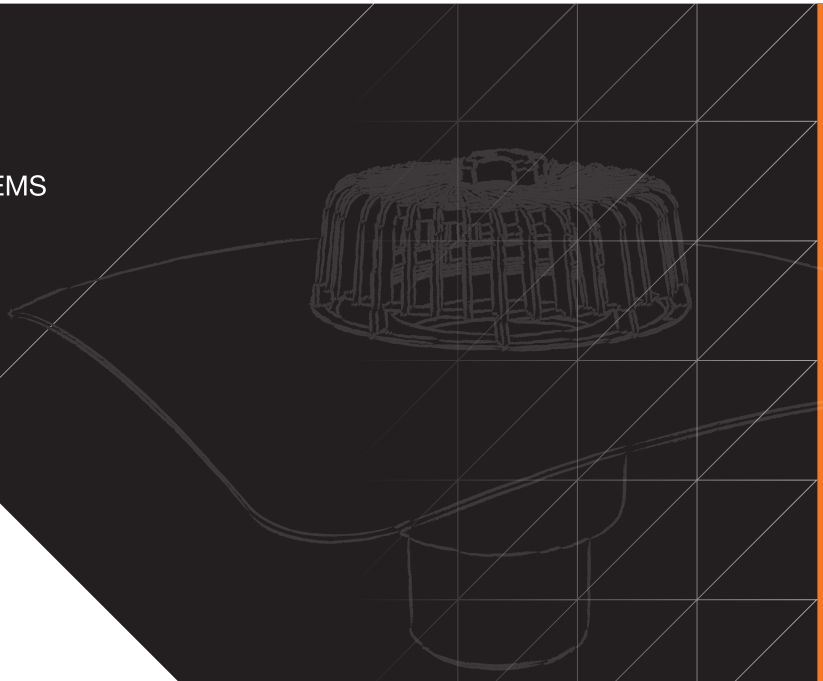
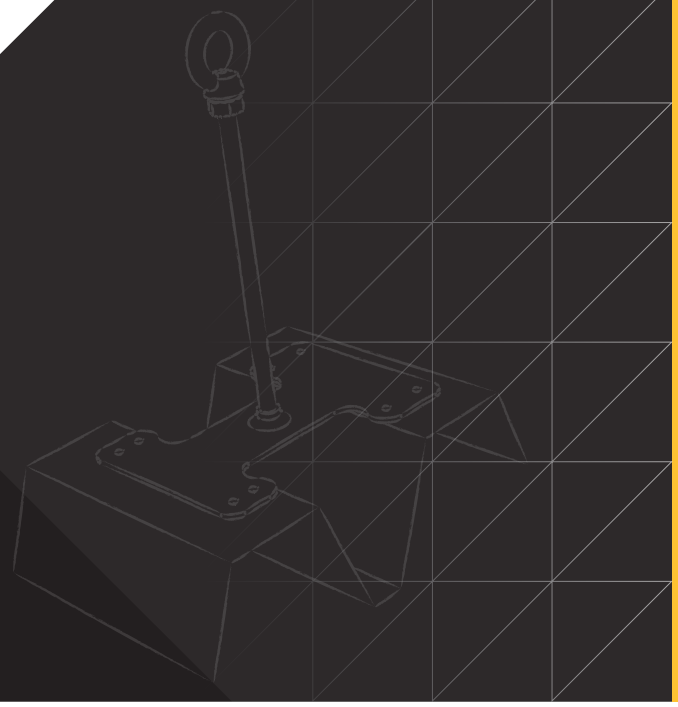
TOPWET®

FLAT ROOF
DRAINAGE SYSTEMS



PRODUCT CATALOGUE 2020



TOPSAFE

FALL PROTECTION
SAFETY SYSTEMS

TW®

TSF

Company data

TOPWET s.r.o.
náměstí Viléma Mrštíka 62
664 81 Ostrovačice
Czech Republic

GPS 49° 12‘ 36.81“ N
16° 24‘ 34.19“ E

Id.-Nr. 273 77 377
Tax-Nr. CZ27377377

Company divisions

TOPWET® FLAT ROOF DRAINAGE SYSTEMS

TOPWET Customer infoline
Orders, stock, invoicing
Mobile +420 777 717 116
E-mail info@topwet.cz

TOPWET Technical support line
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E-mail support@topwet.cz

www.topwet.eu

TOPSAFE FALL PROTECTION SAFETY SYSTEMS

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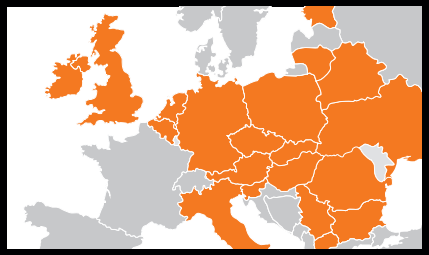
About

Company history



TOPWET s.r.o. company, together with its brand of the same name, is perceived by specialist public as one of the leading European manufacturers of flat roof drainage products. It has gained its credit mainly thanks to its two-layer roof outlets with integrated sleeves from hydro-insulation materials and gutter spouts with lowered overflow.

Thanks to its high-quality products, extensive range of products and all the employees, a small firm established in 2000 evolved into a company that has been constantly expanding, exports its products all over Europe and is gradually becoming one of the leaders in the region.

Quality & Development

If the company is to maintain its position in the market and increase its market share, it needs to react flexibly to new requirements from its customers, technological development or new materials. Our products are therefore developed **using the most advanced technologies**, e.g. 3D printing.

A new product type must be tested before its lot production is started. Within the scope of the development process we therefore first produce a prototype which is used to assess the shape, function, ergonomics or to verify the technological restrictions. It is the only way to guarantee high quality of our products and their long-term sustainability.

Products certification


Zertifikat Certificate

TÜVRheinland

Zertifikat Nr. Certificate No. R 60140093 Blatt Sheet 0001

Ihr Zeichen Client Reference — Unser Zeichen Our Reference 0010--60234670 001 — Ausstellungsdatum Date of issue 21.06.2019

Genehmigungsinhaber License Holder
Topwet, s.r.o.
Námestí Vítéza Mrstíka 62
664 81 Ostrovacice
Czech Republic

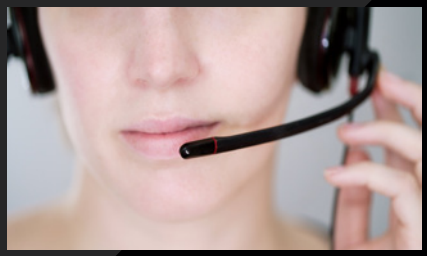
Fertigungsstätte Manufacturing Plant
Topwet, s.r.o.
Námestí Vítéza Mrstíka 62
664 81 Ostrovacice
Czech Republic

To be able to provide guarantee for our products, we have to be sure their quality is high. For this purpose, we always have our new products certified in independent European organisations.

Our products are fully compatible with European rainwater pipe diameters, **meet demanding conditions for certification** in the LGA testing laboratory and comply with applicable European standards.

TÜVRheinland CERTIFIED
Type Tested and Monitored
www.tuv.com ID 1111218978

Client support

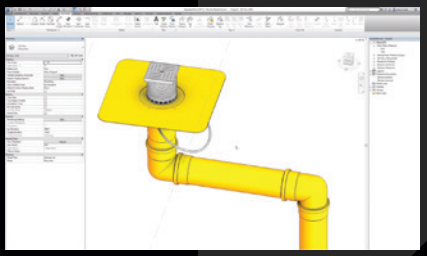


Client care is a strategic value which is highly significant for TOPWET companyin the long term. We built our customer relations on intensive contacts and we try to adapt to the customers' requirements in the maximum possible degree.

We organise lectures, trainings and participate in important trade fairs, both in the Czech Republic and abroad. Customer service is never-ending work for us and within its scope we try to ensure the following:

- Satisfaction with provided services
- Availability and possible sharing of the required Information
- High-quality, timely and easily accessible assistance
- Effective forms of mutual communication
- Saving time and energy spent on solution of technical issues

Technical support



Due to the nature of our products, within the scope of provision of high--quality client service, we mostly deal with provision of technical consultancy for our customers at the stage of design and implementation.

SERVICES FOR IMPLEMENTATION COMPANIES

- Technical support and consultancy
- Technical documentation and drawings
- Application drawings in 2D / 3D
- Certificates, attests, declarations of conformity
- Custom-made production

SERVICES FOR DESIGNERS

- Technical drawings in DWG format
- Examples of application in 2D / 3D / PDF / DWG
- Consultancy, drainage calculations

If you have any questions, even directly from the construction site, we have technicians with specialist knowledge.

Transportation

Fast and reliable delivery of goods to our customers is one of our priorities, therefore we only cooperate with reliable carriers. Do you want to order our products directly to the address of your construction site? No problem…

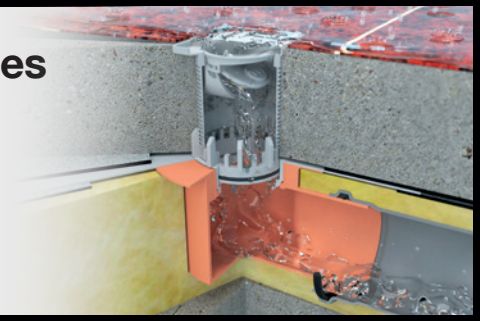
NEWS

TOPWET®

New balcony outlets with accessories

A well-tried product in a new version

- 100% waterproof
- The lowest balcony outlet on the market
- A new line of system accessories



TOPWET®

Attachment for terrace outlets

For terraces with thermal insulation

- For vertical versions of terrace outlets DN 70, 100 and 125
- Attachment is supplied with extension pipe
- Compatibility with terrace accessories

TOPSAFE

Rail systems

Safe façade maintenance

- Intended for work when suspended on rope
- Designed for work in positions known in advance
- Smooth movement along the whole length of rail lines


TOPWET®
FLAT ROOF
DRAINAGE SYSTEMS
Outlets for flat roofs, terraces, balconies
Sealing sleeves
Ventilation of roofs, sewerage and cable penetrations
TOP
WET
www.topwet.eu
TW®

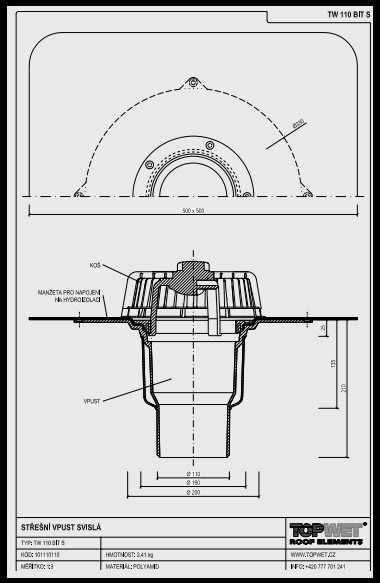
Technical information

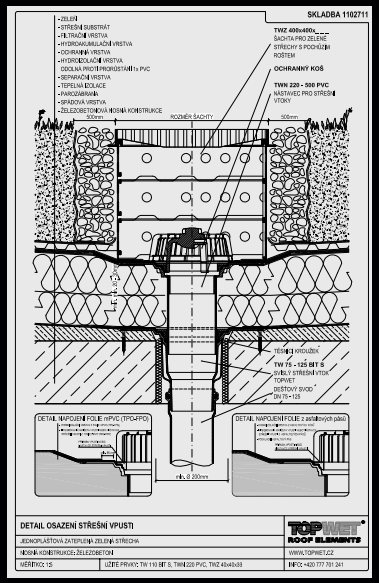
Documentation

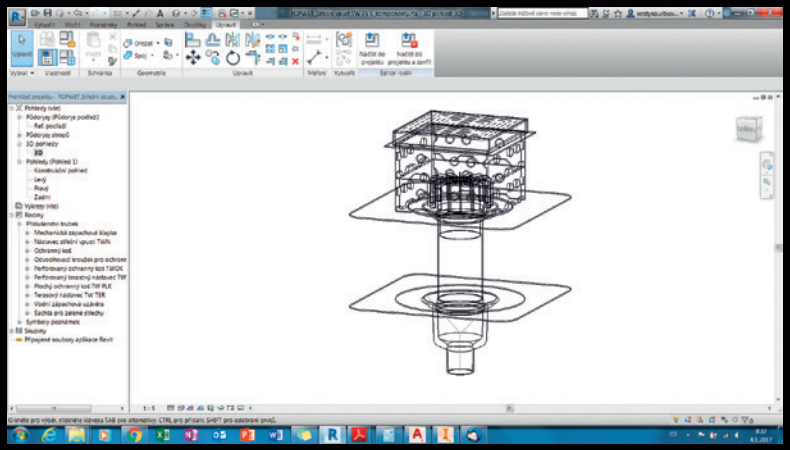
Technical drawings and examples of drainage

Technical drawings are prepared in scale including the corresponding dimensions. The examples of drainage include the currently most frequently used ways of drainage and they are updated continuously.

- **PDF format**
  Possibility of simple printing and viewing
- **DWG format**
  Possibility to place items into their own details or to use sample details
- **BIM plugin**
  Possibility to download plugin for roof and terrace elements







Roof Waterproofing Sleeve

TOPWET company supplies standardly all own products with integrated bitumen and PVC sleeve waterproof to ensure 100% reliable waterproof connection.

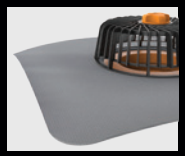
- **100% waterproof**
- **Stop to screw flanges**
- **Fully compatible with roof waterproofing system**
- **A list of foils in stock can be found on this link www.topwet.cz/text/manzety-hydroizolace**

BIT
Supplied with a UV stable SBS bitumen sleeve for direct welding to the main waterproofing layer.

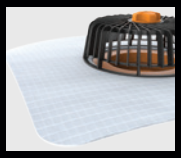
PVC
Supplied with a 1.5mm mPVC sleeve. All outlets can be manufactured with a specific manufacturers membrane (subject to additional cost).

Custom made sleeves:

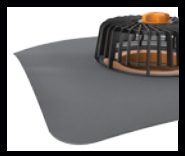
Material bases:



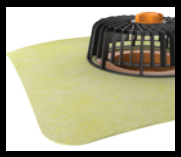
TPO (FPO)
Thermoplastic (flexible) polyelefin. A minimum thickness of 1.5mm, ideally in a homogenous version, is required. We currently produce with materials from the following brands:
We produce with sleeves of brands: Bauder, Carlisle, Eurotec, Fatra, Firestone, Flagon, Icopal, Sika, Texsa etc.



PE
Polyethylene is a vapour resistant membrane that is used mostly on roofs with a light structure.



EPDM
A membrane of synthetic caoutchouc (natural rubber). We currently manufacture with flanges from the following brands:
We produce with sleeves of brands: Carlisle, Firestone, Pirelli, Saargummi



STE
A flange for connection to liquid waterproofing applications. Customer may supply their own flange or we will provide a special flexible flange with double sided integrated layer for connection to the liquid waterproofing.

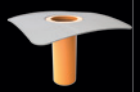
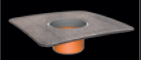
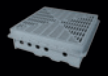
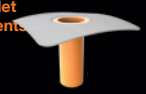
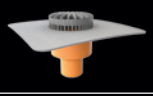
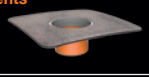
ECB
(ethylene-copolymer-bitumen)
Foil with a low content of asphalt. A mixture of polymers with oil asphalts. Tolerant to polystyrene foam. Compatible with bitumen insulation.

EVA
(ethylene-vinyl-acetate)
PVC-based foil, it does not contain any potentially liquid plasticizers. Tolerant to polystyrene foam. Compatible with bitumen insulation.

Brands we cooperate with:

Axter **Bauder** **BMI Group** **Carlisle** **Fatra** **FDT** **Firestone** **Icopal**
Mapei **Protan** **Sarnafil** **Schedetal** **Sika** **Soprema** **VAE** **Vedag**

Combination options of products and accessories

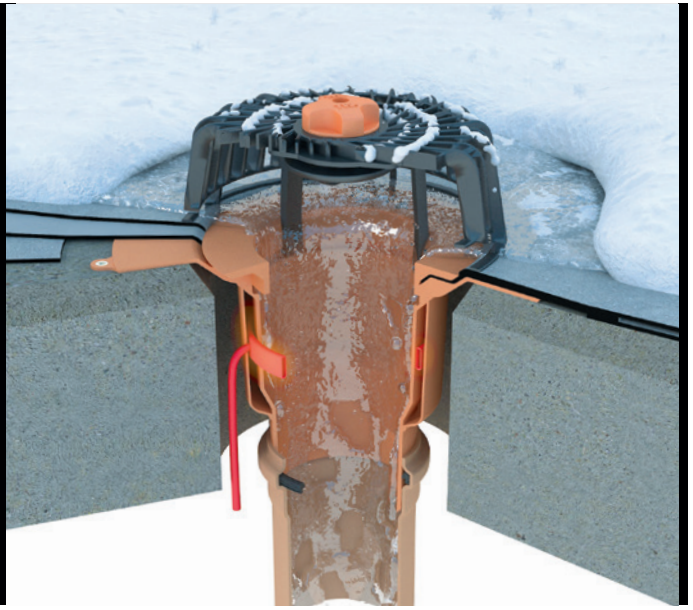
	TWN Roof outlet attachments page 14	TWTN Outlet attachments S. 15	TWZU Water odor trap page 18	TWOK Basket for gravel page 18	TW TER Terrace attachment page 18	TW PLK Walkable protective basket page 18	TW ODK Balcony attachment page 18	TWZ Shaft for green roofs page 27	TWZ Šachta pro zelené střechy str. 27
									
Roof outlets page 12 	✓		✓	✓	✓	✓	✓	✓	✓
Roof outlet attachments page 14 			✓	✓	✓	✓	✓	✓	✓
Terrace outlets page 16 		✓ only vertical outlet	✓	✓	✓	✓	✓	✓	✓
Outlet attachments S. 15 			✓	✓	✓	✓	✓	✓	✓
Sanitation outlets page 20 					✓	✓	✓	✓	✓
Sanitation outlets BZ page 20 									✓
Extended outlets page 22 					✓	✓	✓	✓	✓
Extended outlets BZ page 22 									✓
Balcony outlets TWB str. 25 a 26 									

TWB balcony outlets have their own complete line of accessories, for more information see the catalogue page 25 and 26

Self-regulating heated outlets and gutter spouts

Drainage of flat roofs

Self-regulating electric heating of outlets and gutter overflows ensures reliable drainage during the winter season. The system works by resistance change bto semiconductors due to ambient temperature changes. During the winter periods outlets are at risk of blocking due to ice or snow build up. The heating element is designed to protect not only the orrifice of the outlet but its immediate surroundings as well.



Advantages of self-regulation heating

- Reliable drainage also in winter season
- Voltage 230 V / 50 Hz – without necessity of a transformer or a control unit
- Option of connection to heating of gutters, downpipes, entries etc.
- Simple connection via a switch or a thermostat
- Electric energy saving

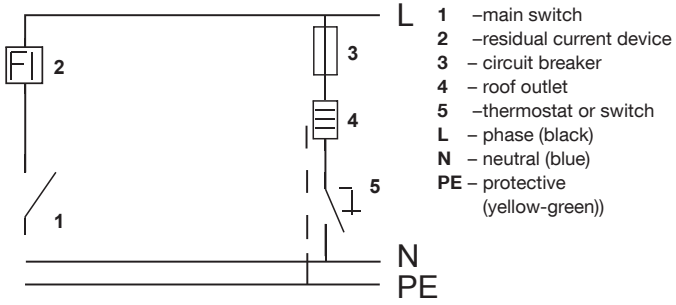
Connection description

- Connection is performed in an electric box under roof structure
- Length of the outlet supply cable is 1.5 m. Cable CYKY 3 x 1.5 mm
- Wire connection: yellow-green/protective, black/phase, blue/neutral
- AC voltage: 230 V, 50 Hz
- Input power: 7 W at 20 °C – 10 W at 0 °C – 14 W at -20 °C
- Max. current surge: 89 mA
- Protection class: IP 67

Basic options of connecting of heated outlets

- Without possibility of switching off (energy consumption also in summer season – not recommended)
- Mechanical switch (manipulation required), or time socket
- Outer thermostat with integrated thermal sensor
- Thermostat to a switchboard including thermal sensor for measuring of outer temperature
- Thermostat to a switchboard including thermal and humidity sensor for measuring the outside temperature

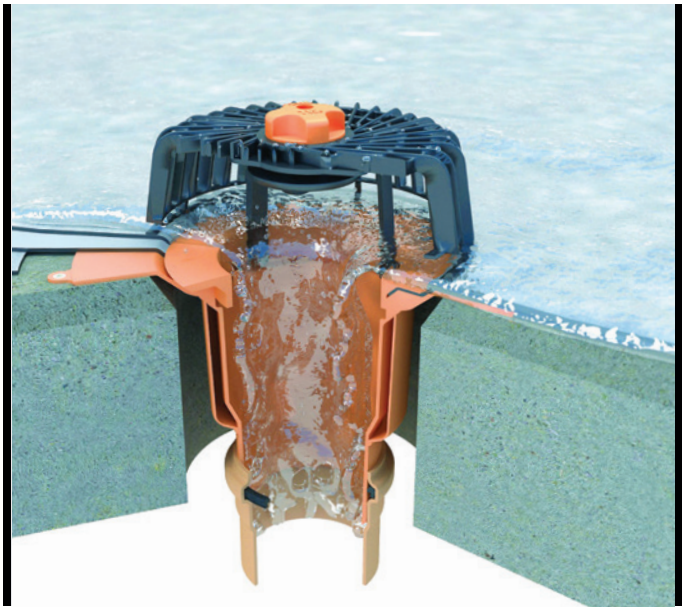
Wiring diagram



1 –main switch
2 –residual current device
3 – circuit breaker
4 – roof outlet
5 –thermostat or switch
L – phase (black)
N – neutral (blue)
PE – protective (yellow-green))

Roof outlets

Drainage of flat roofs



Basic type – thermally insulated vertical roof outlet

- Double-wall structure of polyamide PA6
- Integral flange of waterproof membrane or vapour barrier
- Protecting basket included in each package
- Direct connection to vertical roof downpipes of DN 70, DN 100, DN 125 and DN 150 diameters

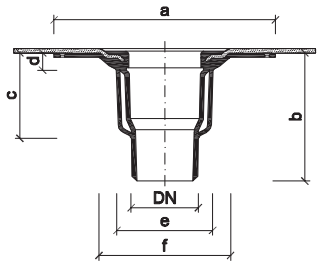
Complementary type – horizontal roof outlet

- Direct connection to horizontal piping of DN 70, DN 100 and DN 125 diameters
- Reduced construction height for warm roofs

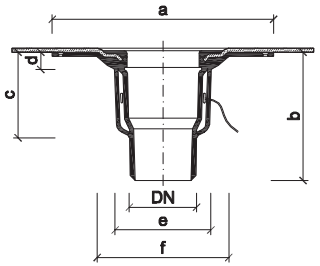
Dimensions of vertical roof outlets

Type	DN	Dimensions [mm]					
		a	b	c	d	e	f
TW(E) 75 S	70	330	210	145	25	160	200
TW(E) 110 S	100	330	210	135	25	160	200
TW(E) 125 S	125	330	210	135	25	160	200
TW(E) 160 S	150	342	210	135	25	190	265

TW S



TWE S

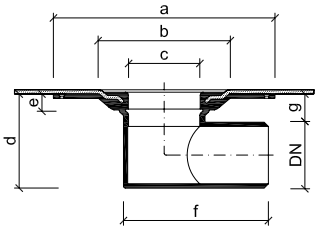


Dimensions of horizontal roof outlets

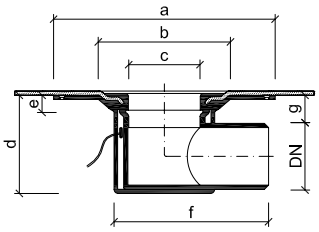
Type	DN	Dimensions [mm]						
		a	b	c	d	e	f	g
TW(E) 75 V	70	330	200	130	121	36	224 (238*)	46
TW(E) 110 V	100	330	200	130	157	25	238 (250*)	47
TW(E) 125 V	125	330	200	130	165	25	239 (251*)	40

** dimensions of heated version*

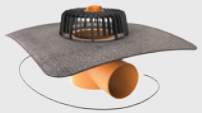
TW V



TWE V

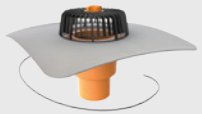
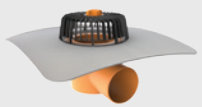
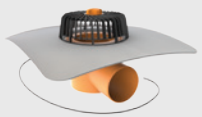


TOPWET roof outlets with integrated bitumen sleeve

BIT	Version	Type	Dimensions
	TOPWET roof outlet with an integrated flange of modified bitumen strip, vertical version, heat-insulated – double-wall with a leaf guard.	TW 75 BIT S TW 110 BIT S TW 125 BIT S TW 160 BIT S XL	DN 70 DN 100 DN 125 DN 150
	TOPWET roof outlet with an integrated flange of modified bitumen strip, vertical version, heat-insulated – double-wall with a leaf guard, heated with 230 V, with a connecting cable.	TWE 75 BIT S TWE 110 BIT S TWE 125 BIT S TWE 160 BIT S XL	DN 70 DN 100 DN 125 DN 150
	TOPWET roof outlet with an integrated flange of modified bitumen strip, horizontal version, with a leaf guard.	TW 75 BIT V TW 110 BIT V TW 125 BIT V	DN 70 DN 100 DN 125
	TOPWET roof outlet with an integrated flange of modified bitumen strip, horizontal version, with a leaf guard, heated with 230 V, with a connecting cable.	TWE 75 BIT V TWE 110 BIT V TWE 125 BIT V	DN 70 DN 100 DN 125

Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.

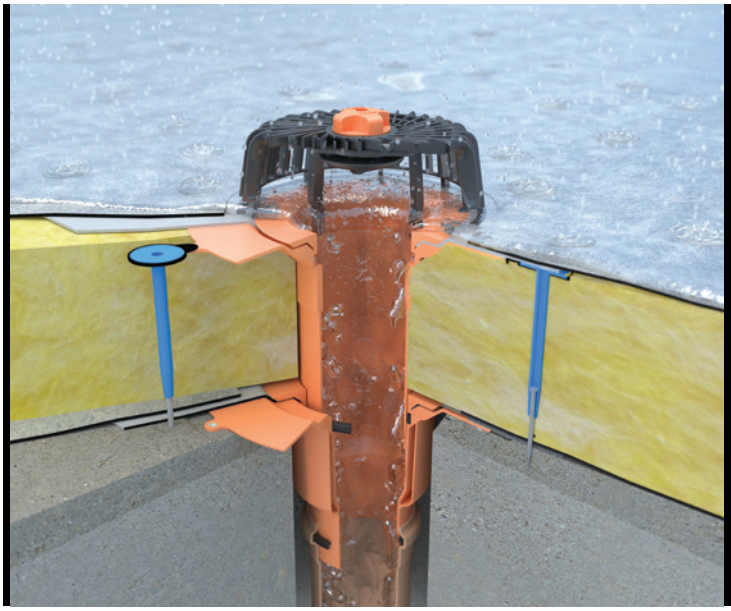
TOPWET roof outlets with integrated PVC sleeve

PVC	Version	Type	Dimensions
	TOPWET roof outlet with an integrated sleeve of a waterproofing membrane based on PVC, vertical version, heat-insulated – double-wall with a leaf guard.	TW 75 PVC S TW 110 PVC S TW 125 PVC S TW 160 PVC S XL	DN 70 DN 100 DN 125 DN 150
	TOPWET roof outlet with an integrated sleeve of a waterproofing membrane based on PVC, vertical version, heat-insulated – double-wall with a leaf guard, heated with 230 V, with a connecting cable.	TWE 75 PVC S TWE 110 PVC S TWE 125 PVC S TWE 160 PVC S XL	DN 70 DN 100 DN 125 DN 150
	TOPWET roof outlet with an integrated sleeve of a waterproofing membrane based on PVC, horizontal version, with a leaf guard.	TW 75 PVC V TW 110 PVC V TW 125 PVC V	DN 70 DN 100 DN 125
	TOPWET roof outlet with an integrated sleeve of a waterproofing membrane based on PVC, horizontal version, with a leaf guard, heated with 230 V, with a connecting cable.	TWE 75 PVC V TWE 110 PVC V TWE 125 PVC V	DN 70 DN 100 DN 125

Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.

Outlet attachments and other accessories

Drainage of insulated roofs



Basic type – universal performance

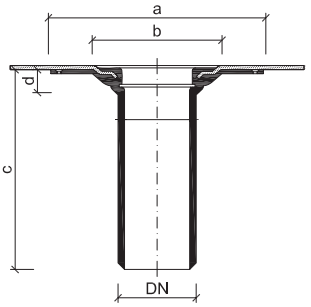
- Applicable for roof outlets of DN 70, DN 100 and DN 125 diameters, outlets vertical and horizontal including heated ones
- Height depending on a insulated thickness ranging from 40 mm
- Suitable for passive houses with an insulation height up to 500 mm
- Sealing ring protecting against raised water included
- Heated version on request

Complementary type XL

- Only for vertical roof outlets of DN 150 diameter including heated ones

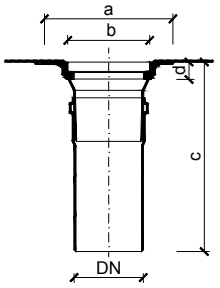
Dimensions of the attachments for roof outlets

Type	for roof outlets TW / TWE	Dimensions [mm]				
		a	b	c	d	Insulation Thickness
TWN v220	75, 110, 125	330	200	290	40	40–220
TWN v300	75, 110, 125	330	200	370	40	40–300
TWN v500	75, 110, 125	330	200	540	40	40–500
TWNE v300	75, 110, 125	330	200	370	100	100-300
TWNE v500	75, 110, 125	330	200	540	100	100-500
TWN v300 XL	160	342	265	330	120	120–300
TWN v500 XL	160	342	265	540	120	120–500



Dimensions of the attachments for terrace outlets

Type	for roof outlets TWT / TWTE	Dimensions [mm]				
		a	b	c	d	Insulation Thickness
TWTN v300	75, 110, 125	204	130	370	20	20–300

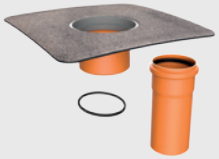
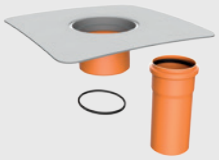


Attachments for thermal insulation for TOPWET roof outlets

	Version	Type	Insulation Thickness
	TOPWET attachment with an integrated flange of modified bitumen for vertical and horizontal TOPWET roof outlets of DN 70, 100 and 125, with a sealing ring, without a leaf guard (XL version only for outlets of DN 150). TWNE = heated performance, suitable for an insulation thickness over 300 mm.	TWN v220 BIT TWN v300 BIT TWN v500 BIT TWNE v300 BIT TWNE v500 BIT TWN v300 BIT XL TWN v500 BIT XL	40–220 mm 40–300 mm 40–500 mm 100–300 mm 100-500 mm 120–300 mm 120–500 mm
	TOPWET attachment with an integrated PVC membrane waterproofing flange for vertical and horizontal TOPWET roof outlets of DN 70, 100 and 125, with a sealing ring, without a leaf guard (XL version only for outlets of DN 150). TWNE = heated performance, suitable for an insulation thickness over 300 mm.	TWN v220 PVC TWN v300 PVC TWN v500 PVC TWNE v300 PVC TWNE v500 PVC TWN v300 PVC XL TWN v500 PVC XL	40–220 mm 40–300 mm 40–500 mm 100–300 mm 100-500 mm 120–300 mm 120–500 mm

Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.

Attachments for thermal insulation for TOPWET terrace outlets

	Version	Type	Insulation Thickness
	TOPWET attachment with an integrated flange of modified bitumen for vertical TOPWET terrace outlets of DN 70, 100 and 125, with a sealing ring. Attachment is without leafguard, with extension pipe.	TWTN v300 BIT	20–300 mm
	TOPWET attachment with an integrated PVC membrane for vertical TOPWET terrace outlets of DN 70, 100 and 125, with a sealing ring. Attachment is without leafguard, with extension pipe.	TWTN v300 PVC	20–300 mm

Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.

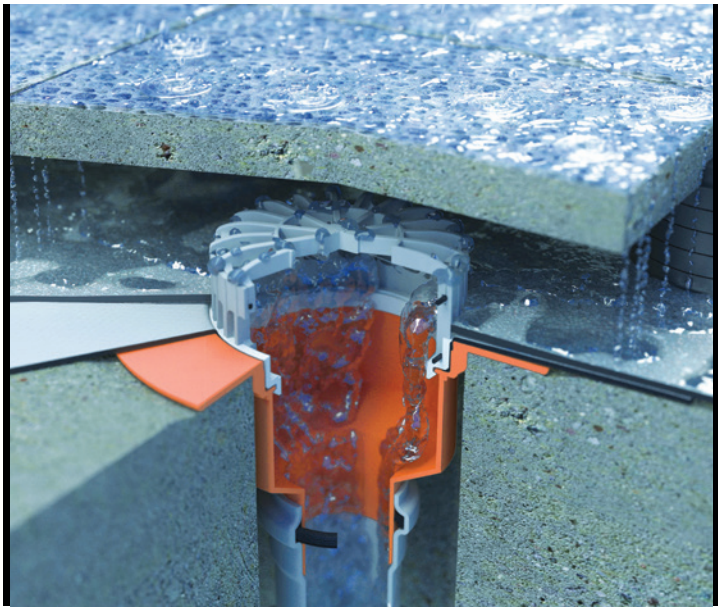
Electronic thermostats to control the heated roof drains TOPWET and heating kit

Accessories

	Version	Type	Dimensions
	Universal external thermostat for controlling TOPWET heated roof outlets with an integrated thermal sensor for external temperature measurement. It is possible to connect up to 16 outlets to one thermostat.	TWT 524	70×70 mm
	Universal internal thermostat for controlling TOPWET heated roof outlets connected to switchboard boxes. Complete with a 4m cable and a thermal sensor for external temperature measurement. It is possible to connect up to 16 outlets to one thermostat.	TWT 3528	90×50 mm
	Kit includes a self regulating AC 230V, 50Hz heat cable (cable heat section 0.6m long, inlet cable length 1.5m). Complete with two plastic mounting straps to fix the cable to the pipe and aluminium tape for fixing of the heat cable.	TW SE TW SE XL	

Terrace outlets

Drainage of flat roofs, terraces and balconies



- Vertical or horizontal version DN 50-125
- Higher outlet capacity
- Construction from polyamide PA6
- Integrated sleeve made of a waterproof strip or foil
- Low construction height
- A special low leaf guard is part of every outlet, with possibility of adjustment to a flat basket
- A heated version will ensure reliable drainage even in the winter season

Terrace outlets – vertical version

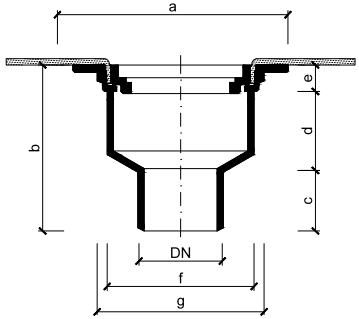
Type	DN	Dimensions [mm]						
		a	b	c	d	e	f	g
TWT(E) 75 S	70	204	182	80	75 (*52)	27 (*50)	133	156
TWT(E) 110 S	100	204	182	80	75 (*52)	27 (*50)	133	156
TWT(E) 125 S	125	204	182	80	75 (*52)	27 (*50)	133	156

** dimension at heated version*

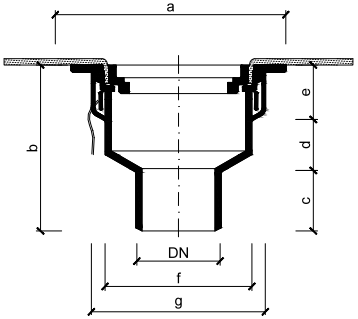
Terrace outlets – horizontal version

Type	DN	Dimensions [mm]			
		a	b	c	d
TWT(E) 50 V	50	204	92	225	44
TWT(E) 75 V	70	204	102	225	28
TWT(E) 110 V	100	204	143	238	33
TWT(E) 125 V	125	204	143	238	26

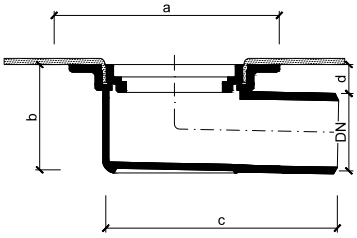
TWT S



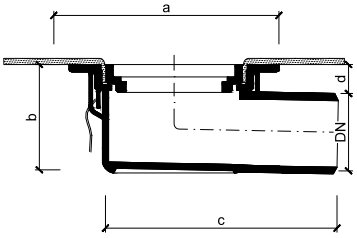
TWTE S



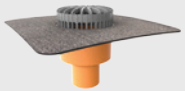
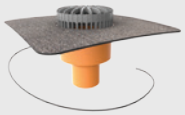
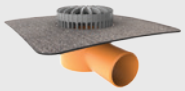
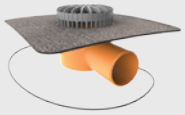
TWT V



TWTE V

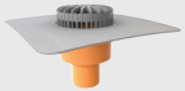
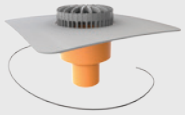
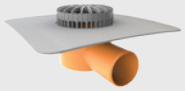
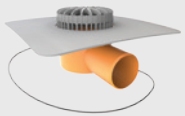


TOPWET terrace outlet with an integrated bitumen sleeve

BIT	Version	Type	Dimensions
	TOPWET terrace outlet with an integrated sleeve from a modified bitumen strip, vertical version, with a leaf guard.	TWT 75 BIT S TWT 110 BIT S TWT 125 BIT S	DN 70 DN 100 DN 125
	TOPWET terrace outlet with an integrated sleeve from a modified bitumen strip, vertical version, heated 230 V with a connecting cable, with a leaf guard.	TWTE 75 BIT S TWTE 110 BIT S TWTE 125 BIT S	DN 70 DN 100 DN 125
	TOPWET terrace outlet with an integrated sleeve of a modified bitumen strip, horizontal version, with a leaf guard.	TWT 50 BIT V TWT 75 BIT V TWT 110 BIT V TWT 125 BIT V	DN 50 DN 70 DN 100 DN 125
	TOPWET terrace outlet with an integrated sleeve from a modified bitumen strip, horizontal version, heated 230 V with a connecting cable, with a leaf guard.	TWTE 50 BIT V TWTE 75 BIT V TWTE 110 BIT V TWTE 125 BIT V	DN 50 DN 70 DN 100 DN 125

Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.

TOPWET terrace outlets with an integrated PVC sleeve

PVC	Version	Type	Dimensions
	TOPWET terrace outlets with an integrated PVC sleeve from waterproof membrane based on PVC, vertical version, with a leaf guard.	TWT 75 PVC S TWT 110 PVC S TWT 125 PVC S	DN 70 DN 100 DN 125
	TOPWET terrace outlets with an integrated PVC sleeve from waterproof membrane based on PVC, vertical version, heated 230 V with a connecting cable, with a leaf guard.	TWTE 75 PVC S TWTE 110 PVC S TWTE 125 PVC S	DN 70 DN 100 DN 125
	TOPWET terrace outlets with an integrated PVC sleeve of waterproof membrane based on PVC, horizontal version, with a leaf guard.	TWT 50 PVC V TWT 75 PVC V TWT 110 PVC V TWT 125 PVC V	DN 50 DN 70 DN 100 DN 125
	TOPWET terrace outlets with an integrated PVC sleeve from waterproof membrane based on PVC, horizontal version, heated 230 V with a connecting cable, with a leaf guard.	TWTE 50 PVC V TWTE 75 PVC V TWTE 110 PVC V TWTE 125 PVC V	DN 50 DN 70 DN 100 DN 125

Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.

Accessories for roof outlets, terrace outlets and attachments

Drainage of ballast roofs, terraces and balconies and anti-stink measures

Accessories for roof outlets, terrace outlets and attachments

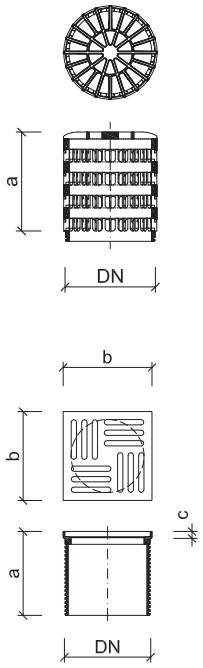
- On roofs with a ballast layer of gravel it is necessary to use a perforated protective basket
- Wide range of accessories for walkable roofs
- Terrace attachments for drainage from the paving surface level
- Possibility of using a odour trap inserted in the outlet

Leaf guard for roofs with gravel

Type	DN	Dimensions [mm] a	Purpose
TWOK v100	125*	100	A universal basket for roof outlets DN 70, 100 and 125, terrace outlets DN 50, 70, 100 and 125, attachments for outlets, sanitation outlet and extended outlets
TWOK v133	125*	133	
TWOK v166	125*	166	
TWOK v200	125*	200	
TWOK v20–1000 XL	150	20–1000	For roof outlets DN 150 and attachments for XL outlets

Terrace attachments

Type	DN	Dimensions [mm] a	b	c	Purpose
TW TER	125*	100	135	11	A universal terrace attachment for roof outlets DN 70, 100 and 125, terrace outlets DN 50, 70, 100 and 125, attachments for outlets, sanitation outlet and extended outlets
TW TER P	125*	220	135	11	
TWNR TER v10–1000 XL(P) (D)	150	10–1000	150	11	For roof outlets DN 150 and attachments for XL outlets



*** How can attachments be universal for various diameters of roof and terrace outlets DN 50, 70, 100 and 125?**

The outlets have a neck or an integrated flange of the same construction and diameter. The outlet construction only differs below the neck. Ensuring that all the accessories are universal.

What attachment shall I use if I have screed waterproof which is at the level of the outlet neck?

For this type of finish, there is TW TER attachment which can be shortened according to the height of the screed and paving.

Mechanical roof flaps into TOPWET roof outlets, terrace outlets and roof outlets attachments

Accessories	Version	Type	Height
	The new generation of mechanical roof flap TOPWET with increased drainage capacity and self-cleaning properties. It is designed for roof drains, attachments and balcony drains TOPWET. The flap can not be used for DN 150 drains and for redevelopment and extended drains. The flap should not be installed in an environment with the inhibited air circulation.	TWZU KL	
	The new generation water odor trap TOPWET with an increased drainage capacity. It is designed for roof drains, attachments and balcony drains TOPWET. The water level of 50 mm. The cap cannot be used for DN 150 drains and for redevelopment and extended drains. The flap is designed for environments with no free air circulation and for places where a possibility of freezing is eliminated.	TWZU	50 mm

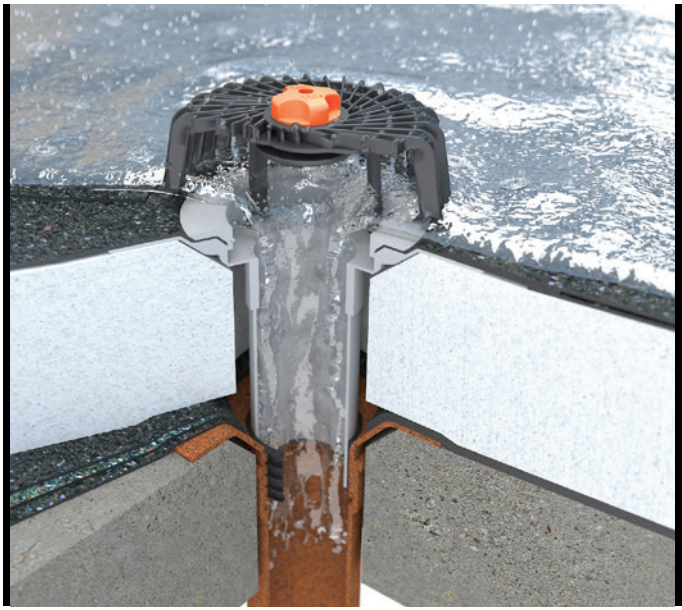
Accessories for roof outlets, terrace outlets and roof outlets attachments

Accessories	Version	Type	Height above insulation level
	The new generation terraced attachment TOPWET for balconies and terraces with glued or otherwise mounted pavement. The package includes one drainage ring for the more continuous water runoff from the main waterproof system. The terraced attachment can be extended with another drainage ring TW ODK by about 33 mm or the attachment TWN TER. The attachment height is adjustable; the thick-walled polyamide PA6 UV Stabil design.	TW TER	10–100 mm (45–150 mm)*
	The new generation perforated terraced attachment TOPWET for balconies and terraces with the pavement. The package includes three drainage rings for smoother water runoff from the main waterproof system. The terraced attachment can be extended with another drainage ring TW ODK by about 33 mm or the attachment TWN TER. The attachment height is adjustable; the thick-walled polyamide PA6 UV Stabil design.	TW TER P	45–220 mm
	The extended attachment for the extension of the terraced attachment by 120 mm as a maximum. The exact height of the attachment can always be adapted directly on site. The thick-walled polyamide PA6 UV Stabil design.	TWN TER	15–120 mm
	The new generation flat walkable leaf guard TOPWET. The thick-walled polyamide PA6 UV Stabil design. The height above the level of the waterproof system is 33 mm. The hole size of 15×7 mm.	TW ODK	+33 mm
	The new generation flat walkable leaf guard TOPWET. The thick-walled polyamide PA6 UV Stabil design. The height above the level of the waterproof system is 10 mm.	TW PLK	+10 mm
	The new generation perforated leaf guard TOPWET for roofs with gravel or other load-increasing strata. The basket can be extended with the drainage ring TW ODK always by 33 mm. The thick-walled polyamide PA6 UV Stabil design.	TWOK v33 TWOK v66 TWOK v100 TWOK v133 TWOK v166 TWOK v200	33 mm 66 mm 100 mm 133 mm 166 mm 200 mm

** The heights apply when the TW ODK*

Sanitation outlets and vents

Flat roof refurbishment outlets and vents

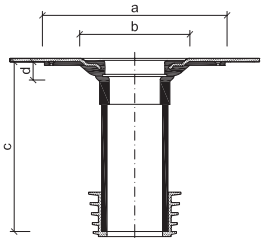


Basic type – refurbishment outlets with length of 400 mm

- Direct connection to existing roof outlets or vertical downpipes
- Wide assortment of fine graduated diameters
- Easy application with refurbishment with use of a new heat-insulated layer from a thickness of 50 mm
- Custom manufacturing of higher sanitation outlets with a tube of a length up to 2000 mm
- Lip seal against raised water included in each outlet
- Slippery means included in each package
- Heated version on request

Refurbishment outlets for warm roofs

Type	Dimensions [mm]				
	a	b	c**	d	e
TW SAN 50	330	220	400	40 (80*)	90
TW SAN 75	330	220	400	40 (80*)	90
TW SAN 90	330	220	400	40 (75*)	90
TW SAN 104	330	220	400	40 (80*)	90
TW SAN 110	330	220	400	40 (80*)	90
TW SAN 125	330	220	400	40 (80*)	90
TW SAN 160	342	265	400	40 (90*)	120

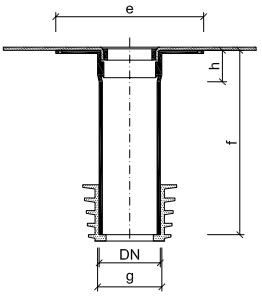


** dimension at heated version*
*** optionally extension up to 2000 mm to order (extra charge of Ł 3 excluding VAT/pc for every beginning 100 mm)*

Refurbishment outlets for warm roofs

Type	Dimensions [mm]			
	e	f	g	h
TW SAN BZ 50	250	400	56	60
TW SAN BZ 75	250	400	81	60
TW SAN BZ 90	250	400	96	60
TW SAN BZ 104	250	400	116	60
TW SAN BZ 110	250	400	116	60
TW SAN BZ 125	250	400	131	60

The outlet may be inserted into existing outlet, pipe or gutter up to a neck, but it has lower drain capacity



Selection table for refurbishment outlets

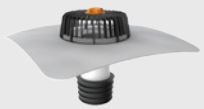
Type	For connection to piping of diameter	Type of existing downpipe [DN]																							
		Cast iron							PE							PVC					PP				
		70	80	100	110	125	150	200	63	75	90	110	125	150	200	70	100	125	150	200	100	125	150	200
TW SAN 50	54–72 mm	×							×	×						×								
TW SAN 75	79–102 mm		×								×										×			
TW SAN 90	99–106 mm			×								×					×				×			
TW SAN 104	109–116 mm				×																			
TW SAN 110	116–129 mm					×							×					×				×		
TW SAN 125	144–154 mm						×							×					×				×	
TW SAN 160	186–200 mm							×							×					×				×

TOPWET sanitation outlets with integrated bitumen sleeve

BIT	Version	Type	For connection to piping of diameter
	TOPWET sanitation outlet with an integrated sleeve of a modified bitumen strip with a leaf guard. Length 400 mm, option of extension up to 2000 mm on request.	TW SAN 50 BIT TW SAN 75 BIT TW SAN 90 BIT TW SAN 104 BIT TW SAN 110 BIT TW SAN 125 BIT TW SAN 160 BIT XL	54–72 mm 79–102 mm 99–106 mm 109–116 mm 116–129 mm 144–154 mm 186–200 mm
	TOPWET sanitation outlet with an integrated sleeve of a modified bitumen strip with a leaf guard, heated with 230 V with a supply cable. Length 400 mm, option of extension up to 2000 mm on request.	TWE SAN 50 BIT TWE SAN 75 BIT TWE SAN 90 BIT TWE SAN 104 BIT TWE SAN 110 BIT TWE SAN 125 BIT TWE SAN 160 BIT XL	54–72 mm 79–102 mm 99–106 mm 109–116 mm 116–129 mm 144–154 mm 186–200 mm
	TOPWET sanitation outlet for cold roofs with an integrated sleeve of a modified bitumen strip with a leaf guard. The outlet may be inserted into redeveloped pipes up to a neck, but it has lower drain capacity. Length 400 mm, option of extension up to 1000 mm on request.	TW SAN BZ 50 BIT TW SAN BZ 75 BIT TW SAN BZ 90 BIT TW SAN BZ 104 BIT TW SAN BZ 110 BIT TW SAN BZ 125 BIT	54–72 mm 79–102 mm 99–106 mm 109–116 mm 116–129 mm 144–154 mm
	TOPWET sanitation vent determined for connection to sewerage ventilation piping with an integrated sleeve of a modified bitumen strip including a rain cap. A height above insulation of 300 mm, a height below insulation of 200 mm, option of extension up to 2000 mm on request.	TWOP SAN 50 BIT TWOP SAN 75 BIT TWOP SAN 90 BIT TWOP SAN 110 BIT TWOP SAN 125 BIT	54–72 mm 79–102 mm 99–106 mm 116–129 mm 144–154 mm

Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.

TOPWET sanitation outlets with integrated PVC sleeve

PVC	Version	Type	For connection to piping of diameter
	TOPWET sanitation outlet with an integrated sleeve of a hydro-insulation foil based on PVC with a leaf guard. Length 400 mm, option of extension up to 2000 mm on request.	TW SAN 50 PVC TW SAN 75 PVC TW SAN 90 PVC TW SAN 104 PVC TW SAN 110 PVC TW SAN 125 PVC TW SAN 160 PVC XL	54–72 mm 79–102 mm 99–106 mm 109–116 mm 116–129 mm 144–154 mm 186–200 mm
	TOPWET sanitation outlet with an integrated sleeve of a hydro-insulation foil based on PVC with a leaf guard, heated with 230 V with a supply cable. Length 400 mm, option of extension up to 2000 mm on request.	TWE SAN 50 PVC TWE SAN 75 PVC TWE SAN 90 PVC TWE SAN 104 PVC TWE SAN 110 PVC TWE SAN 125 PVC TWE SAN 160 PVC XL	54–72 mm 79–102 mm 99–106 mm 109–116 mm 116–129 mm 144–154 mm 186–200 mm
	TOPWET sanitation outlet for cold roofs with an integrated sleeve of PVC membrane with a leaf guard. The outlet may be inserted into redeveloped pipes up to a neck, but it has lower drain capacity. Length 400 mm, option of extension up to 1000 mm on request.	TW SAN BZ 50 PVC TW SAN BZ 75 PVC TW SAN BZ 90 PVC TW SAN BZ 104 PVC TW SAN BZ 110 PVC TW SAN BZ 125 PVC	54–72 mm 79–102 mm 99–106 mm 109–116 mm 116–129 mm 144–154 mm
	TOPWET sanitation vent determined for connection to sewerage ventilation piping with an integrated sleeve of a waterproof membrane based on PVC including a rain cap. A height above insulation of 300 mm, a height below insulation of 200 mm, option of extension up to 2000 mm on request.	TWOP SAN 50 PVC TWOP SAN 75 PVC TWOP SAN 90 PVC TWOP SAN 110 PVC TWOP SAN 125 PVC	54–72 mm 79–102 mm 99–106 mm 116–129 mm 144–154 mm

Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.Extended version is charged.

Extended single-wall roof outlets

Drainage of flat roofs

- Standard length 400 mm
- Length up to 2000 mm on request
- Option of length modification directly on construction site
- Simple assembly

On request

- Option for heated version

Technical information

- No possibility of combination with outlet attachments and mechanical roof flaps
- It is possible to combine with TWOK and TW TER accessories

Extended single-wall roof outlets

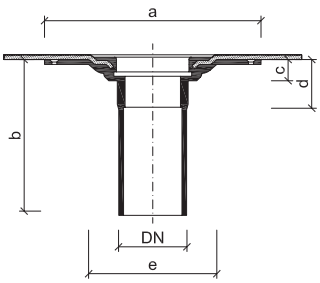
Type	DN	Dimensions [mm]					
		a	b**	c	d	e	f
TWJ 50	50	330	400	40 (80*)	90	200	160
TWJ 75	70	330	400	40 (80*)	90	200	160
TWJ 90	90	330	400	40 (80*)	90	200	160
TWJ 110	100	330	400	40 (80*)	90	200	160
TWJ 125	125	330	400	40 (80*)	90	200	160
TWJ 160	150	342	400	40 (90*)	120	265	205

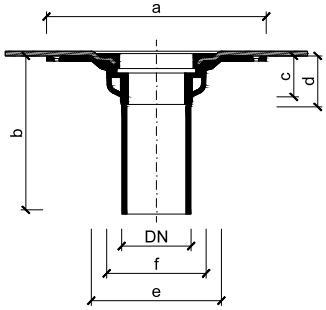
*dimension at heated version
** optionally extension up to 2000 mm to order

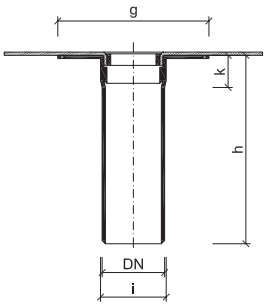
Extended single-wall roof outlets Roofs without thermal insulation

Type	DN	Dimensions [mm]			
		g	h	i	k
TWJ BZ 50	50	250	400	56	60
TWJ BZ 75	70	250	400	81	60
TWJ BZ 90	90	250	400	96	60
TWJ BZ 110	100	250	400	116	60
TWJ BZ 125	125	250	400	131	60

The outlet may be inserted into existing outlet, pipe or gutter up to a neck, but it has lower drain capacity

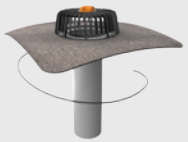






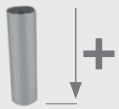
What is the difference between the standard outlet and the BZ outlet?
Outlets with BZ marking (without thermal insulation) are useful for uninsulated structures, gutters or redevelopments when it is necessary to insert the outlet into the pipe or the hole up to the neck. In contrast to the standard version the BZ outlets have lower drain capacity.

Extended single-wall roof outlets with integrated bitumen sleeve

BIT	Version	Type	DN / Outlet lenght
	TOPWET roof outlet with an integrated sleeve of a modified bitumen strip with a leaf guard. Single-wall, length option on request.	TWJ 50 BIT TWJ 75 BIT TWJ 90 BIT TWJ 110 BIT TWJ 125 BIT TWJ 160 BIT XL	DN 50 / 400 mm DN 70 / 400 mm DN 90 / 400 mm DN 100 / 400 mm DN 125 / 400 mm DN 150 / 400 mm
	TOPWET roof outlet with an integrated sleeve of a modified bitumen strip with a leaf guard, heated with 230 V with a supply cable 1.5 m. Single-wall, length option on request.	TWJE 50 BIT TWJE 75 BIT TWJE 90 BIT TWJE 110 BIT TWJE 125 BIT TWJE 160 BIT XL	DN 50 / 400 mm DN 70 / 400 mm DN 90 / 400 mm DN 100 / 400 mm DN 125 / 400 mm DN 150 / 400 mm
	TOPWET roof outlet cold roofs with an integrated sleeve of a modified bitumen strip with a leaf guard. The outlet may be inserted into redeveloped pipes up to a neck, but it has lower drain capacity. Length 400 mm, option of extension up to 1000 mm on request.	TWJ BZ 50 BIT TWJ BZ 75 BIT TWJ BZ 90 BIT TWJ BZ 110 BIT TWJ BZ 125 BIT	DN 50 / 400 mm DN 70 / 400 mm DN 90 / 400 mm DN 100 / 400 mm DN 125 / 400 mm
	An extension can be made to order.	TWJ(E) _ _ BIT x500 TWJ(E) _ _ BIT x600 TWJ(E) _ _ BIT x1000	500 mm 600 mm 1000 mm

Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.

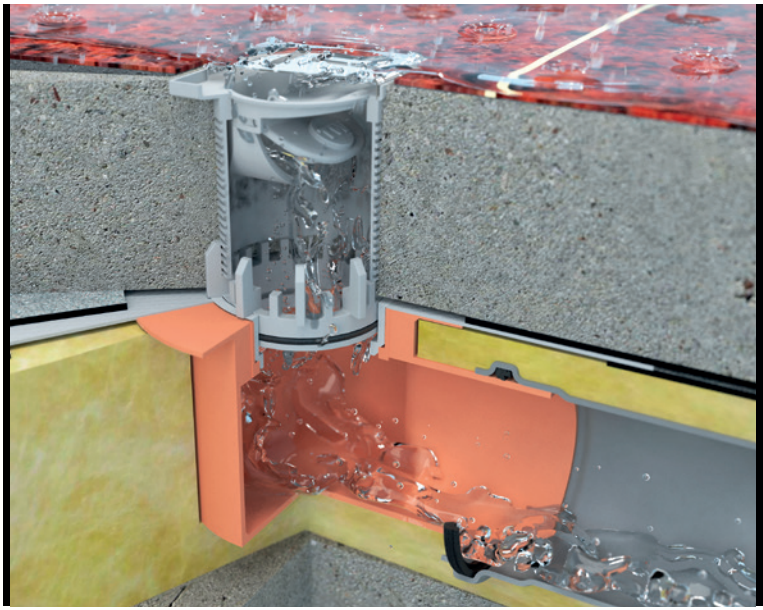
Extended single-wall roof outlets with integrated PVC sleeve

PVC	Version	Type	DN / Outlet lenght
	TOPWET roof outlet with an integrated sleeve of a waterproof membrane based on PVC with a leaf guard. Single-wall, length option on request.	TWJ 50 PVC TWJ 75 PVC TWJ 90 PVC TWJ 110 PVC TWJ 125 PVC TWJ 160 PVC XL	DN 50 / 400 mm DN 70 / 400 mm DN 90 / 400 mm DN 100 / 400 mm DN 125 / 400 mm DN 150 / 400 mm
	TOPWET roof outlet with an integrated sleeve of a waterproof membrane based on PVC with a leaf guard, heated with 230 V with a supply cable 1.5 m. Single-wall, length option on request.	TWJE 50 PVC TWJE 75 PVC TWJE 90 PVC TWJE 110 PVC TWJE 125 PVC TWJE 160 PVC XL	DN 50 / 400 mm DN 70 / 400 mm DN 90 / 400 mm DN 100 / 400 mm DN 125 / 400 mm DN 150 / 400 mm
	TOPWET roof outlet for cold roofs with an integrated sleeve of a waterproof membrane based on PVC with a leaf guard. The outlet may be inserted into redeveloped pipes up to a neck, but it has lower drain capacity. Length 400 mm, option of extension up to 1000 mm on request.	TWJ BZ 50 PVC TWJ BZ 75 PVC TWJ BZ 90 PVC TWJ BZ 110 PVC TWJ BZ 125 PVC	DN 50 / 400 mm DN 70 / 400 mm DN 90 / 400 mm DN 100 / 400 mm DN 125 / 400 mm
	An extension can be made to order.	TWJ(E) _ _ PVC x500 TWJ(E) _ _ PVC x600 TWJ(E) _ _ PVC x1000	500 mm 600 mm 1000 mm

Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.

Balcony outlets

Drainage of balconies



- DN 70 vertical and horizontal version
- PA6 polyamide construction
- Integrated sleeve of waterproof strip or foil
- Low construction height
- Suitable to drain smaller areas
- Protective and removable grid included in each outlet
- Heated version ensures reliable draining even in winter season

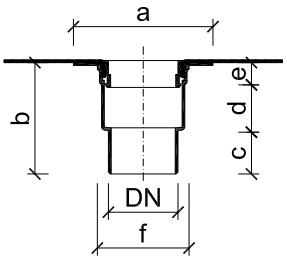
Balcony outlets – vertical version

Type	DN	Dimensions [mm]							
		a	b	c	d	e	f	g	h
TWB 50 S	50	150	120	45	51	24	99	-	-
TWB 75 S	75	150	120	45	51	24	99		
TWBE 50 S	50	150	120	45	-	-	134	32	43
TWBE 75 S	75	150	120	45	-	-	134	32	43

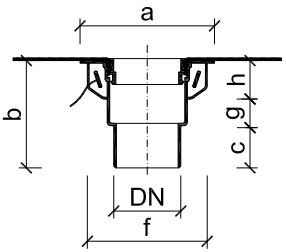
Balcony outlets – horizontal version

Type	DN	Dimensions [mm]			
		a	b	c	d
TWB 50 V	50	150	61	167	14
TWB 75 V	75	150	96	163	21
TWBE 50 V	50	150	61	187	14
TWBE 75 V	75	150	96	183	21

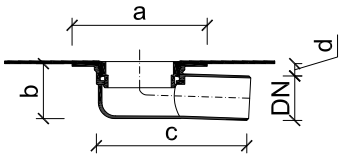
TWB S



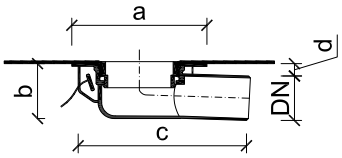
TWBE S



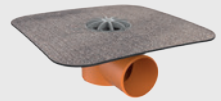
TWB V



TWBE V



TOPWET balcony outlets with integrated bitumen sleeve

BIT	Version	Type	Dimensions
	TOPWET balcony outlet with an integrated sleeve of a modified bitumen strip, vertical version, with a flat leaf guard.	TWB 50 BIT S TWB 75 BIT S	DN 50 DN 70
	TOPWET balcony outlet with an integrated sleeve of a modified bitumen strip, vertical version, heated with 230 V with a supply cable, with a flat leaf guard.	TWBE 50 BIT S TWBE 75 BIT S	DN 50 DN 70
	TOPWET balcony outlet with an integrated sleeve of a modified bitumen strip, horizontal version, with a flat leaf guard.	TWB 50 BIT V TWB 75 BIT V	DN 50 DN 70
	TOPWET balcony outlet with an integrated sleeve of a modified bitumen strip, horizontal version, heated with 230 V with a supply cable, with a flat leaf guard.	TWBE 50 BIT V TWBE 75 BIT V	DN 50 DN 70

Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.

TOPWET balcony outlets with integrated PVC sleeve

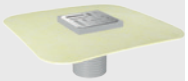
PVC	Version	Type	Dimensions
	TOPWET balcony outlet with an integrated sleeve of a waterproof membrane based on PVC, vertical version, with a flat leaf guard.	TWB 50 PVC S TWB 75 PVC S	DN 50 DN 70
	TOPWET balcony outlet with an integrated sleeve of a waterproof membrane based on PVC, vertical version, heated with 230 V with a supply cable, with a flat leaf guard.	TWBE 50 PVC S TWBE 75 PVC S	DN 50 DN 70
	TOPWET balcony outlet with an integrated sleeve of a waterproof membrane based on PVC, horizontal version, with a flat leaf guard.	TWB 50 PVC V TWB 75 PVC V	DN 50 DN 70
	TOPWET balcony outlet with an integrated sleeve of a waterproof membrane based on PVC, horizontal version, heated with 230 V with a supply cable, with a flat leaf guard.	TWBE 50 PVC V TWBE 75 PVC V	DN 50 DN 70

Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.

Accessories for TOPWET balcony outlets

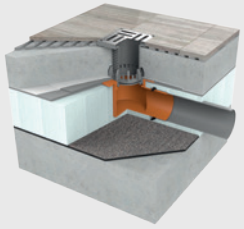
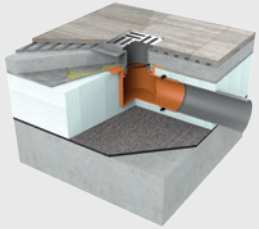
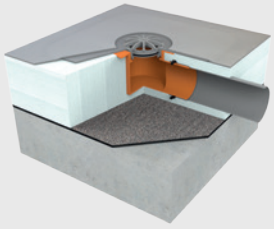
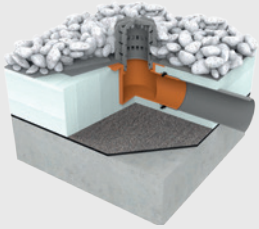
NEWS

Accessories for TOPWET balcony outlets

	Version	Type	Height above insulation level
	TOPWET balcony attachment of a new generation with a stainless steel grid 100x100 mm. For balconies with glued or differently laid tiles. The balcony attachment can be extended using another TWB ODK drainage ring of 25 mm. The package includes drainage ring for the more continuous water runoff from main waterproof system. The exact height of the attachment can always be adapted directly on site. The thick-walled polyamide PA6 UV Stabil design.	TWB TER	10-95 mm (35-120 mm)*
	TOPWET balcony attachment of a new generation with a stainless steel grid 100x100 mm. For balconies with glued laid tiles. The exact height of the attachment can always be adapted directly on site. The thick-walled polyamide PA6 UV Stabil design.	TWB TER TH	10-95 mm
	TOPWET balcony attachment of a new generation with a stainless steel grid 100x100 mm. For balconies with glued laid tiles and integrated membrane increase adhesion. The exact height of the attachment can always be adapted directly on site.	TWB TER STE	10-95 mm
	Balcony drainage ring for extension of the TWB TER balcony attachment, always by 25 mm. The thick-walled polyamide PA6 UV Stabil design. The hole size of 10x6.5 mm.	TWB ODK	25 mm
	Flat TOPWET walkable protective basket for balcony outlets. . The thick-walled polyamide PA6 UV Stabil design. The height above the level of the waterproof system is 10 mm.	TWB PLK	10 mm
	Perforated protective leaf guard TOPWET for balcony outlets. The leaf guard can be extended with the drainage ring TWB ODK always by 25 mm. The thick-walled polyamide PA6 UV Stabil design.	TWOK BAL v35 TWOK BAL v60 TWOK BAL v85 TWOK BAL v110	35 mm 60 mm 85 mm 110 mm
	Mechanical stink trap for vertical and horizontal version of TOPWET TWB balcony outlets.	TWZU BAL	

** The heights apply when the TW ODK BAL item is used*

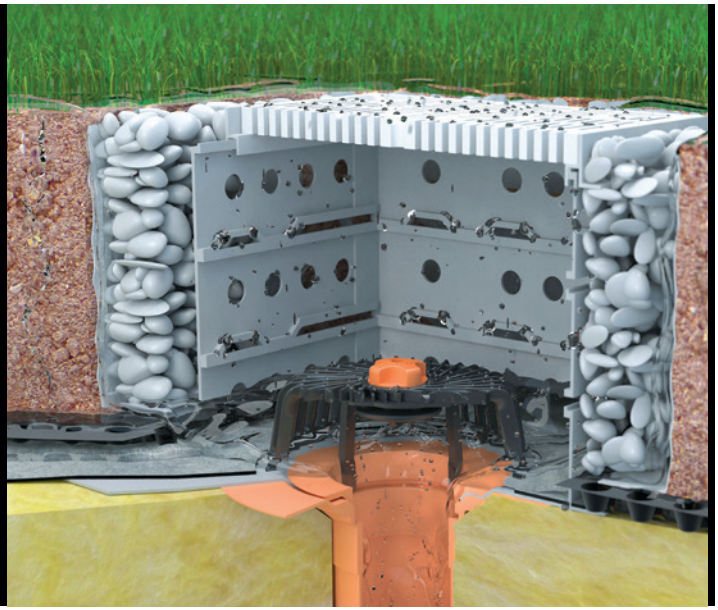
Possible combinations of accessories for TOPWET balcony outlets for various types of balcony compositions

Balcony composition with a drainage layer	Balcony composition with a glued layer	Balcony composition with a walkable roof foil	Balcony composition with a gravel layer
			
Combination of a TOPWET balcony outlet with an integrated sleeve and a balcony attachment with a stainless steel grid and a drainage ring used for water drainage from the main hydro-insulation layer.	Combination of a TOPWET balcony outlet with an integrated sleeve for screed insulation and a balcony attachment with a stainless steel grid adjusted on site as required.	Combination of a TOPWET balcony outlet with an integrated sleeve and a flat walkable protective basket supplied as standard with balcony outlets.	Combination of a TOPWET balcony outlet with an integrated sleeve and a flat walkable protective basket supplied as standard with balcony outlets, complemented with balcony drainage rings as required.

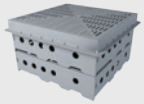
Inspection chamber for green roofs

Accessories for roofs with vegetation layers

- New inspection chamber construction of polyamide in neutral grey shade
- Hard, UV stable and weather resistant material
- Optimized holes for water drain from green roof layers
- New removable cover of massive polypropylene in a robust frame
- Two square plan basic sizes, width 300 or 400 mm
- Variable assembly arrangement in relation to the height of vegetation layers
- Ideal access for inspection and cleaning of roof outlets

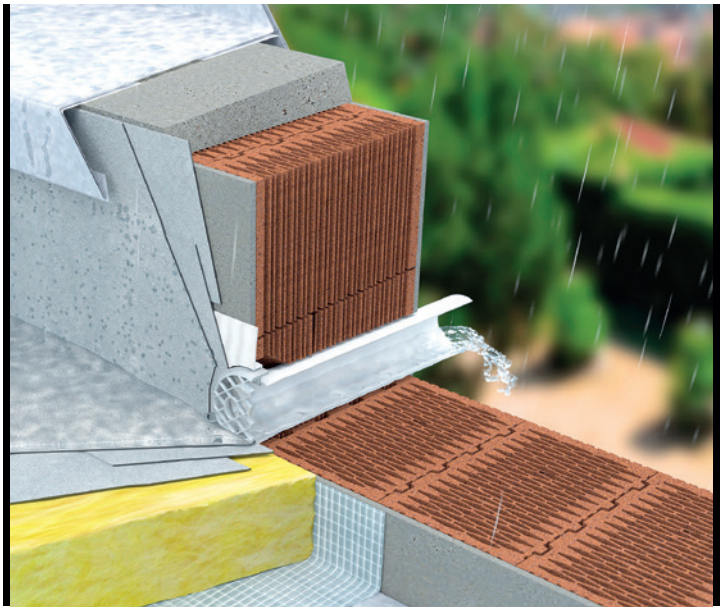


Inspection chamber for Green Roofs

	Version	*Type*	*Dimensions*
	Inspection chamber for green roofs, height 130 mm, including plastic cover grid. (TWZF variant is a version with a non-perforated plastic walkable covering grid to prevent algae bloom on drainage systems)	TWZ 300×300×130 TWZ 400×400×130 TWZF 300×300×130 TWZF 400×400×130	300×300 mm 400×400 mm 300×300 mm 400×400 mm
	Inspection chamber for green roofs, height 230 mm, including plastic cover grid. (TWZF variant is a version with a non-perforated plastic walkable covering grid to prevent algae bloom on drainage systems)	TWZ 300×300×230 TWZ 400×400×230 TWZF 300×300×230 TWZF 400×400×230	300×300 mm 400×400 mm 300×300 mm 400×400 mm
	Inspection chamber for green roofs, height 330 mm, including plastic cover grid. (TWZF variant is a version with a non-perforated plastic walkable covering grid to prevent algae bloom on drainage systems)	TWZ 300×300×330 TWZ 400×400×330 TWZF 300×300×330 TWZF 400×400×330	300×300 mm 400×400 mm 300×300 mm 400×400 mm
	Inspection chamber for green roofs, height on request, including plastic cover grid. (TWZF variant is a version with a non-perforated plastic walkable covering grid to prevent algae bloom on drainage systems)	TWZ 300×300× _ _ _ TWZ 400×400× _ _ _ TWZF 300×300× _ _ _ TWZF 400×400× _ _ _	300×300 mm 400×400 mm 300×300 mm 400×400 mm

Through wall outlets and safety overflows

Drainage of flat roofs, terraces and balconies



Basic type – round through wall outlet of 600 mm length

- New design with a lowered drain edge
- Integrated sleeve of waterproofing membrane
- Protective and removable grid included in each through wall outlet
- Possibility to extend up to 2000 mm
- Through wall outlet made of UV stable PVC
- Heated version ensures reliable drainage even in winter season
- Possibility of connection to a rain hopper or to downpipes DN 50, DN 70, DN 100 a DN 125 and DN 150

Complementary type – mini through wall outlet of 200 mm length

- For drainage of small terraces and balconies
- Low construction height 60 mm
- Special sleeve for connection to trowelled insulationi

Through wall outlets – round

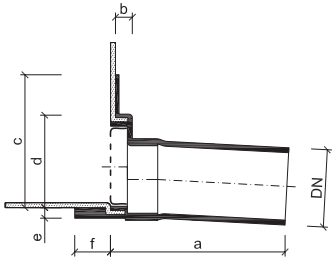
Type	DN	Dimensions [mm]							
		a*	b	c	d	e	f	g	h
TWC(E) 50	50	600	20	104	88	13	20	22	44
TWC(E) 75	70	600	20	104	88	13	20	22	44
TWC(E) 110	100	600	20	180	157	13	20	22	44
TWC(E) 125	125	600	20	180	157	13	20	22	44
TWC(E) 160	150	600	20	180	157	13	20	22	44

Safety overflows – round

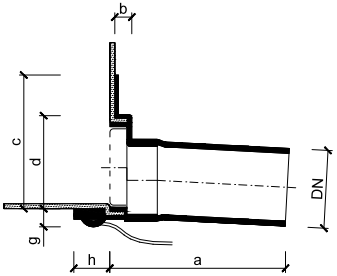
Type	DN	Dimensions [mm]				
		a*	b	c	d	e
TWPP 50	50	600	20	56	30	97
TWPP 75	70	600	20	81	30	84
TWPP 110	100	600	20	116	30	67
TWPP 125	125	600	20	131	30	59

** Option for extension up to 2000mm subject to special order and additional costs.*

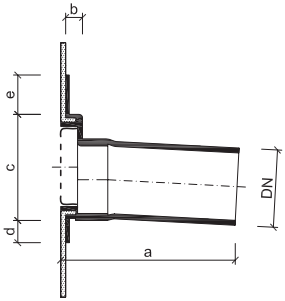
TWC



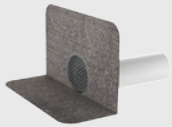
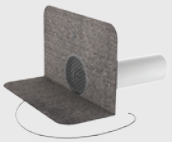
TWCE



TWPP

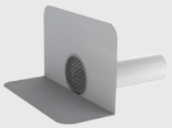
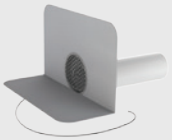


TOPWET through wall outlets and safety overflows with integrated bitumen sleeve

BIT	Version	Type	Dimensions
	TOPWET round through wall outlet with an integrated sleeve of a modified bitumen strip and with a leaf guard. Length 600 mm, option of extension up to 2000 mm on request.	TWC 50 BIT TWC 75 BIT TWC 110 BIT TWC 125 BIT TWC 160 BIT	DN 50 DN 70 DN 100 DN 125 DN 150
	TOPWET round through wall outlet with an integrated sleeve of a modified bitumen strip and with a leaf guard, heated with 230 V with a supply cable. Length 600 mm, option of extension up to 2000 mm on request.	TWCE 50 BIT TWCE 75 BIT TWCE 110 BIT TWCE 125 BIT TWCE 160 BIT	DN 50 DN 70 DN 100 DN 125 DN 150
	TOPWET round safety overflow with an integrated sleeve of a modified bitumen strip and with a leaf guard. Length 600 mm, option of extension up to 2000 mm on request.	TWPP 50 BIT TWPP 75 BIT TWPP 110 BIT TWPP 125 BIT	DN 50 DN 70 DN 100 DN 125

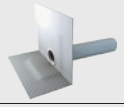
Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.

TOPWET through wall outlets and safety overflows with integrated PVC sleeve

PVC	Version	Type	Dimensions
	TOPWET round gutter spout with an integrated sleeve of PVC membrane and with a leaf guard. Length 600 mm, option of extension up to 2000 mm on request.	TWC 50 PVC TWC 75 PVC TWC 110 PVC TWC 125 PVC TWC 160 PVC	DN 50 DN 70 DN 100 DN 125 DN 150
	TOPWET round through wall outlet with an integrated sleeve of a PVC membrane and with a leaf guard, heated with 230 V with a supply cable. Length 600 mm, option of extension up to 2000 mm on request.	TWCE 50 PVC TWCE 75 PVC TWCE 110 PVC TWCE 125 PVC TWCE 160 PVC	DN 50 DN 70 DN 100 DN 125 DN 150
	TOPWET round safety overflow with an integrated sleeve of PVC membrane and with a leaf guard. Length 600 mm, option of extension up to 2000 mm on request.	TWPP 50 PVC TWPP 75 PVC TWPP 110 PVC TWPP 125 PVC	DN 50 DN 70 DN 100 DN 125

Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.

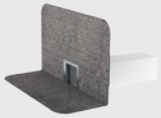
TOPWET MINI through wall outlet

	Version	Type	Dimensions
	TOPWET MINI through wall outlet. Length 200 mm, option of extension up to 1500 mm on request. *STE – for cold liquid applied waterproofing*	TWC 40 BIT MINI TWC 40 PVC MINI TWC 40 STE MINI	DN 40 DN 40 DN 40

Extension on request is charged.

TOPWET squared through wall outlets and safety overflows with integrated bitumen sleeve

BIT

	Version	Type	Dimensions (Height / Width)
	TOPWET squared through wall outlet with an integrated sleeve of a modified bitumen strip. Outlet spout material is PVC, white colour. Length 500 mm, option of extension up to 1000 mm on request.	TWC 50×100 BIT TWC 50×150 BIT TWC 100×100 BIT TWC 150×150 BIT TWC 100×300 BIT	50/100 50/150 100/100 150/150 100/300
	TOPWET squared safety overflow with an integrated sleeve of a modified bitumen strip. Outlet spout material is PVC, white colour. Length 300 mm, option of extension up to 1000 mm on request.	TWPP 50×100 BIT TWPP 50×150 BIT TWPP 100×100 BIT TWPP 150×150 BIT TWPP 100×300 BIT	50/100 50/150 100/100 150/150 100/300

Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.

TOPWET squared through wall outlets and safety overflows with integrated PVC sleeve

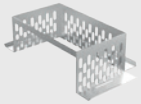
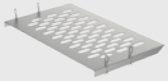
PVC

	Version	Type	Dimensions (Height / Width)
	TOPWET squared through wall outlet with an integrated sleeve of a waterproof membrane based on PVC. Outlet spout material is PVC, white colour. Length 500 mm, option of extension up to 1000 mm on request.	TWC 50×100 PVC TWC 50×150 PVC TWC 100×100 PVC TWC 150×150 PVC TWC 100×300 PVC	50/100 50/150 100/100 150/150 100/300
	TOPWET squared safety overflow with an integrated sleeve of a waterproof membrane based on PVC. Outlet spout material is PVC, white colour. Length 300 mm, option of extension up to 1000 mm on request.	TWPP 50×100 PVC TWPP 50×150 PVC TWPP 100×100 PVC TWPP 150×150 PVC TWPP 100×300 PVC	50/100 50/150 100/100 150/150 100/300

Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.

Aluminium shaft

Accessories

	Version	Type	Dimensions (Height / Width)
	Aluminium shaft for TOPWET through wall outlets and safety overflows for roofs with ballast.	TWS C 250x150x100 TWS C 250x150x200	100 mm 200 mm
	Protective cover for protective shafts for TOPWET through wall and overflows. Material aluminium.	TWSK C 250x150	

Solutions for multi storey car parks – traverse outlets

Drainage of car parks and traverse areas

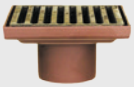
Travers outlets and attachments

- Made of stainless steel
- Extreme mechanical resistance against damage
- Can be supplied in a heated version, see page 11

Traverse grates

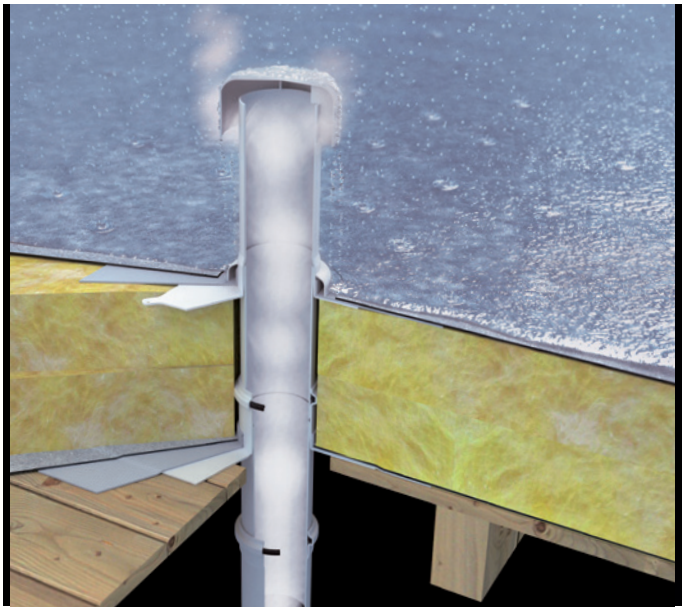
- Divided according to the permitted load: up to 1.5 t and up to 12 t
- Removable grate for easy cleaning and inspection

Solutions for multi storey car parks – traverse outlets

Accessories	*Version*	*Type*	*Dimensions*
	Traverse grate for traverse outlets and attachments Version up to 1.5 t and up to 12 t.	TW ROST 110 TW ROST 110 12T TW ROST 125 TW ROST 125 12T	200x200 mm 182x182 mm 200x200 mm 182x182 mm
	Drainage ring for drainage layers in traverse roofs.	TW ODK POJEZD 110 TW ODK POJEZD 125	DN 100 DN 125
	Attachment for the traverse gate for car parks, traverse areas, garages and multi-storey car parks. The attachment is made of stainless steel.	TWN POJEZD 110 TWN POJEZD 125	DN 100 DN 125
	Traverse outlet for car parks, traverse areas, garages and multi-storey car parks. The outlet is made of stainless steel.	TW POJEZD 110 TW POJEZD 125	DN 100 DN 125
	Transitional part for connecting the traverse outlet to a KG/HT pipe.	TW TRANS 110 TW TRANS 125	DN 100 DN 125

Vents and penetrations

Ventilation of roofs, sewerage and cable penetrations

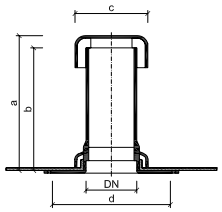


- Simple construction for effective ventilation of double-skin roofs
- Fixing points for firm attachment to the substrate of the upper coating
- Integrated waterproof sleeve for reliable connection to the roofing
- Completely new products for professional termination of sewerage ventilation piping
- Applicable for all commonly used DN 50, DN 70, DN 100 and DN 125 ventilation piping
- Base plate enables air-tight penetration through a vapour resistant barrier
- Reliable solution for leading cables, hoses and other media carriers out on the roof
- Professional penetration through waterproof that does not require either ordinary inspections or maintenance

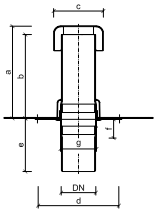
Ventilation of flat roofs and piping ventilation

Type	DN	Section [cm²]	Dimensions [mm]						
			a*	b*	c	d	e*	f	g
TWO a TWOP 50	50	15	360	332	110	250	200	60	56
TWO a TWOP 75	70	37	360	332	110	250	200	60	81
TWO a TWOP 110	100	85	360	332	160	250	200	60	116
TWO a TWOP 125	125	111	360	332	160	250	200	60	131

TWO



TWOP

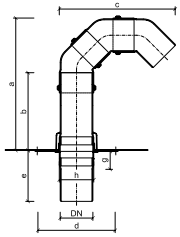


Penetration for cables and base plate

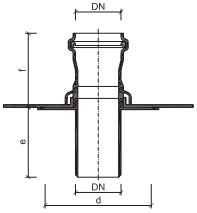
Type	DN	Section [cm²]	Dimensions [mm]							
			a*	b*	c	d	e*	f*	g	h
TWP a TWOD 50	50	15	450	332	260	250	200	90	60	56
TWP a TWOD 75	70	37	480	332	310	250	200	90	60	81
TWP a TWOD 110	100	85	520	332	400	250	200	100	60	116
TWP a TWOD 125	125	111	545	332	440	250	200	100	60	131

* *optionally extension up to 2000 mm to order*

TWP

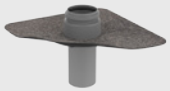


TWOD



Vents, sewerage ventilation, penetrations for cables with integrated bitumen sleeve

BIT

	Version	Type	Dimensions
	TOPWET roof vent with an integrated sleeve of a modified bitumen strip, including a rain cap. Height 300 mm, option of extension up to 2000 mm on request.	TWO 50 BIT TWO 75 BIT TWO 110 BIT TWO 125 BIT *DN 150 page 34*	DN 50 DN 70 DN 100 DN 125
	TOPWET sewerage ventilation for connection to vent piping with an integrated sleeve of a modified bitumen strip, including a rain cap. Height above insulation 300 mm, depth under insulation 200 mm, option of extension up to 2000 mm on request. In combination with TWOD usable from 160 mm thermal insulation height.	TWOP 50 BIT TWOP 75 BIT TWOP 110 BIT TWOP 125 BIT *DN 150 page 34*	DN 50 DN 70 DN 100 DN 125
	Penetration through the vapor barrier TOPWET to connect TWOP and TWP to the vapor barrier with an integrated sleeve of a modified bitumen strip. Depth under insulation 200 mm, option of extension up to 2000 mm on request. This product can not be used as a penetration element for the lower structure.	TWOD 50 BIT TWOD 75 BIT TWOD 110 BIT TWOD 125 BIT *DN 150 page 34*	DN 50 DN 70 DN 100 DN 125
	TOPWET penetration for cables with an integrated sleeve of a modified bitumen strip. Height above insulation 300 mm, depth under insulation 200 mm, option of extension up to 2000 mm on request. In combination with TWOD usable from 160 mm thermal insulation height.	TWP 50 BIT TWP 75 BIT TWP 110 BIT TWP 125 BIT *DN 150 page 34*	DN 50 DN 70 DN 100 DN 125

Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.
Extended version subject to price increase. Please contact us for further details.

Vents, sewerage ventilation, penetrations for cables with integrated PVC sleeve

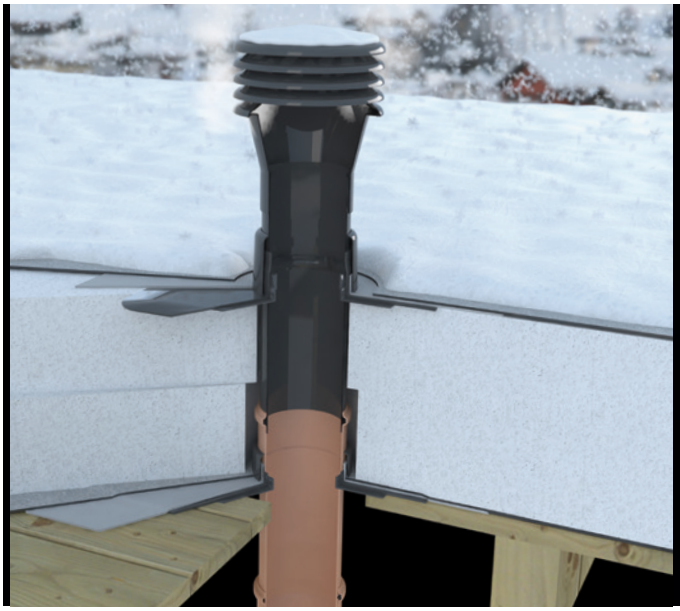
PVC

	Version	Type	Dimensions
	TOPWET roof vent with an integrated sleeve of a hydro-insulation foil based on PVC, including a rain cap. Height 300 mm, option of extension up to 2000 mm on request.	TWO 50 PVC TWO 75 PVC TWO 110 PVC TWO 125 PVC *DN 150 page 34*	DN 50 DN 70 DN 100 DN 125
	TOPWET sewerage ventilation for connection to vent piping with an integrated sleeve of a hydro-insulation foil based on PVC, including a rain cap. Height above insulation 300 mm, depth under insulation 200 mm, option of extension up to 2000 mm on request. In combination with TWOD usable from 160 mm thermal insulation height.	TWOP 50 PVC TWOP 75 PVC TWOP 110 PVC TWOP 125 PVC *DN 150 page 34*	DN 50 DN 70 DN 100 DN 125
	Penetration through the vapor barrier TOPWET to connect TWOP and TWP to the vapor barrier with an integrated sleeve of a hydro-insulation foil based on PVC. Depth under insulation 200 mm, option of extension up to 2000 mm on request. This product can not be used as a penetration element for the lower structure.	TWOD 50 PVC TWOD 75 PVC TWOD 110 PVC TWOD 125 PVC *DN 150 page 34*	DN 50 DN 70 DN 100 DN 125
	TOPWET penetration for cables with an integrated sleeve of a hydro-insulation foil based on PVC. Height above insulation 300 mm, depth under insulation 200 mm, option of extension up to 2000 mm on request. In combination with TWOD usable from 160 mm thermal insulation height.	TWP 50 PVC TWP 75 PVC TWP 110 PVC TWP 125 PVC *DN 150 page 34*	DN 50 DN 70 DN 100 DN 125

Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.
Extended version subject to price increase. Please contact us for further details.

Vents and penetrations

Ventilation of roofs, sewerage and cable penetrations

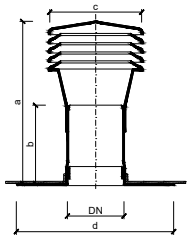


- A simple construction for effective ventilation of two-membrane roofs
- Anchoring points for fixed anchoring in the load-bearing structure of the roof membrane
- Integrated waterproof sleeve for reliable connection to the roofing
- Professional products from a UV stable material
- Usable for all the common ventilation pipes DN 150
- A reliable solution for leading the cables and other media carriers to the roof
- Professional penetration through waterproof not requiring any checks or maintenance

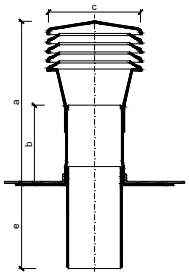
Ventilation of flat roofs and sewerages

Type	DN	Cross section [cm²]	Dimensions [mm]				
			a*	b*	c	d	e*
TWO a TWOP 160	150	186	510	270	260	345	300

TWO



TWOP

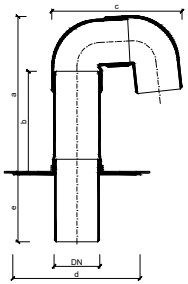


Cable penetrations and the baseplate

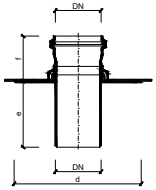
Type	DN	Cross section [cm²]	Dimensions [mm]					
			a*	b*	c	d	e*	f*
TWP a TWOD 160	150	186	610	420	260	345	300 (200**)	125

* *extension up to 2000 mm on request*
** *lenght by the TWOD product*

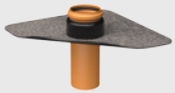
TWP



TWOD

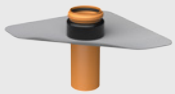


Vents, sewerage ventilation, penetrations for cables with an integrated bitumen sleeve

BIT	Version	Type	Dimensions
	TOPWET roof vent with an integrated sleeve of a modified bitumen strip, including a rain cap. Height 300 mm, option of extension up to 2000 mm on request.	TWO 160 BIT	DN 150
	TOPWET sewerage ventilation for connection to the ventilation pipe with an integrated sleeve from a modified bitumen strip, including a rain cover. The height above the insulation is 300 mm, the depth below the insulation is 300 mm, on request it is possible to extend up to 2000 mm.	TWOP 160 BIT	DN 150
	Penetration through the vapor barrier TOPWET to connect TWOP and TWP to the vapor barrier with an integrated sleeve of a modified bitumen strip. Depth under insulation 200 mm, option of extension up to 2000 mm on request. This product can not be used as a penetration element for the lower structure	TWOD 160 BIT	DN 150
	TOPWET penetration for cables with an integrated sleeve from a modified bitumen strip, including a rain cover. The height above the insulation is 300 mm, the depth below the insulation is 300 mm, on request it is possible to extend up to 2000 mm.	TWP 160 BIT	DN 150

Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.
Extended version subject to price increase. Please contact us for further details.

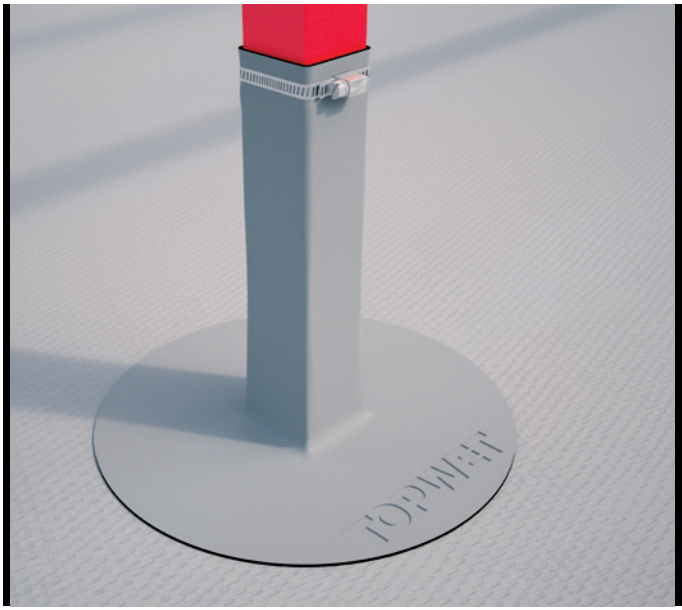
Vents, sewerage ventilation, penetrations for cables with an integrated PVC sleeve

PVC	Version	Type	Dimensions
	TOPWET roof vent with an integrated sleeve of a hydro-insulation foil based on PVC, including a rain cap. Height 300 mm, option of extension up to 2000 mm on request.	TWO 160 PVC	DN 150
	TOPWET sewerage ventilation for connection to the ventilation pipe with an integrated sleeve from the waterproof membrane on PVC basis, including a rain cover. The height above the insulation is 300 mm, the depth below the insulation is 300 mm, on request it is possible to extend up to 2000 mm.	TWOP 160 PVC	DN 150
	Penetration through the vapor barrier TOPWET to connect TWOP and TWP to the vapor barrier with an integrated sleeve of a hydro-insulation foil based on PVC. Depth under insulation 200 mm, option of extension up to 2000 mm on request. This product can not be used as a penetration element for the lower structure.	TWOD 160 PVC	DN 150
	TOPWET penetration for cables with an integrated sleeve from the waterproof membrane on PVC basis, including a rain cover. The height above the insulation is 300 mm, the depth below the insulation is 300 mm, on request it is possible to extend up to 2000 mm.	TWP 160 PVC	DN 150

Option to supply with custom made sleeve (EPDM, TPO, FPO, PE, ECB, EVA, STE – suitable for cold liquid applied applications). For more information please see page 9.
Extended version subject to price increase. Please contact us for further details.

Sealing sleeves – shaped pieces for waterproofing penetrations through PVC membranes

System solution for penetration of hydro-insulation layer



Shaped pieces

- Designed for round and square penetrations
- Wide range of dimensions
- Open design for penetrations without a put on possibility
- Height of all shaped pieces 150 mm
- System treatment of penetrations

Draw bands completely made of stainless steel

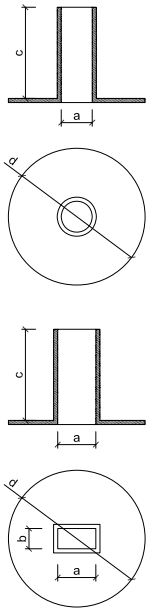
- Designed for highly corrosive environment
- Endless band enables production of clamps of any diameter

Sealing sleeves – shaped pieces for waterproofing penetrations of PVC membranes

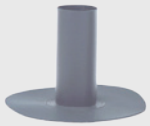
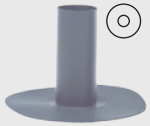
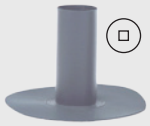
Type = Dimensions „a“ [mm]	Dimensions [mm]	
	c**	d***
TWUT a TWOT 11*, 12*, 14*, 15, 16, 17, 20, 24, 25, 30	150	150
TWUT a TWOT 32, 35, 40, 42, 43, 45, 50, 51, 56, 60, 65, 70	150	150
TWUT a TWOT 72, 75, 76, 77, 80, 83	150	180
TWUT a TWOT 90, 100, 102, 105, 110, 114	150	250
TWUT a TWOT 120, 125, 138, 140, 150, 160, 170, 180	150	275
TWUT a TWOT 200	150	350

Type = Dimensions „a“ x „b“ [mm]	Dimensions [mm]	
	c**	d***
TWUT a TWOT 8×40*, 8×50*, 8x80, 10×30, 10×40, 10×50, 15×35, 16×16	150	150
TWUT a TWOT 10×35, 20×20, 20×35, 20×40, 25×25, 25×30, 30×30	150	150
TWUT a TWOT 10×60, 15×50, 15×60, 20×50, 20×70, 25×45, 25×50, 27×40	150	150
TWUT a TWOT 30×40, 30×50, 30×60, 35×35, 35×50, 35×70	150	150
TWUT a TWOT 40×40, 40×50, 40×55, 40×60, 40×70	150	150
TWUT a TWOT 50×50, 60×60, 10×90	150	150
TWUT a TWOT 10×100, 15x100, 40×80, 50×80, 55×85, 70×70, 80×80	150	150
TWUT a TWOT 50×100, 60×100, 60x120, 80x160	150	180
TWUT a TWOT 50×150, 75×145, 100×100, 100×150, 120×120, 120×140	150	275
TWUT a TWOT 150×150	150	350

** only closed sealing sleeves ** on request can be delivered at a height of 300 mm*
**** on request can be delivered in diameters up to 350 mm*



Sealing sleeves – shaped pieces for waterproofing penetrations through PVC membranes

Accessories	Version	Type (inner diameter / dimensions in mm)	Approximate delivery time
 NEWS	A list of closed and open sealing sleeves from PVC foil for penetrations which we have in stock in sufficient quantity. The dimensions and types according to the list. The height of the upstand is 150mm. Manufactured from 1.5mm mPVC membrane. Colour light grey (RAL 7047). The more informations at www.topwet.eu	TWUT 11/300 TWUT 11, 24 TWUT a TWOT 17, 20, 30 TWUT a TWOT 40, 43, 50, 60 TWUT a TWOT 75, 80, 90, 100 TWUT a TWOT 110, 125, 150, 160, 200 TWUT a TWOT 30x30, 40x40, 50x50, 60x60, 80x80 TWUT a TWOT 100x100	10 days
	Closed round shaped piece of PVC film designed for processing the penetration elements. The type indicates the internal diameter of the shaped piece in mm. The height of all cuffs is 150 mm. Material: homogenous foil based on mPVC, thickness of 1.5 mm. Color execution: light gray finish, the approximate number according to RAL 7047.	TWUT **11**, 12, 14, 15, 16, **17**, **20**, **24**, 25, **30** TWUT 32, 35, **40**, 42, **43**, 45, **50**, 51, 56, **60**, 65, 70 TWUT 72, **75**, 76, 77, **80**, 83 TWUT **90**, **100**, 102, 105, **110** TWUT 114, 120, **125**, 138, 140, **150**, **160**, 170, 180 TWUT **200**	6 weeks
	Closed square shaped piece of PVC film designed for processing the penetration elements. The type indicates the internal dimensions of the shaped piece in mm. The height of all cuffs is 150 mm. Material: homogenous foil based on mPVC, thickness of 1.5 mm. Color execution: light gray finish, the approximate number according to RAL 7047.	TWUT 8×40, 8×50, 10×30, 10×35, 10×40, 10×50, 15×35, 16×16, 20×20, 20×35, 20×40, 25×25, 25×30, **30×30**, 10×60, 15×50, 15×60, 20×50, 25×45, 25×50, 27×40, 30×40, 30×50, 30×60, 35×35, 35×50, **40×40**, 40×50, 40×55, 40×60, 45×45, **50×50**, **60×60**, 20×70, 35×70, 40×70, 8×80, 10×90, 10×100, 15×100, 40×80, 50×70, 50×80, 55×85, 70×70, **80×80** TWUT 10×120, 15×150, 50×100, 60×100 TWUT 50×150, 60×120, 75×145, **100×100** TWUT 100×150, 120×120, 120×140, 80×160 TWUT 150×150	6 weeks
	Open round shaped piece of PVC film designed for processing the penetration elements. The type indicates the internal diameter of the shaped piece in mm. The height of all cuffs is 150 mm. Material: homogenous foil based on mPVC, thickness of 1.5 mm. Color execution: light gray finish, the approximate number according to RAL 7047.	TWOT 15, 16, **17**, 18, **20**, 24, 25, **30** TWOT 32, 35, **40**, 42, **43**, 45, **50**, 51, 56, **60**, 65, 70 TWOT 72, **75**, 76, 77, **80**, 83 TWOT **90**, **100**, 102, 105, **110** TWOT 114, 120, **125**, 138, 140, **150**, **160**, 170, 180 TWOT **200**	6 weeks
	Open square shaped piece of PVC film designed for processing the penetration elements. The type indicates the internal dimensions of the shaped piece in mm. The height of all cuffs is 150 mm. Material: homogenous foil based on mPVC, thickness of 1.5 mm. Color execution: light gray finish, the approximate number according to RAL 7047.	TWOT 8x35, 8x40, 10x30, 10x35, 10x40, 10×50, 15x15, 15x35, 16x16, 20x20, 20x35, 20x40, 25x25, 25x30, 27x40, **30x30**, 30x40, **40x40**, 10×60, 15×50, 15×60, 20×50, 25×45, 25×50, 30×50, 30×60, 35×50, 40×50, 40×55, 40×60, 45x45, **50×50**, **60×60** TWOT 20x70, 35x70, 40x70, 8x80, 10x90, 10x100, 15x100, 40x80, 50x70, 50x80, 55x85, 70x70, **80x80** TWOT 10x120, 15x150, 50×100, 60×100 TWOT 50×150, 60×120, 75×145, **100×100** TWOT 100×150, 120×120, 120×140, 80×160 TWOT 150×150	6 weeks
	Closed round shaped piece of PVC foil designed for treatment of cable penetrations with diameter up to 11 mm. The shaped piece height is 300 mm. Base diameter 150 mm.	TWUT **11/300**	10 days

Adjustment of penetrations and details

Other roof elements

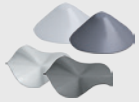
Adjustment of penetrations

- UV stabil
- System solution
- Wide range of dimensions
- Penetration waterproofing on the roof

Details

- UV stabil
- Adjustment of inner and outer corners

Adjustment of penetrations and solution of details from PVC foil

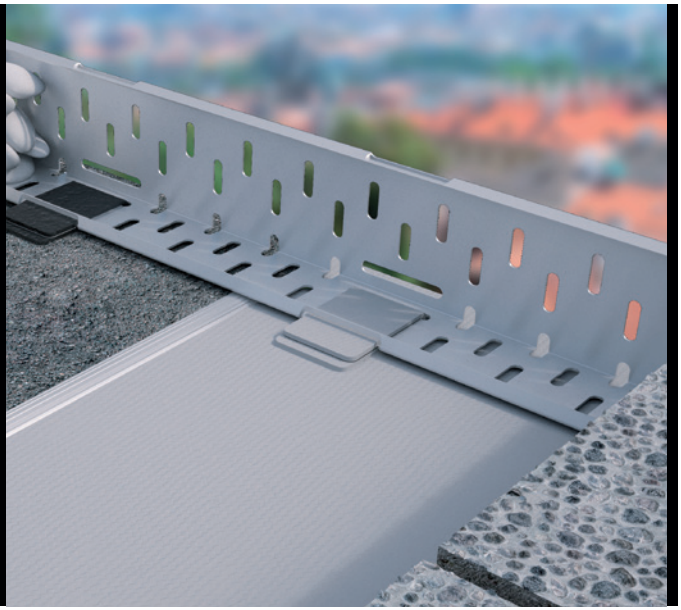
Accessories	*Version*	*Type*	*Packaging*
	Cone (KUZ) and a bellows (VLN) fittings of homogenous foil based on mPVC. Color: SV – light grey, TM – dark grey	TW KUZ TW VLN	10 pcs 10 pcs
	Endless jubilee band completely made of stainless steel with independent lock pieces enable production of jubilee bands of any diameter. Locks packed by 25 pcs. Band length 3 m or 25 m. Material: stainless chromium-nickel steel. The lock pieces have a zinc coated stainless steel screw. Zinc serves as a lubricant, without this the clamp is hard to tighten.	TWSP NEK 3 – band width 8 mm TWSP NEK 25 – band width 8 mm TWSP ZAM – band width 8 mm TWSP NEK 25 s14 – band width 14 mm TWSP ZAM s14 – band width 14 mm	1 pc / 3 m 1 pc / 25 m 25 pcs 1 pc / 25 m 25 pcs
	Heat shrink tube with glue for general use in the temperature range from -55 ° C to 105 ° C. Made from modified polyolefin. The tubes are highly resistant to solvents and chemicals. Suitable for universal industrial usage or as an electrical protection of all types of plastic cables. The minimum shrink temperature of 120 °C using hot air or soft yellow flame. The dimension marked with * is the dimension for the maximum shrink.	TWH 33/8* TWH 55/16* TWH 75/22* TWH 115/34* TWH 180/58* TWH 265/75*	5 pcs / 120 mm 5 pcs / 170 mm 5 pcs / 170 mm 5 pcs / 170 mm 5 pcs / 170 mm 5 pcs / 170 mm

Edge dividers

Other roof elements

Edge dividers

- For roofs with load increasing layer of gravel and pavement profile completion
- Aluminum moulding for all types of waterproof systems
- A wide selection of dimensions
- Custom production
- Easy installation
- Connecting piece as a part of each moulding
- The length of 2 m



Edge dividers

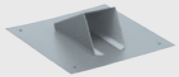
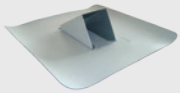
Accessories

	Version	*Type*	*Dimensions of moulding: height / base / length*
	Edge dividers for roofs with a load increasing layer of gravel and the completion of the pavement profile. Material: Aluminum with the thickness of 1,5 mm, the length of the moulding of 2000 mm. The moulding has holes – every 250 mm - for the passage of the blank of all kinds of waterproof systems. The stiffness of the moulding is secured by 10 mm bending at the ends of both arms. Supplied with connecting piece for easy connection to another moulding; the delivery time of the custom moulding depends on the ordered quantity. Mounting the moulding to the base is done using a waterproof tape.	TW KL AL 40 TW KL AL 50 TW KL AL 60 TW KL AL 70 TW KL AL 80 TW KL AL 90 TW KL AL 100 TW KL AL _ _	40 mm / 65mm / 2000 mm 50 mm / 65mm / 2000 mm 60 mm / 65mm / 2000 mm 70 mm / 65mm / 2000 mm 80 mm / 80mm / 2000 mm 90 mm / 80mm / 2000 mm 100 mm / 80mm / 2000 mm _ _ mm / 80mm / 2000 mm
	Edge dividers for roofs with a load increasing layer of gravel and the completion of the pavement profile for roofs and terraces with the main PVC waterproof layer. Material: plastic-coated metal sheet with the total thickness of 1.6 mm, length of the moulding of 2000 mm. The stiffness of the moulding is secured by bending of 10 mm at ends of both arms. Supplied with connecting piece for easy connection of another moulding. The delivery time of the custom made moulding is depending on the ordered quantity. At the moulding there are high frequency welded 3-5 pieces of blanket of foil mPVC 80×130 mm for easy mounting. A different color execution is available for a surcharge of +20 %.	TW KL 40 TW KL 50 TW KL 65 TW KL 90	40 mm / 65mm / 2000 mm 50 mm / 65mm / 2000 mm 65 mm / 65mm / 2000 mm 90 mm / 65mm / 2000 mm

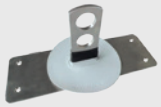
Other roof elements

Catchers, supports, penetrations and other accessories

Snow catcher for roofs with the main PVC waterproof sleeve

Accessories	Version	Type	Delivery time / minimum purchase
	Metal sheet snow catcher. A shaped piece for catching of snow layer and protecting its sliding from the roof structure, for roofs with the main waterproof sleeve of PVC. Light grey colour.	TW SZ TW SZ 250x250	3 days / 5 pcs 4 weeks / 50 pcs
	Metal sheet snow catcher with an integrated waterproof sleeve. A shaped piece for catching of snow layer and protecting its sliding from the roof structure, for roofs with the main waterproof sleeve of PVC. Light grey colour.	TW SZM TW SZM 250x250	3 days / 5 pcs 4 weeks / 50 pcs
	Metal sheet snow catcher. A shaped piece for catching of snow layer and protecting its sliding from the roof structure, for roofs with the main waterproof sleeve of PVC. RAL colours.	TW SZ RAL	4 weeks / 50 pcs

Snow catcher for roofs with the main PVC waterproof layer - other

Accessories	Version	Type	Minimum purchase
	Holder for tubular snow trap with an integrated sleeve of foil based on mPVC made of the stainless steel, designed for mounting and fixing of one or two pipes with the diameter of up to 28 mm. The system design should always be made by a responsible designer, depending on particular conditions. Piping is not included in the supply.	TW SZ 2TR	3 pcs

Lightning conductor holder

Accessories	Version	Type	Height
	A plastic holder for lightning conductors for fitting the conductors on flat roofs. Colour: grey, black, green or red. It can be supplied with a cut-out part of the mPVC foil sleeve.	TW HR 10 TW HR 12 TW HR 10 + MANZETA TW HR 12 + MANZETA	120 mm 120 mm 120 mm 120 mm

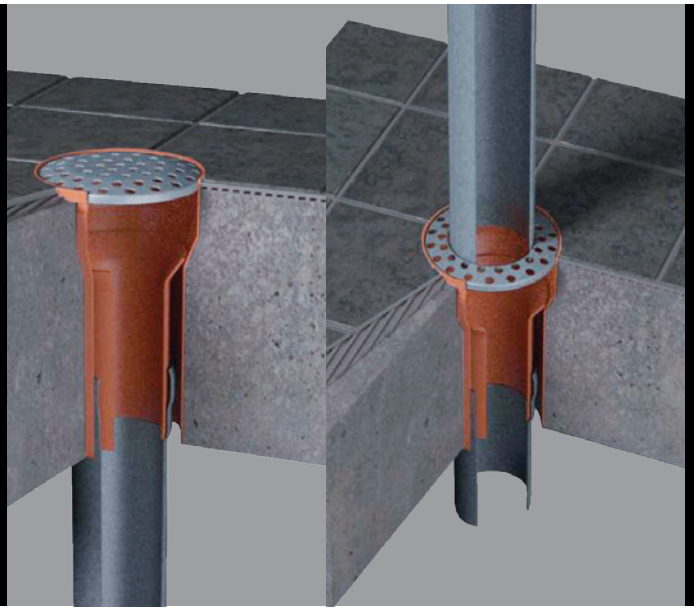
Foil cleaner on mPVC basis

Accessories	Version	Type	Volume
	Highly effective foil cleaner on PVC basis.	TW CLEANER 5 TW CLEANER 1 TW CLEANER 0,25	5 l 1 l 0,25 l

Continuous balcony outlets and steel pipes

Drainage of balconies and terraces

- A continuous drainage system enables draining water from the individual balconies without using a side connection for every floor
- The outlets and pipes are made from hot-dip galvanized steel, which ensures higher mechanical resistance against external influences
- Simple assembly and maintenance
- Connection to KG and HT systems using a simple transitional piece
- Preparation of a technical solution for a specific construction free of charge

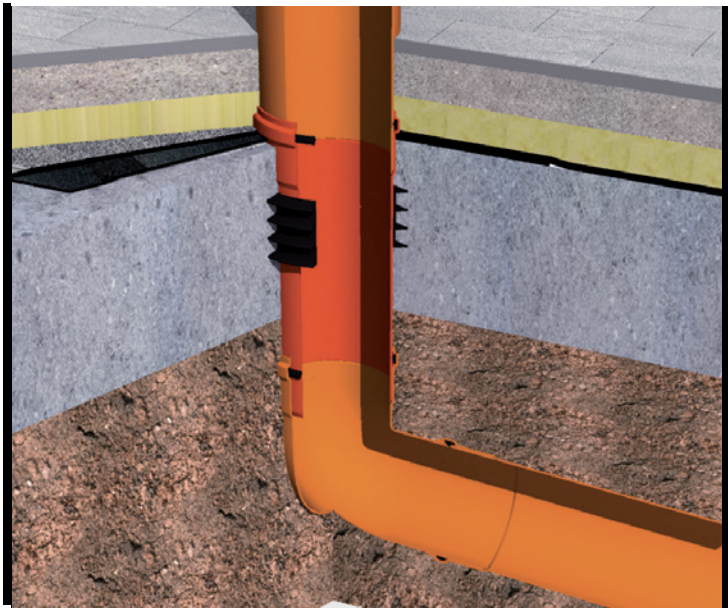


LORO waste piping

	Version	*Accessories*		
	LORO waste piping from hot-dip galvanized steel with an internal layer from two-component epoxide of reddish brown colour with a deep flange for connecting pipes, supplied without an O-ring. The piping DN 50–150 is supplied in the length from 250 to 3000 mm. It can be supplied including all the accessories, elbows, branching, sleeves, reductions, transmission pieces etc. Technical advice about the system and assistance at the stage of project documentation is provided within the scope of technical support free of charge.			
				

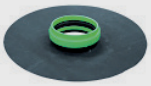
Penetrations for the substructure

Solution with an integrated waterproof sleeve



- Systematic and reliable solution
- Full technical support
- For any penetration, custom-made solution
- Made from solid materials
- Resistant to abrasion
- High strength and rigidity, shock-proof and resistant to pressure
- Trouble-free installation at low temperature

Penetrations for the substructure

	Version	*Accessories*		
	Penetrations through the substructure. Fittings for both a white tub and a black tub. Possible solution of any penetration, such as penetrations for KG/HT sewer pipes, water pipes, gas pipes, power cables etc. We offer free of charge technical consultancy for the whole system, assistance at the stage of project documentation and calculation of individual price quotes.			
				


TOPSAFE
FALL PROTECTION
SAFETY SYSTEMS
Safety systems
TOPSAFE elements against falling
from height and to depth
TOP
SAFE
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TSF

What services are provided in TOPSAFE

Proposals, implementation & support

- We provide own delivery and assembly of anchoring points
- Available net of trained certified assembly companies
- We perform inspections and revisions of installed systems
- Elaboration of design proposals free of charge
- Proposal of satefy solutions determined to your roof
- Details of anchoring points in DWG for free of charge download
- We offer only stainless steel products certified in accordance with valid standards

Marking of TOPSAFE products for easy selection

Can be complemented with a reinforcing pipe – then it can be used as end and turn points in the systems with permanent anchoring lines from a stainless steel rope

Suitable for use as end and turn points in the systems with permanent anchoring lines from a stainless steel rope

Suitable for use only as an intermediate point in the straight sections in the systems with permanent anchoring lines from a stainless steel rope

Made of stainless steel

Suitable for use as corner and turn points in the systems with permanent anchoring lines from a stainless steel rope

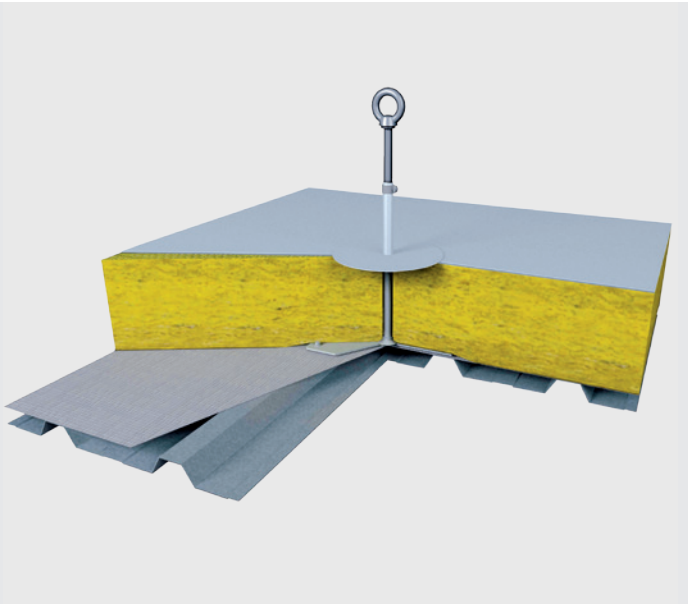
Maximum number of users attached to the anchoring device

Can be loaded in both vertical and horizontal direction

Can be loaded in horizontal / vertical direction

Anchoring points for trapezoid and sandwich constructions

Safety on flat roofs



- A wide range of products enabling implementation of the individual points as well as systems with flexible anchoring lines
- Our offer enables anchoring to the trapezoid sheet metal with various wave modulations
- Possible anchoring to trapezoid sheet metal starting from the thickness of 0.5 mm, in case of a riveted connection starting from 0.45 mm
- All the anchoring points are made of stainless steel
- Anchoring material is always part of each rope brackets

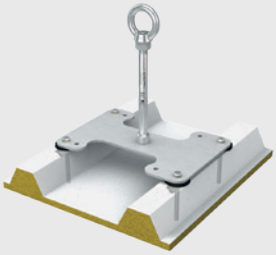
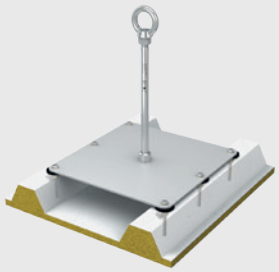
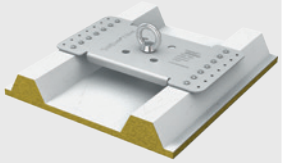
Possible ways of anchoring

- By means of hinged anchors
- Riveted connection

Anchoring points for trapezoid and sandwich constructions

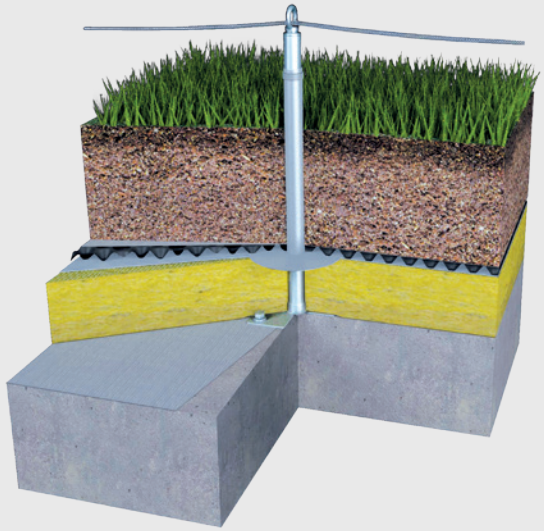
	Product description	*Construction description*	*Lengths [mm]*	*Type marking*
	A stainless steel anchoring point for trapezoid sheet metal fitted in both positive and negative direction. The base dimensions 290x200 mm, the column diameter 16 mm. The installation is made by means of four special hinged anchors from the roof surface. Intended for trapezoid sheet metal starting from the thickness of 0.5 mm.	Trapezoid sheet metal with the minimum thickness of 0.5 mm	150–600	TSL-150-T10 TSL-300-T10 TSL-400-T10 TSL-500-T10 TSL-600-T10
	A reinforced stainless steel anchoring point for trapezoid sheet metal fitted in both positive and negative direction. The base dimensions 290x200 mm, the column diameter 42 mm. The installation is made by means of four special hinged anchors from the roof surface. Intended for trapezoid sheet metal starting from the thickness of 0.5 mm. Optional anchor pitch 160 - 250 mm.	Trapezoid sheet metal with the minimum thickness of 0.5 mm	150–600	TSL-150-TX10 TSL-300-TX10 TSL-400-TX10 TSL-500-TX10 TSL-600-TX10

Anchoring points for trapezoid and sandwich constructions

	Product description	Construction description	Lengths [mm]	Type marking
	A stainless steel anchoring point for a sandwich panel and trapezoid metal sheets. The base dimensions 372x200 mm, the column diameter 16 mm. The installation is made by means of four special hinged anchors from the roof surface. Intended for sheet metal starting from the thickness of 0.5 mm. Optional anchor spacing 288 - 333 mm.	Sandwich panels Trapezoid sheets with minimum thickness of 0,5 mm	150 300	TSL-150-SW10 TSL-300-SW10
	A stainless steel anchoring point for aluminium sheet metal. The base dimensions 370x370 mm, the column diameter 16 mm. The installation is made by means of six special hinged anchors from the roof surface. Intended for aluminium sheet metal starting from the thickness of 0.7 mm and sheet spacing of 335 mm	Aluminium trapezoid sheet metals with the minimum thickness of 0.8 mm	300	TSL-300-T10-AL
	A stainless steel anchoring point for trapezoid sheet metal and sandwich panels. It is available in two versions of the base dimensions. The installation is made by means of special stainless steel rivets. Intended for aluminium sheet metal starting from the thickness of 0.45 mm.	Sheet metal with the minimum thickness of 0.45 mm		TSL-R-250 TSL-R-333
	A stainless steel anchoring point for a trapezoid sheet metal fitted in both positive and negative directions. It is intended for one person or connection in a safety net. The installation is made by means of a special hinged anchor from the roof surface. Intended for trapezoid sheet metal starting from the thickness of 0.75 mm and 1.5 mm for aluminium sheet metal.	Trapezoid sheet metal with the minimum thickness of 0.75 mm		TSL-T6

Anchoring points for concrete construction

Safety on flat roofs



- A wide range of goods for arresting and retention systems
- All the elements are of stainless steel
- Anchoring material is always part of each anchoring point
- The height of the anchoring points up to 1000 mm
- Possible application also in hollow panels

Possible ways of anchoring

- By means of mechanical spacers
- Using two-component chemical anchor
- Gripping with a counter-board

Anchoring points for concrete construction

	Product description	*Construction description*	*Lengths [mm]*	*Type marking*
	A stainless steel anchoring point for concrete constructions. The column diameter is 16 mm. Installation in a pre-drilled opening using chemical anchor (not included in the delivery). Intended for concrete of category C20/25 and higher. In order to be used as an end and turn point in the systems with a stainless steel rope. When longer than 100 mm, it must be complemented with a reinforcing pipe.	Concrete slab/ girder of minimum thickness of 140 mm	0–1000	TSL-0-B3 TSL-100-B3 TSL-200-B3 TSL-300-B3 TSL-400-B3 TSL-500-B3 TSL-600-B3 TSL-xxx-B3
	A stainless steel anchoring point for flat roofs with load-bearing construction from a concrete slab. The column diameter is 16 mm. Easy and fast installation in a pre-drilled opening in the concrete using mechanical spacing anchor in the bottom part of the column. Intended for concrete of category C20/25 and higher.	Concrete slab/ girder of minimum thickness of 125 mm	0-1000	TSL-300-BE3 TSL-400-BE3 TSL-500-BE3 TSL-600-BE3 TSL-700-BE3

Anchoring points for concrete construction

	Product description	Construction description	Lengths [mm]	Type marking
	A stainless steel anchoring point for flat roofs with load-bearing construction from a concrete slab. The anchoring point has a base of 150x150 mm and the fortified column diameter is 42 mm. Installation in pre-drilled openings is performed using mechanical spacing anchors or chemical anchor (not included in the delivery). Intended for concrete of category C20/25 and higher.	Concrete slab/ girder of the minimum thickness of 80 mm	200-1000	TSL-200-BSR10 TSL-300-BSR10 TSL-400-BSR10 TSL-500-BSR10 TSL-600-BSR10 TSL-xxx-BSR10
	A stainless steel anchoring point for various types of bases. The anchoring point has a base of 200x200 mm and a counter-board of 100x100 mm. The fortified column diameter is 42 mm. Installation is performed by gripping of one or more sufficiently bearing layers. When ordering, it is necessary to specify the expected gripping thickness.	Hollow panels with the minimum thickness of the hollow covering layer of 25 mm	200-1000	TSL-200-HD10 TSL-300-HD10 TSL-400-HD10 TSL-500-HD10 TSL-600-HD10 TSL-xxx-HD10
	A stainless steel anchoring point for various types of bases. The anchoring point has a base of 200x200 mm and a counter-board of 100x100 mm. The fortified column diameter is 42 mm. Installation is performed by gripping of one or more sufficiently bearing layers. When ordering, it is necessary to specify the expected gripping thickness.		150-600	TSL-150-K10 TSL-200-K10 TSL-300-K10 TSL-400-K10 TSL-500-K10 TSL-600-K10
	A stainless steel anchoring point for installation on concrete girders. The anchoring point has a base and a counter-board with the dimensions 200x200 mm. The column diameter is 16 mm. Installation is performed by gripping of the girder with the counter-board using four threaded rods (included in the delivery). The maximum girder width is 150 mm. When ordering, it is necessary to specify the expected gripping thickness.		150-500	TSL-150-STK10 TSL-200-STK10 TSL-300-STK10 TSL-400-STK10 TSL-500-STK10

Anchoring points for concrete construction

	Product description	Construction description	Lengths [mm]	Type marking
	A stainless steel anchoring point for concrete beams. The anchoring point comprises of an angle iron and a pillar with the diameter of 16 mm. It is installed by means of threaded rods and a two-component chemical anchor. It is intended for concrete of C20/25 grade.		200-600	TSL-200-BSL3 TSL-300-BSL3 TSL-400-BSL3 TSL-500-BSL3 TSL-600-BSL3
	A rotary stainless steel anchoring point for concrete constructions with the thread M16 suitable for application in all positions (above the head, upside down, ceiling). Installation in a pre-drilled opening in the concrete by means of chemical anchor (not included in the delivery). Standard colour is yellow (RAL 1003). Intended for concrete of category C20/25 and higher.			TSL-RB3
	A stainless steel anchoring point for concrete constructions with the thread M12. Installation in a pre-drilled opening in the concrete by means of chemical anchor (not included in the delivery). Intended for concrete of category C20/25 and higher.	Concrete slab with the minimum thickness of 130 mm		TSL-B4
	A stainless steel anchoring point for concrete constructions. Installation in a pre-drilled opening in the concrete by means of special mechanical anchor. Intended for concrete of category C20/25 and higher.	Concrete slab with the minimum thickness of 80 mm		TSL-B5

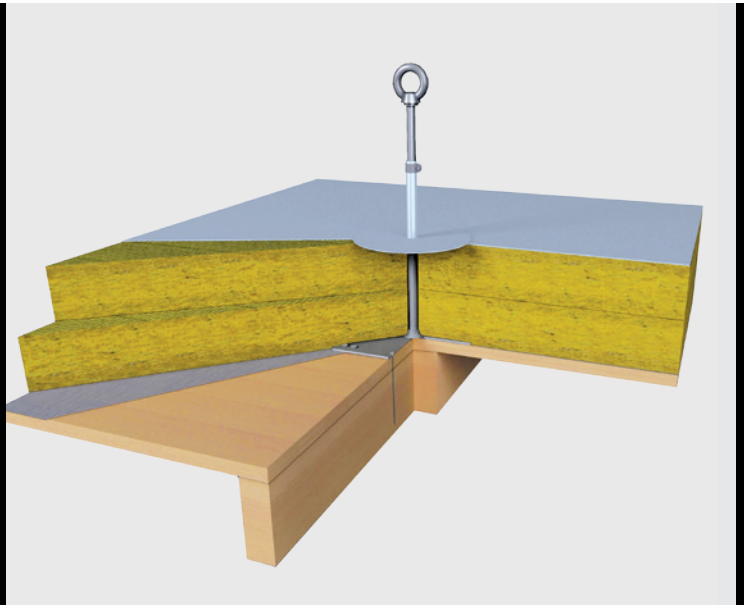
Anchoring points for wooden constructions

Safety on flat roofs

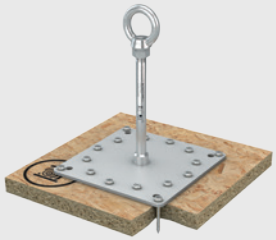
- An extensive offer enables anchoring in various base constructions
- All the elements are from stainless steel
- A wide range of products enabling implementation of individual points as well as systems with a flexible anchoring line
- Anchoring material is always part of the package

Possible ways of anchoring

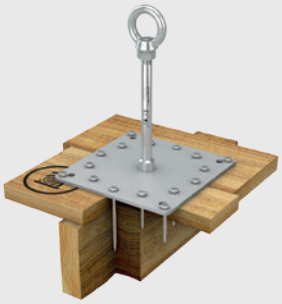
- By means of a special self-drilling screw
- By self-drilling stainless steel screws in the boarding and the girder
- By self-drilling screws only in the boarding
- By side screwed connection



Anchoring points for wooden constructions

	Product description	*Construction description*	*Lengths [mm]*	*Type marking*
	A stainless steel anchoring point for thin wooden constructions. The anchoring point has a base of 200 x 200 mm and a pillar with the diameter of 16 mm. It is installed by means of 16 stainless steel self-drilling screws fastened in the wooden boarding or OSB board. It is intended for boarding with the min. thickness of 24 mm and OSB boards with the minimum thickness of 18 mm. When used as the end point and break point in the systems with a stainless steel wire rope, if longer than 100 mm, it must be complemented with a reinforcing pipe.	Boarding from wooden plank with the min. thickness of 24 mm, OSB boarding with the min. thickness of 18 mm	150–500	TSL-150-H1016 TSL-300-H1016 TSL-400-H1016 TSL-500-H1016
	A stainless steel anchoring point for wooden constructions. The anchoring point has a base of 100 x 100 mm and a pillar with the diameter of 16 mm. It is installed by 4 long stainless steel screws. When used as the end point and break point in the systems with a stainless steel wire rope, if longer than 100 mm, it must be complemented with a reinforcing pipe.	Girder with the minimum dimensions of 100 x 120 mm	150 - 600	TSL-150-H1024 TSL-300-H1024 TSL-400-H1024 TSL-500-H1024 TSL-600-H1024

Anchoring points for wooden constructions

	Product description	Construction description	Lengths [mm]	Type marking
	A stainless steel anchoring point for wooden constructions. The column diameter is 16 mm. Easy and fast installation in the pre-drilled opening in the wood and gripping by means of a special base and a back-nut. Intended for girders of minimum 100x120 mm.	Girder with the minimum dimensions of 100 x 120 mm	0 - 600	TSL-000-HW3 TSL-100-HW3 TSL-200-HW3 TSL-300-HW3 TSL-400-HW3 TSL-500-HW3
	A stainless steel anchoring point for wooden constructions comprising of a load-bearing beam and wooden boarding. The anchoring point has the base of 200x200 mm and the column diameter is 16 mm. Installation is performed by means of 14 shorter stainless steel self-drilling screws connected in the wooden boarding and two long ones connected in the wooden beam. Intended for wooden girders of minimum 60x120 mm.	A wooden girder with the minimum dimensions of 60 x 120 mm	150-600	TSL-150-H10(14+2) TSL-300-H10(14+2) TSL-400-H10(14+2) TSL-500-H10(14+2) TSL-600-H10(14+2)
	A stainless steel anchoring point for wooden girders. The anchoring point comprises of an angle piece and a column with the diameter of 16 mm. Installation is performed by means of two stainless steel threaded bars placed in pre-drilled openings and secured with back-nuts. Intended for girders of minimum 100x120 mm.	A wooden girder with the minimum dimensions of 100 x 120 mm	200-600	TSL-200-SL3 TSL-300-SL3 TSL-400-SL3 TSL-500-SL3 TSL-600-SL3
	A reinforced stainless steel anchoring point for wooden girders. The anchoring point comprises of an angle piece and a column with the diameter of 42 mm. Installation is performed by means of two stainless steel threaded bars placed in pre-drilled openings and secured with back-nuts. Intended for girders of minimum 100x120 mm.	A wooden girder with the minimum dimensions of 100 x 120 mm	100–500	TSL-100-SLR3 TSL-200-SLR3 TSL-300-SLR3 TSL-400-SLR3 TSL-500-SLR3

Anchoring points for steel constructions

Safety on flat roofs

- All the elements are made of stainless steel
- Anchoring material is always part of the package
- The height of the anchoring points up to 1000 mm
- Solution also for enclosed profiles
- Rotary anchoring points

Possible ways of anchoring

- By means of a screwed connection
- By gripping with a counter-board
- Screwed connection in a pre-drilled thread

Anchoring points for steel constructions

	Product description	*Construction description*	*Lengths [mm]*	*Type marking*
	A stainless steel anchoring point for steel constructions. The column diameter is 16 mm. Installation in a pre-drilled opening in the girder by means of a back-nut. In order to be used as an end and turn point in the systems with a stainless steel rope, when longer than 100 mm, it must be complemented with a reinforcing pipe.	Steel girder	0–1000	TSL-0-ST3 TSL-100-ST3 TSL-300-ST3 TSL-400-ST3 TSL-500-ST3 TSL-600-ST3 TSL-xxx-ST3
	A stainless steel anchoring point for steel girders. The anchoring points has a base of 150x150 mm and the reinforced column diameter is 42 mm. Installation is performed by means of four screwed connections in pre-drilled openings.		200-1000	TSL-200-STSR10 TSL-300-STSR10 TSL-400-STSR10 TSL-500-STSR10 TSL-600-STSR10 TSL-xxx-STSR10

Anchoring points for steel constructions

	Product description	Construction description	Lengths [mm]	Type marking
	A stainless steel anchoring point for steel constructions. An anchoring point comprises of an angle iron and a pillar with the diameter of 16 mm. It is installed by means of two stainless steel threaded rods inserted in pre-drilled openings and secured with nuts.		200 - 600	TSL-200-SRL3 TSL-300-SRL3 TSL-400-SRL3 TSL-500-SRL3 TSL-600-SRL3
	A stainless steel anchoring point for steel girders. The anchoring points has a base of 200x200 mm and the column diameter is 16 mm. Installation is performed by gripping of the load-bearing element with a counter board by means of four threaded bars (included in the delivery). The maximum girder width is 150 mm. When ordering, it is necessary to specify the expected gripping thickness. For use as an end and break point in stainless steel rope systems, it is necessary to add a reinforcing pipe at longer than 100 mm lengths.	Steel girder with the maximum flange width of 150 mm	150-500	TSL-150-STK10 TSL-300-STK10 TSL-400-STK10 TSL-500-STK10
	A rotary stainless steel anchoring point with the thread M12, M16 or M20 suitable for application mainly in enclosed steel profiles. Installation by screwing into a pre-drilled thread. Standard colour is yellow (RAL 1003).			TSL-STR3
	A rotary stainless steel anchoring point for steel constructions with the thread M16. Installation by screwing into a pre-drilled thread. Standard colour is yellow (RAL 1003).			TSL-50-STR3

Anchoring points for steel constructions

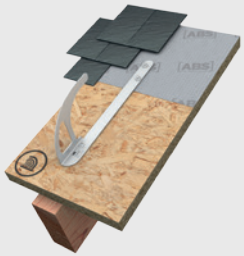
	Product description	Construction description	Lengths [mm]	Type marking
	A stainless steel anchoring point for steel constructions with the thread M12. Installation by screwing into a pre-drilled thread.	Steel girder with the minimum flange thickness of 5 mm		TSL-ST4
	A stainless steel anchoring point for steel constructions with the thread M10. Installation by screwing into a pre-drilled thread.	Steel girder		TSL-ST5
	A rotary stainless steel anchoring point for steel constructions. Installation by screwing into a pre-drilled thread.			TSL-STR5
	Stainless steel anchoring point intended specially for anchoring on solar panels contructions. The maximum dimension of the profiles for gripping is 50x50 mm.	Profiles up to the dimension of 50 × 50 mm		TSL-150-SO10

Anchoring points for inclined roofs

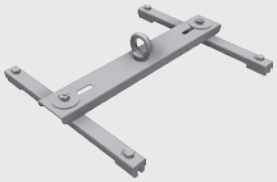
Safety on inclined roofs

- All the anchoring points for inclined roofs are certified according to EN 795, roof hooks for laid roofing are also certified according to EN 517
- For all the products we guarantee long life as they are made from quality stainless steel
- When implemented on metal sheet inclined roofs of a higher degree of inclination, it is possible to use a special auxiliary hook for hanging a ladder
- For metal sheet roofs it is possible to supply elements for various types of standing seams

Anchoring points for inclined roofs

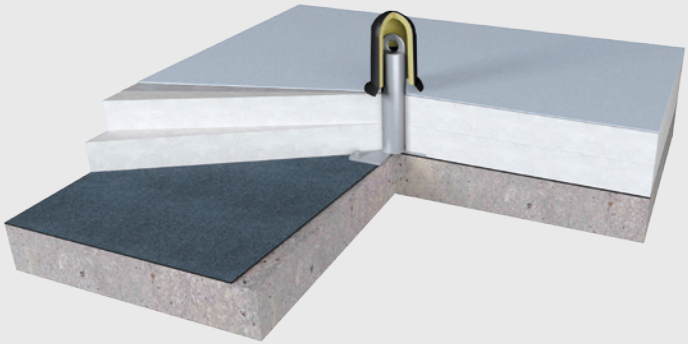
	Product description	*Construction description*	*Type marking*
	A flat roof hook intended for fitting on inclined roofs with laid roofing from patterns. Loaded in all directions. Certified according to EN 795 and EN 517.	Wooden girder with the minimum dimensions of 60 x 120 mm	TSL-DH04P
	A bent roof hook intended for fitting on inclined roofs with laid roof tiles. Loaded in all directions. Certified according to EN 795 and EN 517.	Wooden girder with the minimum dimensions of 60 x 120 mm	TSL-DH04Z

Anchoring points for inclined roofs

	Product description	*Construction description*	*Type marking*
	An anchoring point for wooden beams. The stainless steel loop with the diameter of 5 mm is very subtle and it does not disturb the appearance of the roof. Easy and fast installation by means of two self-drilling screws directly in the rafter. 	Wooden girder with the minimum dimensions of 60 x 120 mm	TSL-LOOP
	An anchoring point for folded roofs. It is suitable for use as an individual point for securing of up to 3 persons. 	TIZn sheets with minimum thickness of 0,7 mm Aluminium sheets with minimum thickness of 0,8 mm Copper sheets with minimum thickness of 0,6 mm	TSL-F5 Copper roofs: TSL-F5CU
	An anchoring point for metal sheet roofs. It is suitable for use as an end point in the sections with the stainless steel rope. Types according to the groove distance: 300–450 or 420–660 mm. 	TIZn sheets with minimum thickness of 0,7 mm Aluminium sheets with minimum thickness of 0,8 mm	TSL-450-F4 TSL-660-F4 Copper roofs: TSL-450-F4CU TSL-660-F4CU
	An anchoring point for metal sheet roofs. It is suitable for use as an intermediate point in the sections with the stainless steel rope. 	Stainless steel and galvanized sheets with minimum thickness of 0,5 mm Copper sheets with minimum thickness of 0,6 mm TIZn sheets with minimum thickness of 0,7 mm Aluminium sheets with minimum thickness of 0,8 mm	TSL-F4ZW Copper roofs: TSL-F4ZWCU

Anchoring points for rope suspension work

Security during facade cleaning and maintenance



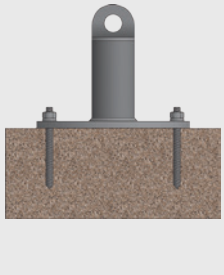
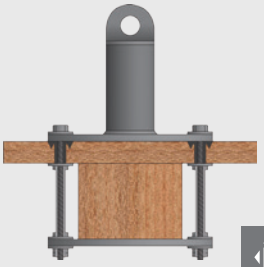
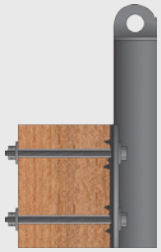
- The anchor eye is always included in the delivery of the rope bracket
- Anchoring points of higher toughness and resistance
- Anchoring points intended for anchoring in solid bases
- Anchoring points can also be used for arresting systems
- Anchoring material is always part of the package
- For elements of TSR type, the package always includes a heat-insulation cover

Possibility of facade cleaning and maintenance using the climbing gear

Anchoring points for rope suspension work

	Product description	*Construction description*	*Lengths [mm]*	*Type marking*
	A stainless steel anchoring point for flat roofs with load-bearing construction from a concrete slab. The anchoring point has a base of 150x150 mm and the fortified column diameter is 42 mm. Installation in pre-drilled openings is performed by means of mechanical spacing anchors or chemical anchor (not included in the delivery). Intended for concrete of category C20/25 and higher.	Concrete slab with the minimum thickness of 120 mm	350,500 and 700	TSL-350-BSR10AS TSL-500-BSR10AS TSL-700-BSR10AS
	A stainless steel anchoring point for steel girders. The anchoring point has a base of 150x150 mm and the fortified column diameter is 42 mm. Installation is performed by means of four screwed connections in pre-drilled openings.		200-400	TSL-200-STSR10 TSL-300-STSR10 TSL-400-STSR10

Anchoring points for rope suspension work

	Product description	Construction description	Lengths [mm]	Type marking
	An anchoring point intended for concrete of min. B25 or C20/25. The point is anchored in the base by means of four special screws.	Concrete slab with the minimum thickness of 120 mm	85-1000	TSR-085-B3 TSR-300-B3 TSR-400-B3 TSR-500-B3 TSR-600-B3 TSR-xxx-B3
	An anchoring point intended for steel girders. The point is anchored to the girder using special screws.	Steel girder with the minimum width of 110 mm	300–600	TSR-300-ST TSR-400-ST TSR-500-ST TSR-600-ST
	An anchoring point intended for constructions from wooden load-bearing beams with boarding. The point is anchored by gripping of the beam using a counter-board.	Wooden boarding on the beam with the maximum width of 120 mm	300–500	TSR-300-K8 TSR-400-K8 TSR-500-K8
	An anchoring point intended for side anchoring in the wooden truss. The point is anchored using a screwed connection.	Wooden truss with the minimum height of 250–350 mm	300–500	TSR-300-S9 TSR-400-S9 TSR-500-S9

Rail systems

Façade cleaning solution

- Designed for work in locations known in advance
- Smooth movement along the whole length of rail lines
- Possible turning thanks to a curved rail and a special motorized element
- If placed overhead, elimination of possible falls

It can also be used as a system for work when suspended on rope

Collective protection

Mobile railing

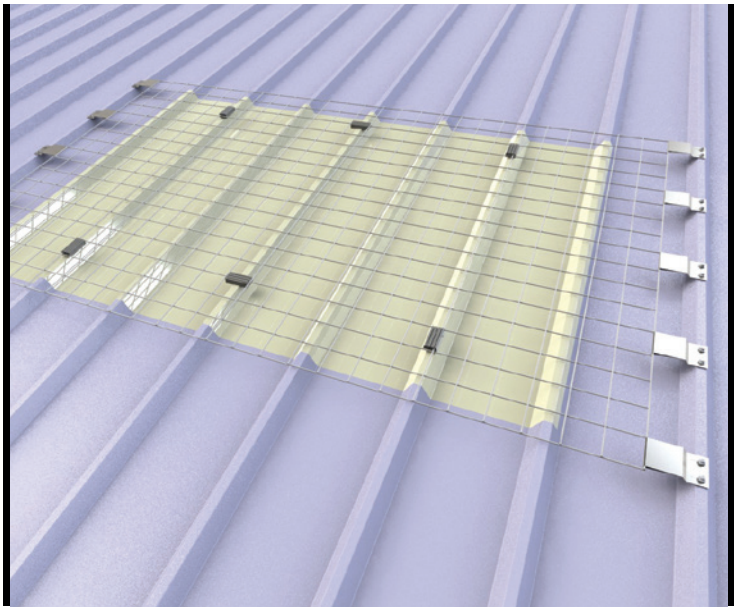
- Innovative methods of railing installation
- Made of high quality aluminium
- Resistant to weather conditions
- A wide offer of possible anchoring to the base
- Possibility of anchoring to the base using its own weight
- Low weight ensures easy assembly and low transport costs
- Installation on constructions with the inclination of up to 10°
- The railing height of 1100 mm

Railing

	Product description	*Type marking*
	**Railing anchored to the base by fusing** A system of roof railing from aluminium and stainless steel. It is anchored to the base from bitumen strips or foil by means of fusing with strips of the corresponding waterproof. The railing height is 1100 mm.	TSG-SR
	**Free-standing railing with weights** A system of roof railing from aluminium and stainless steel. It does not have to be anchored to the base. The railing is secured by means of the weight. The railing height is 1100 mm.	TSG-VR

Collective protection

Safety bars



Bars for illumination strips

- Additional assembly on finished illumination strips
- Mechanical anchoring to trapezoid sheet metal or a sandwich panel
- Elimination of the risk of a deep fall at critical places
- Sealed with special gaskets
- Simple installation

Bars for roof skylights

- Universal modular system for various sizes and configurations of skylights
- Collective protection as the highest level of safety
- Installation in the internal construction does not disturb the appearance
- Simple installation

Systems for ladders

Vertical protection of persons against fall

- Security with every step when moving on a ladder
- High quality standard
- Simple solution with high efficiency
- For indoor and outdoor usage
- Easy and intuitive use

Arresting systems for ladders

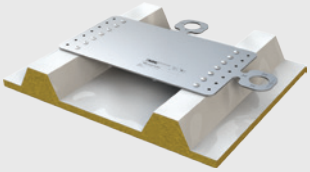
	Product description	*Type marking*
	**An arresting system for ladders** A system for securing of steel and aluminium ladders which are anchored in a fixed way. Securing of up to four persons at a time (it is necessary to use one slider per person). Used with a permanent stainless steel rope 8 mm thick. The upper termination part with an overlap above the ladder of up to 1300 mm. The elements are made from stainless steel. **The individual parts of the system:** An upper termination part, length 1300 mm An upper termination part, length 300 mm Intermediary handle A lower termination part with a tensioning piece for a stainless steel rope A slider per one person	 TSL-HL TSL-HS TSL-HZW TSL-HE TSL-HJ
	**CLICK-IT** CLICK-IT is a mean of personal security against fall on a permanently installed ladder without having to install another fixed vertical securing system attached to the ladder construction. With its weight of 2 kg it ensures maximum accuracy. Securing is performed by means of two mutually interconnected hooks which are attached to the ladder rungs alternately in such a way that one hook cannot be opened if the other one is not locked automatically. This prevents accidental releasing and security is ensured for the whole ascent or descent on the ladder.	CLICK-IT

Industrial systems

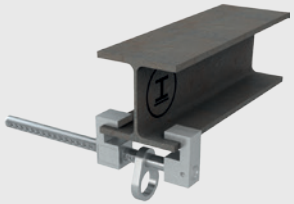
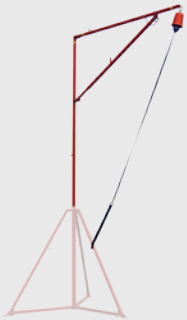
Special industrial security

- Security of workers in industrial buildings, such as halls, production plants, warehouses etc.
- Possibility of securing footbridges, crane tracks, servicing places and rack systems
- For industrial systems, it is possible to use basic anchoring points specified in the previous chapters according to the types of the base construction
- Possibility of using individual anchoring points or as a system with a permanent anchoring line
- For special situations, it is suitable to use special anchoring points and constructions specified below

Industrial systems

	Product description	*Construction description*	*Type marking*
	An anchoring point for installation on a steel girder with the covering strip width from 80 to 320 mm and thickness of 8-16 mm. It is intended for three persons. Easy installation. It is made from hot galvanised steel. It can also be used as a termination point of a permanent rope line.		TSL-LT
	**Solution for containers** A stainless steel anchoring point intended for containers. It is suitable for anchoring to a sandwich panel or trapezoid sheets. An extremely thin profile enables stacking of containers. Anchoring is performed by means of 14 stainless steel rivets. The integrated insulation seals ensure hydro-insulation tightness.	Trapezoid sheets of minimum thickness 0,5 mm	TSL-FLAT

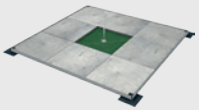
Industrial systems

	Product description	Construction description	Type marking
	A mobile anchoring point for installation on a steel girder with the covering strip width from 95 to 300 mm and the maximum thickness of 35 mm. Easy installation and dismantling. Made of aluminium. Weight only 1.5 kg. 1 ‹F	Steel girder	TSL-TQ
	A mobile anchoring point for installation on a steel girder. Choice from five models for covering strips with the width from 120 to 280 mm. Suitable for longer use in the same place, even outside. Made from stainless steel. Nerez ocel 1 F̂	Steel girder	TSL-RB
	**Tripod** A mobile tripod used for securing of workers in shafts with the entrance hole. It can also be used for rescuing of persons from these areas. Intended for one person. 1		TSL-TRIPOLE
	**Airanchor** A system for securing a person, e.g. on a means of transport (a cistern truck etc.). The base is anchored in the ground in the fixed way. Shoulder reach and secured area according to individual design. 1		TSL-AA

Industrial systems

Special industrial security

Special products

	Product description	*Type marking*
	**A mobile anchoring point** A mobile anchoring point intended for 1 person. The anchoring point construction must be loaded with 250 kg in accordance with the assembly manual. For loading it is possible to use both concrete tiles and green roof layers. The frame dimensions are 1.5 x1.5 m. The delivery does not include the material for anchoring point loading. Made from stainless steel.	TSL-MB
	**Topsafe On Top** A stainless steel anchoring point intended for flat roofs (up to the maximum inclination of 10°). It is attached to the base by means of fusing with a reinforced covering waterproof without having to perforate the roof membrane. It is only used on roofs with a mechanically anchored waterproof layer! The distributing cross is made from aluminium.	TSL-OT
	**Hidden anchoring point** A hidden anchoring point suitable for installation on concrete construction of the minimum category C20/25. It can be attached by means of chemical anchor. It is intended for attachment of an anchor eye TSL-S1 and it is supplied in the lengths 100,150 and 200 mm. The delivery includes a white plastic cover. For attaching in a hidden point, use a special eye TSL-S1 which is not included in the delivery.	TSL-100-B2 TSL-150-B2 TSL-200-B2
	**Extension for anchoring points** Intended for all types of anchoring points with the column diameter of 16 mm. Supplied in the lengths 100 and 200 mm. Made from stainless steel.	TSL-V3
	**Extension for reinforced anchoring points** Intended for all types of anchoring points with the column diameter of 42 mm. Supplied in the lengths 100 and 200 mm. Made from stainless steel.	TSL-VR3
	**A mobile barrier** A mobile barrier intended for delimitation of dangerous zones on the roof. The column is made from stainless steel.	TSL-PFOS
	**Ladder securing module** A fitting preventing sliding of the ladder. It is installed permanently at the expected place of ascent to the roof. It enables very easy fixing simply clipping it to the gutter.	TSL-LADD

Accessories

	Product description	Type marking
	**Anchor eye** An accessory for anchoring points. It is included in the delivery of the anchoring point as a standard. When ordering, it is necessary to specify the type: with an external thread / with an internal thread.	TSL-O
	**TOPSAFE assembly rope Lanyard** Intended for arresting systems with a temporary flexible anchoring line. Thickness 14 mm. Supplied in the lengths of 15, 23 and 30 m.	TSL-ML
	**TOPSAFE SET** A roof maintenance set. It includes a safety harness and a moving fall arrester on a flexible line with a fall damper in the required length (5, 10, 15 or 20 m). The set is supplied in a bag.	TSL-SET5 TSL-SET10 TSL-SET15 TSL-SET20
	**Self-winding fall restraint** It is used for immediate fall arrest. At the moment of falling, the fall depth is restricted with the unwound length of the restraint. The fall restraint keeps the cable slightly tight constantly and thus it reduces the fall depth. Fall restraints can be used for securing both in the horizontal and vertical direction. Shorter fall restraints have a fabric cable, longer fall restraints have a stainless steel cable. Fall restraints can be used both in the interior and the exterior.	With a fabric cable TS-ZCH1 TS-ZCH5 TS-ZCH6 With a stainless steel cable TS-ZCH10 TS-ZCH20
	**SAFECARE** A metal case for maintenance accessories. Includes two keys.	TSL-SAFECARE
	**SAFETHERM** Heat insulation covers intended for thermal bridge reduction.	TSL-TH
	**Connecting lanyard Y** A double connecting means intended for safe transfer between two anchoring devices.	TSL-LANYARD

Nets

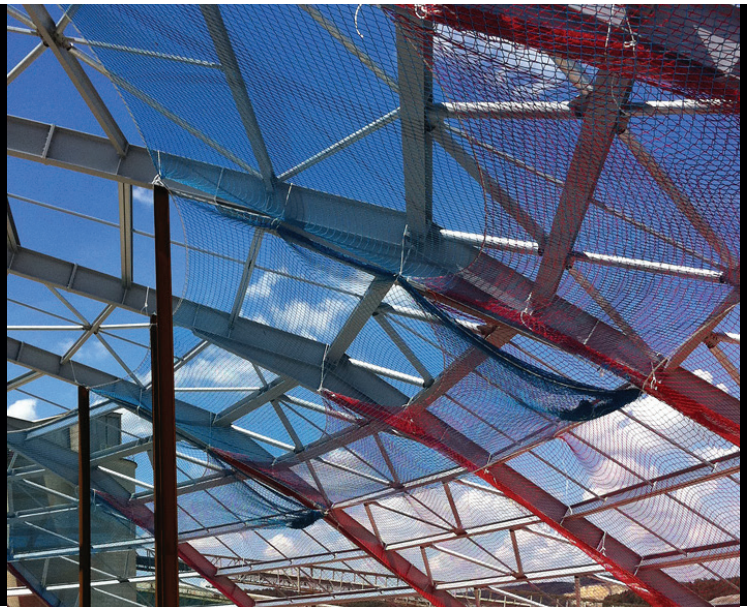
Safety nets for construction industry

Use

- As a collective protection means against fall during construction of halls, shopping centres and bridges
- Protection of unguarded edges and openings in constructions
- A means of retention on scaffolding
- Protection against fall of material
- As walkable nets with the grid of 45 mm

Advantages

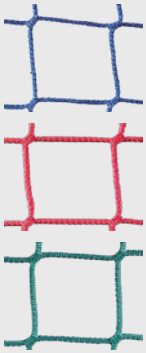
- The connecting means do not make the movement of workers more difficult
- Thanks to a high net deformation, the falling person is caught less hard than in a full-body harness
- Higher safety for workers working under the installed net



We offer

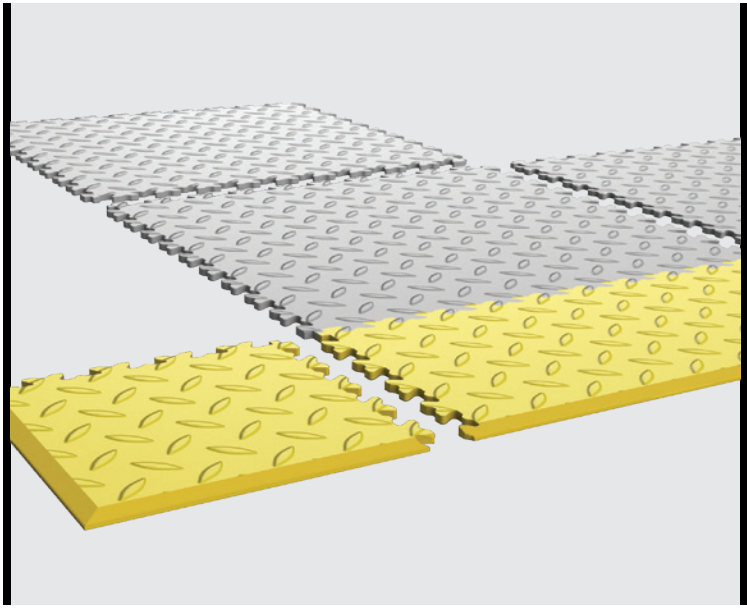
- Technical consultancy
- Non-binding consultation directly on your construction
- Preparation of price calculations
- Sale and inspection of safety nets

Certificated nets types

	Product description	*Type marking*
	**Systém S - A safety net with a peripheral rope** It is a basic and most frequent net type intended for fall retention. Safety nets of the system S are attached in the horizontal position by means of suspension ropes or other means on the anchoring points capable of load transfer. The minimum net area is 35 m^2.	TSN-S
	Systém U - A safety net connected to the load-bearing construction for vertical use These nets are supposed to prevent fall of persons or material from height over unguarded edges nearby the edge of the floors, roofs, staircases etc. The standard dimensions are 1.5 - 2 m x the required length. Possibility of easy installation by means of straps. Generally, the installation of these nets is governed by EN 13374.	TSN-U

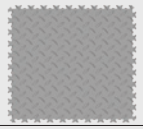
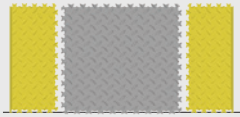
Anti-slide pavements

Safe movement on a flat roof



- For easy creating of Anti-slide routes
- Highly durable and maintenance-free PVC product
- Intended for flat roofs with the main hydro-insulation layer from an mPVC based foil
- The size of each element is 500 x 500 mm
- Elements are UV resistant
- Board thickness 7,3 mm
- Connected with the roof surface by means of hot air
- Color versions: dark gray

Anti-slide pavements

	Product description	*Type marking*
	**SAFE WALK** A modular system from walkable mPVC based panels. Standardised dimensions 500 x 500 mm, thickness 7.3 mm. Dark grey colour.	TS-WALK
	**SAFE END + LINE / Borderline** End part of the system of traverse parts intended for creation of corridors on the surface of roofs with the main waterproof layer from a mPVC foil. The dimensions of every element TS-END 250 x 250 mm, the thickness of 7.3 mm. Yellow colour.	TS-END
	**SAFE CORNER** End part of the system of traverse parts intended for creation of corridors on the surface of roofs with the main waterproof layer from a mPVC foil. The dimensions of every element TS-CORNER 250 x 250 mm, the thickness of 7.3 mm. Yellow colour.	TS-CORNER
	**SAFE CONTINUOUS SET** Continuous part of the system of traverse parts intended for creation of corridors with the width of 1,000 mm on the surface of roofs with the main waterproof layer from a mPVC foil. The set comprises of one TS-WALK part and two TS-END parts.	TS-SET1
	**SAFE STARTER SET** The starter and end part of the system of traverse parts intended for creation of corridors with the width of 1,000 mm on the surface of roofs with the main waterproof layer from a mPVC foil. The set comprises of one TS-END part and two TS-CORNER parts.	TS-SET2

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