ETANCO

- European manufacturer of fasteners & systems for the envelope of the buildings
- the ETANCO products can be easily identified through their characteristic marking
- strict production control carried out by in-house laboratory guarantees high quality products
- each production batch is assigned a unique number, which allows its precise identification
- products have ITB Technical Approval and confirmation of their quality is the certificate of Factory Production Control

EPDM WASHER

- made of the best sealing material - EPDM
- does not lose its flexibility over time. Very long period of ageing
- resistant to changing weather conditions and UV radiation
- self-vulcanizes on the sheet after installation, forming a tight connection
- retains its properties in temperatures between -50°C to +100°C

CERAMIC COATING GREY.COAT

- is the best protection against corrosion with high drilling capacities
- enables the use of fasteners in adverse conditions
- for use in environments with corrosivity classes C1-C4

INTEGRATED FLANGE HEAD

- integrated flange head increases the bearing surface of the fastener to the metal sheet, which increases the strength of tearing metal from the screw head

SPECIAL HILO THREAD

- specially designed hilo thread, allows direct installing in timber and concrete (in case of concrete structure, predrilling with 5mm hole diameter is required)

PRODUCT DESIGNATION

TYPE OF FASTENER:
- **T** TECNICA
- **M** montage screw

G T R 16 SP D x L

Material of the fastener:
- **No designation** - fastener made of ordinary carbon steel, galvanized
- **A** - aluminum screw
- **R** - screw made of standard carbon steel covered with gRey.coat
- **X** - BIMETAL screw made of stainless steel 1.4301
- **Z** - screw made of stainless steel 1.4301

Functions:
FARMER SCREWS:
- **F2** farmer screw
- **F02** farmer screws for overlapping
- **FS** fastener with sharp point

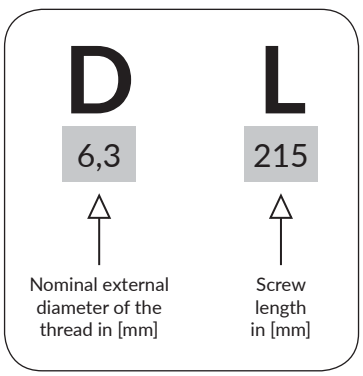
SELF TAPPING FASTENERS:
- **A** screw for timber or thin steel structures up to 3 mm
- **B** screw for steel structure thickness from 3 mm

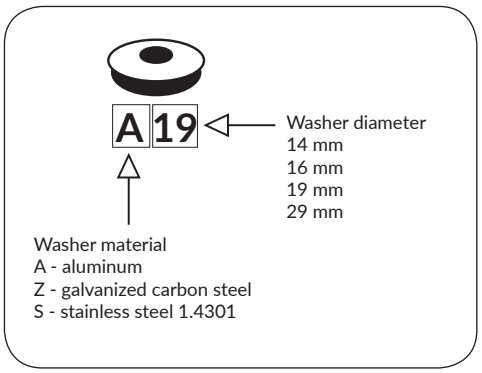
MONTAGE SCREWS:
- **S** montage screw without a drill
- **B** montage screw with a drill

SELF-DRILLING SCREWS:
- **3,5,6,8,12,16,25**
  Maximum drilling capacity of the screw
- **02,03**
  For overlapping steel sheets

SELF-DRILLING SCREWS FOR SANDWICH PANELS:
- **6,12,16,25**
  Maximum drilling capacity of the screw
- **W**
  For fixing in concrete or timber

Special features:
- **FH - FLANGE HEAD**
  Flange head screw
- **SP - SANDWICH PANEL**
  Screw for sandwich panels
- **AL - ALUMINUM**
  Screw for aluminum structures
- **AGF - ALUMINUM GLASS FACADES**
  Screw for aluminum-glass facades
- **HD - HEAVY DUTY**
  Screw with increased diameter
- **P - PANELS**
  Screw intended for fastening roof panels
- **STAR**
  Screw with flat hexagonal head



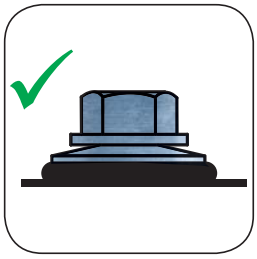


Installation guidelines

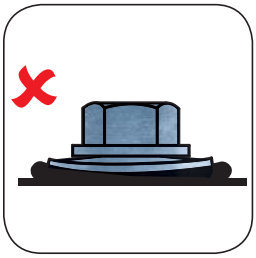
- fastener installation should always be perpendicular to the structure,
- fastener installation should be done by using a screwdriver equipped with adjustable clutch or embedding depth stop,
- during installation of the fastener, you should follow all recommended parameters for the type of fastener,
- any modification of fasteners, including cutting, is not allowed,
- in the event of any damage to the anticorrosion coating, defects must be secured (touched up),
- for installation of fasteners coated with paint it is recommended to use only ball-spring sockets.

WASHER SETTING RECOMMENDATION (FIXING OF THE STEEL SHEET)

Under driven

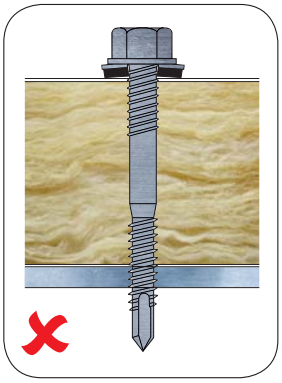


Correct

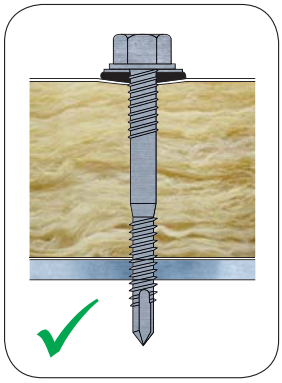


Over driven

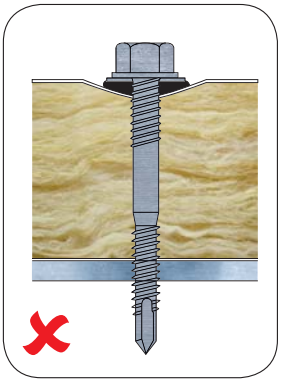
WASHER SETTING RECOMMENDATION (SANDWICH PANEL FIXING)



Under driven

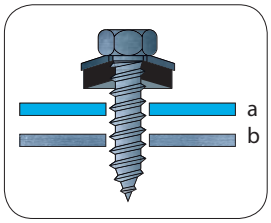


Correct

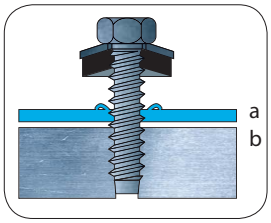


Over driven

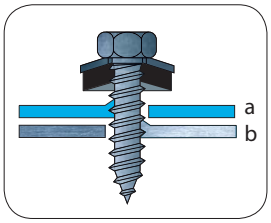
Self-tapping screws



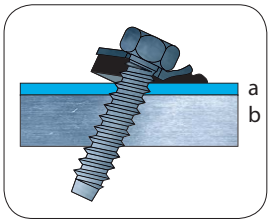
Too large diameter of the pre-drilling.
Result: no full load capacity of connection.



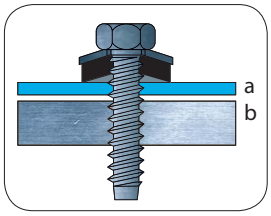
Too small diameter of pre-drilling. No tapping by fastener. Result: destruction of the thread, fastener fracture.



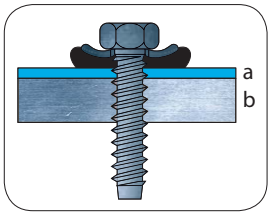
Hole shifted towards the screw axis. Result: no full load capacity of connection or broken



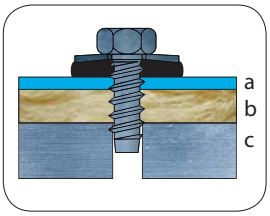
Installation at an angle.
Result: lack of tightness, no full load capacity



Fastener tightened with too little torque.
Result: lack of tightness in connection.

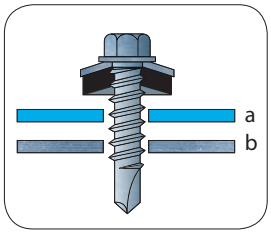


Fastener tightened with too much torque.
Result: lack of tightness in connection reduced load capacity of connection.

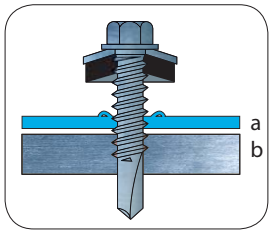


Fastener too short for the application.
Result: no full load capacity of connection.

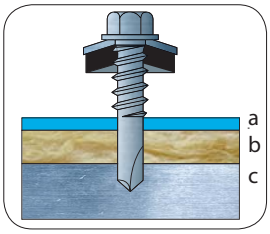
Self-drilling and self-tapping screws



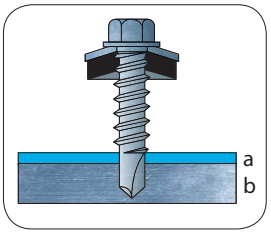
Drill point too large for the structure thickness.
Result: no full load capacity of connection.



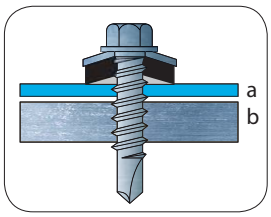
Drill point too short for the structure thickness. Broken fastener or partial destruction of the thread - reduced load capacity



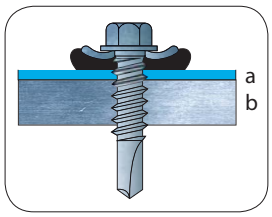
Drilling point too short. Threading of component "a" began, drilling in component "b" was not completed. Result: thread destruction, destruction of component "a", reduced load capacity.



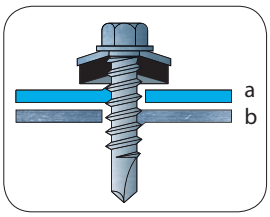
Drilling point too short. Drilling through component "b" impossible.



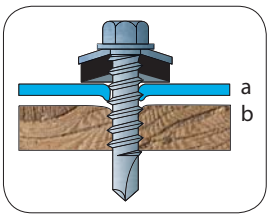
Fastener tightened with too little torque. Result: lack of tightness in connection.



Fastener tightened with too much torque. Result: lack of tightness in connection, reduced load capacity of connection.

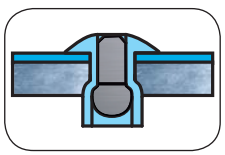


Hole shifted towards the screw axis. Result: no full load capacity of connection or broken fastener.

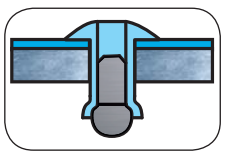


Fastener stuck into the structure. Result: bent, broken wood fibers, no tightness, no full load capacity.

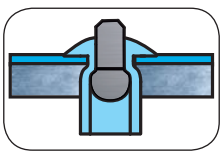
Rivets



Rivet fastened too tightly. Result: reduced load capacity of connection, possible



Rivet fastened too loose. Result: no durability of connection.

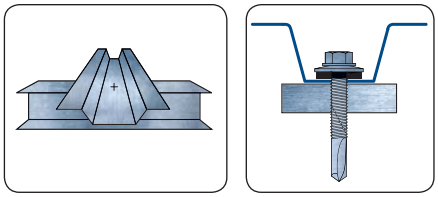


Installation hole of too large diameter. Result: no connection of components.

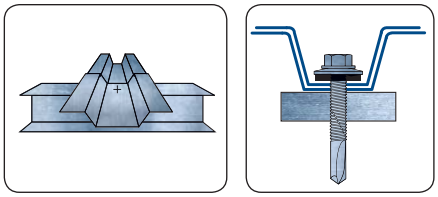
INSTALLATION OF PROFILED CONSTRUCTION STEEL SHEETS ON STEEL STRUCTURE

Possible fixing pattern

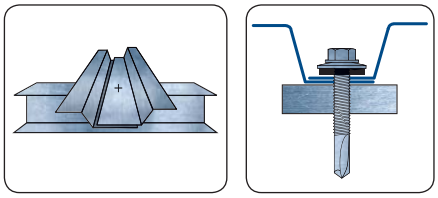
Fixing of one sheet



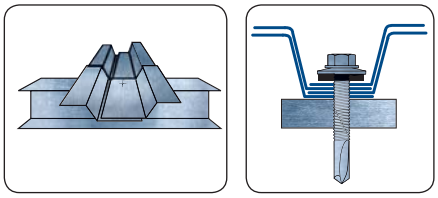
Fixing of two sheets with a crosswise overlap



Fixing of two sheets with a lengthwise overlap

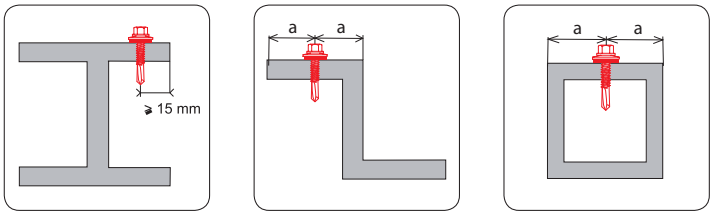


Fixing of four sheets with a lengthwise and crosswise overlap

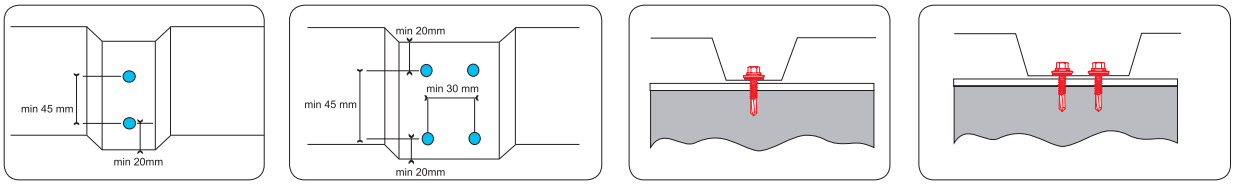


Rules for fixing metal sheets to structures (fixing point location)*

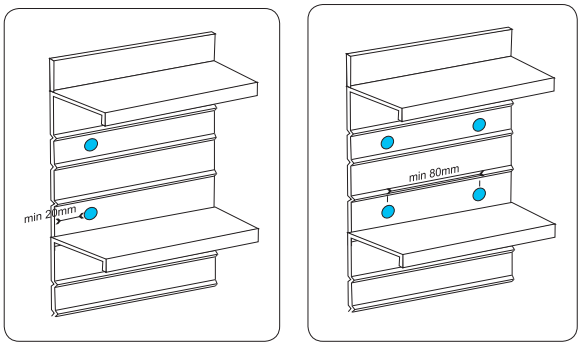
I. RECOMMENDED FASTENER DISTANCE FROM THE PROFILE EDGE



II. RECOMMENDED LOCATION FOR PROFILED STRUCTURAL TRAPEZE STEEL SHEETS



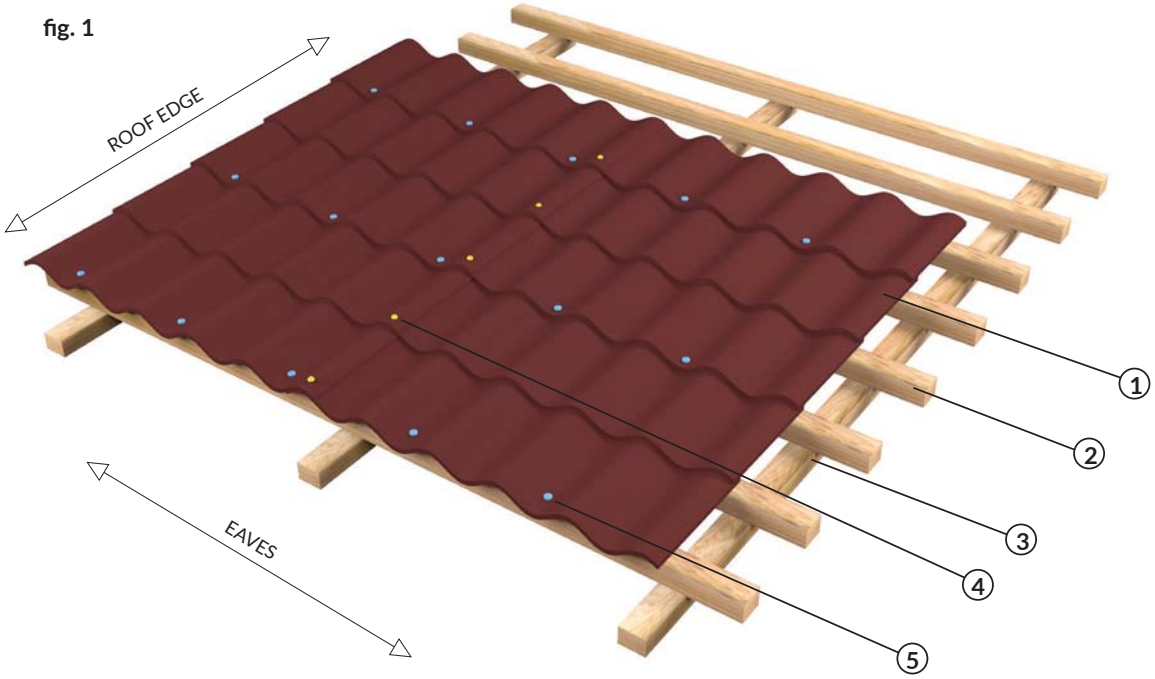
III. RECOMMENDED LOCATION OF WALL CASSETTE FIXING TO STEEL



*the number of screws according to the construction design

USE OF FARMER SCREWS FOR INSTALLATION OF ROOF PROFILED SHEETS ON TIMBER STRUCTURE

fig. 1



1. Roof profiled sheet
2. Batten
3. Rafter
4. Farmer screws for overlapping roof sheets (e.g. G 4,8 x 20) ●
5. Farmer screws for fixing of roof sheets on timber substrate (e.g. G 4,8 x 35) ●

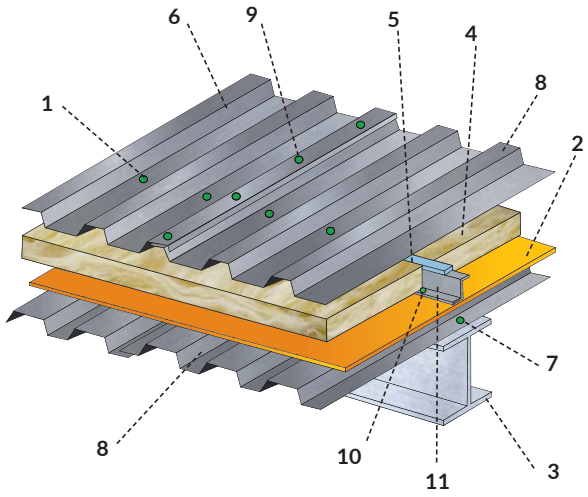
* average consumption of fasteners 6 - 7 pcs/m² of roofing

fig. 2

fig. 3

Figure 1 shows the recommended spacing of farmer screws. Roof sheet is fixed to the structure by farmer screws 4,8 * 35 in the lowest point of the wave (fig. 2). Roof sheets sections on lengthwise overlaps must be connected with 4,8 *20 screws at the highest point of the wave, just before the cross-embossing of the sheet.
On lengthwise overlaps of the roof sheets the screw must be placed above the capillary groove existing on the sheet underneath (fig. 3).
Roof profiled sheets must be fastened to timber structure to every second batten. On the fastening line the screws must be placed on every second wave. Screws for overlapping should be placed in every row of roof sheets on the overlap.
At the edge of the roof, roof sheets must be fixed to each batten. At the ridge the roof sheets must be fastened at each bottom wave. At the eaves line it should be fastened to at least every other bottom wave of the sheet. The cross overlap of the sheeting should be fastened to the batten at every bottom wave of the sheet. This way of installation ensures optimum functionality of the roofing. The presented method of fixing is an example and may not apply to all roofs.
If the roof profiled sheets manufacturer's installation instructions recommend other placement of screws than presented above, installation should be carried out in accordance with the instructions of the manufacturer of the roof sheets. If in doubt, take advice from the engineer or the technical department of the roof sheets manufacturer.

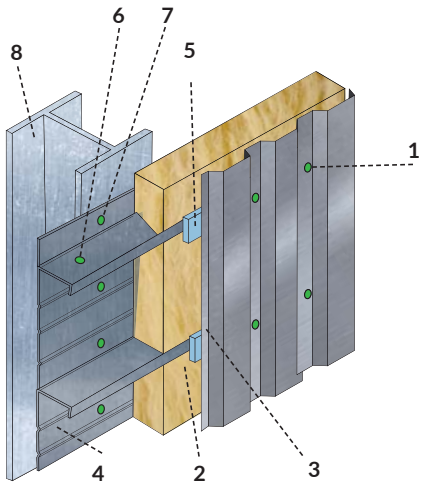
Example of roof covering structure



1. Screw for fixing steel sheet to steel structure*
2. Steam insulation
3. Purlin – double T profile
4. Thermal insulation
5. Insulating PE tape
6. Profiled steel sheet
7. Screw for fastening trapeze structural steel sheet to steel structure*
8. Profiled steel sheet
9. Screw for overlapping (e.g. GT O2)*
10. Spacing profile screw*
11. Z type cold bent spacing profile

* the screw type should be selected taking into account the required fixing parameters contained in the structural calculation and the information contained in the technical assessment.

Example of wall structure

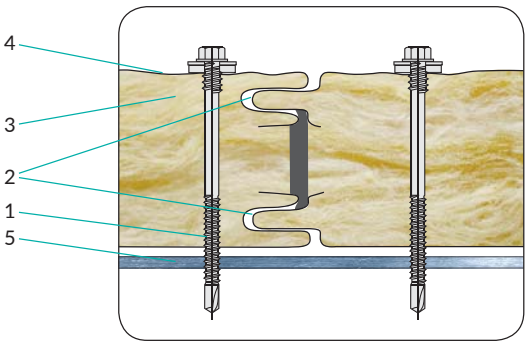


1. Screw for fixing the steel sheet to the cassette*
2. Thermal insulation
3. Profiled steel sheet
4. Wall cassette
5. PE insolation
6. Screw for overlapping (e.g. GT02)*
7. Screw for fastening profiled structural steel sheet to steel structure*
8. Pillar - double T profile

* the screw type should be selected taking into account the required fixing parameters contained in the structural calculation and the information contained in the technical assessment.

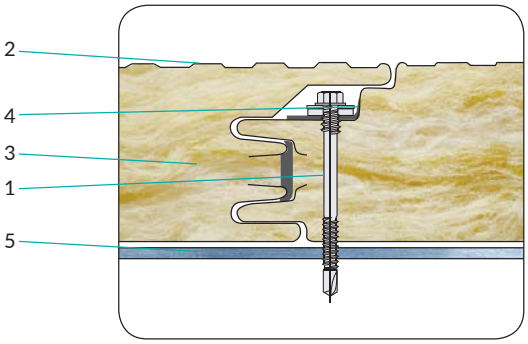
EXAMPLES OF USE OF FASTENERS FOR FIXING OF SANDWICH PANELS*

Fixing of a wall sandwich panel



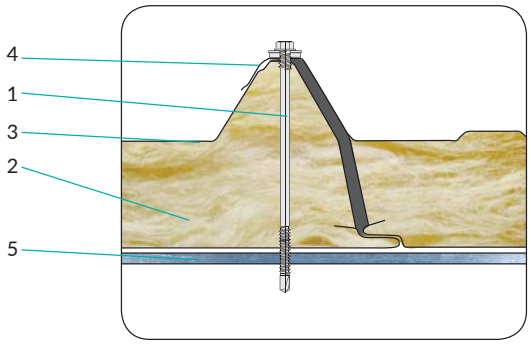
1. Screw
2. Panel scarf joint
3. Panel core (insulating material)
4. Panel lining
5. Substrate

Fixing of a wall sandwich panel with a covered joint

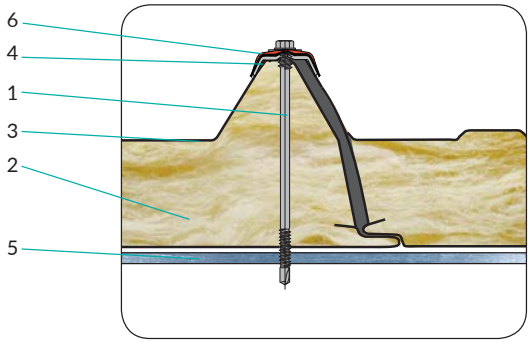


1. Screw
2. Panel lining
3. Panel core (insulating material)
4. Covered fastening
5. Substrate

Fixing of a roof sandwich panel



1. Screw
2. Panel core (insulating material)
3. Panel lining
4. Top scarf joint of the roof panel
5. Substrate

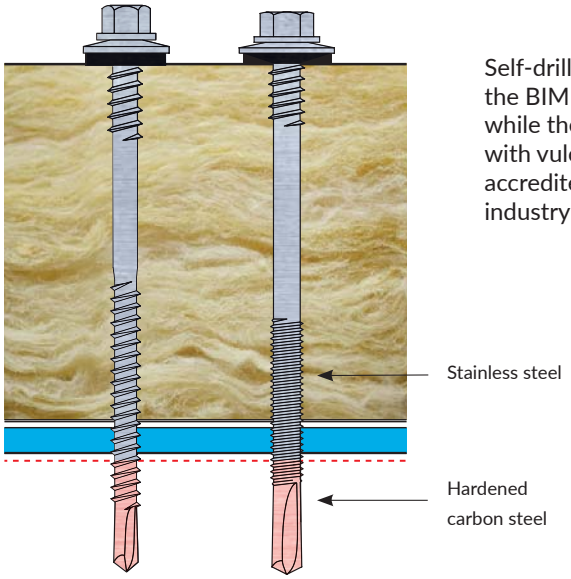


1. Screw
2. Panel core (insulating material)
3. Panel lining
4. Top scarf joint of the roof panel
5. Substrate
6. Saddle washer

* fixing point location according to the recommendations of the panel manufacturer

Use of fasteners for fixing sandwich panels in cold stores

Stainless steel self-drilling and self-tapping screws: GTX 6 SP and GTX 12 SP have undergone thermal conductivity assessment. Assessment included thermal insulation, resistance to freezing and water condensation. Assessment report confirms directly that screws GTX6 SP and GTX 12 SP are well-suited for installing sandwich panels in cold stores and freezers.



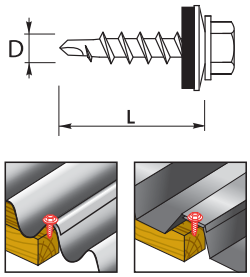
Self-drilling and self-tapping screws GTX and GTX SP are produced in the BIMETAL technology. The drilling element is made of carbon steel, while the tapping part and head of the screw together with washer with vulcanized EPDM are made of stainless steel. These fasteners are accredited by the National Institute of Hygiene for their use in the food industry and cooling (with no contact with food).

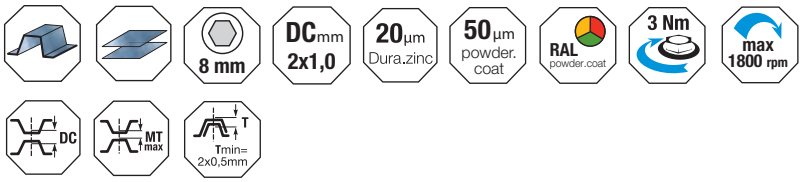
FARMER SCREW
WITH ALUMINUM WASHER

Self-drilling and tapping carbon steel screws, surface-hardened, galvanized, with reduced drilling point and hex head, with pre-assembled aluminum washer with vulcanized EPDM.

Intended for overlapping metal flat and profiled steel sheets.

Index	Screw			MTmax	Drilling capacity	Washer		Packaging Single/ Qty/Collective [pcs]
	D	L	Sw		DC	Mat.	Size	
	[mm]	[mm]	[mm]	[mm]	[mm]	-	[mm]	
P140200PL	4.8	20	8	7	2x1.00	A	14	250/6/1500



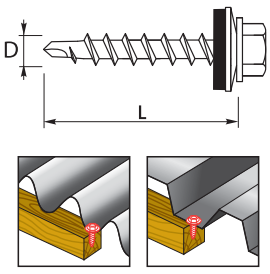


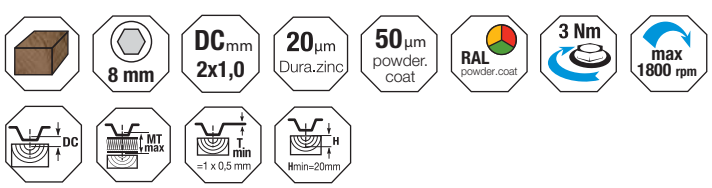
FARMER SCREW
WITH ALUMINUM WASHER

Self-drilling and tapping carbon steel screws, surface-hardened, galvanized, with reduced drilling point, thread for timber and hex head, with pre-assembled aluminum washer with vulcanized EPDM.

Intended for fastening profiled metal sheets to timber structures.

Index	Screw				MTmax	Drilling capacity	Washer		Packaging Single/ Qty/Collective [pcs]
	D	L	Sw	hef		DC	Mat.	Size	
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	-	[mm]	
P1400280PL	4.8	28	8	20	5	2x1.00	A	14	250/6/1500
P140350PL	4.8	35	8	20	12	2x1.00	A	14	250/6/1500
P1400600PL	4.8	60	8	20	37	2x1.00	A	14	100/6/600
P1400800PL	4.8	80	8	20	57	2x1.00	A	14	100/6/600





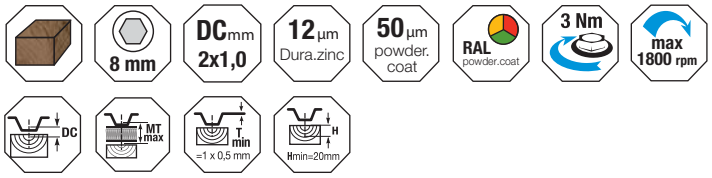
Self-drilling and tapping carbon steel screws, surface-hardened galvanized, with reduced drilling point, thread for timber and hex head, with pre-assembled steel washer with vulcanized EPDM.

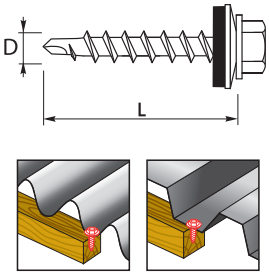
GT F2 Z14

FARMER SCREW
WITH STEEL WASHER

Intended for fastening profiled metal sheets to timber structures.

Index	Screw				MTmax	Drilling capacity	Washer		Packaging Single/ Qty/Collective [pcs]
	D	L	Sw	Anchoring depth		DC	Mat.	Size	
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	-	[mm]	
P140028OFA	4.8	28	8	20	5	2x1.00	Z	14	250/6/1500
P14035OFA	4.8	35	8	20	12	2x1.00	Z	14	250/6/1500
P140050OFA	4.8	50	8	20	27	2x1.00	Z	14	100/6/600
P140060OFA	4.8	60	8	20	37	2x1.00	Z	14	100/6/600
P140070OFA	4.8	70	8	20	47	2x1.00	Z	14	100/6/600
P140080OFA	4.8	80	8	20	57	2x1.00	Z	14	100/6/600
P140100OFA	4.8	100	8	20	77	2x1.00	Z	14	100/6/600





Self-drilling, tapping stainless steel screws, galvanized, with reduced drilling point, thread for timber and hex head, with pre-assembled steel washer with vulcanized EPDM.

GTZ F2 S14

STAINLESS FARMER SCREW
WITH STAINLESS WASHER

Intended for fastening profiled aluminum sheets to timber structures.

Index	Screw				MTmax	Drilling capacity	Washer		Packaging Single/ Qty/Collective [pcs]
	D	L	Sw	hef		DC	Mat.	Size	
	[mm]	[mm]	[mm]	mm	[mm]	[mm]	-	[mm]	
P1740350PL	4.8	35	8	20	12	2x1.00	S	14	250/6/1500