89
792925.....	146	CSU794471.....	135	WBE782561.....	113
1149159.....	90	CSU794472.....	135	WBE782562.....	113
1149191.....	90	CSU794473.....	135	WBE782563.....	113
1149259.....	110	CSU794474.....	135	WBE782564.....	113
1149291.....	110	CSU794475.....	135	WBE782565.....	113
1149359.....	148	CSU794476.....	135	WBE782566.....	113
1149391.....	148	CSU794477.....	136	WBE782567.....	113
1149405.....	90	CSU794478.....	136	WBE782568.....	113
1149456.....	90	CSU794479.....	136		
1149464.....	90	CSU794480.....	134		
1149466.....	90	CSU794481.....	134		
1149551.....	144	CSU794482.....	135		
1149552.....	144	CSU794483.....	135		
1149554.....	144	CSU794484.....	136		
1149555.....	72	CSU794485.....	136		
1149555.....	76	CSU794486.....	136		
1149555.....	84	CSU794520.....	95		
1149555.....	144	CSU794520.....	117		
1149561.....	144	CSU794520.....	132		
1149562.....	144	CSU794520.....	149		
1149564.....	144	CSU794697.....	58		
1149565.....	72	CSU794697.....	119		
1149565.....	76	CSU794699.....	58		
1149565.....	84	CSU794699.....	119		
1149565.....	144	CSU794715.....	58		
CSU734698.....	58	CSU794715.....	119		
CSU734698.....	119	CSU795050.....	87		
CSU794202.....	106	CSU795050.....	102		
CSU794203.....	106	CSU795051.....	87		
CSU794204.....	106	CSU795051.....	102		
CSU794205.....	106	CSU795138.....	101		
CSU794206.....	106	CSU795138.....	101		
CSU794207.....	106	CSU795139.....	101		
CSU794439.....	137	CSU795139.....	101		
CSU794439.....	137	CSU795140.....	101		
CSU794440.....	137	CSU795140.....	101		
CSU794440.....	137	CSU795141.....	101		
CSU794441.....	137	CSU795141.....	101		
CSU794441.....	137	CSU795142.....	101		
CSU794442.....	137	CSU795142.....	101		
CSU794442.....	137	CSU795143.....	101		
CSU794443.....	137	CSU795143.....	101		
CSU794443.....	137	CSU795144.....	101		
CSU794445.....	137	CSU795144.....	101		
CSU794445.....	137	CSU795145.....	112		
CSU794446.....	137	CSU795146.....	112		
CSU794446.....	137	CSU795147.....	112		
CSU794447.....	137	CSU795148.....	112		
CSU794447.....	137	CSU795149.....	112		
CSU794448.....	137	CSU795150.....	112		
CSU794448.....	137	CSU795151.....	112		
CSU794449.....	137	CSU795152.....	112		
CSU794449.....	137	CSU795153.....	112		
CSU794450.....	133	CSU795154.....	112		
CSU794450.....	133	CSU795155.....	112		
CSU794451.....	133	CSU795156.....	112		
CSU794451.....	133	CSU795157.....	112		
CSU794452.....	133	CSU795158.....	112		
CSU794452.....	133	CSU795159.....	111		
CSU794453.....	133	CSU795160.....	111		
CSU794453.....	133	CSU795161.....	111		
CSU794454.....	133	CSU795162.....	111		
CSU794454.....	133	CSU795163.....	111		
CSU794455.....	134	CSU795164.....	111		
CSU794456.....	134	CSU795165.....	111		
CSU794457.....	134	CSU795166.....	116		
CSU794458.....	134	CSU795167.....	116		
CSU794459.....	134	CSU795168.....	104		
CSU794460.....	134	CSU795180.....	96		

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