WÜRTH

PROFESSIONAL SOLUTIONS

VARIFIX MODULAR HEAVY-DUTY SYSTEM

W-IP Würth Industrial Profile

DECADES OF MASTERY | TRANSFORMATIONAL RESILIENCE

DISCOVER THE WÜRTH INDUSTRIAL PROFILE W-IP THE SIMPLE SOLUTION FOR HEAVY LOADS!

Our new Würth Industrial Profile is a modular rail system that has been specially developed for the heavy-duty sector in technical building equipment as well as for use in industrial and plant engineering. With a clear focus on cost-effectiveness and performance, this system is the ideal solution for demanding projects.

The perfect coordination of all components ensures an impressive overall load capacity, which is not negatively affected by connection components. In this way, we make optimum use of the profile load-bearing capacity without compromise.

Simple and fast - this is our philosophy when it comes to installation. The Würth Industrial Profile offers **easy handling** and enables **continuously variable installation of the additional fixtures in a very short time.**
The comparatively **low profile weight** makes installation even easier. Even complex structures can easily be achieved using the modular principle without requiring additional welding.

Our profile geometry stands out with its high **torsional rigidity** and an optimal ratio of **load-bearing capacity to profile weight.** The symmetrical profile cross-section and the selected hole grid enable effortless and three-dimensional construction
that meets every requirement.

The batch hot-dip galvanising of the components and the profile protect the surface in corrosive environments, so that they can also be used outdoors.

Flexibility is the key to perfection. With the Würth Industrial Profile, pipe supports can be flexibly connected and easily extended with our WÜRTH Varifix system and other rail systems.

Discover the Würth Industrial Profile now - the way to achieve more efficient and successful projects!

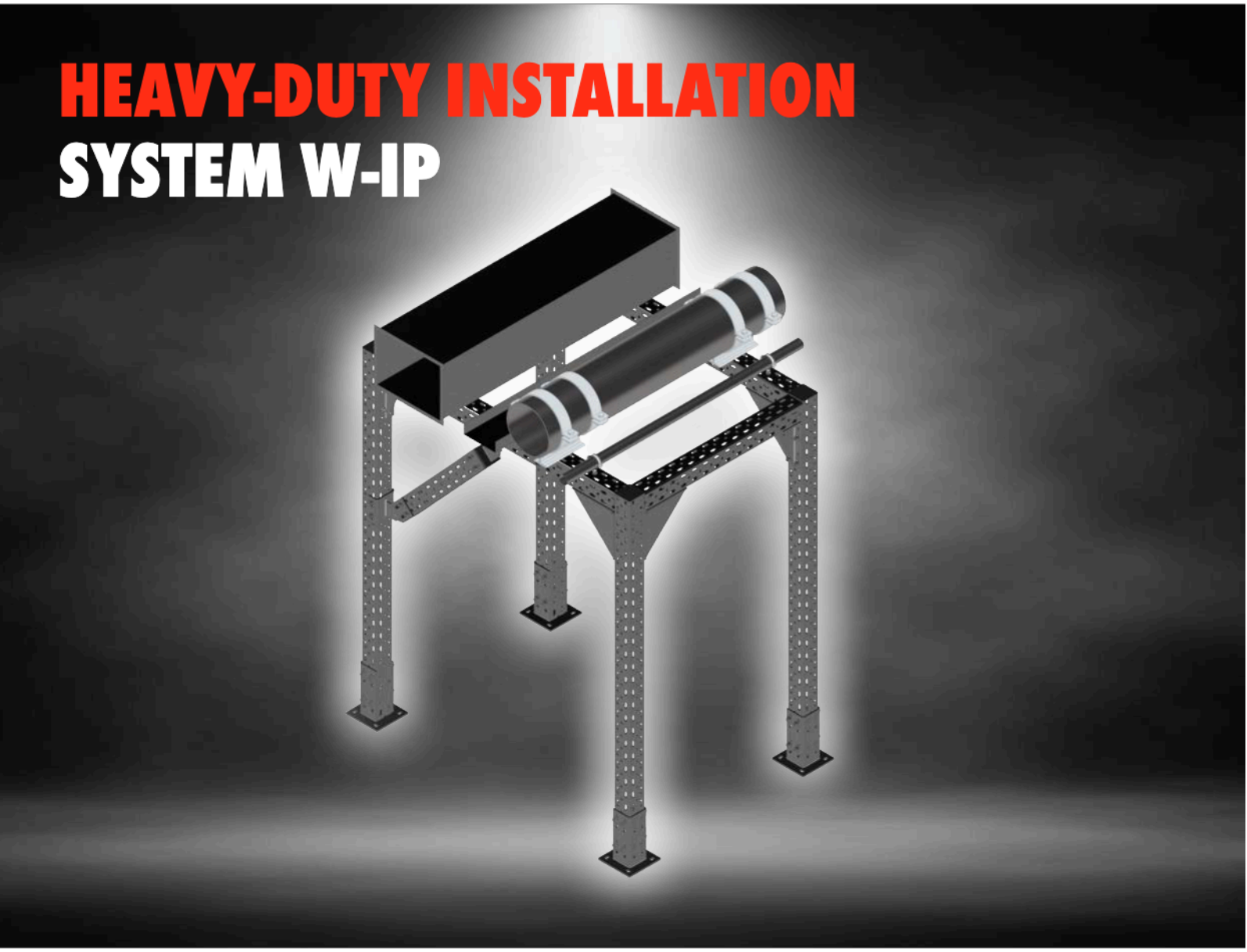
Economical

Specially developed for the heavy-duty sector in technical building equipment as well as industrial and plant engineering, the modular rail system presents an optimal solution with a focus on cost-effectiveness and performance. Due to the perfect coordination of all system components, the total load capacity is not compromised by the connection components, and the profile load capacity is fully exploited.

Easy to install

Easy handling and quick installation are among the advantages of the Würth Industrial Profile. Thanks to the intelligent screw solution, additional fixtures can be continuously installed in a short time with just a few simple steps. Due to the low weight of the profile, installation is particularly uncomplicated. Even complex structures can be easily achieved in a modular system with just a few additional fixtures and without additional welding.

HEAVY-DUTY INSTALLATION SYSTEM W-IP



Profile geometry

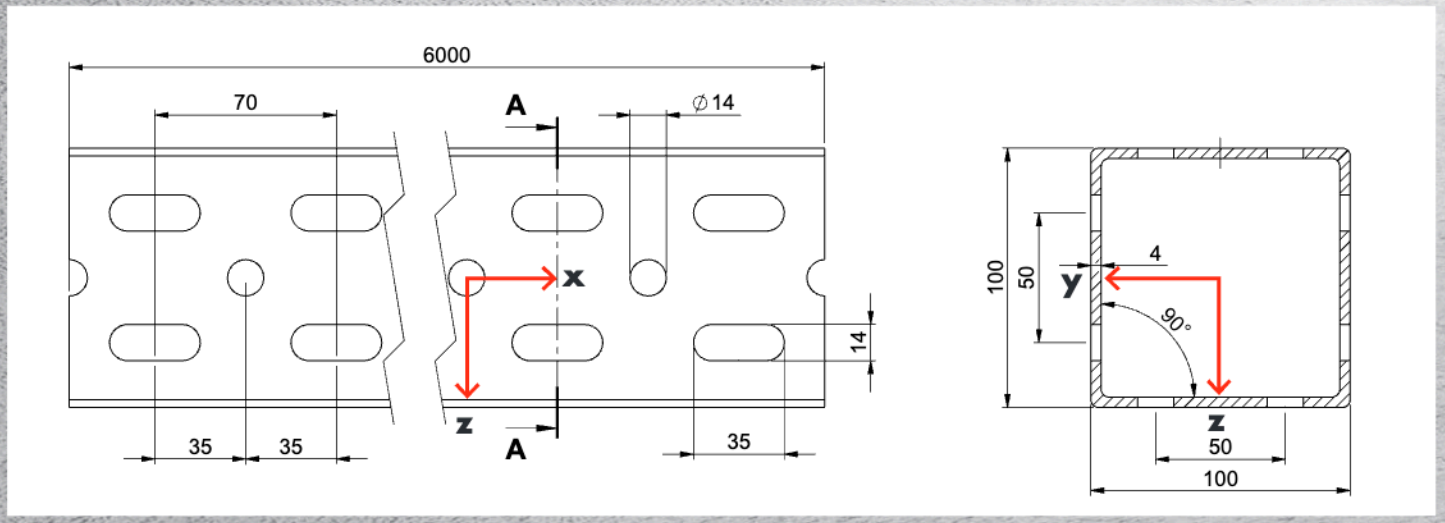
The selected box shape ensures a high torsional rigidity and an optimal ratio of load capacity to profile weight. Thanks to the symmetrical profile cross-section and the selected hole grid, continuous and three-dimensional design is possible without any complications.

Adaptation

The Würth Industrial Profile enables flexible connection of pipe supports and can be extended in an adaptive manner with our WÜRTH Varifix system and other rail systems.

MATERIAL, GEOMETRY, CHARACTERISTIC VALUES

Art. no. 5256 100 001



Geometry			
Rail length	l	[mm]	6,000
Wall thickness	t	[mm]	4
Cross-section area	A	[mm²]	1,136
Rail weight	g	[kg/m]	9.89
Diameter of hole	d_1	[mm]	14
Length of slotted hole	l_1	[mm]	35
Diameter of hole	d_2	[mm]	14
Hole distance	e_1	[mm]	70

Material			
Yield strength	f_{yk}	[N/mm²]	235
Elastic modulus	E	[N/mm²]	210,000
Shear modulus	G	[N/mm²]	81,000

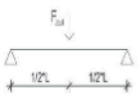
Cross-section values y-axis			
Centre of gravity	e_y	[mm]	50
Area moment of inertia	I_y	[cm⁴]	154.0
Section modulus	w_y	[cm³]	30.8
Radius of gyration	i_y	[cm]	3.81

Cross-section values z-axis			
Centre of gravity	e_z	[mm]	50
Area moment of inertia	I_z	[cm⁴]	154.0
Section modulus	w_z	[cm³]	30.8
Radius of gyration	i_z	[cm]	3.81

Cross-section values x-axis			
Torsional moment of inertia	I_T	[cm⁴]	181.0
Torsional section modulus	w_T	[cm³]	34.05

Technical data	
Material	S235JR - EN 10025
Surface	Hot-dip galvanised

System - admissible load - rounded off to a full 10

Length l [m]	l/200 = w_{max} [mm]	 [kN/m]	 [kN]	 [kN]
0.5	2.5	56.00	22.90	8.50
1.0	5	28.00	17.80	7.60
1.5	7.5	17.20	12.90	6.30
2.0	10	9.60	9.50	4.80
2.5	12.5	6.10	7.60	3.80
3.0	15	4.20	6.20	3.10
3.5	17.5	2.80	5.40	2.60
4.0	20	1.80	4.50	1.90
4.5	22.5	1.20	3.50	1.50
5.0	25	0.90	2.80	1.20
5.5	27.5	0.60	2.20	0.90
6.0	30	0.50	1.80	0.70

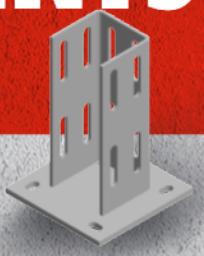
Permissible loads for the partial safety factor $\gamma_Q = 1.5$

Dead load profile with partial safety factor $\gamma_G = 1.35$ taken into account

Shear force
Bending stress
Deflection l/200

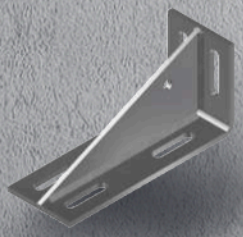
OVERVIEW COMPONENTS

T head bolt W-IP
Art. no. 5256 100 040

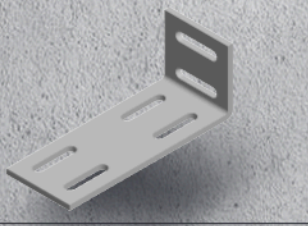


Profile foot W-IP U-shape
Art. no. 5256 100 030

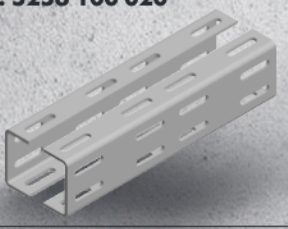
Connection bracket W-IP-Q-M-8L with double web
Art. no. 5256 100 020



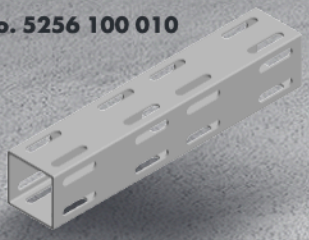
Connection bracket W-IP-Q-6L with web
Art. no. 5256 100 010



Connection bracket W-IP-Q-6L transverse
Art. no. 5256 100 011

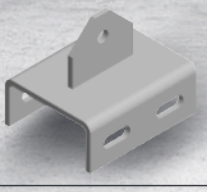


Mounting rail connector W-IP external
Art. no. 5256 100 050

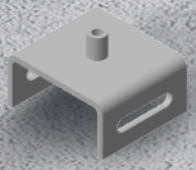


Mounting rail connector W-IP internal
Art. no. 5256 100 053

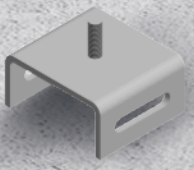
Hinge connector W-IP
Art. no. 5256 100 051



Connecting lug W-IP
Art. no. 5256 100 060

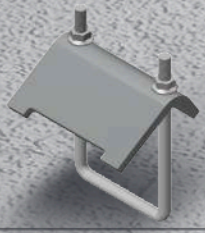


Sleeve connection W-IP
Art. no. 5256 100 063
Art. no. 5256 100 064



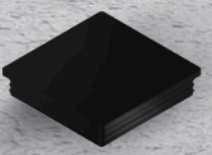
Bolt connection W-IP
Art. no. 5256 100 065
Art. no. 5256 100 066
Art. no. 5256 100 067

Pipe holder W-IP
Art. no. 5256 100 061



Tensioning clamp W-IP
Art. no. 5256 100 052

Bracket connection W-IP
Art. no. 5256 100 062



End cap
Art. no. 0598 261 005

INSTALLATION INSTRUCTIONS

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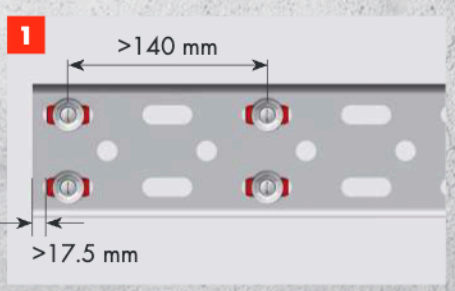
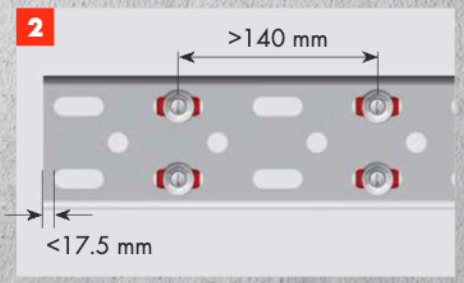
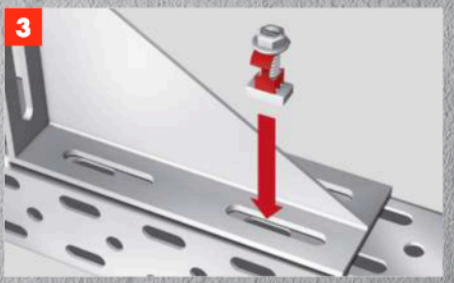
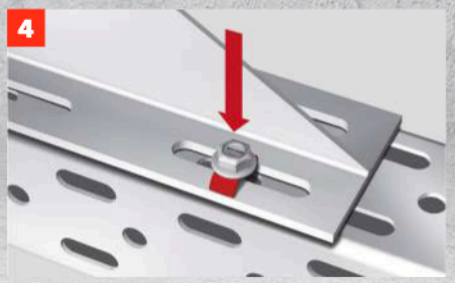
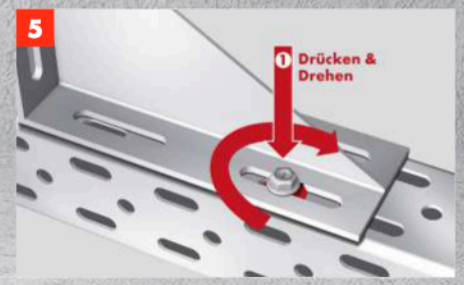
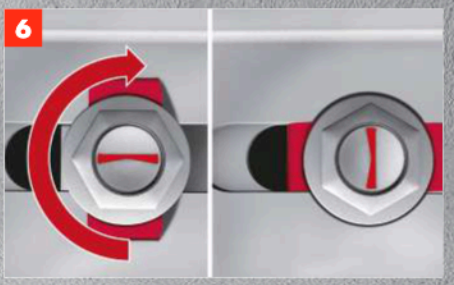












1 Check which holes are to be selected for installing the additional fixture.
The spacing between the end of the profile and the selected slotted hole is at least 17.5 mm. (Figure 1+2)

2 Insert the W-IP T head bolt through the component and the profile. (Figure 3+4)

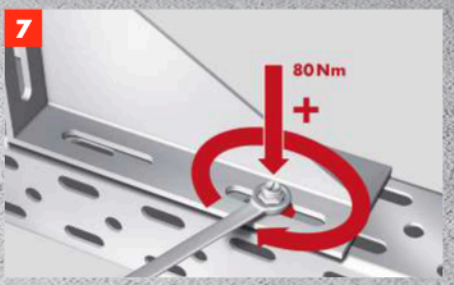
3 By gently pressing the plastic spring and then turning the nut 90°, the W-IP T head bolt is brought to the desired position. (Figure 5)

4 The W-IP T head bolt snaps into place and engages due to the spring action. (Figure 6)

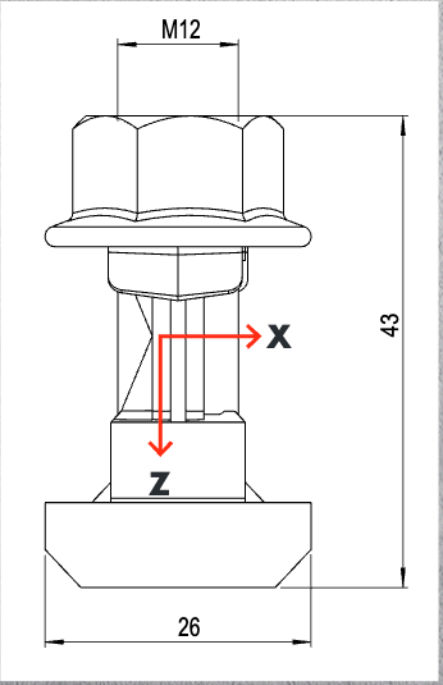
5 Make sure that the additional fixture is aligned in the desired position.

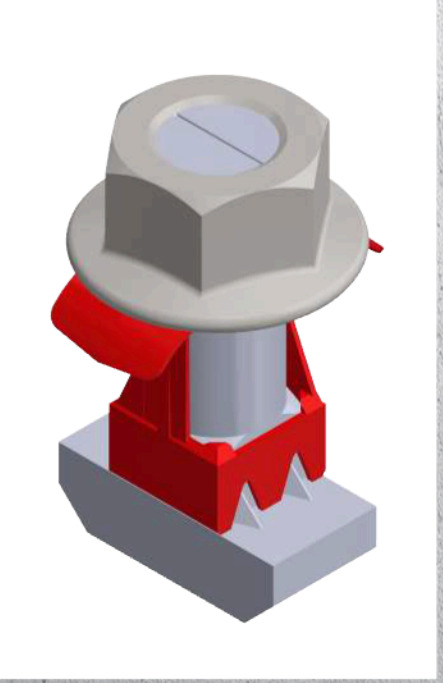
6 Align the W-IP T head bolt. The spacing in the longitudinal direction of the profile is at least 140 mm. (Figure 1+2)

7 Manually turn the W-IP T head bolt as far as possible.
Make sure that the plastic spring is completely in the profile slot.
The nut is fully seated against the profile.
Use a torque wrench to tighten the nut with the defined **torque of 80 Nm**. (Figure 7)
Check that the W-IP T head bolt and the additional fixture are securely fastened.
Use the setting indicator in the screw shank.



T HEAD BOLT W-IP



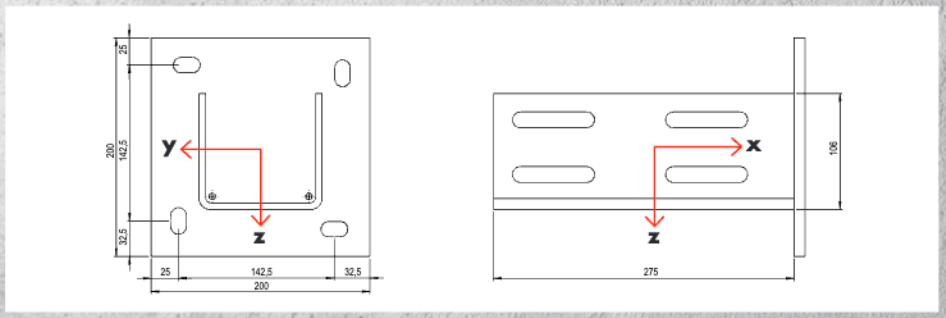


Technical data	
T head	M12
Strength	8.8
Material	Steel
Surface	Zinc flake
Tightening torque	80 Nm
Weight	53 g
Art. no.	**5256 100 040**

The intelligent screw solution for lightning quick and efficient installation! The toothing of the T head ensures impressive **load transfer** both longitudinally and transversely to the profile axis. With its high-quality zinc flake coating, which conforms to the highest **C4 corrosion protection class**, the W-IP T head bolt is the ideal choice even in demanding, corrosive environments.
The clever square shank ensures that you benefit from excellent **anti-rotation properties**, while the smart marking notch allows effortless **setting indication**. Experience the precision of the W-IP T head bolt and ensure flawless and safe installation with minimal effort. The W-IP T head bolt is combined with a **plastic sleeve** with integrated spring action.
This innovation allows the screw to be fixed in the slotted hole even when it is loose, therefore ensuring very **easy installation** and reliability. Thanks to the symmetrical arrangement of the screws in pairs, not only the load-bearing capacity of your additional fixtures is significantly increased, but also the profile is utilised to the greatest possible extent. You can rely on the highest level of stability and efficiency for your projects.

PROFILE FOOT U-SHAPE 100

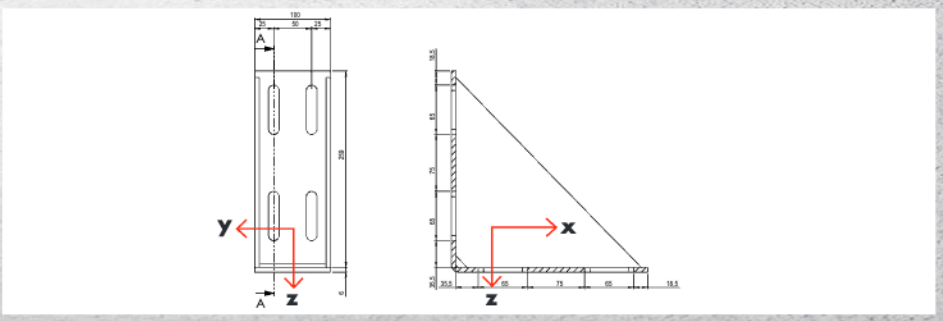
Connection to floor, ceiling or wall



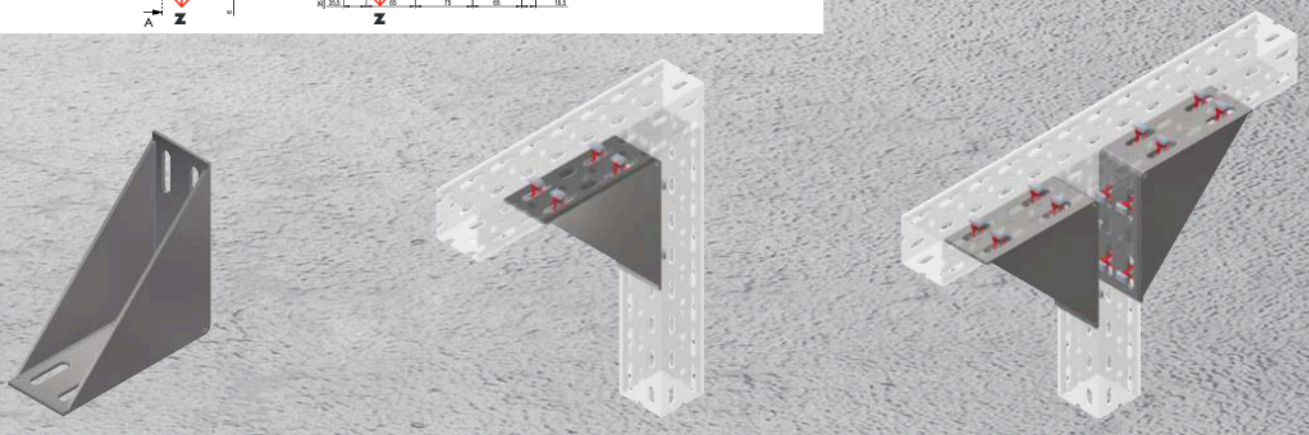
Technical data	
Material	S235JR - EN 10025
Surface	Hot-dip galvanised
Weight	6,000 g
Art. no.	**5256 100 030**

CONNECTION BRACKET Q-M-8L

Frame bracket for rigid connections

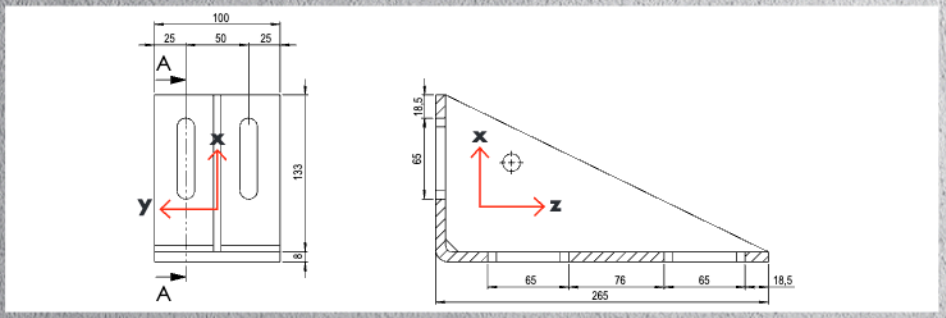


Technical data	
Material	S235JR - EN 10025
Surface	Hot-dip galvanised
Weight	4,600 g
Art. no.	**5256 100 020**

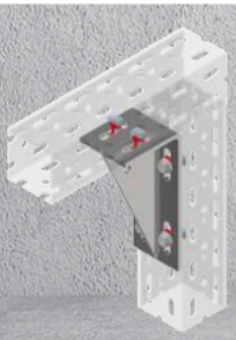


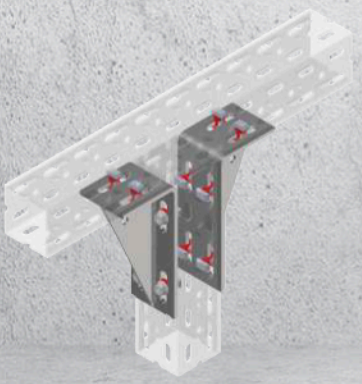
CONNECTION BRACKET Q-6L WITH WEB

Bracket for transferring shear forces



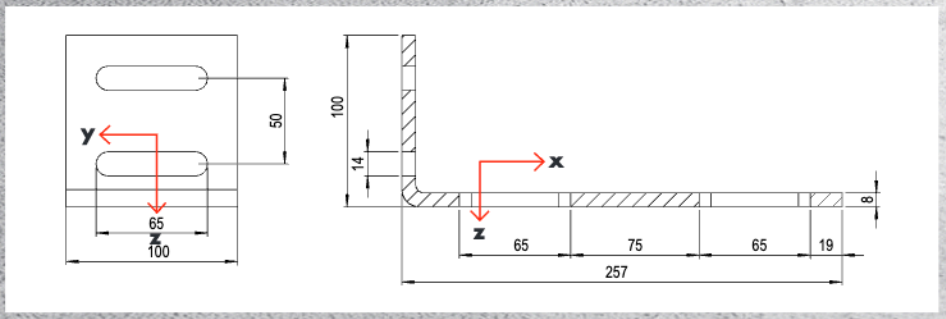
Technical data	
Material	S235JR - EN 10025
Surface	Hot-dip galvanised
Weight	2,500 g
Art. no.	**5256 100 010**



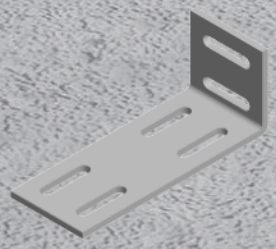


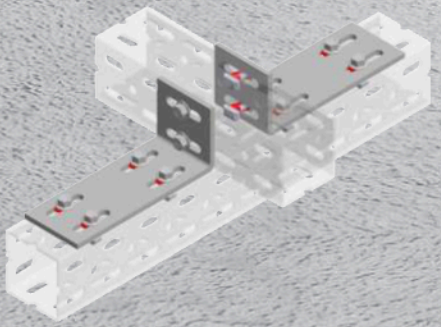
CONNECTION BRACKET TRANSVERSE W-IP-Q-6L

Connector for intersecting support layers



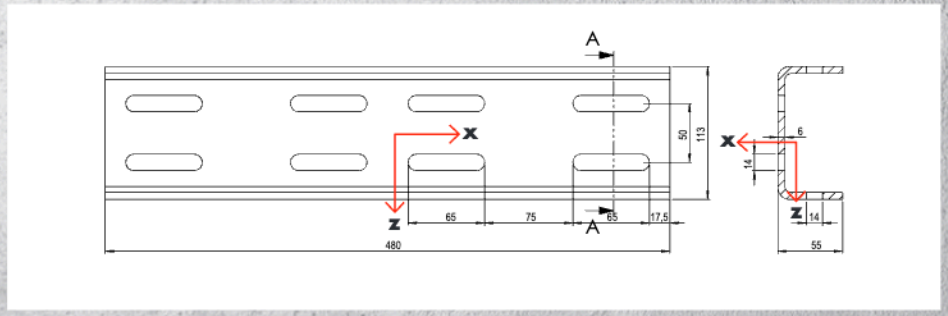
Technical data	
Material	S235JR - EN 10025
Surface	Hot-dip galvanised
Weight	1,870 g
Art. no.	**5256 100 011**





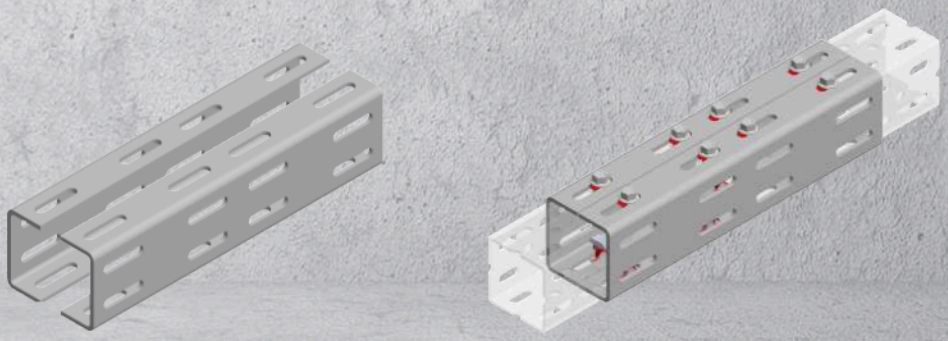
MOUNTING RAIL CONNECTOR W-IP EXTERNAL

Rigid rail joint for connecting W-IP mounting rails



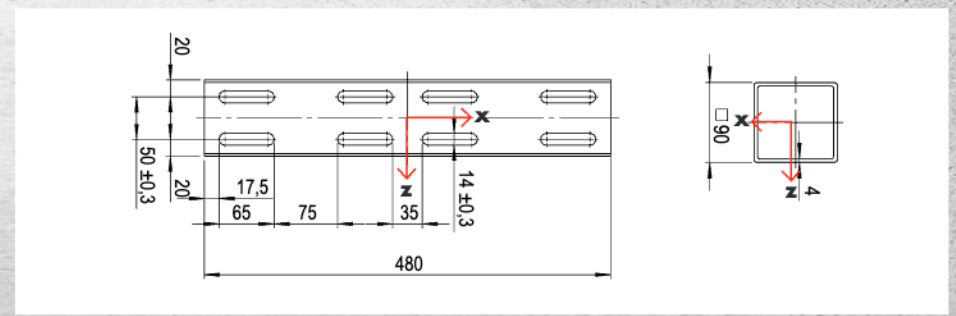
Technical data	
Material	S235JR - EN 10025
Surface	Hot-dip galvanised
Weight	2,860 g (1 piece)
Art. no.	**5256 100 050**

Caution:
2 pieces are required for 1 connection!

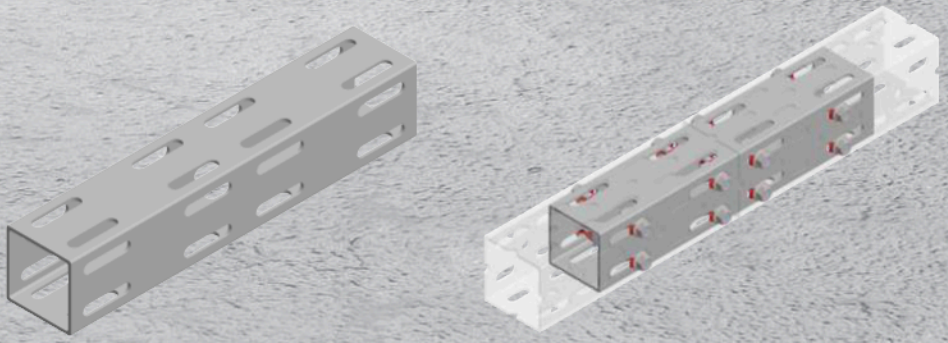


MOUNTING RAIL CONNECTOR W-IP INTERNAL

Rigid rail joint for connecting W-IP mounting rails inside the profile

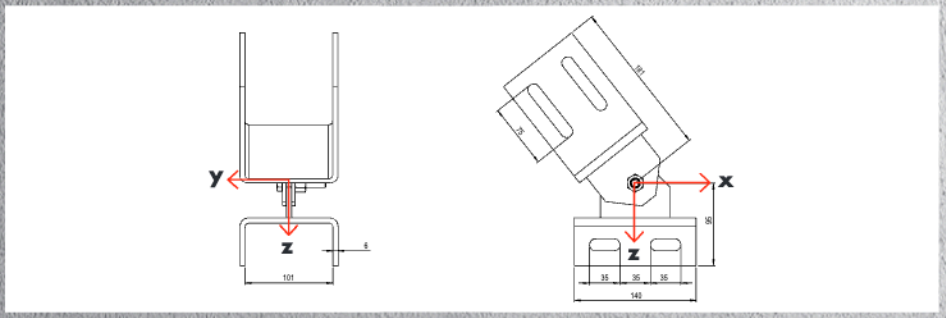


Technical data	
Material	S235JR - EN 10025
Surface	Hot-dip galvanised
Weight	2,860 g
Art. no.	**5256 100 053**

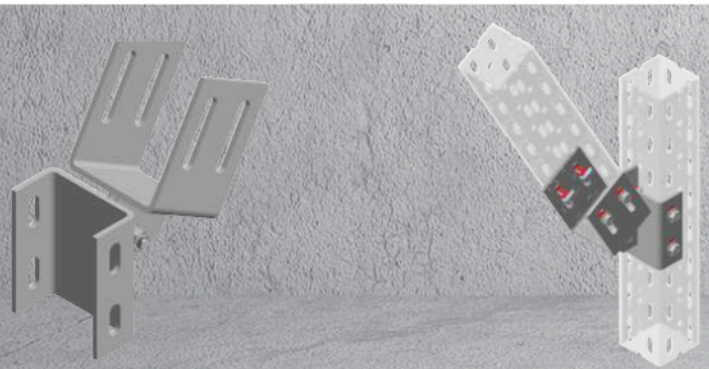


HINGE CONNECTOR W-IP

Hinged connection for struts and diagonals with variable angle adjustment

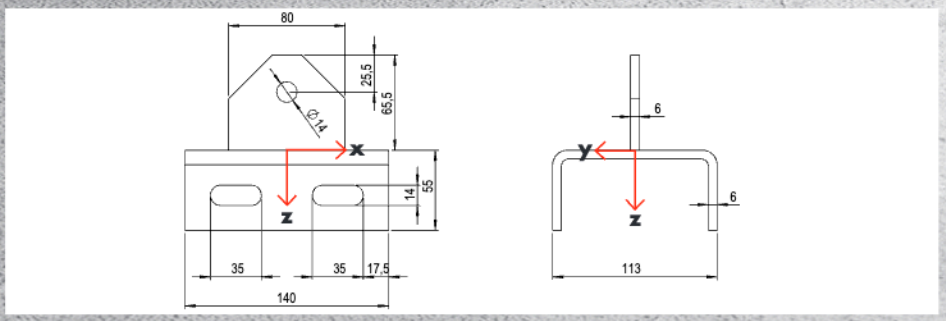


Technical data	
Material	S235JR - EN 10025
Surface	Hot-dip galvanised
Weight	3,386 g
Angular range	30-60°
Art. no.	**5256 100 051**

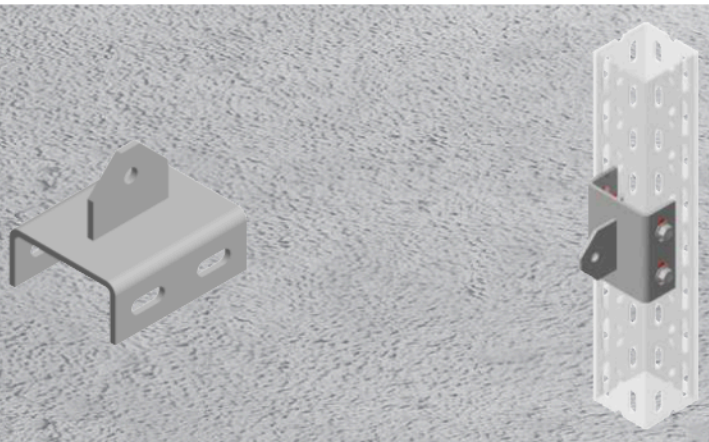


CONNECTING LUG W-IP

Lug for implementing cable anchors and connecting diagonals

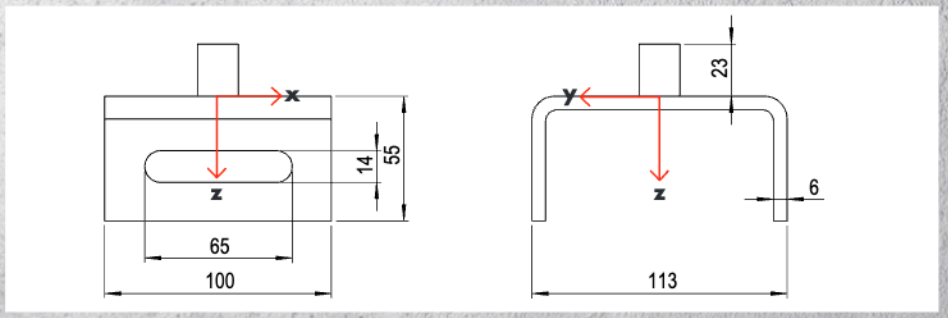


Technical data	
Material	S235JR - EN 10025
Surface	Hot-dip galvanised
Weight	1,950 g
Art. no.	**5256 100 060**

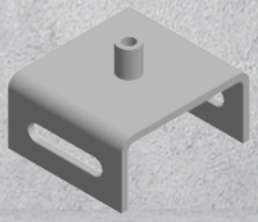


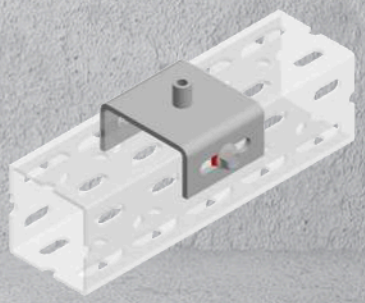
SLEEVE CONNECTION W-IP

Sleeve connection for elevated constructions



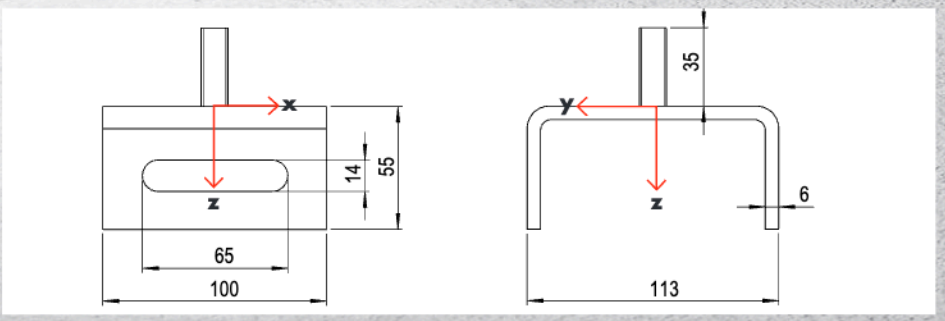
Technical data	
Material	S235JR - EN 10025
Surface	Hot-dip galvanised
Weight	95 g
Art. no.	**5256 100 063** (M10, M12 combination thread)
Art. no.	**5256 100 064** (M16)



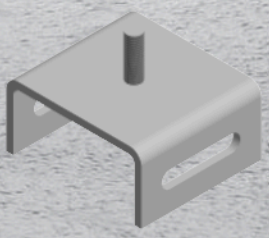


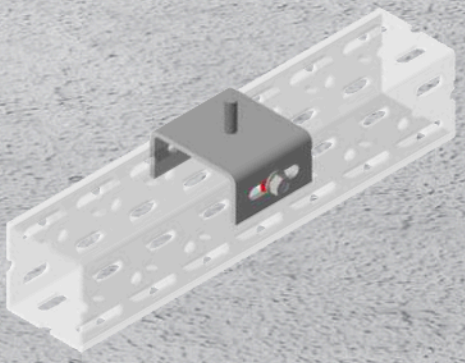
BOLT CONNECTION W-IP

Bolt connection for elevated constructions



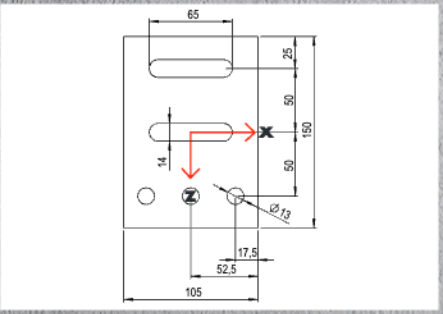
Technical data	
Material	S235JR - EN 10025
Surface	Hot-dip galvanised
Weight	95 g
Art. no.	**5256 100 065** (M10)
Art. no.	**5256 100 066** (M12)
Art. no.	**5256 100 067** (M16)



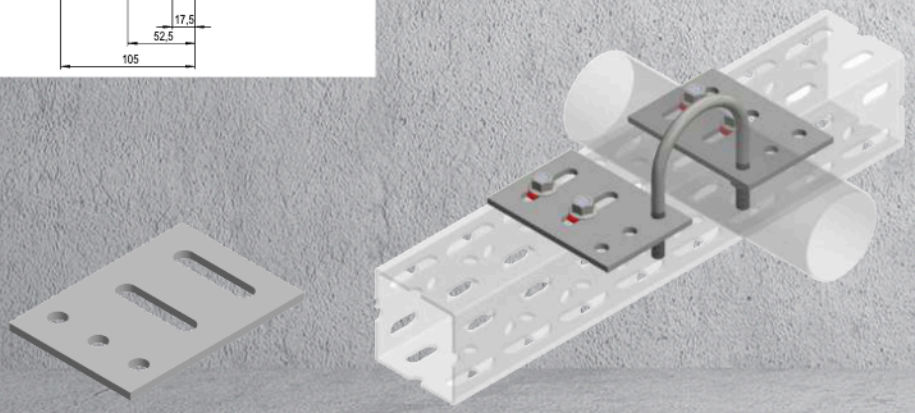


PIPE HOLDER W-IP

Connecting clamps to the W-IP system

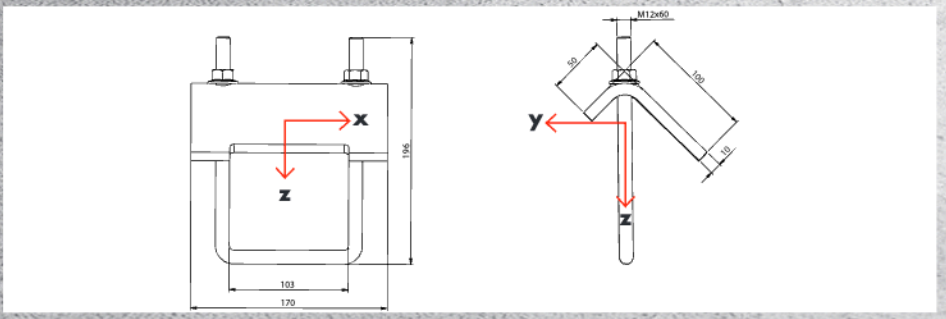


Technical data	
Material	S235JR - EN 10025
Surface	Hot-dip galvanised
Weight	680 g
Art. no.	**5256 100 061**



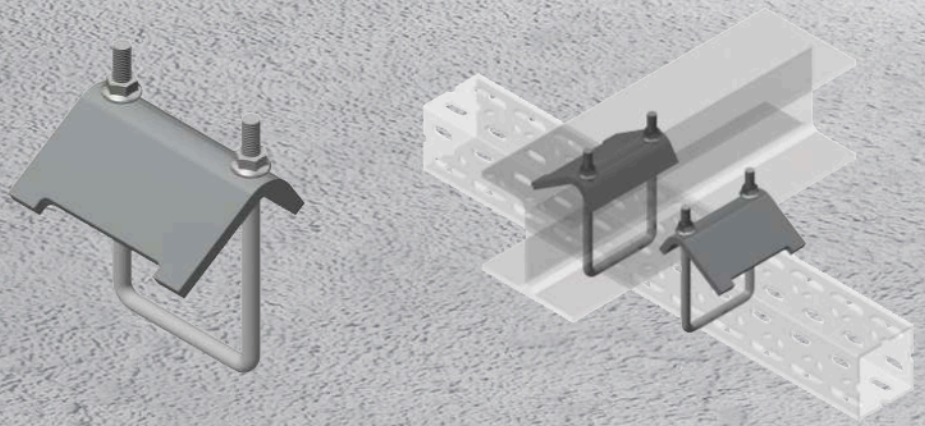
TENSIONING CLAMP W-IP

Clamping connection for connecting the W-IP mounting rail to the U/T-beam



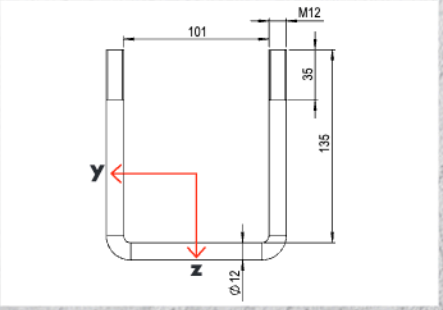
Technical data	
Material	S235JR - EN 10025
Surface	Hot-dip galvanised
Art. no.	**5256 100 052**

It is recommended to install on both sides of the steel beam to prevent slipping off the profile.

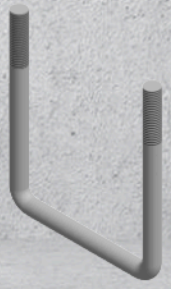


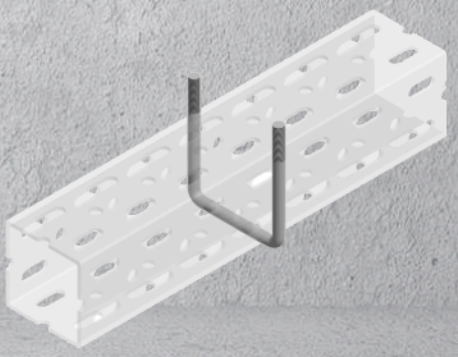
BRACKET CONNECTION W-IP

Versatile bracket with thread, transverse connection of VARIFIX rails possible



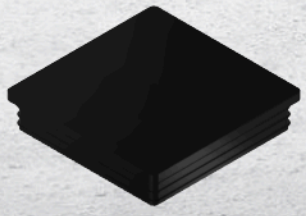
Technical data	
Material	S235JR - EN 10025
Surface	Hot-dip galvanised
Weight	273 g
Art. no.	**5256 100 062**



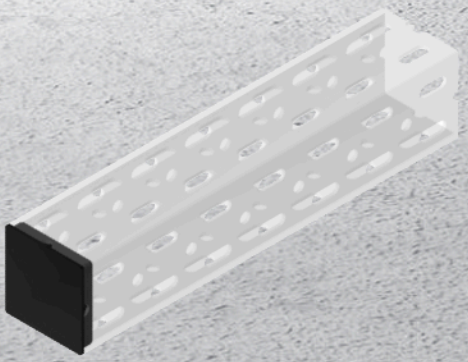


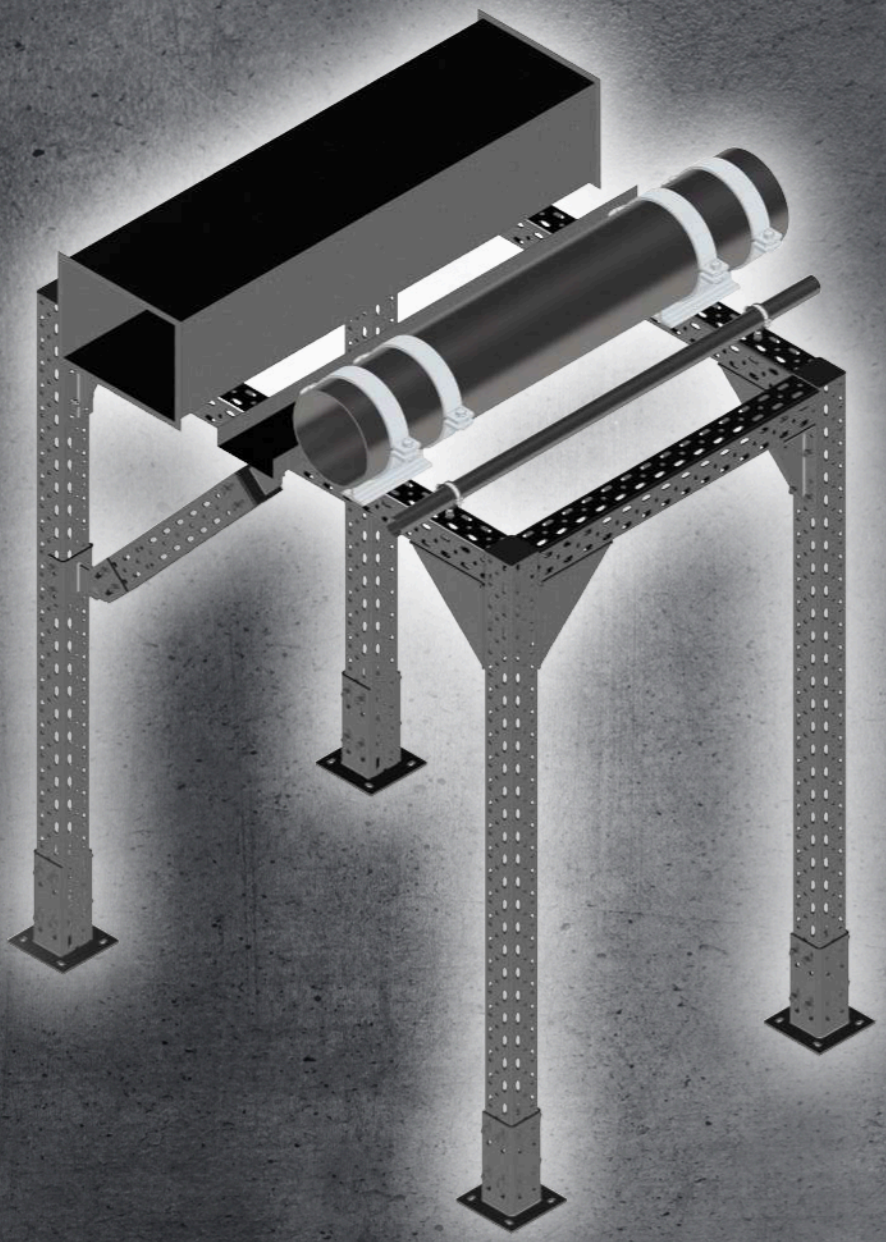
END CAP

End cap add-on at the end of the W-IP mounting rail



Technical data	
Material	PE
Art. no.	**0598 261 005**





WÜRTH
PROFESSIONAL SOLUTIONS

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