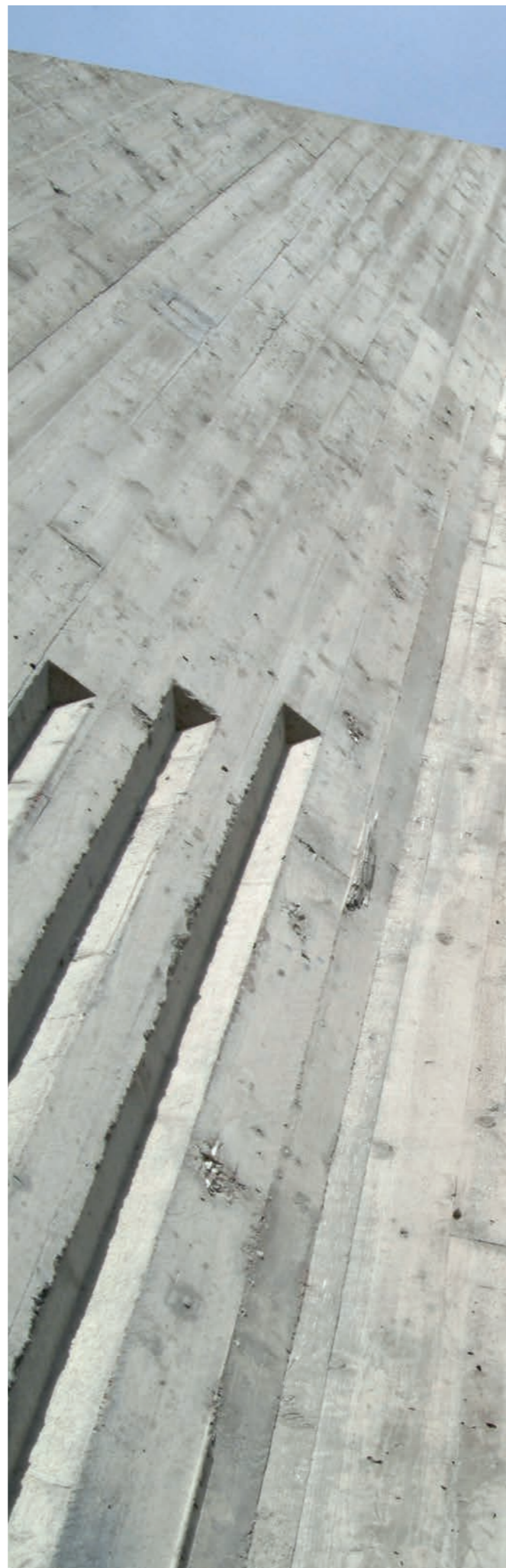


FVS - Fiksni varovalni sistem

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# Product Catalogue

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► For further information, inquiries and offers ◀

marko@endal.si



# PROFILES AND LADDERS

These can be installed anywhere, even on existing ladders.

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End Bow PTBK 59	14



## Vertical Profile B

To be installed on existing ladders or structures



**Product**

Vertical Profile B

**Weight**

4,5 kg/m

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

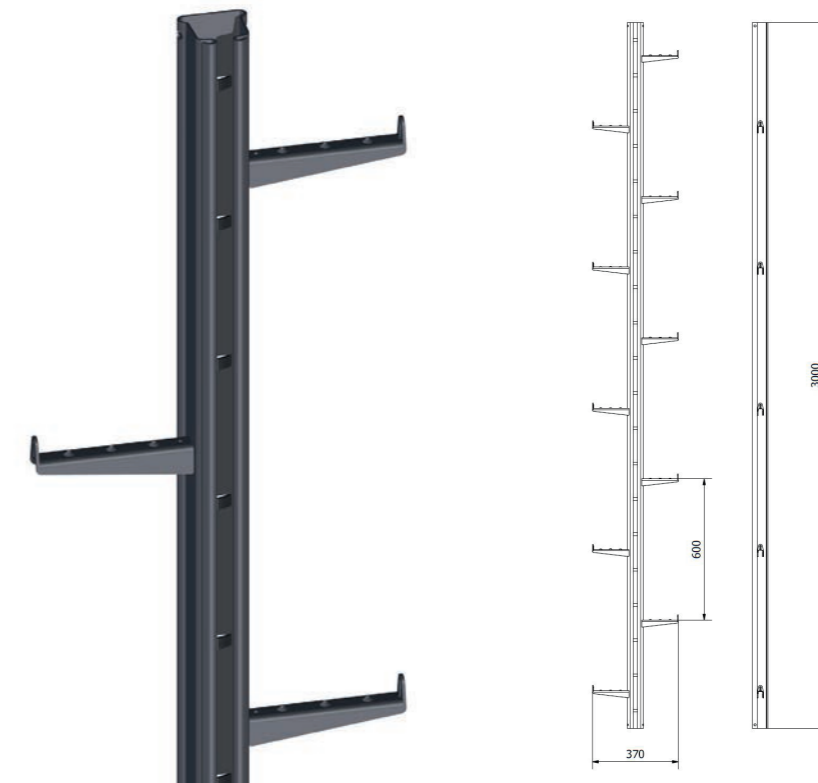
**Features**

Delivery lengths 3, 5 and 6 m, holes for extension joints in both ends of profile.

**Notes**

## Cleat Ladder TBA-I

Complete ladder structure.  
For poles, masts and chimneys



**Product**

Cleat Ladder TBA-1

**Weight**

5,5 kg/m

**Material**

Hot-dip galvanized steel

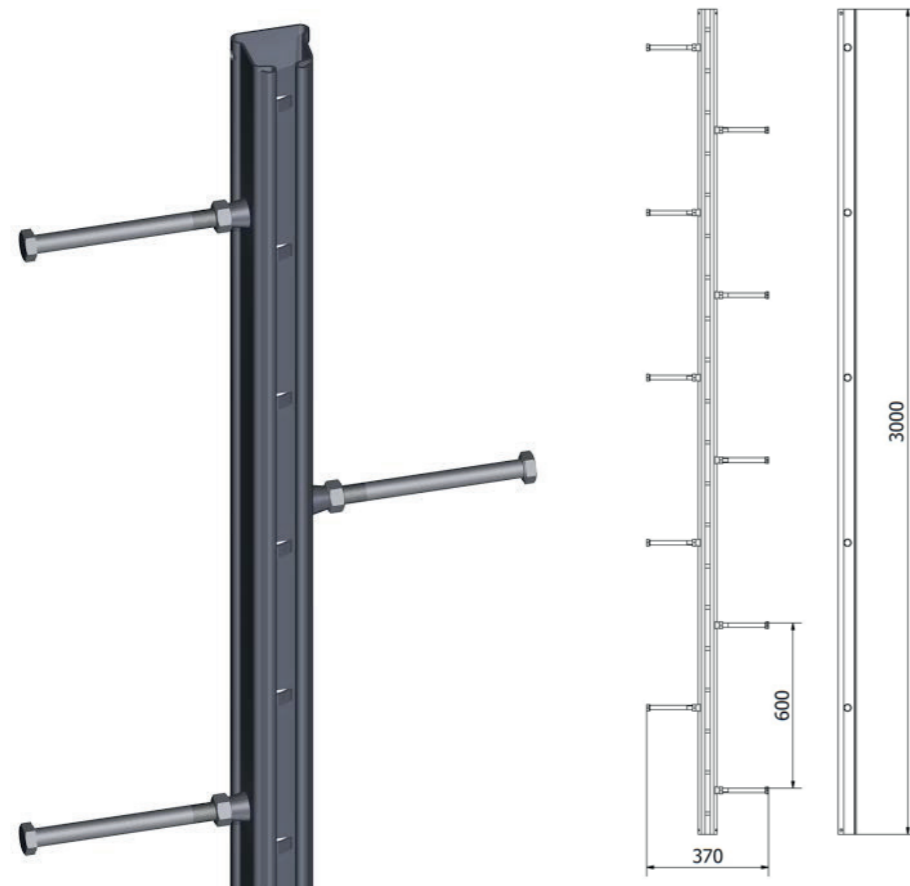
**Features**

Delivery length 3m, holes for extension joints in both ends of profile.  
Welded U-profile rungs.

**Notes**

## Cleat Ladder TBA-I with Releasable steps

Steps can be removed to prevent climbing



**Product**

Cleat Ladder TBA-1

**Weight**

5,5 kg/m

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

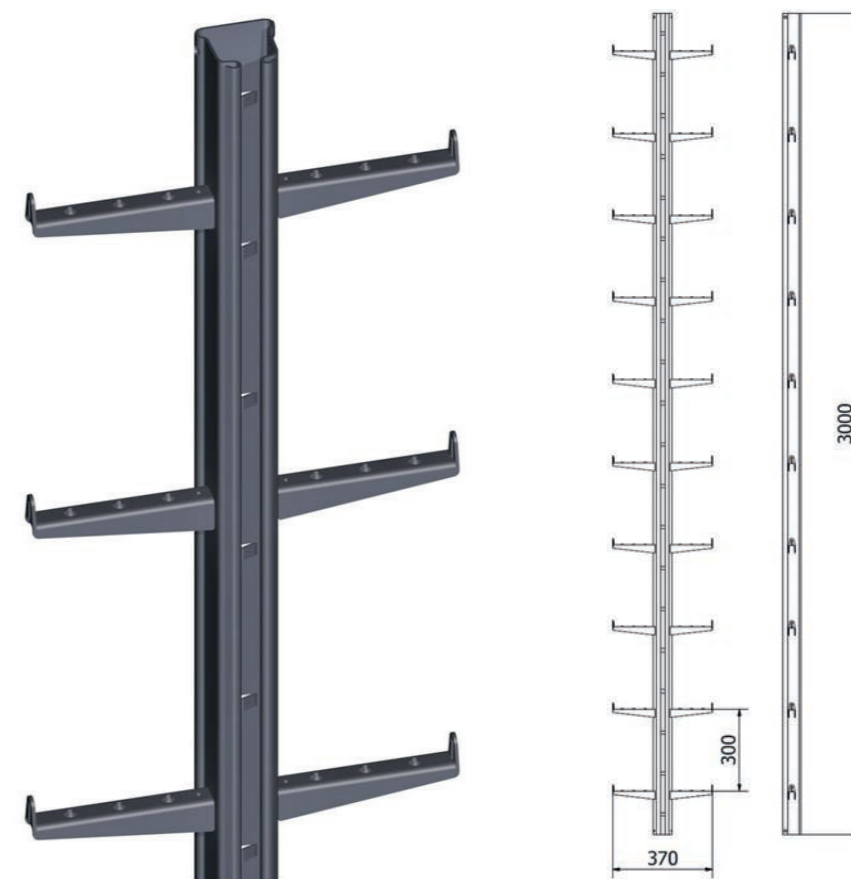
**Features**

Delivery length 3m, holes for extension joints in both ends of profile.

**Notes**

## Cleat Ladder TBA-II

Complete ladder structure.  
For poles, masts and chimneys



**Product**

Cleat Ladder TBA-II

**Weight**

6,2 kg/m

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

**Features**

Delivery length 3m, holes for extension joints in both ends of profile.  
Welded U-profile rungs

**Notes**

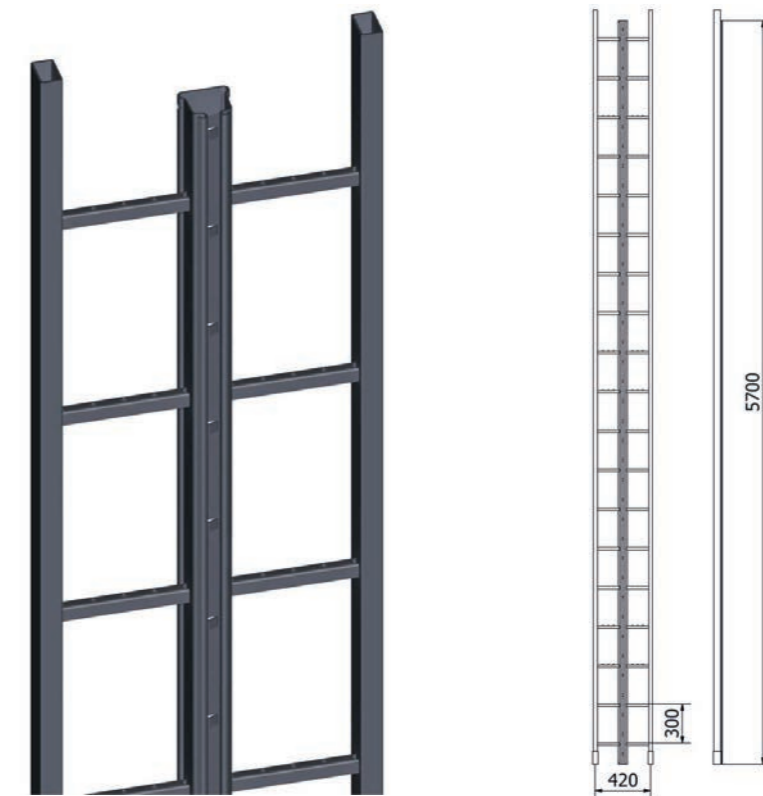
## Flange Ladder PTBJ

Complete ladder structure with Vertical Profile B and basis



## Flange Ladder PTBR

Complete ladder structure with Vertical Profile B and basis



**Product**

Flange Ladder PTBJ

**Weight**

7,7 kg/m

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

**Features**

Delivery length 3m, holes for extension joints in both ends of profile.  
Welded U-profile rungs.  
Flanges with sleeve joints.

**Notes**

**Product**

Flange Ladder PTBR

**Weight**

12,7 kg/m

**Material**

Hot-dip galvanized steel

**Features**

Delivery length 5,7m, holes for extension joints in both ends of profile.  
Welded U-profile rungs.  
Flanges with sleeve joints.

**Notes**

## End Bow B 50

Installed on existing ladder with Vertical Profile B



**Product**

End Bow B 50

**Weight**

15 kg

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

**Features**

Straight section 1,65 m.

**Notes**

## Side-End Bow B 50 SR/SL

Installed on existing ladder with Vertical Profile B



**Product**

Side-End Bow B 50 SR/SL

**Weight**

15 kg

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

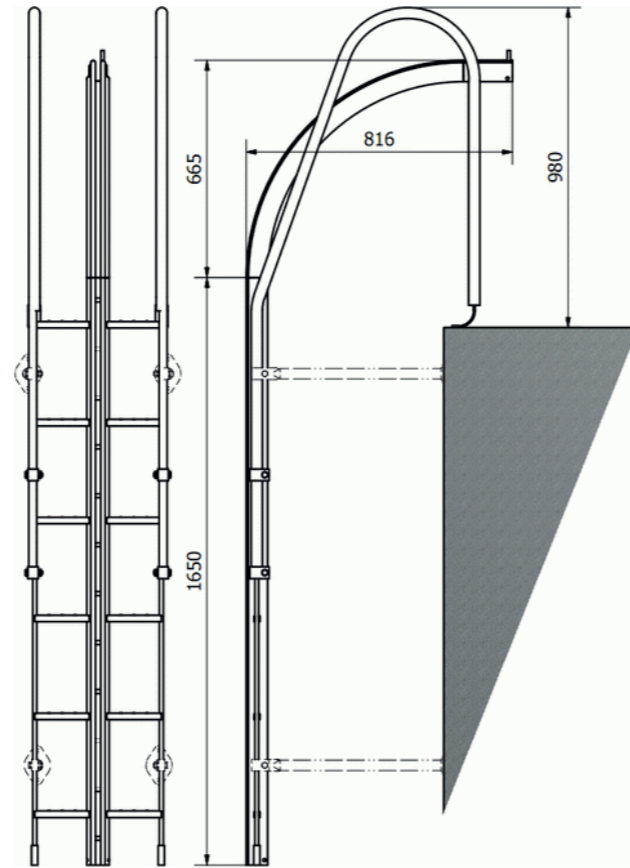
**Features**

After straight section 1,65 m to right (SR) or to left (SL).

**Notes**

# End Bow PTBJ 59

Used with Flange Ladder PTBJ.



**Product**  
End Bow PTBJ 59

**Weight**  
30 kg

**Material**  
Hot-dip galvanized steel or  
acid-proof stainless steel

**Features**  
Straight section 1,65 m with  
6 rungs. Hand rails up to 1 m  
are lean 15° forward, then bend  
down and fastened to roof  
or eaves construction.

**Notes**





# HORIZONTAL PROFILES

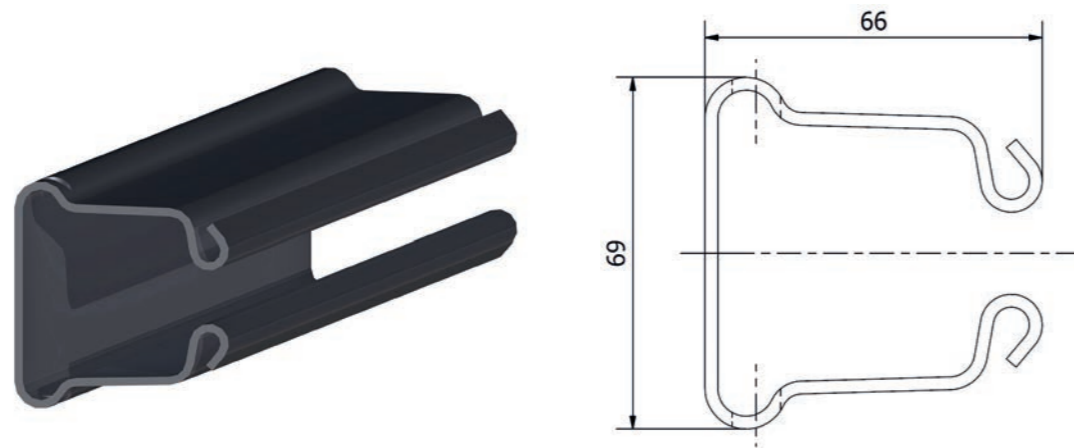
Ultimate safety for horizontal levels

Horizontal Profile B	18
Releasable Horizontal Carriage Stopper no.86	19
Horizontal Carriage Lead-in no.88	20
Horizontal Carriage no. 951	21



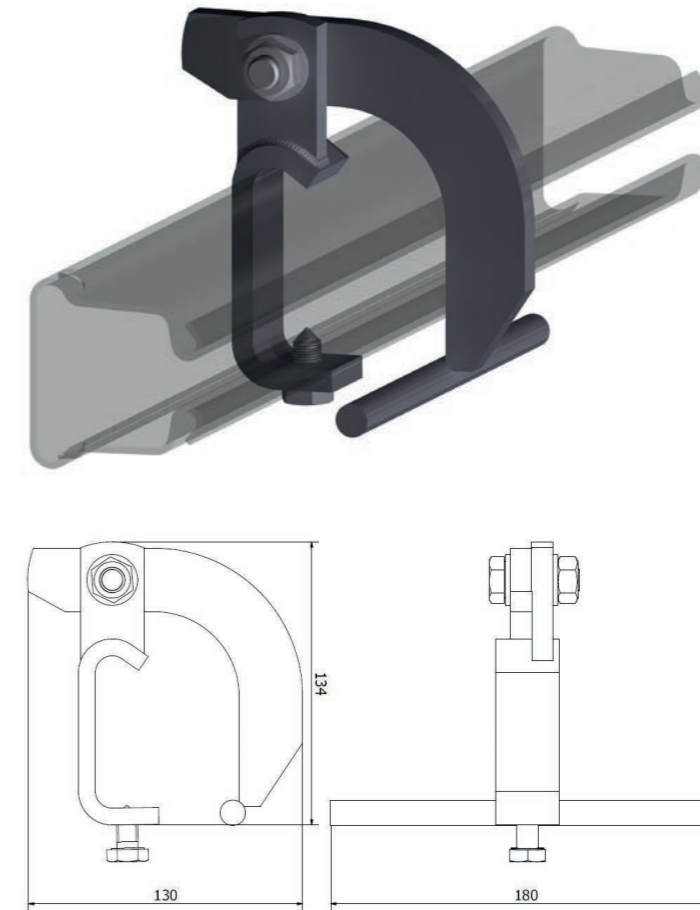
## Horizontal Profile B

Used with horizontal carriage on safety platforms.



## Releasable Horizontal Carriage Stopper n<sup>o</sup>.86

To stop the Carriage at the end of the profile or at desired spots



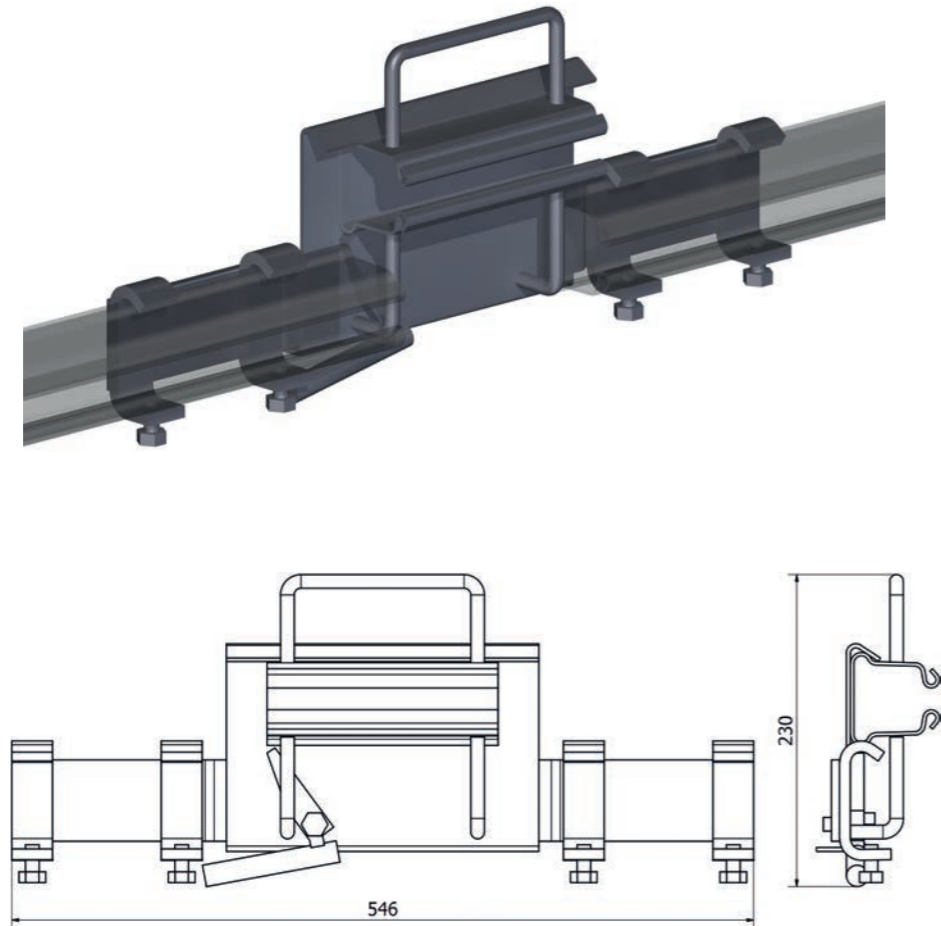
<b>Product</b> Horizontal Profile B	<b>Weight</b> 4,5 kg/m	<b>Material</b> hot-dip galvanized steel or acid-proof stainless steel
<b>Features</b> See above.	<b>Notes</b> Material and measurements similar to the Vertical Profile B but without locking fins on the bottom. Fixing with Basic Clamps no 15 which are not included.	

<b>Product</b> Releasable Horizontal Carriage Stop no.86	<b>Weight</b> 1,0 kg	<b>Material</b> hot-dip galvanized steel or acid-proof stainless steel
<b>Features</b> See above.	<b>Notes</b> Compatible with Horizontal Profile VB based products. Also suitable for platforms.	



## Horizontal Carriage Lead-in no.88

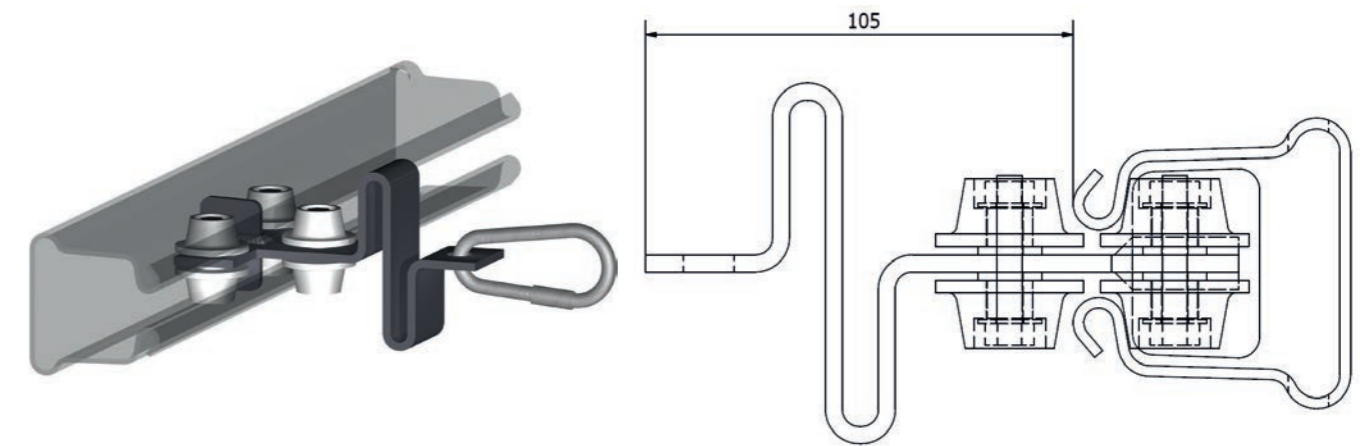
Used with Vertical Profile VB to get Horizontal Carriage no.151 in or out of the profile at desired spots



<b>Product</b> Horizontal Carriage Lead-in no.88	<b>Weight</b> 5,3 kg	<b>Material</b> hot-dip galvanized steel or acid-proof stainless steel
<b>Features</b> See above.	<b>Notes</b> Compatible with Horizontal Profile VB based products. Used e.g. along with smoke exhaust hatches or roof ladders.	

## Horizontal Carriage no.951

Safety Carriage for use in horizontal movement only.



<b>Product</b> Horizontal Carriage no.951	<b>Weight</b> 0,7 kg	<b>Material</b> Acid-proof stainless steel
<b>Features</b> See above.	<b>Notes</b> Slides easily with moderate load. Carriage is equipped with snap-hook.	

# ACCESSORIES

Solutions for every need!

Anti-Climb Device no.25	24
Sleeve Joint no.70	25
Cable Support no.72/74	26
Top Cover no.80	27
Vertical Carriage Lead-in no.82	28
Carriage Guide no.84	29
Releasable Vertical Carriage Stopper no.85	30
Output Set no.87	31
Carriage Stopper no.89	32
Releasable Vertical Carriage Stopper no.851	33
Landing no.104	34
Landing no.105	35

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## EASY ASSEMBLY

All of our parts are made compatible and easy to install. Every part includes a user-friendly guide, and remember to look at the fascinating installation videos on our website!

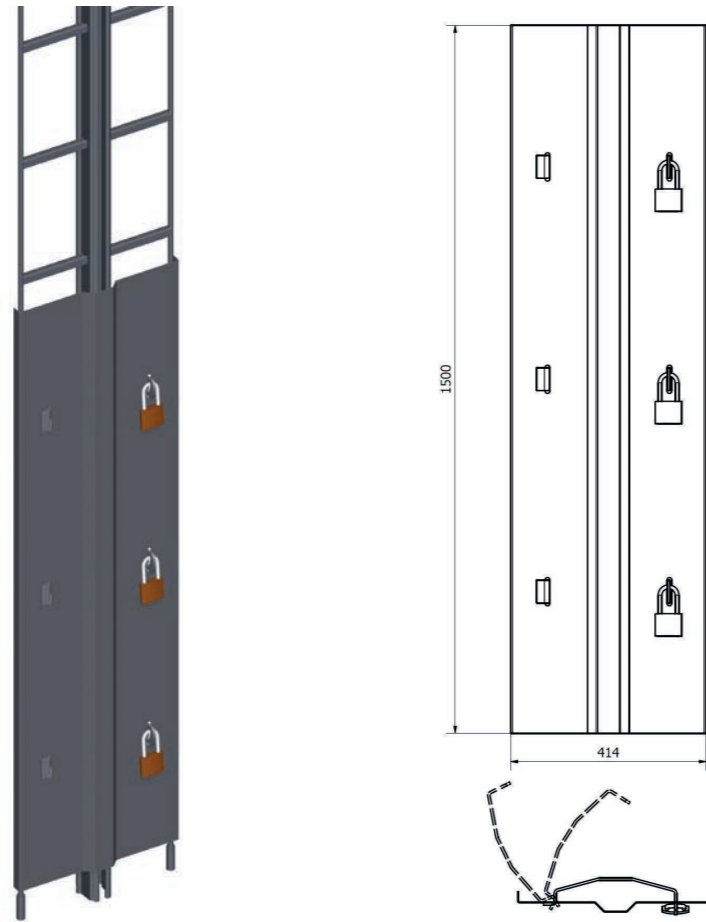
## FLEXIBILITY

Our products are designed in a way that we can ensure their compatibility, but still easy and simple to use.



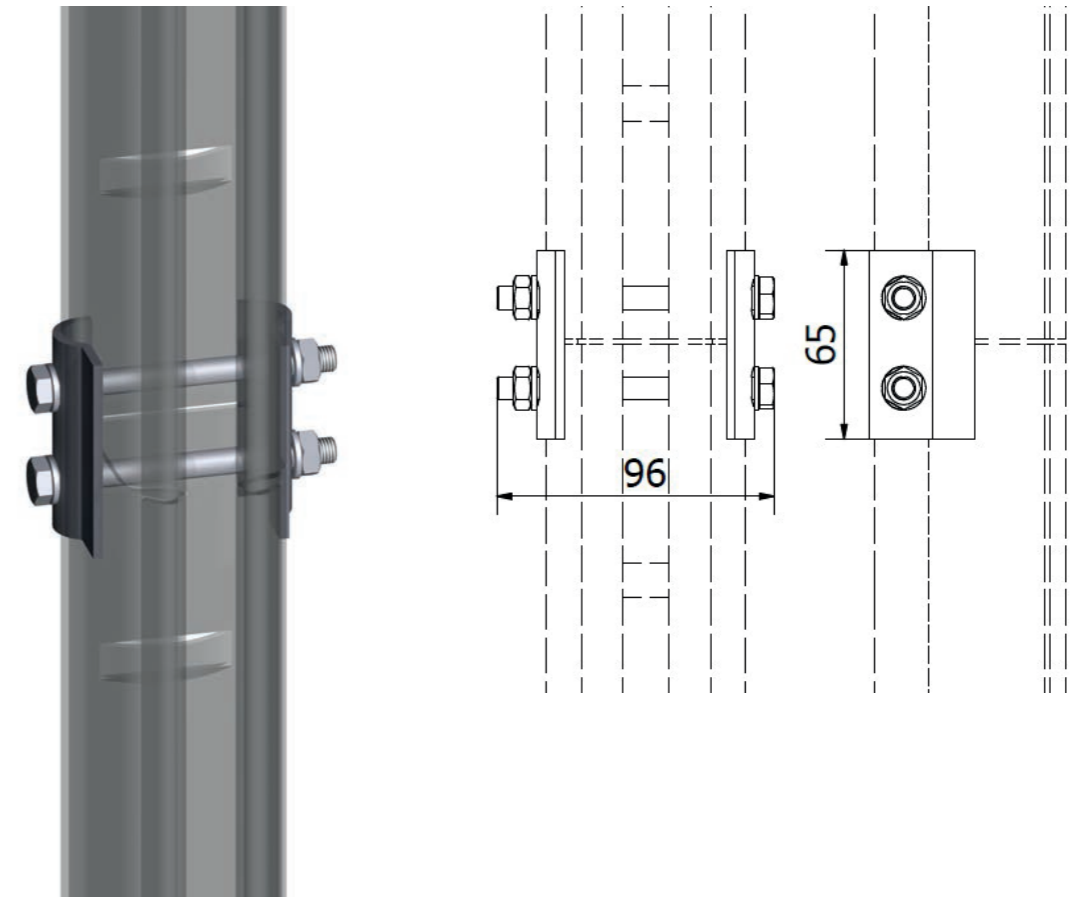
## Anti-Climb Device no.25

Used to prevent unauthorized climbing on the ladders.



## Sleeve Joint no.70

For joining profile and ladder sections together

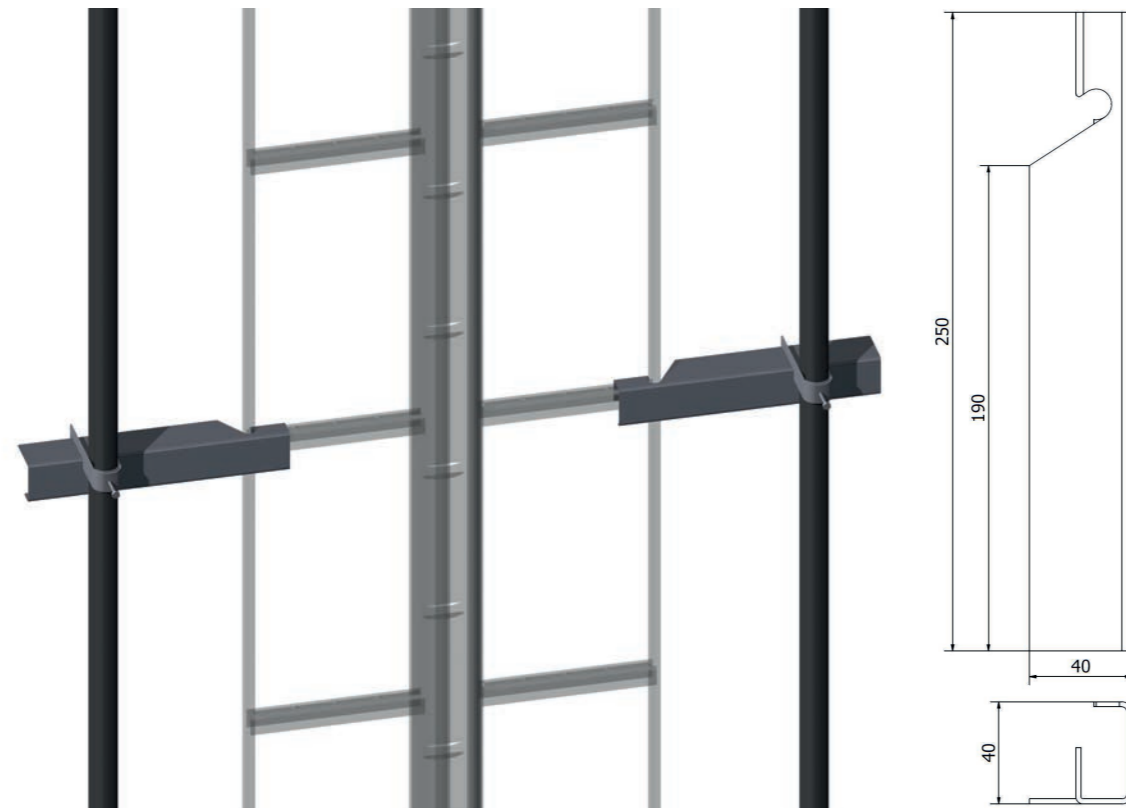


<b>Product</b> Anti-Climb Device no.25	<b>Weight</b> 12,4 kg	<b>Material</b> hot-dip galvanized steel or acid-proof stainless steel
<b>Features</b> See above.	<b>Notes</b> Compatible with Flange Ladders PTBJ and PTBK and Cleat Ladders TBA-I and TBA-II. Locked with padlocks. Padlocks are not included in delivery.	

<b>Product</b> Sleeve joint no.70	<b>Weight</b> 0,18 kg/pc	<b>Material</b> Hot-dip galvanized steel or acid-steel stainless steel
<b>Features</b> See above.	<b>Notes</b> Compatible with all Vertical Profile B and Horizontal Profile VB based products. Bolts, nuts and washers are included.	

## Cable Support no.72/74

Cable support is used with Flange Ladder PTBK.



**Product**

Cable Support no.72/74

**Weight**

0,35 kg.

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

**Features**

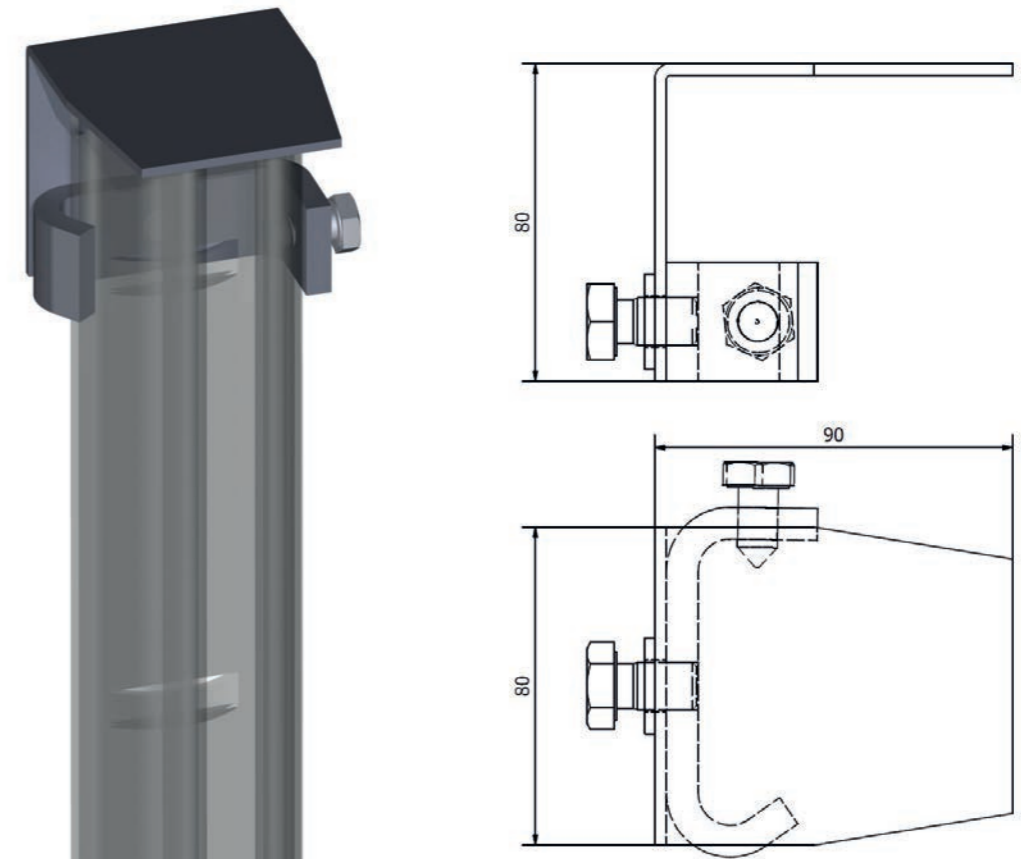
See above.  
Cable Support no 72 for left side and no 74 for right side.

**Notes**

Compatible with Flange Ladders PTBJ and PTBK.  
It is attached to cross section of rung and flange.  
Locked by hammering a lip on the support in, under the rung.  
Cable is attached with clamp.

## Top Cover no. 80

Used with Weather Protection no.60.



**Product**

Top Cover no.80

**Weight**

0,5 kg.

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

**Features**

See above.

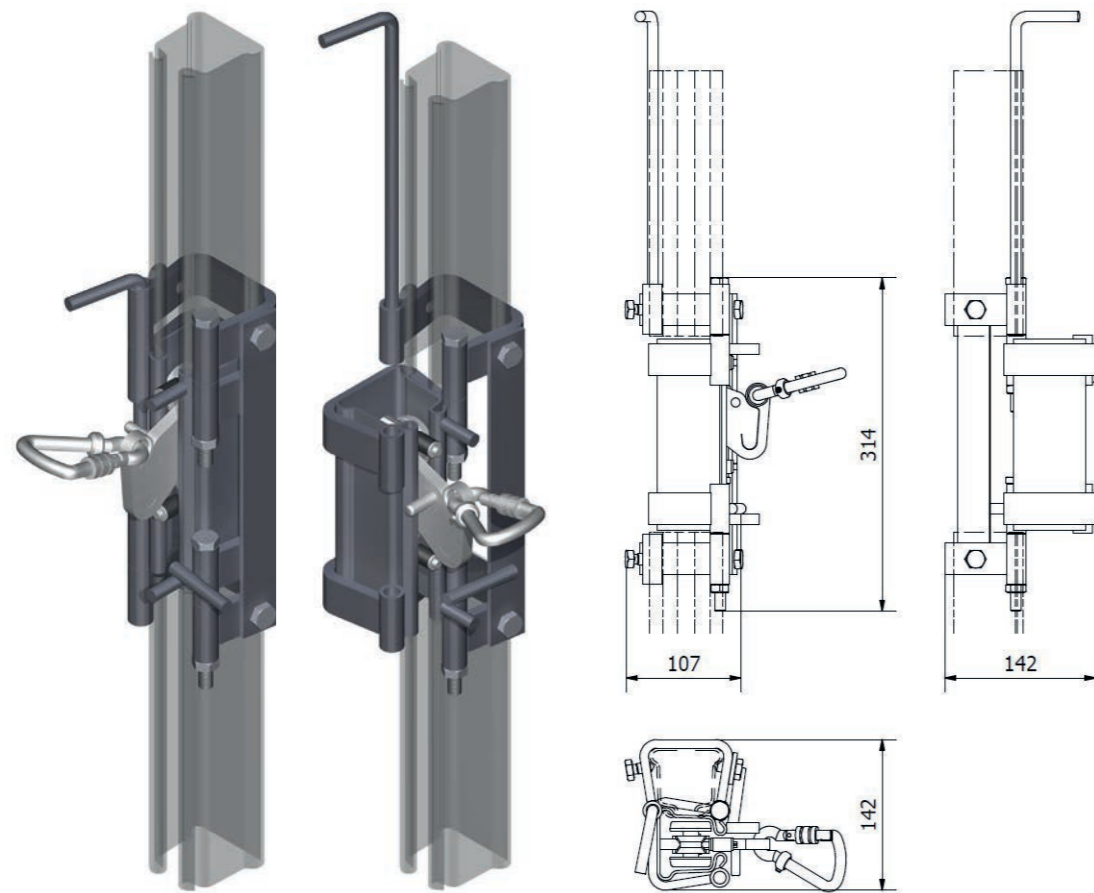
**Notes**

Compatible with all Vertical Profile B and Horizontal Profile VB based products.



## Vertical Carriage Lead-in no. 82

Used if carriage needs to be inserted or pulled out in the middle of profile.



**Product**

Vertical Carriage Lead-in no.82

**Weight**

1,2 kg.

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

**Features**

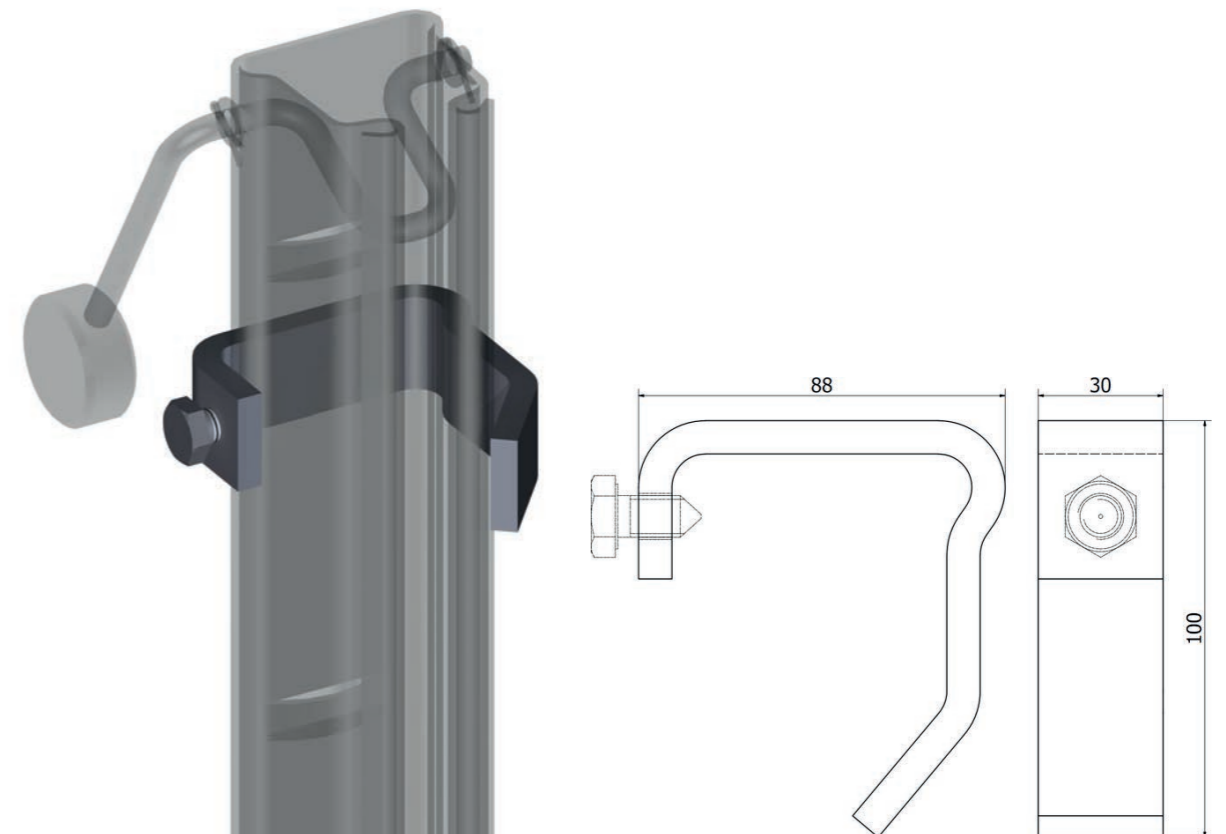
See above.

**Notes**

Compatible with Vertical Profile B based products.

## Carriage Guide no. 84

To prevent incorrect insertion of the climbing carriage.



**Product**

Carriage Guide no.84

**Weight**

0,45 kg.

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

**Features**

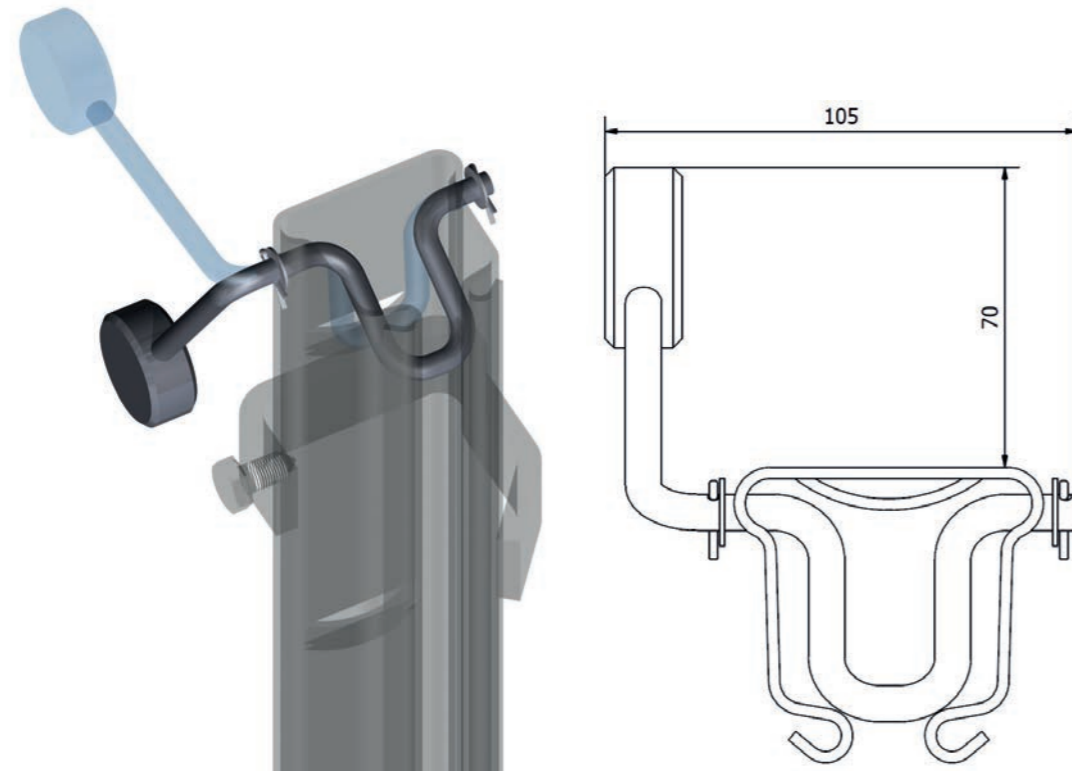
See above.

**Notes**

Compatible with all Vertical Profile B and Horizontal Profile VB based products.  
Bolt is included.  
To be used with Releasable Vertical Carriage Stopper no 85.

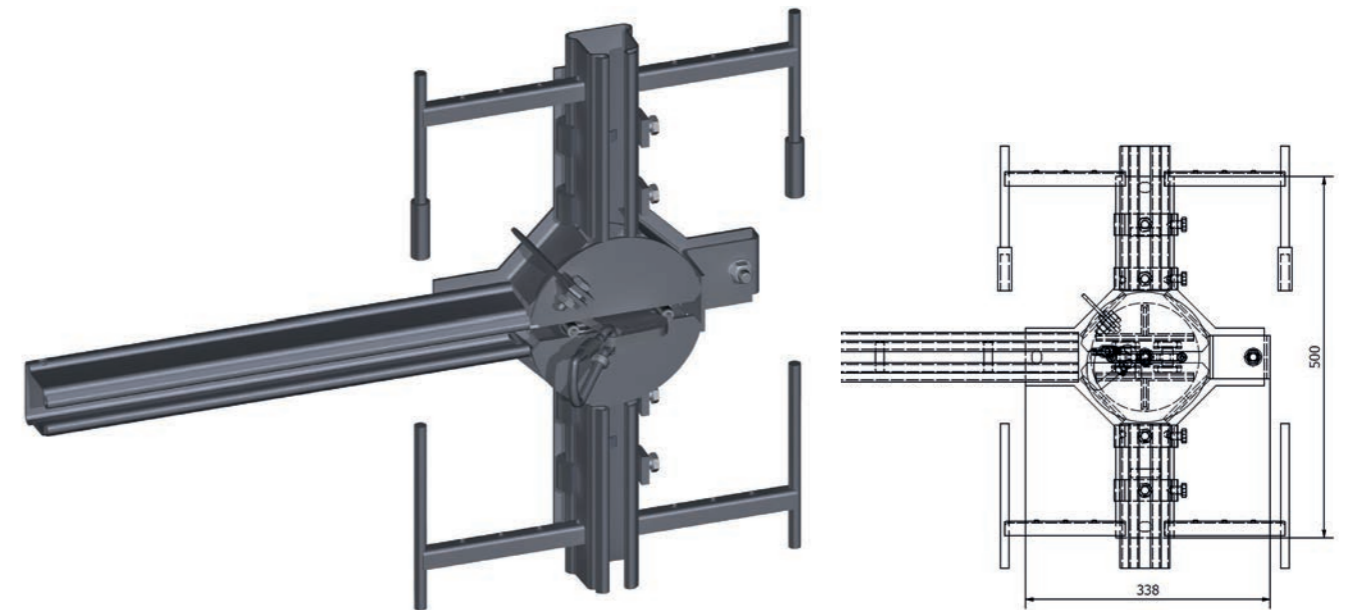
## Releasable Vertical Carriage Stopper no. 85

Installed on upper end of vertical profile extension hoes to prevent carriage from slipping out unintended.



## Output Set no. 87

Used if carriage needs to be guided into a Horizontal Profile VB in the middle of the profile.



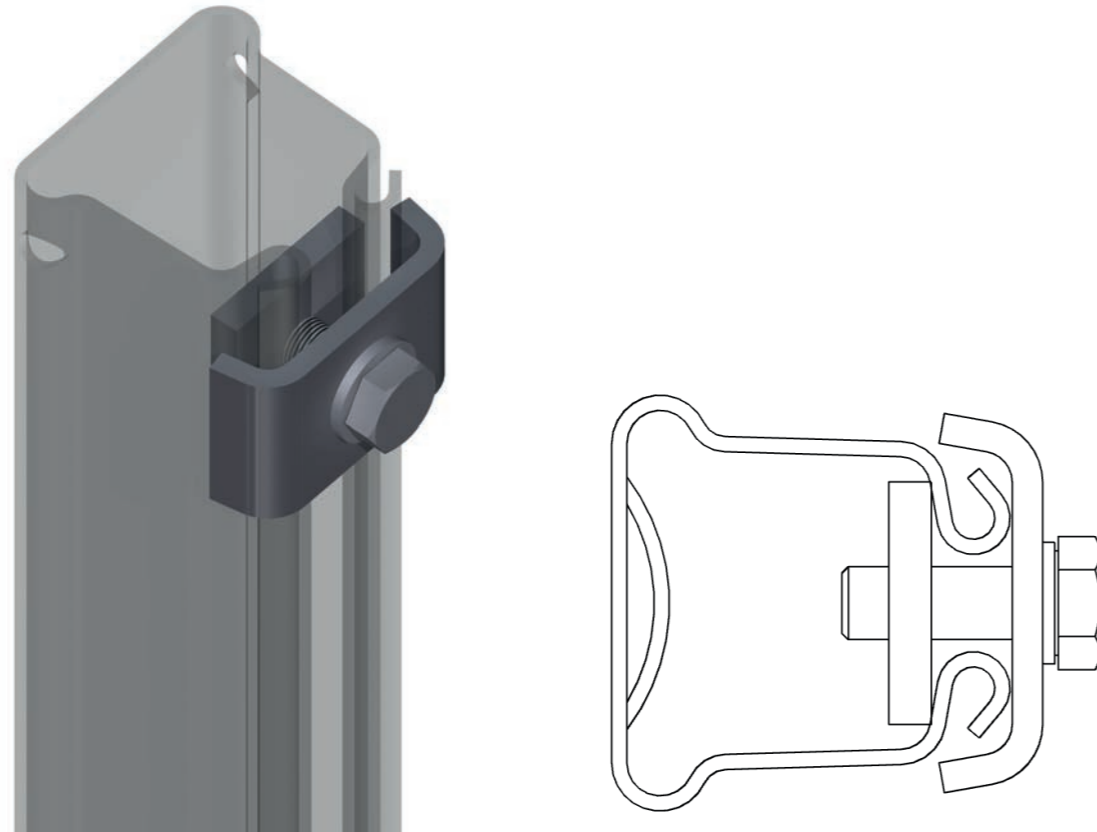
<b>Product</b> Releasable Vertical Carriage Stopper no.85	<b>Weight</b> 0,25 kg.	<b>Material</b> Hot-dip galvanized steel or acid-proof stainless steel
<b>Features</b> See above.	<b>Notes</b> Compatible with all Vertical Profile B based products. To be used with Carriage Guide no.84.	

<b>Product</b> Output Set no.87	<b>Weight</b> 7,0 kg.	<b>Material</b> Hot-dip galvanized steel or acid-proof stainless steel
<b>Features</b> See above.	<b>Notes</b> Compatible with Vertical Profile B and ladders: TBA-I, TBA-II, PTBJ and PTBK.	



## Carriage Stopper no.89

Permanent carriage stopper that is installed on upper end of the profile to prevent the carriage from slipping out unintended.



**Product**

Carriage Stopper no.89

**Weight**

0,4 kg.

**Material**

Hot-dip galvanized steel or acid-steel stainless steel

**Features**

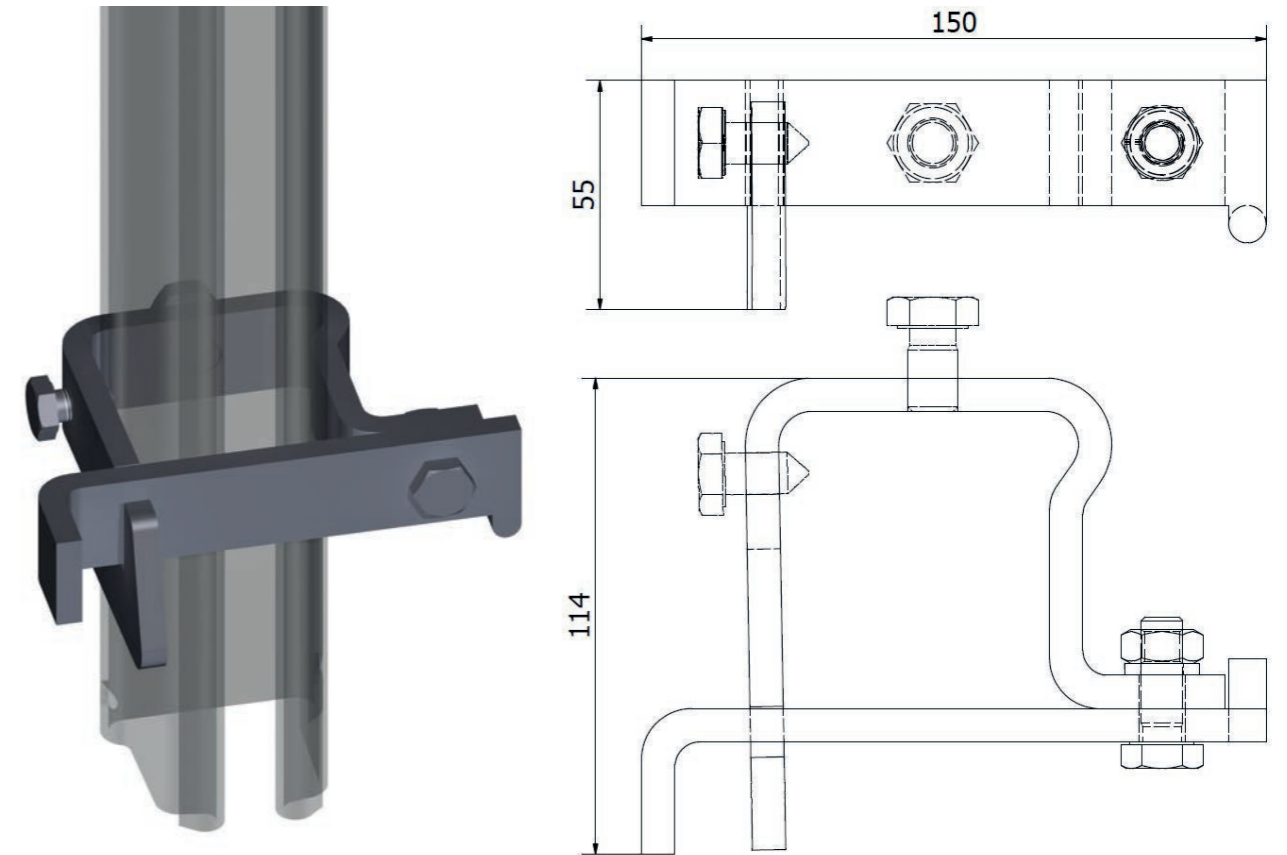
See above.

**Notes**

Compatible with all Vertical Profile B and Horizontal Profile VB based products.

## Releasable Vertical Carriage Stopper no.851

Installed on lower end of vertical profile extension hoes to prevent carriage from slipping out unintended.



**Product**

Releasable Vertical Carriage Stopper no.851

**Weight**

1,2 kg.

**Material**

Hot-dip galvanized steel or acid-steel stainless steel

**Features**

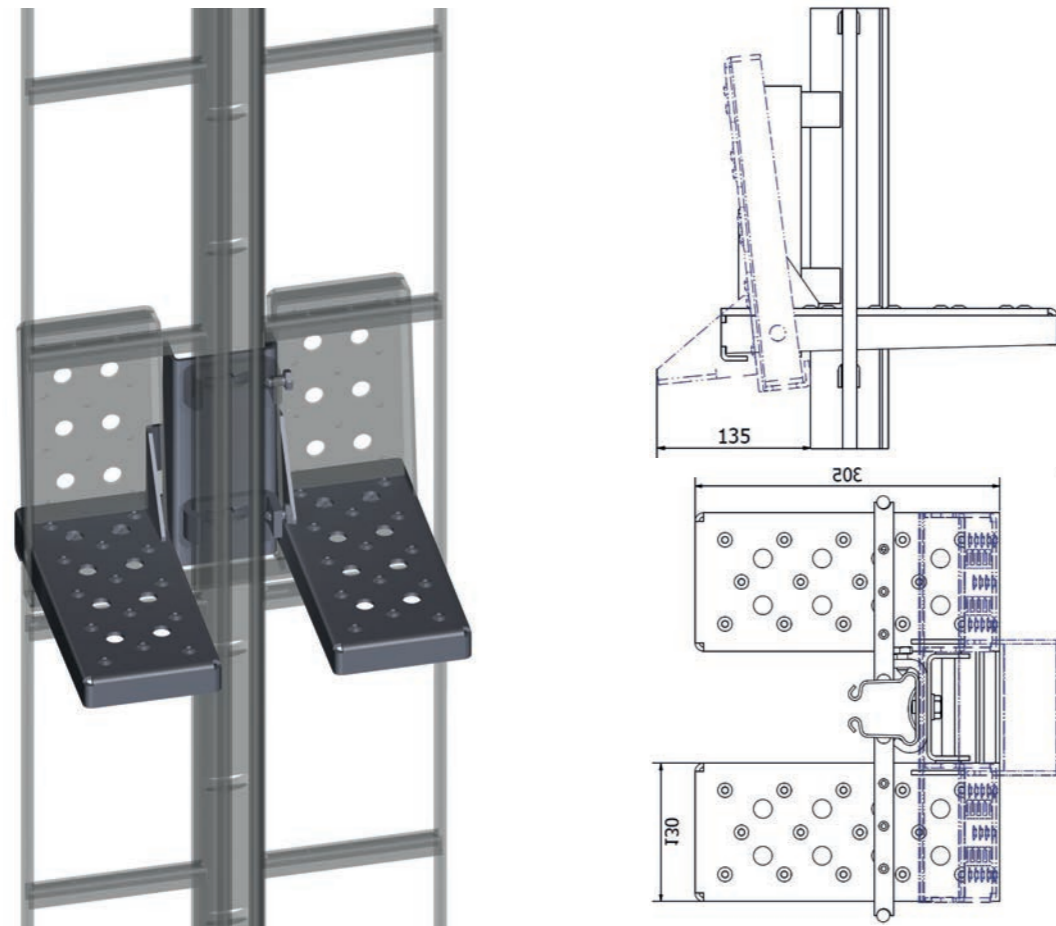
See above.

**Notes**

Compatible with all wVertical Profile B based products.

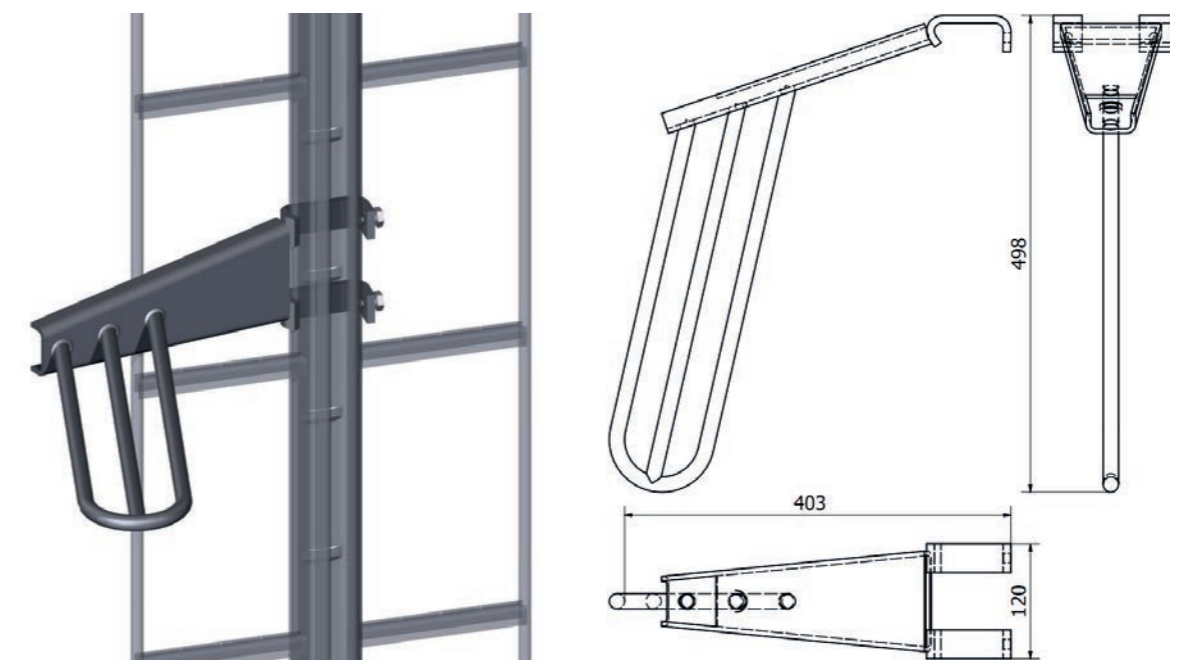
## Landing no.104

Resting platform for standing.



## Landing no. 105

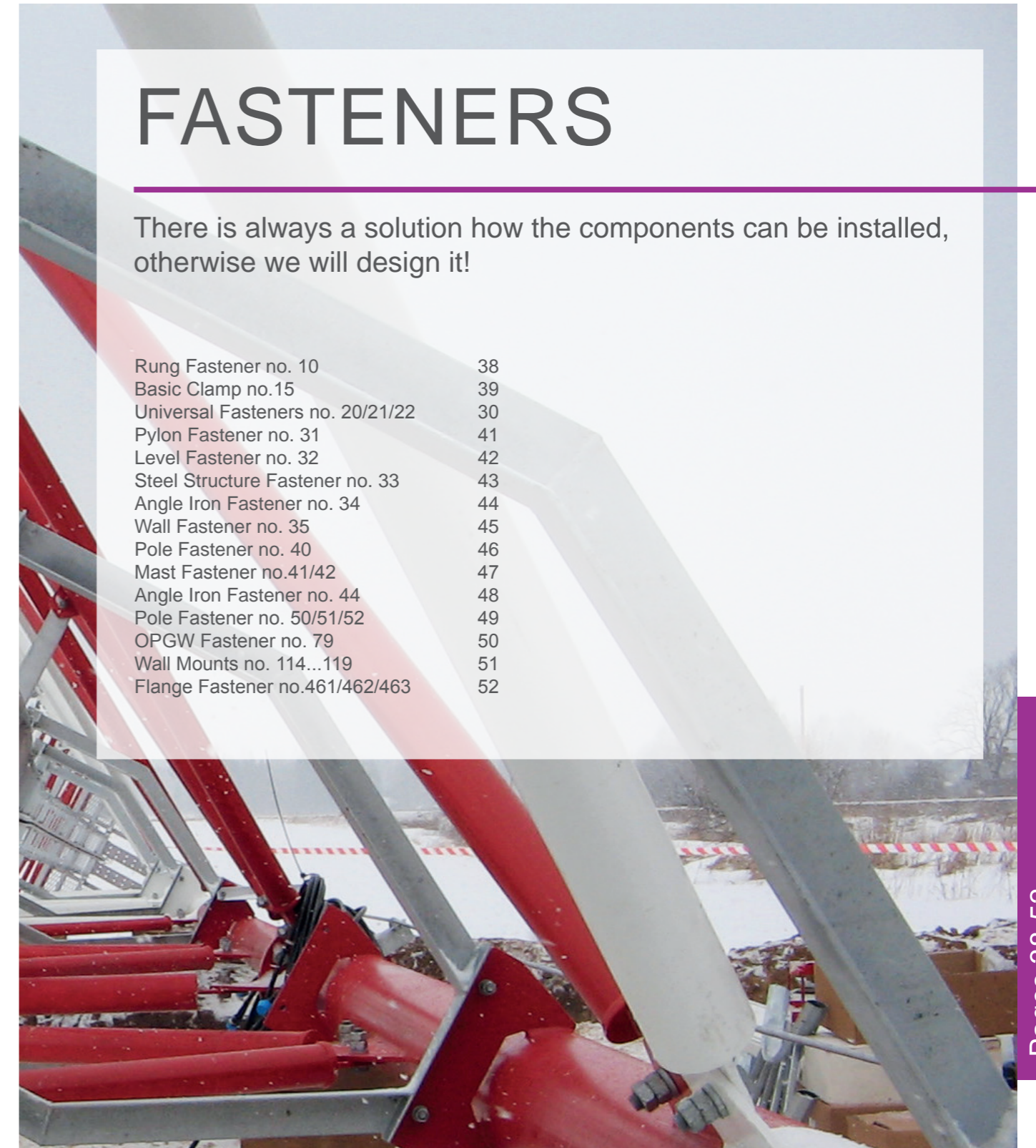
Seat platform for resting.



<b>Product</b> Landing no.104	<b>Weight</b> 4,5 kg.	<b>Material</b> Hot-dip galvanized steel or acid-proof stainless steel
<b>Features</b> See above.	<b>Notes</b> Landing no 104 folds away and allows easy access for the climber. Compatible with all Vertical Profile B based products.	

<b>Product</b> Landing no.105	<b>Weight</b> 4,5 kg.	<b>Material</b> Hot-dip galvanized steel or acid-proof stainless steel
<b>Features</b> See above.	<b>Notes</b> Does not prevent climbing. Compatible with all Vertical profile B based products.	





# FASTENERS

There is always a solution how the components can be installed, otherwise we will design it!

Rung Fastener no. 10	38
Basic Clamp no.15	39
Universal Fasteners no. 20/21/22	30
Pylon Fastener no. 31	41
Level Fastener no. 32	42
Steel Structure Fastener no. 33	43
Angle Iron Fastener no. 34	44
Wall Fastener no. 35	45
Pole Fastener no. 40	46
Mast Fastener no.41/42	47
Angle Iron Fastener no. 44	48
Pole Fastener no. 50/51/52	49
OPGW Fastener no. 79	50
Wall Mounts no. 114...119	51
Flange Fastener no.461/462/463	52

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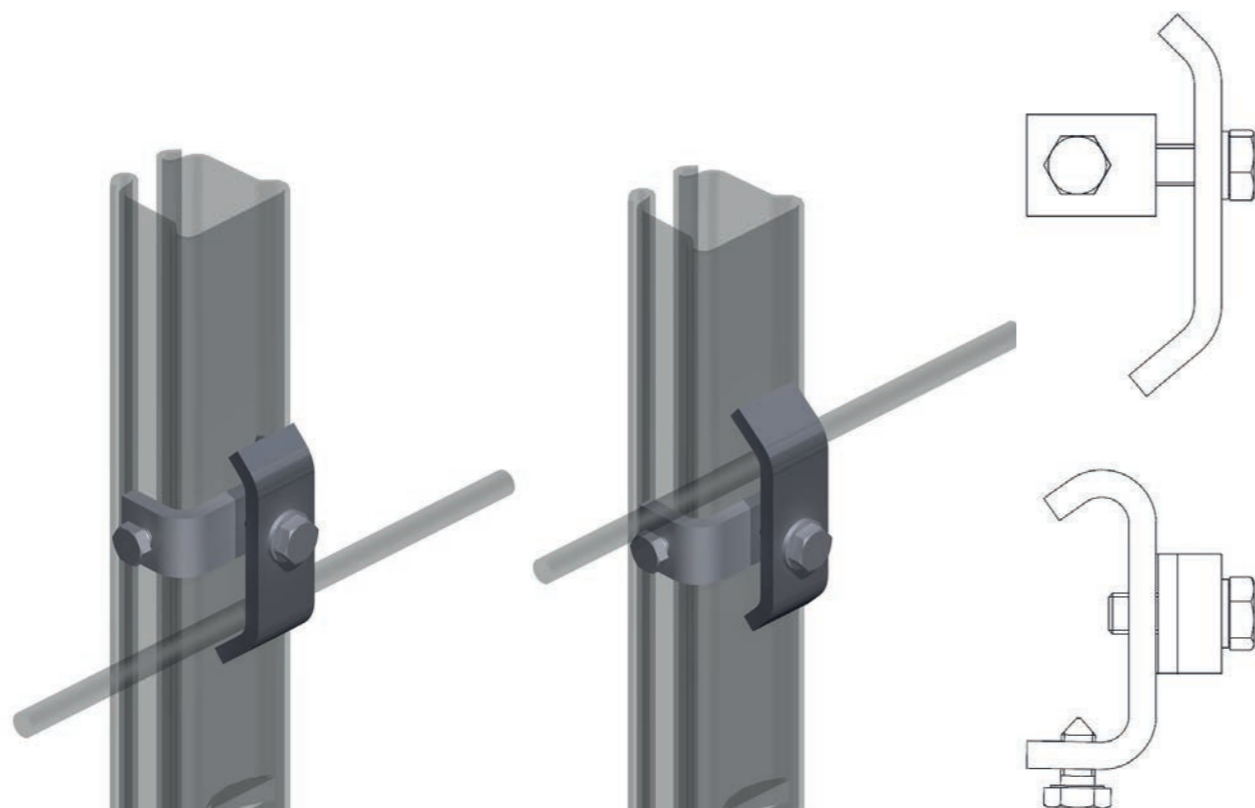
## FLEXIBILITY

Our products are designed in a way that we can ensure their compatibility, but still easy and simple to use.



## Rung Fastener no. 10

For mounting Vertical Profile B existing ladders.



**Product**

Rung Fastener no.10

**Weight**

0,5 kg.

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

**Features**

Applicable for rung diameters 16mm...25mm.

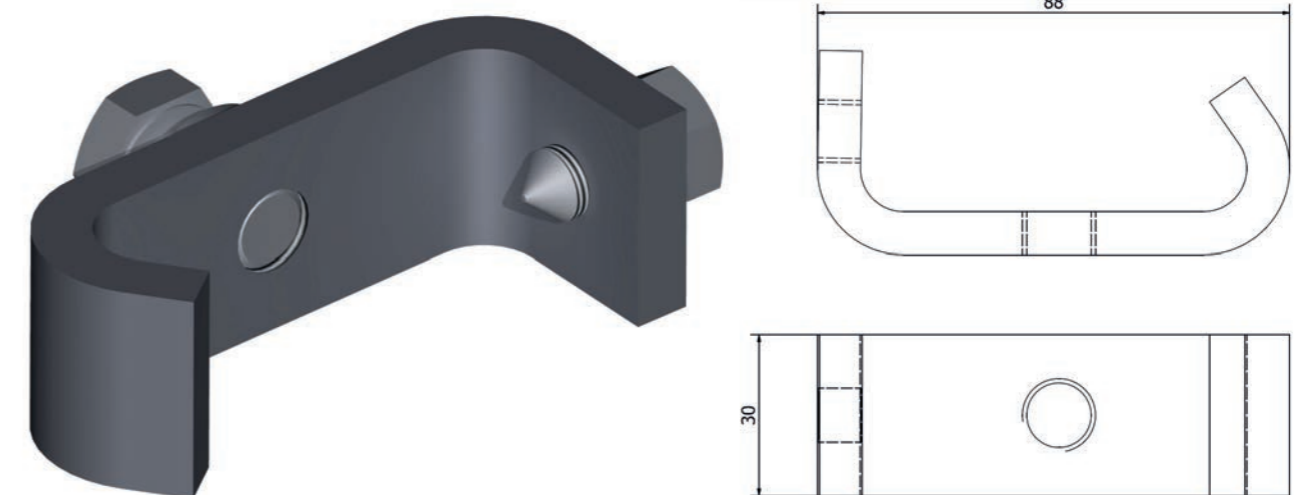
**Notes**

Compatible with all Vertical Profile B based products.

Rung diameter	Bolt length
16 mm	25 mm
20 mm	30 mm
25 mm	35 mm

## Basic Clamp no. 15

For mounting profiles and ladders.



**Product**

Basic Clamp no.15

**Weight**

0,3 kg.

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

w

**Features**

See above.

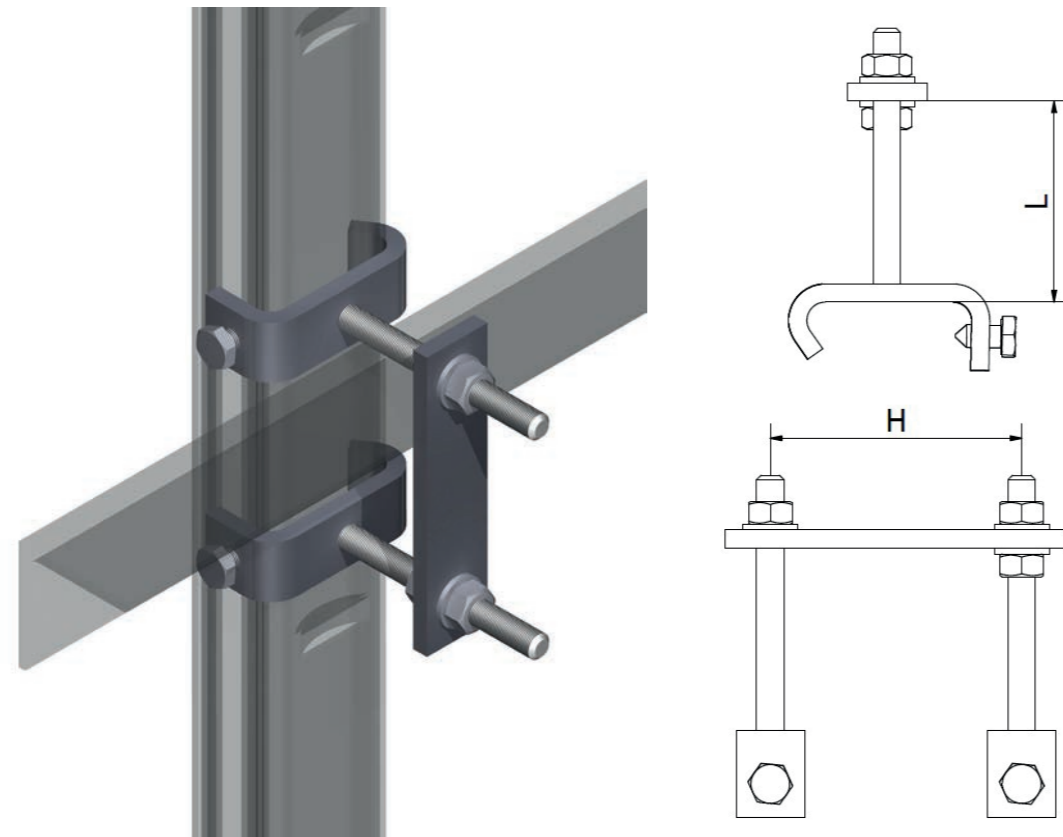
**Notes**

Compatible with all Vertical Profile B and Horizontal Profile VB based products .



## Universal Fastener 20/21/22

For mounting profiles and ladders to different kinds of steel structures.



**Product**

Universal Fasteners 20/21/22

**Weight**

0,9/1,1/1,6 kg.

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

**Features**

See above.

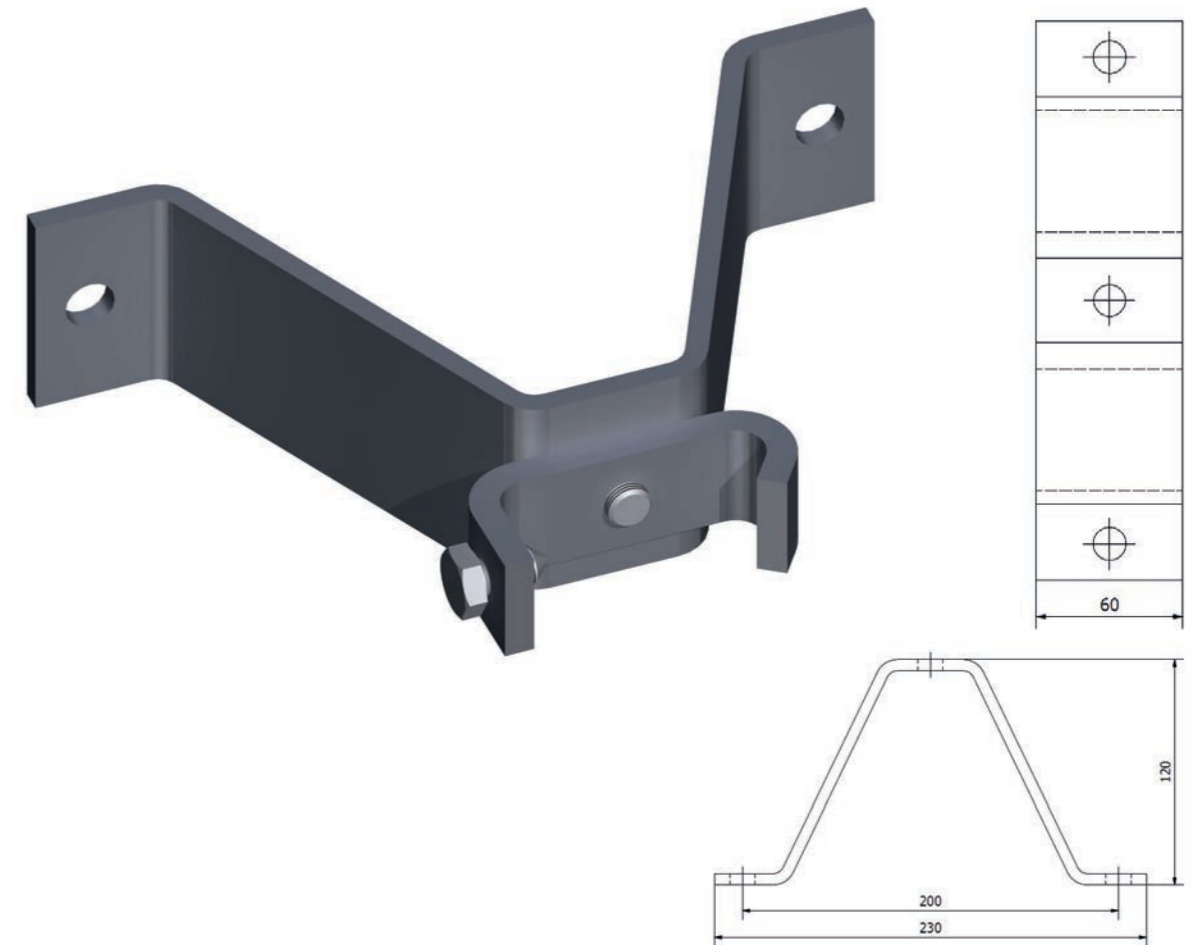
**Notes**

Compatible with all Vertical Profile B and Horizontal Profile VB based products.

	Dimension L (mm)	Dimension H (mm)	Weight (kg)
No. 20	22...52	Max. 80	0,86
No. 21	53...82	Max. 110	1,1
No. 22	83...140	Max. 170	1,6

## Pylon Fastener no. 31

Used for fastening ladders to pylons.



**Product**

Pylon Fastener no.31

**Weight**

1,3 kg.

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

**Features**

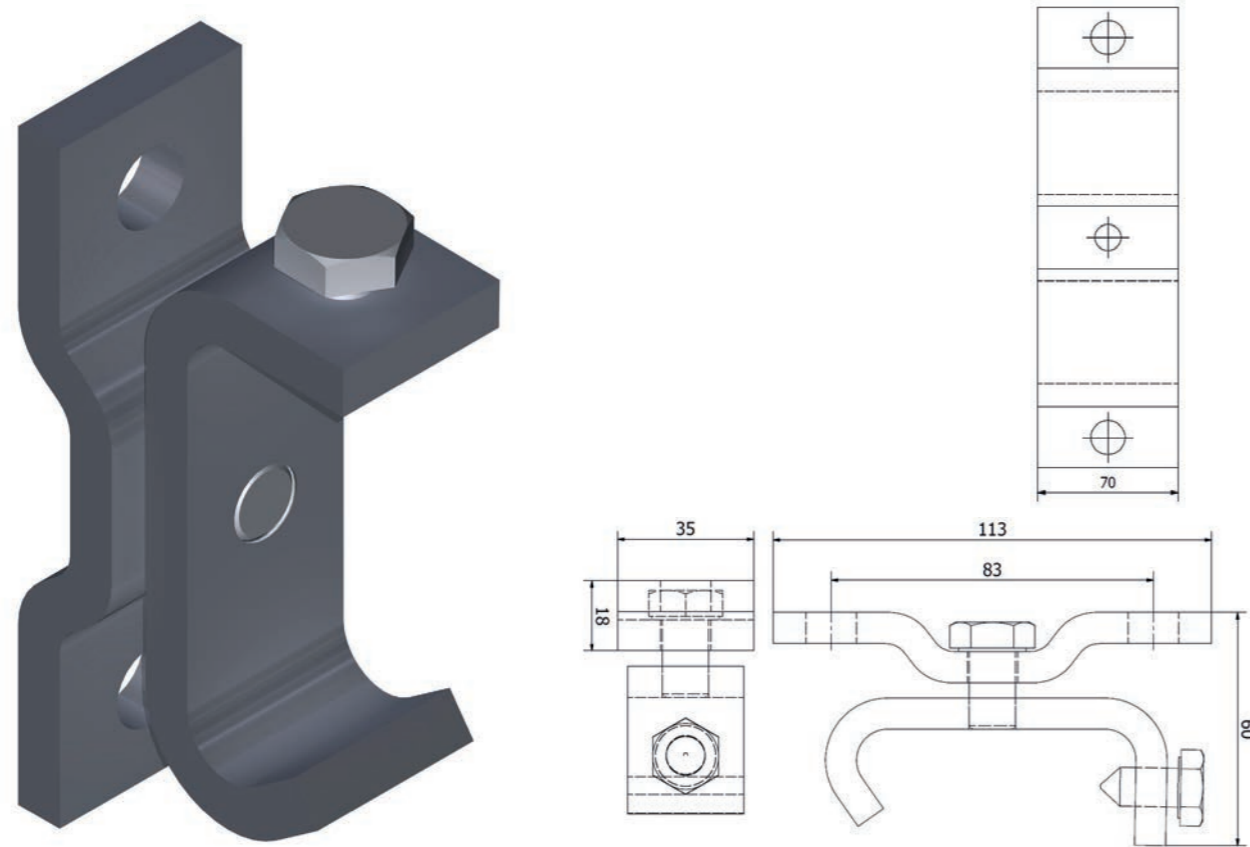
Maximum pylon diameter 800 mm.  
Free back clearance 120 mm.

**Notes**

Compatible with all Vertical Profile B and Horizontal Profile VB based products.  
Basic Clamp no 15 is included.

## Level Fastener no. 32

Mainly used with Horizontal Profile VB.



**Product**

Level Fastener no.32

**Weight**

0,7 kg.

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

**Features**

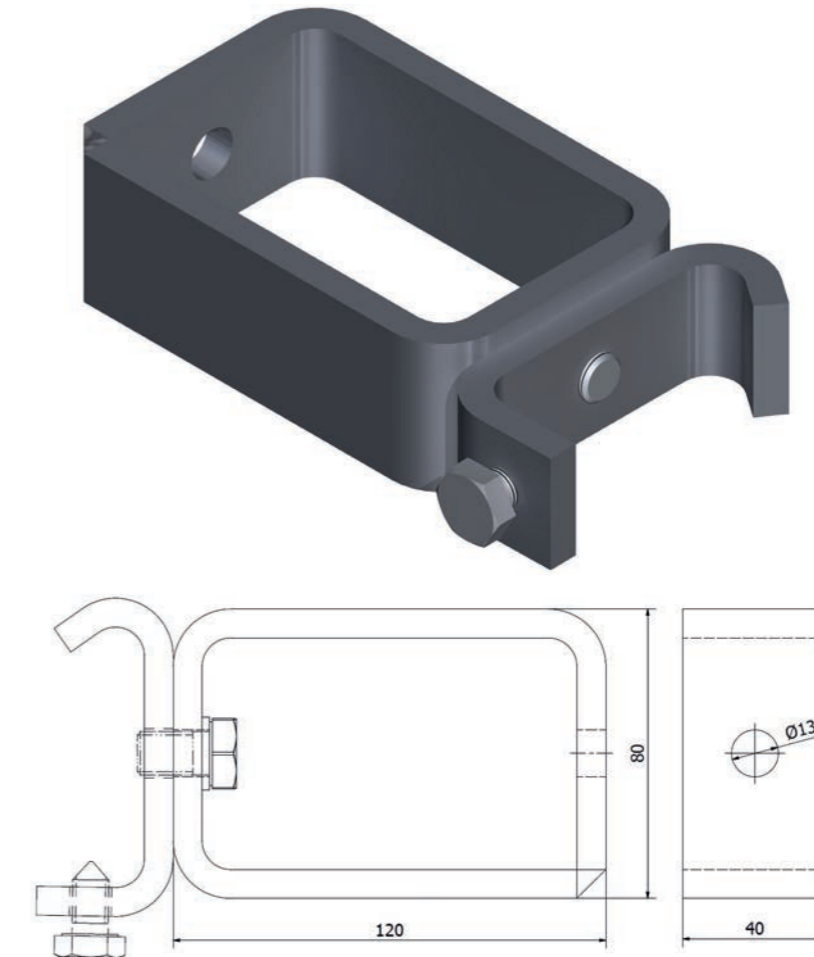
See above.

**Notes**

Compatible with all Vertical Profile B and Horizontal Profile VB based products.

## Steel Structure Fastener no. 33

Used with different kinds of steel structures.



**Product**

Steel Structure Fastener no.33

**Weight**

0,6 kg

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

**Features**

See above.

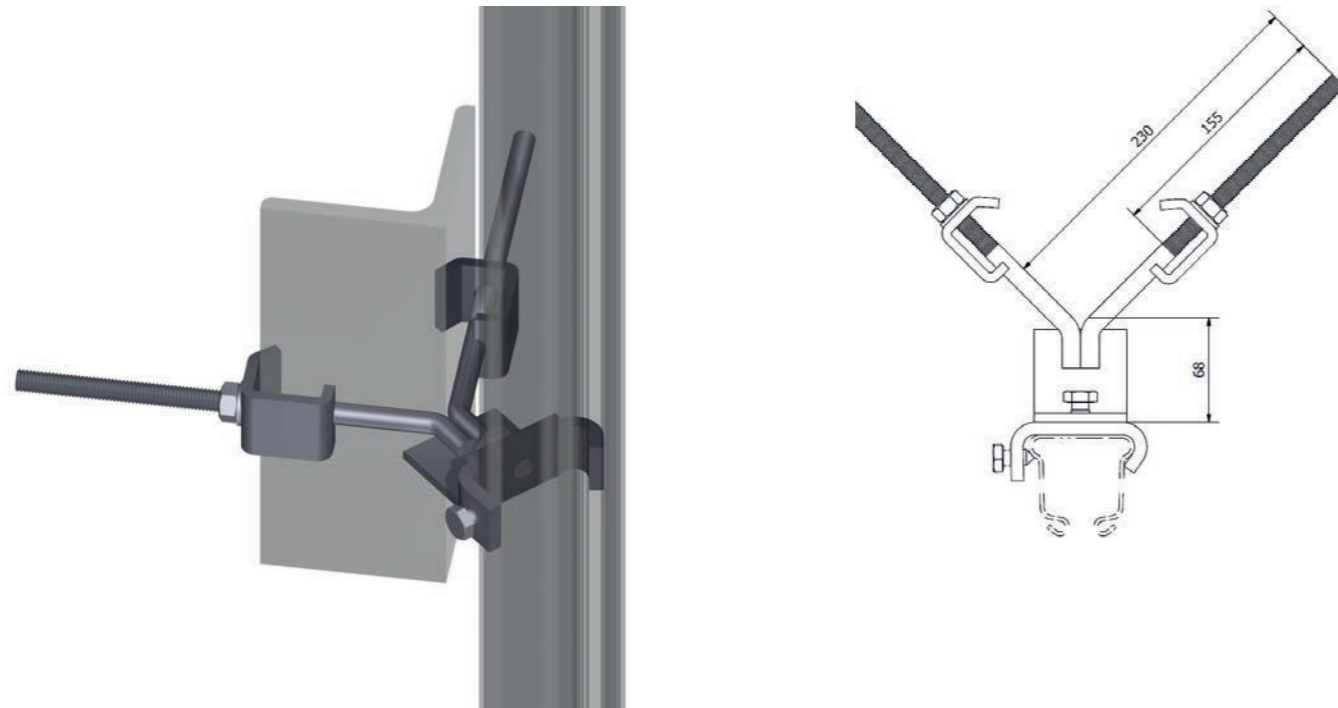
**Notes**

Compatible with all Vertical Profile B and Horizontal Profile VB based products.



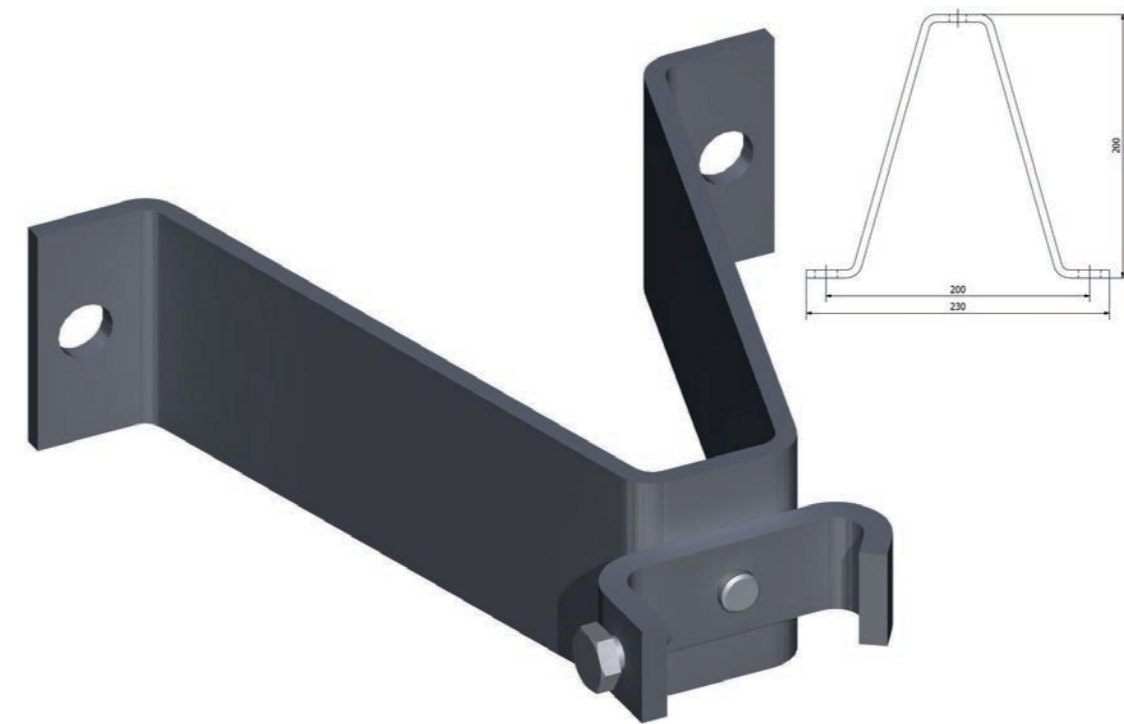
## Angle Iron Fastener no. 34

Suitable for L-profile structures.



## Wall Fastener no. 35

Used for fastening ladders to walls.



**Product**

Angle Iron Fastener no. 34

**Weight**

1,5 kg.

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

**Features**

Suitable for L-profiles L80-200.

**Notes**

Compatible with all Vertical Profile B based products.

**Product**

Wall Fastener no.35

**Weight**

2,0 kg.

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

**Features**

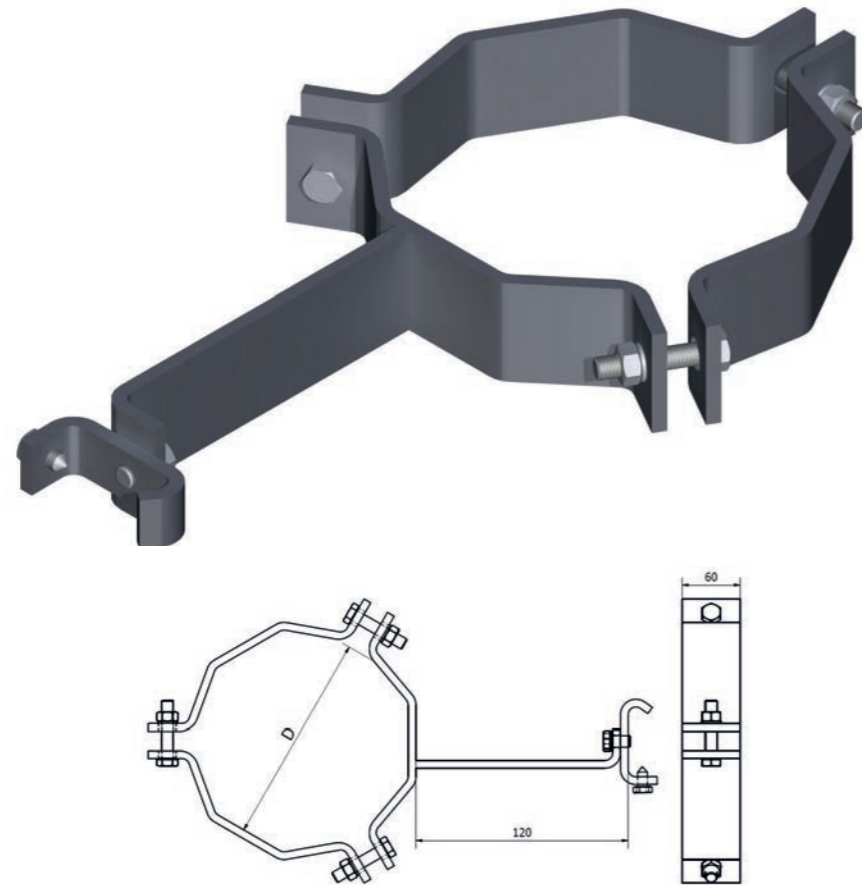
Free back clearance 200 mm.

**Notes**

Compatible with all Vertical Profile B and Horizontal Profile VB based products. Basic Clamp no 15 is included.

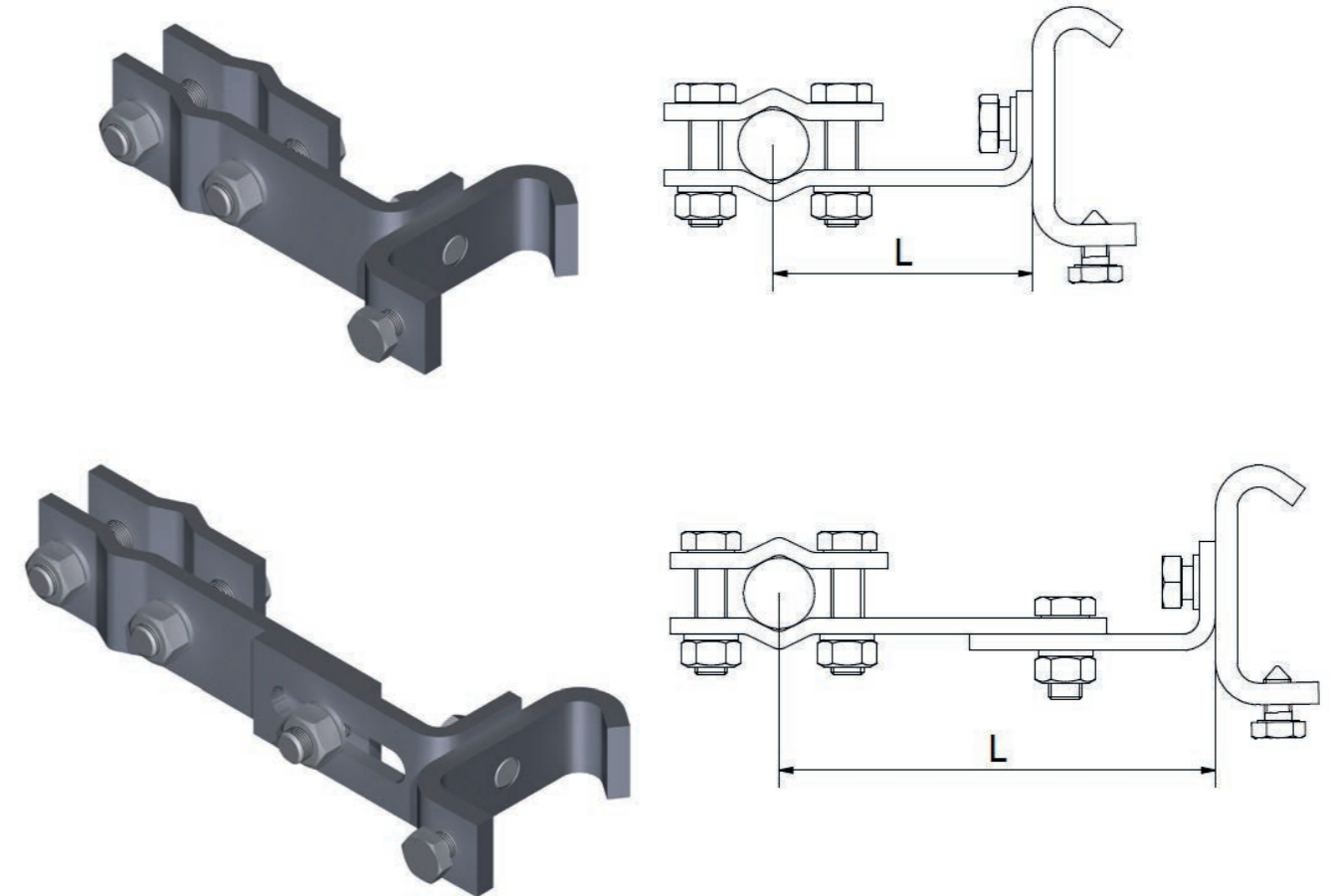
## Pole Fastener no. 40

Used for installing ladders to various kinds of poles.



## Mast Fastener no. 41/42

For mounting profiles and ladders to tower members.



### Product

Pole Fastener no. 40

### Features

Manufactured according to sizes ordered.  
Suitable pole diameters 90...350 mm and lengths up to 120 mm.

### Weight

approx. 3-7 kg.

### Notes

Compatible with all Vertical Profile B based products.

### Material

Hot-dip galvanized steel or acid-proof stainless steel

### Product

Mast Fastener no.41/42

### Features

See above.

### Weight

0,8 kg / 1,1 kg

### Notes

Compatible with all Vertical Profile B.

### Material

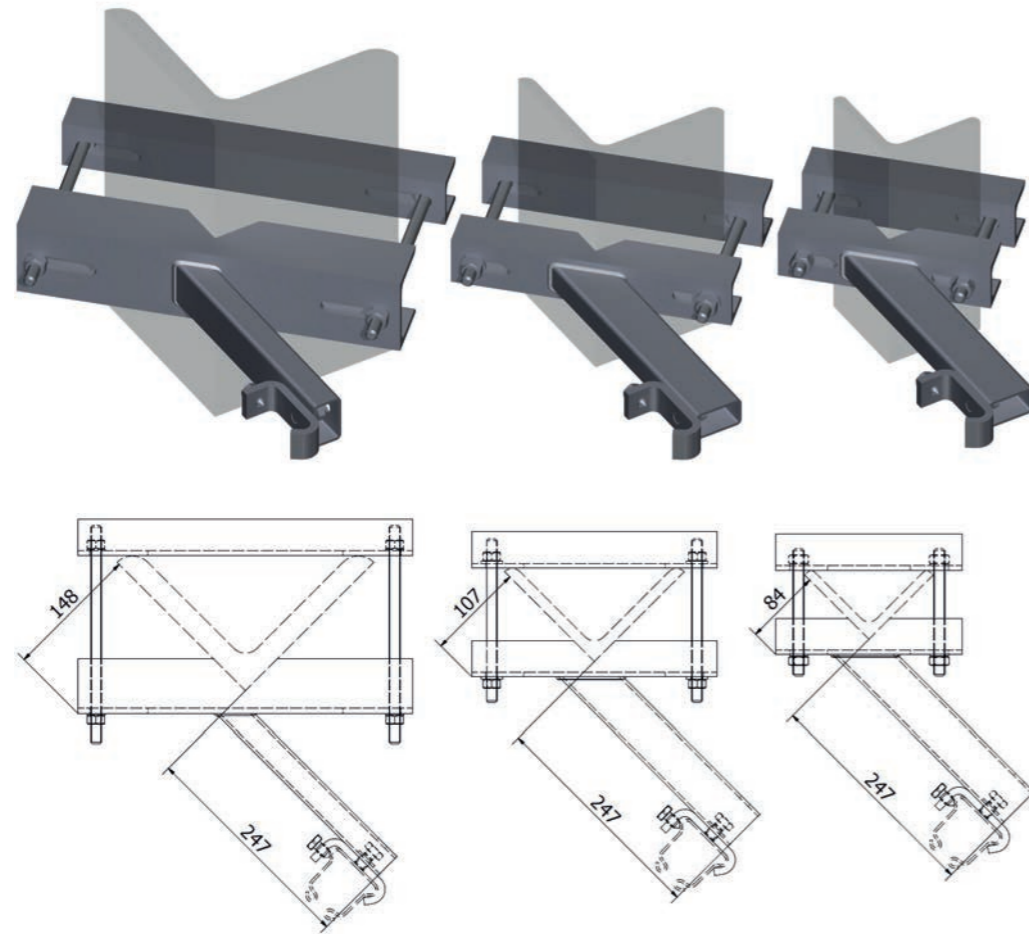
Hot-dip galvanized steel or acid-proof stainless steel

Tower member diameter	Required bolt sizes
11-15 mm	M12x30 (straight clamp needed)
16-29 mm	M12x35
19-35 mm	M12x45



## Angle Iron Fastener no. 44

Suitable for L-profile structures.



### Product

Angle Iron Fastener  
no.44 /1, 44/2, 44/3

### Features

See above.

Fastener Type	Angle Profile
44/1	L65...L100
44/2	L110...L150
44/3	L150...L220

### Weight

2,8; 3,2; 6,2 kg

### Notes

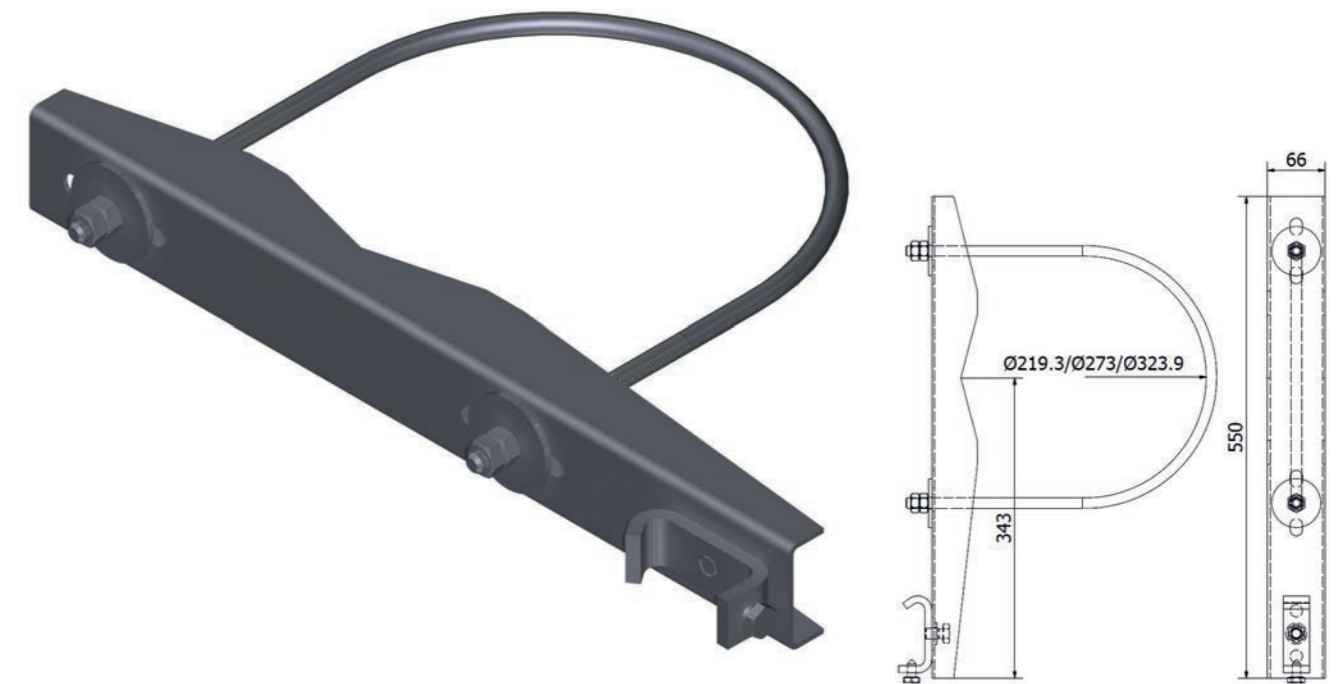
Compatible with all  
Vertical Profile B based products.

### Material

Hot-dip galvanized steel or  
acid-proof stainless steel

## Pole Fastener no. 50/51/52

Used with ladders with specified diameters.



### Product

Pole Fastener no.50/51/52

### Features

Suitable pole diameters are  
219,9 mm, 273 mm and  
323,9 mm.

### Weight

approx. 3 kg

### Notes

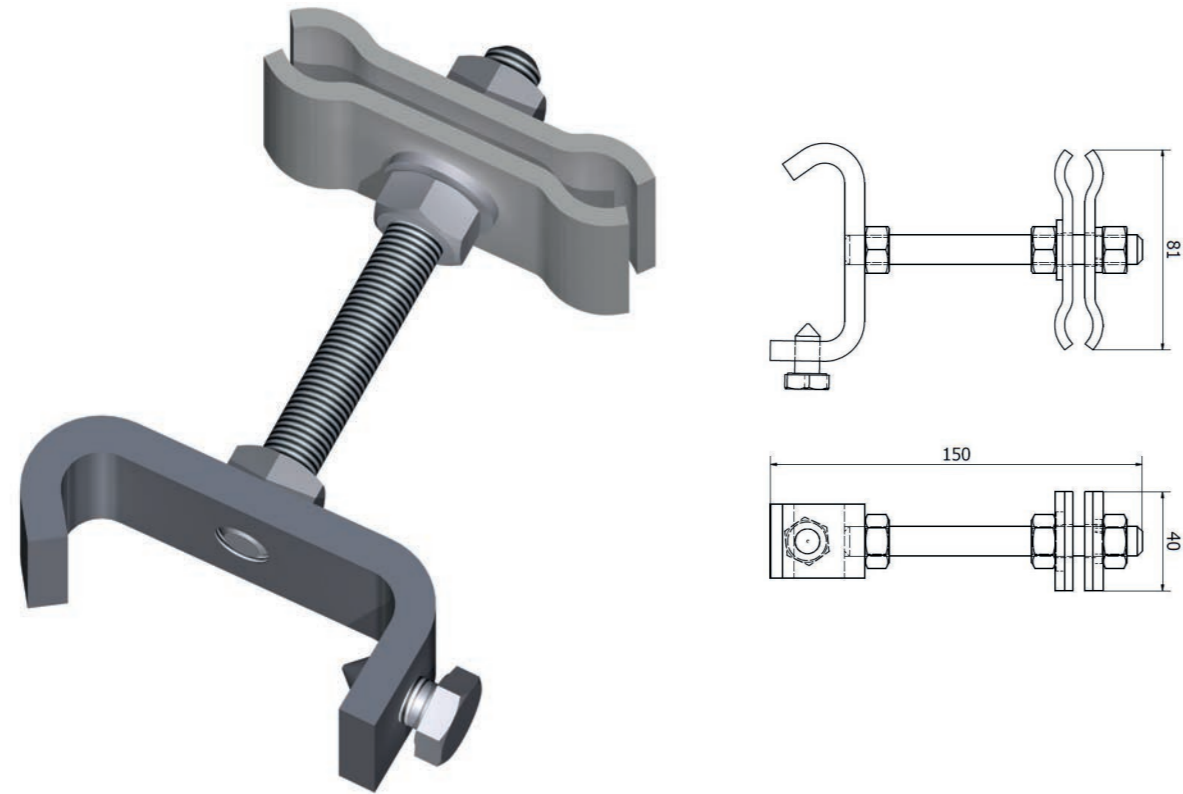
Compatible with all  
Vertical Profile B based products.

### Material

Hot-dip galvanized steel or  
acid-proof stainless steel

# OPGW Fastener no. 79

Used with optical ground wire.



**Product**

OPGW Fastener no.79

**Weight**

0,5 kg.

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

**Features**

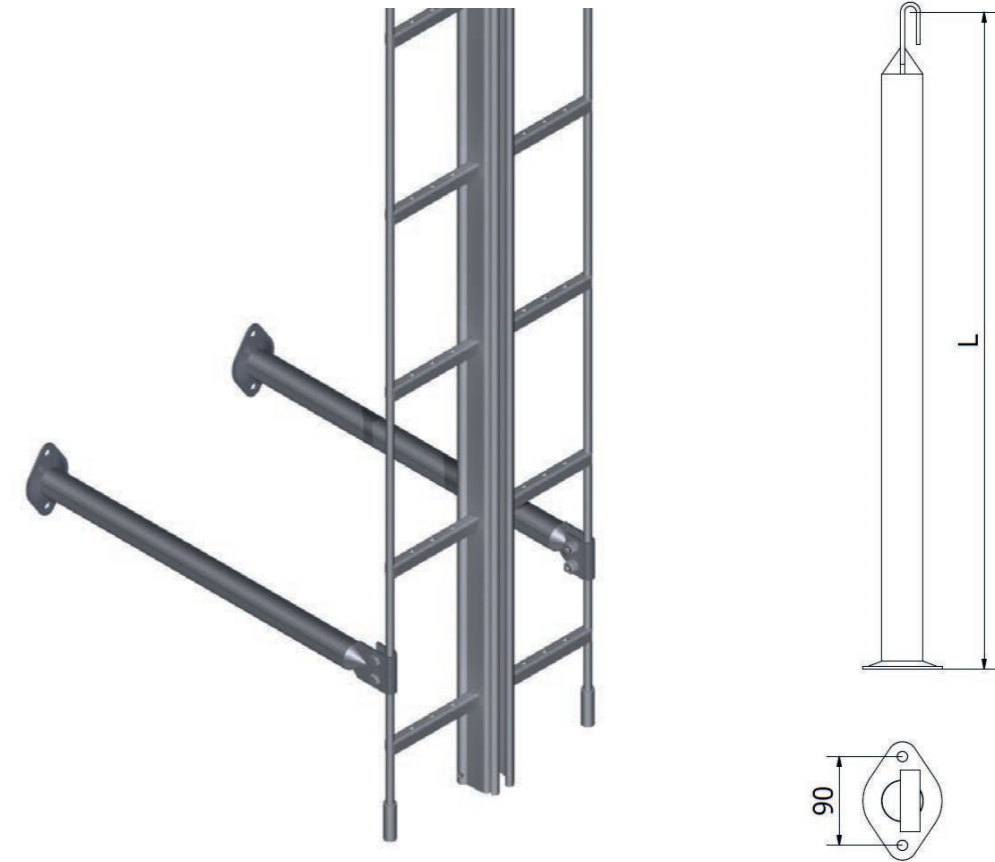
Coupler made of aluminum  
Applicable for optical ground wire diameters 11mm...19mm.

**Notes**

Compatible with all Vertical Profile B based products.

# Wall Mounts no. 114...119

For mounting ladders to wall.



**Product**

Wall Mounts no.114...119

**Weight**

2,0-3,0 kg.

**Material**

Hot-dip galvanized steel or acid-proof stainless steel

**Features**

See above.

**Notes**

Compatible with Flange Ladder PTBK based products.

No.	Length L (cm)	Weight (kg)
114	40	2,0
115	50	2,2
116	60	2,4
117	70	2,6
118	80	2,8
118	90	3,0



## Flange Fastener no. 461/462/463

For mounting ladders PTBJ to masts' diagonals.



<p><b>Product</b></p> <p>Flange Fastener no.461/462/463</p>	<p><b>Weight</b></p> <p>0,7 kg /0,9 kg /1,1 kg</p>	<p><b>Material</b></p> <p>Hot-dip galvanized steel or acid-proof stainless steel</p>
<p><b>Features</b></p> <p>Suitable profiles:</p> <p>461: L35-70</p> <p>462: L80-120</p> <p>463: L130-150</p>	<p><b>Notes</b></p> <p>Compatible with Flange Ladder PTBJ based products.</p>	

# CARRIAGES

Easy to use, comfortable and stylish, a tool that ensures your safety.

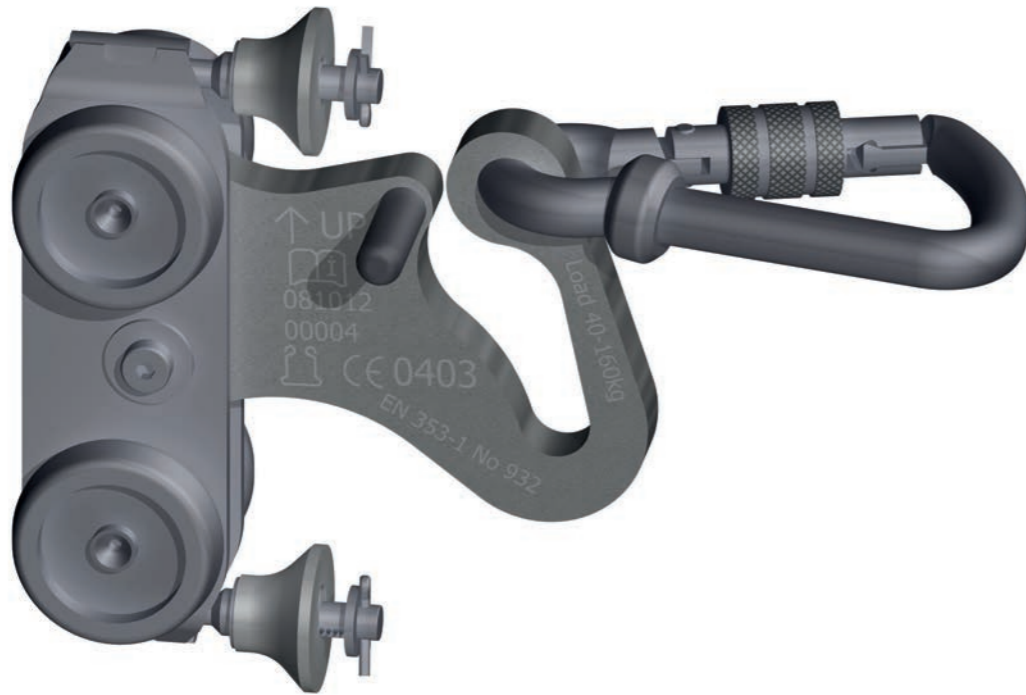
Climbing Carriage no.932  
Horizontal Carriage no.951  
Notes

57  
58  
59



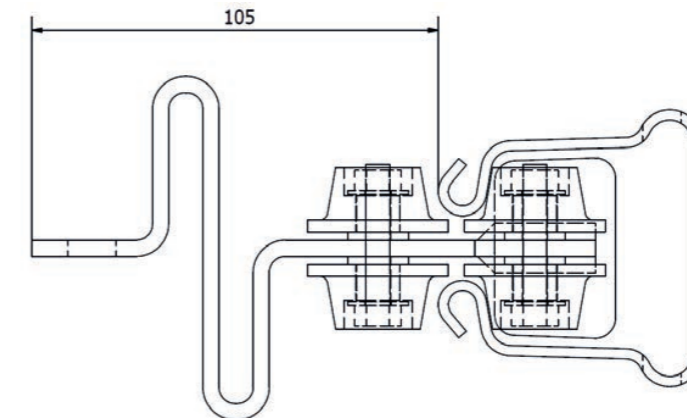
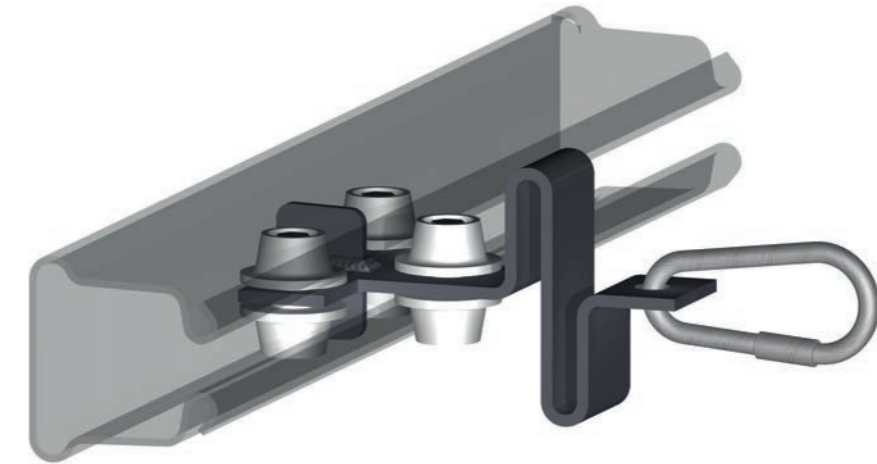
## Climbing Carriage no. 932

Used with Vertical Profile B based products.  
Shock absorber with snap-hook in carriage.



## Horizontal Carriage no. 951

Safety Carriage for use in horizontal movement only.



<b>Product</b> Climbing Carriage no.932	<b>Weight</b> 1,0 kg	<b>Material</b> Acid-proof stainless steel
<b>Features</b> See above.	<b>Notes</b> Compatible with all Vertical Profile B based products. Tested in accordance with the applied methods EN 353-1:2002, prEN 353-1:2008 and CNB/P/11.073.	

<b>Product</b> Horizontal Carriage no.951	<b>Weight</b> 0,7 kg.	<b>Material</b> Acid-proof stainless steel
<b>Features</b> See above.	<b>Notes</b> Slides easily with moderate load. Carriage is equipped with snap-hook.	

# Notes

