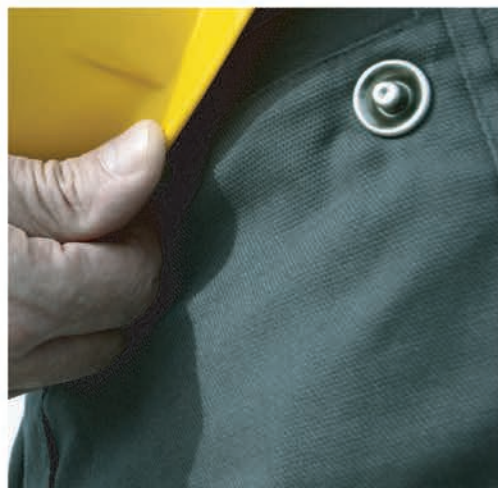
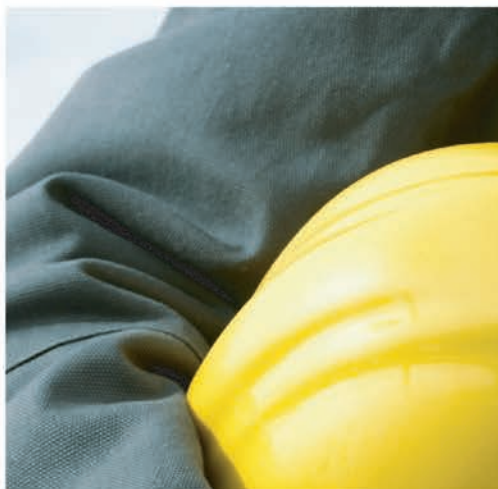
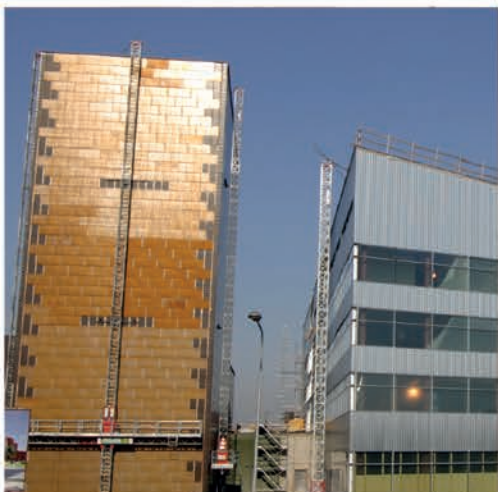


f.m Ferrometal



PIAS™ **PIASTA™**
DRILLING SCREWS

Ferrometal Oy founded in 1976

Location: Nurmijärvi, Finland.

Active articles 55.000 pcs.

Part of Würth Group since 1989.

Modern logistics to guarantee superior service level.

Quick and prompt deliveries.

In the Baltic region, Ferrometal Oy is known as the industry-leading supplier of fasteners and other small accessories required for the assembly and installation of our customers' end products. Having the widest product range in the field ensures that the products required are quickly found and delivered to the customers' production facilities or work sites in a timely manner.

For our industrial customers, we offer logistics solutions tailored to their needs and utilising the latest technology. We are known for our Rfid-Kanban solutions, as well as for our ability to streamline the customers' small accessories logistics.

With regard to our retailers, in addition to the products, we offer the training and the expert assistance required for serving specialised customers. Our retail solutions specially designed for retailers allow them to save space and to display the products in an excellently visible manner.

In the field of construction, we offer compliant, high-quality products – everything from fasteners used in foundations to roof installation works. In addition to the certificates required and up-to-date expertise, our training courses ensure distribution of the latest expertise in the field, all the way to the installation works.

Our success is based on satisfied customers relying on our industry and product-related skills.

Ferrometal. Fasteners for professionals.



TESTED DRILLING POWER UNIQUE TECHNOLOGY

PIAS AND PIASTA UNIQUE DRILLING SCREWS' MANUFACTURING TECHNOLOGY GUARANTEES SAFE INSTALLATIONS.



PIAS IS GALVANIZED CARBON STEEL DRILL SCREW WITH HARDENED DRILL TIP.



PIASTA IS A STAINLESS (A2) DRILLING SCREW, WHERE THE STAINLESS BODY IS ATTACHED TO A HARDENED DRILL TIP (Bi-Metal) WITH PATENTED TECHNOLOGY.

PIASTA is Ruspert micro-coated so the fastener does not pose a risk of galvanic corrosion when drilling, for example, into a galvanized carbon steel structure.

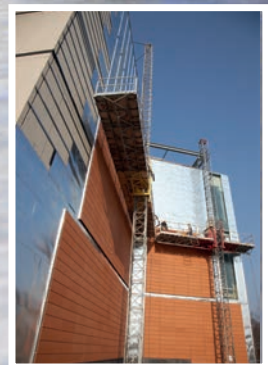
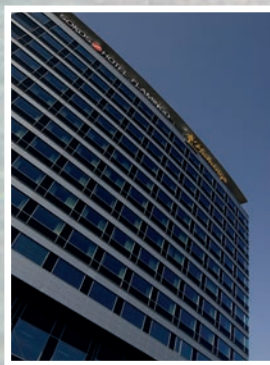
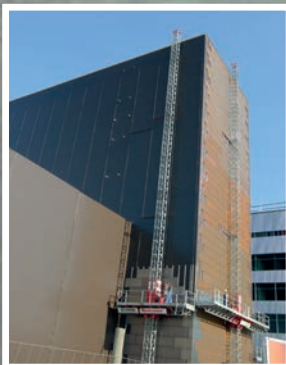
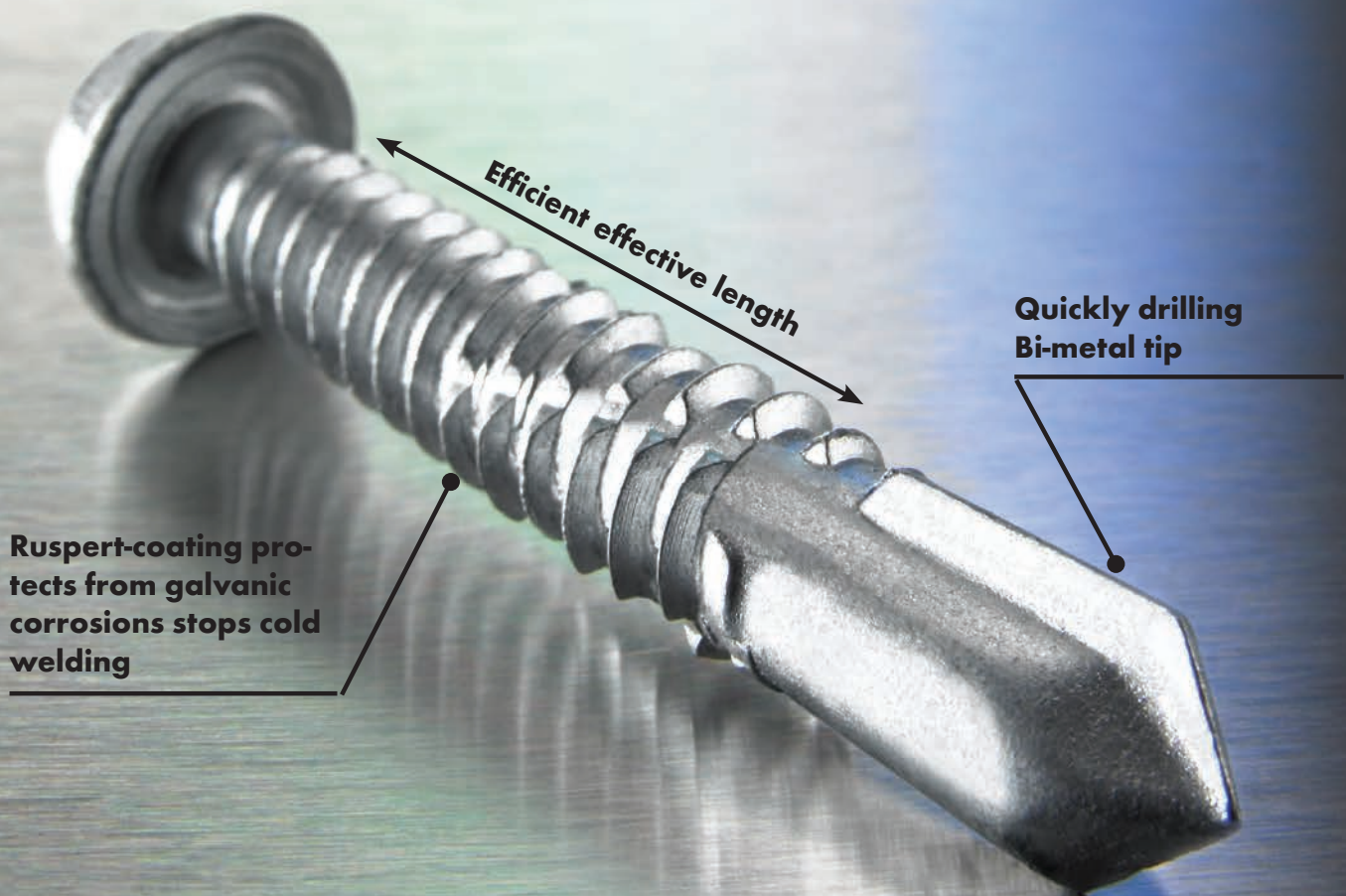


Fasteners are also available painted in all RR, RAL or NCS shades.



PIASTA-DRILLING SCREWS QUALITY TO INSTALLATIONS

**PIASTA is a stainless (A2) drilling screw,
and it's features guarantee
a better performance.**



**Carbon steel PIAS- and stainless A2 PIASTA-drilling screws
can also be painted to RAL- and RR-colours.**

DESIGN AND INSTALLATION INSTRUCTIONS

Useful lengths L1 and L2: Installing to steel basematerials

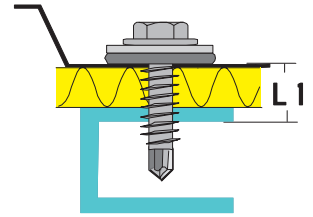
L1 is the maximum overall thickness of materials to be fixed

L2 is the length of the unthreaded part of the screw

L1 and L2 can be found from the technical information tables

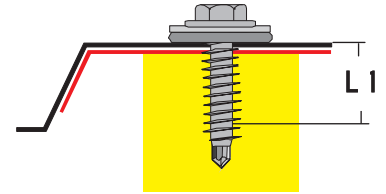
The first two threads cut the spiral to the steel, and might therefore be reshaped.

They are not considered to be included to the useful length measures.



Useful lengths L1 and L2: Installing to wooden basematerial

L1 selection criteria: Either the installation depth to wooden basematerial must be minimum 23 mm or L1=thickness of the wooden material

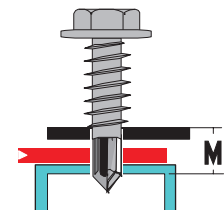


Effective drilling thickness M

Drillpoint must penetrate the material before it starts the threading.

This is why the recommended maximum thickness should not be exceeded.

Possible empty space between materials is as well considered as part of the effective drilling thickness M. If going under recommended minimum thickness, joint-strength and sealing capacity will decrease.



Installation

It is recommended to use electrical screw driver with torque release or depth gauge. Axial force need is 10-20 kp.

Rotation speeds for screws (unloaded)

Diameters 3,5-4,8 mm 1700-2500 rpm

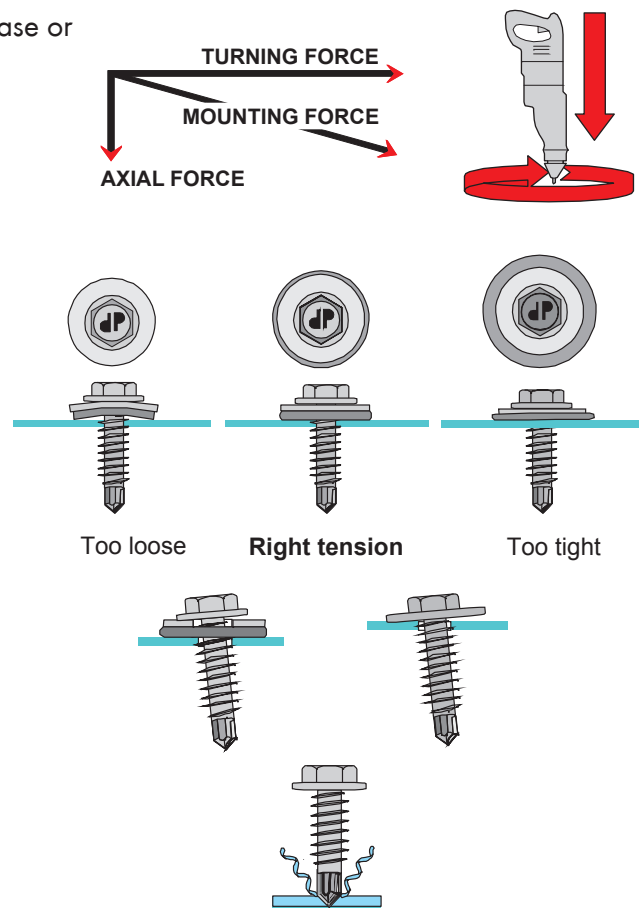
Diameters 5,5-6,3 mm 1200-1800 rpm

Right tension – EPDM-insulation shown approx 1 mm under washer

Screws must set in to the basematerial within 90 degree angle.

When there will be small deflections with installation angle in practise, the best joint-strength and sealing capacity will be achieved with a detachable washer.

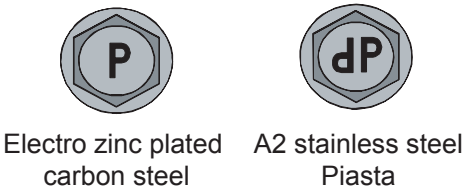
PIAS/PIASTA drillpoints drill down easier in a right angle, than a self drilling screw with a spoonlike drillpoint.



DESIGN AND INSTALLATION INSTRUCTIONS

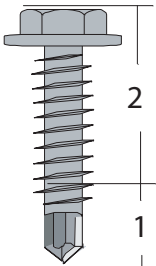
Headmarking

Headmarking enables screw type identification after installation



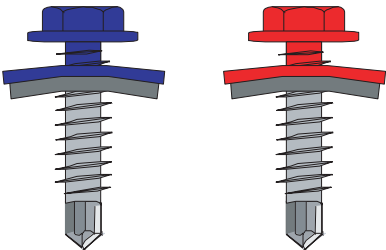
Piasta; genuine A2-stainless steel

The corrosion resistance of a A2-stainless steel is remarkably good, but it is impossible to harden it. The drillpoint and the first two cutting threads of a Piasta screw, 1) are hardened carbon steel. The head and the rod, which submit to load and corrosion, 2) are A2-stainless steel. The whole Piasta screw has Ruspert-cover to protect from corrosion and to reduce friction when installing.



Painted screws

Standard colours are RR- and RAL-shades.
Paint thickness is minimum 40 µm.
Screws with washers, the washer is also painted from the top and sides. The paint surface tolerates installation and normal stress of usage.

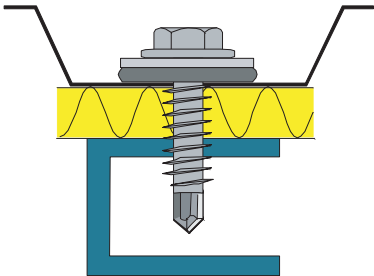


Corrosion resistance

In additional to the environment conditions, things that effect the development of corrosion:

Microclimate, which can differ from the general surrounding climate.
The ventilation of structures, which effects the microclimate

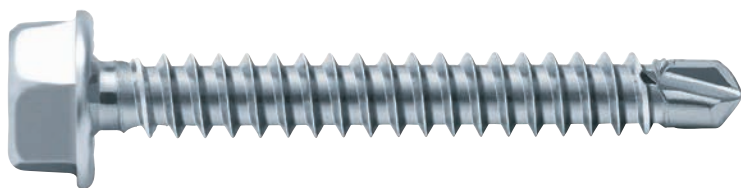
Galvanic corrosion eats the less electronegative metal in the pair.
The potential difference and mass index between metals, effects the corrode-speed. The mass of a screw is always only a friction of the mass of the whole structure. To secure a long life time, screw should always be more noble metal than the structure's metal is.



Atmospheric-corrosive standards according to ISO 12944-2

Category	Examples		Screw recommendation
	I = Interior	E = Exterior	
C 1 Very low	I = Warm, ventilated indoor spaces E = -		Carbon steel, zinc coated Carbon steel + Ruspert
C 2 Low	I = Unheated buildings E = Clean rural climate		Carbon steel + Ruspert AISI 410 + Ruspert
C 3 Medium	I = High humidity, some air pollution E = City and industry, moderate sulphur dioxide pollution		(AISI 410 + Ruspert) A2
C 4 High	I = Chemical plants, swimming pools, shipyards E = Industrial and coastal areas, moderate salinity		A4
C 5-I Very high, industrial	I = Permanent condensation, high pollution E = Industrial areas – high humidity, aggressive atmosphere		Clarified case-by-case
C 5-M Very high, marine	I = Permanent condensation, high pollution E = Marine climate, high salinity		Clarified case-by-case





Drilling screw, hexagon head PIAS

DIN7504-K, zinc-coated steel, blue passivated (A3K)

Drilling, threading and screwing all in one step

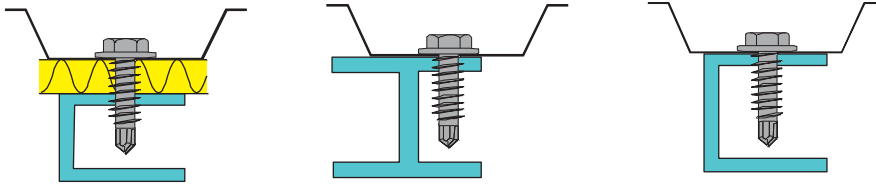
Less time and effort

- **Material :** Steel
- **Surface :** Zinc plated
- **Drive type :** Outer hexagon

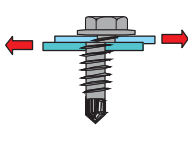
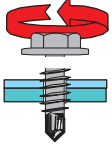
Exact drilling diameter for each screw-mounting

- Minimum thread tolerance
- Always optimum mounting

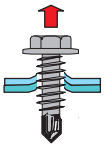
Art. No.	Nominal diameter	Length	Min./max. material thickness for steel	Max. attachment thickness	Width across flats	Flange diameter	Head height
021435 95	3.5 mm	9.5 mm	0.7-2.25 mm	4.5 mm	7 mm	7.67 mm	3.45 mm
021435 13	3.5 mm	13 mm	0.7-2.25 mm	8 mm	7 mm	7.67 mm	3.45 mm
021435 16	3.5 mm	16 mm	0.7-2.25 mm	11 mm	7 mm	7.67 mm	3.45 mm
021435 19	3.5 mm	19 mm	0.7-2.25 mm	14 mm	7 mm	7.67 mm	3.45 mm
021435 25	3.5 mm	25 mm	0.7-2.25 mm	20 mm	7 mm	7.67 mm	3.45 mm
021442 13	4.2 mm	13 mm	0.7-3 mm	7 mm	7 mm	8.18 mm	4.25 mm
021442 16	4.2 mm	16 mm	0.7-3 mm	10 mm	7 mm	8.18 mm	4.25 mm
021442 19	4.2 mm	19 mm	0.7-3 mm	13 mm	7 mm	8.18 mm	4.25 mm
021442 25	4.2 mm	25 mm	0.7-3 mm	19 mm	7 mm	8.18 mm	4.25 mm
021442 32	4.2 mm	32 mm	0.7-3 mm	26 mm	7 mm	8.18 mm	4.25 mm
021448 13	4.8 mm	13 mm	1.75-4.4 mm	4.7 mm	8 mm	9.75 mm	4.45 mm
021448 16	4.8 mm	16 mm	1.75-4.4 mm	5.8 mm	8 mm	9.75 mm	4.45 mm
021448 19	4.8 mm	19 mm	1.75-4.4 mm	8.7 mm	8 mm	9.75 mm	4.45 mm
021448 22	4.8 mm	22 mm	1.75-4.4 mm	13 mm	8 mm	9.75 mm	4.45 mm
021448 25	4.8 mm	25 mm	1.75-4.4 mm	15 mm	8 mm	9.75 mm	4.45 mm
021448 32	4.8 mm	32 mm	1.75-4.4 mm	21 mm	8 mm	9.75 mm	4.45 mm
021448 38	4.8 mm	38 mm	1.75-4.4 mm	28 mm	8 mm	9.75 mm	4.45 mm
021448 50	4.8 mm	50 mm	1.75-4.4 mm	40 mm	8 mm	9.75 mm	4.45 mm
021448 65	4.8 mm	65 mm	1.75-4.4 mm	54 mm	8 mm	9.75 mm	4.45 mm
021455 19	5.5 mm	19 mm	1.75-5.25 mm	8 mm	8 mm	10.1 mm	5.45 mm
021455 25	5.5 mm	25 mm	1.75-5.25 mm	14 mm	8 mm	10.1 mm	5.45 mm
021455 32	5.5 mm	32 mm	1.75-5.25 mm	21 mm	8 mm	10.1 mm	5.45 mm
021455 38	5.5 mm	38 mm	1.75-5.25 mm	27 mm	8 mm	10.1 mm	5.45 mm
021455 50	5.5 mm	50 mm	1.75-5.25 mm	39 mm	8 mm	10.1 mm	5.45 mm
021463 16	6.3 mm	16 mm	2.0-6 mm	5 mm	10 mm	12.19 mm	6.45 mm
021463 19	6.3 mm	19 mm	2.0-6 mm	9 mm	10 mm	12.19 mm	6.45 mm
021463 25	6.3 mm	25 mm	2.0-6 mm	15 mm	10 mm	12.19 mm	6.45 mm
021463 32	6.3 mm	32 mm	2.0-6 mm	22 mm	10 mm	12.19 mm	6.45 mm
021463 38	6.3 mm	38 mm	2.0-6 mm	26 mm	10 mm	12.19 mm	6.45 mm
021463 50	6.3 mm	50 mm	2.0-6 mm	40 mm	10 mm	12.19 mm	6.45 mm



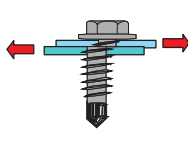
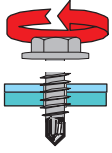
Pias d 4.8 properties

Break load (tensile)		Break load (shear)		Break load (torsion)	
13.88 kN		9.02kN		11.36kN	

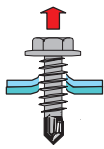
Pias d 4.8 pull-out values from cold rolled steel sheet

	Sheet thickness (mm)	2.3 mm	3.2 mm	4.2 mm
	Pull-out value (kN)	4.0 kN	6.8 kN	10.5 kN

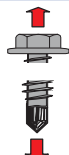
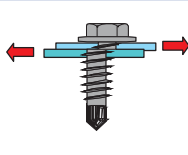
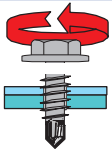
Pias d 5.5 properties

Break load (tensile)		Break load (shear)		Break load (torsion)	
18.92 kN		12.30kN		15.72kN	

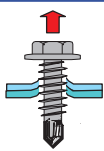
Pias d 5.5 pull-out values from cold rolled steel sheet

	Sheet thickness (mm)	4.2 mm	
	Pull-out value (kN)	11.1 kN	

Pias d 6.3 properties

Break load (tensile)		Break load (shear)		Break load (torsion)	
20.84kN		14.61 kN		21.98kN	

Pias d 6.3 pull-out values from cold rolled steel sheet

	Sheet thickness (mm)	2.3 mm	3.2 mm	4.2 mm	6.0 mm
	Pull-out value (kN)	4.4 kN	7.3 kN	12.8 kN	20.7 kN *

*) Screw shank breaks

According to the manufacturer, the above values are averages based on test results and are not the minimum values guaranteed by the manufacturer. The minimum values are usually reported as about 30% of the averages of the test results.



Drilling screw, hexagon head, long drill tip PIAS

DIN7504-K, zinc-coated steel, blue passivated (A3K)

Drilling, threading and screwing all in one step

Long drill tip : drilling depth min. 3mm - max. 12mm

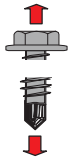
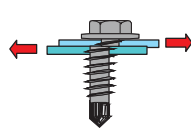
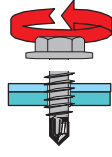
Exact drilling diameter for each screw-mounting

- Minimum thread tolerance
- Always optimum mounting

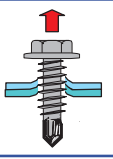
- **Nominal diameter** : 5.5 mm
- **Min./max. material thickness for steel** : 3.0-12 mm
- **Material** : Steel
- **Surface** : Zinc plated
- **Width across flats** : 8 mm
- **Drive type** : Outer hexagon
- **Flange diameter** : 10.1 mm
- **Head height** : 5.45 mm

Art. No.	Length	Max. attachment thickness
121455 32	32 mm	16 mm
121455 75	75 mm	57 mm

PIAS d 5.5 properties

Break load (tensile)		Break load (shear)		Break load (torsion)	
18.92 kN		12.30kN		15.72kN	

PIAS d 5.5 pull-out values from cold rolled steel sheet

	Sheet thickness (mm)	4.2 mm	
	Pull-out value (kN)	11.1 kN	

According to the manufacturer, the above values are averages based on test results and are not the minimum values guaranteed by the manufacturer. The minimum values are usually reported as about 30% of the averages of the test results.



Drilling screw, hexagon head PIAS

DIN 7504-K, carbon steel + RUSPERT coating

Drilling, threading and screwing all in one step

Less time and effort

- **Material :** Steel
- **Surface :** Flake zinc
- **Drive type :** Outer hexagon

Exact drilling diameter for each screw-mounting

- Minimum thread tolerance
- Always optimum mounting

Art. No.	Nominal diameter	Length	Min./max. material thickness for steel	Max. attachment thickness	Width across flats	Flange diameter	Head height
621442 25	4.2 mm	25 mm	0.7-3 mm	19 mm	7 mm	8.18 mm	4.25 mm
621448 16	4.8 mm	16 mm	1.75-4.4 mm	4.7 mm	8 mm	9.75 mm	5.2 mm
621448 19	4.8 mm	19 mm	1.75-4.4 mm	8.7 mm	8 mm	9.75 mm	5.2 mm
621448 25	4.8 mm	25 mm	1.75-4.4 mm	15 mm	8 mm	9.75 mm	5.2 mm
621448 32	4.8 mm	32 mm	1.75-4.4 mm	21 mm	8 mm	9.75 mm	5.2 mm
621448 38	4.8 mm	38 mm	1.75-4.4 mm	28 mm	8 mm	9.75 mm	5.2 mm
621448 50	4.8 mm	50 mm	1.75-4.4 mm	40 mm	8 mm	9.75 mm	5.2 mm
621448 65	4.8 mm	65 mm	1.75-4.4 mm	54 mm	8 mm	9.75 mm	5.2 mm
621455 19	5.5 mm	19 mm	1.75-5.25 mm	8 mm	8 mm	10.1 mm	5.45 mm
621455 25	5.5 mm	25 mm	1.75-5.25 mm	14 mm	8 mm	10.1 mm	5.45 mm
621455 32	5.5 mm	32 mm	1.75-5.25 mm	21 mm	8 mm	10.1 mm	5.45 mm
621463 19	6.3 mm	19 mm	2.0-6 mm	9 mm	10 mm	12.19 mm	6.4 mm
621463 25	6.3 mm	25 mm	2.0-6 mm	15 mm	10 mm	12.19 mm	6.4 mm
621463 38	6.3 mm	38 mm	2.0-6 mm	28 mm	10 mm	12.19 mm	6.4 mm



PIAS™

Drilling screw, hexagon head, long drill tip PIAS

DIN 7504-K, carbon steel + RUSPERT coating

Drilling, threading and screwing all in one step

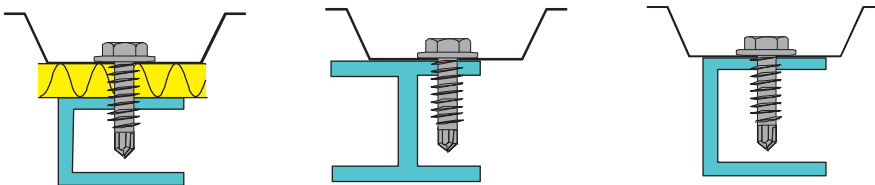
Long drill tip : drilling depth min. 3mm - max. 12mm

Exact drilling diameter for each screw-mounting

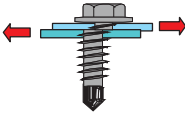
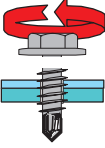
- Minimum thread tolerance
- Always optimum mounting

- **Nominal diameter :** 5.5 mm
- **Length :** 32 mm
- **Min./max. material thickness for steel :** 3.0-12 mm
- **Max. attachment thickness :** 16 mm
- **Material :** Steel
- **Surface :** Flake zinc
- **Width across flats :** 8 mm
- **Drive type :** Outer hexagon
- **Flange diameter :** 10.1 mm
- **Head height :** 5.45 mm

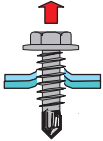
Art. No.	
621495532	



Pias d 5.5 properties

Break load (tensile)		Break load (shear)		Break load (torsion)	
18.92kN		12.30kN		15.72kN	

Pias d 5.5 pull-out values from cold rolled steel sheet

	Sheet thickness (mm)	4.2 mm	6.0 mm
	Pull-out value (kN)	11.1 kN	18.2 kN *
			*) Screw shank breaks

According to the manufacturer, the above values are averages based on test results and are not the minimum values guaranteed by the manufacturer. The minimum values are usually reported as about 30% of the averages of the test results.



Drilling screw, hexagon head PIAS

DIN 7504-K, stainless AISI410 + RUSPERT coating

Drilling, threading and screwing all in one step

Stainless steel AISI410

- AISI 410 – stainless steel, which can be hardened, magnetic

- **Material :** Stainless steel AISI 410
- **Surface :** Flake zinc
- **Drive type :** Outer hexagon

Precise bore diameter in each screw connection

- Minimum thread tolerance
- Always optimum mounting

Art. No.	Nominal diameter	Length	Min./max. material thickness for steel	Max. attachment thickness	Width across flats	Flange diameter	Head height
021414219	4.2 mm	19 mm	0.7-3 mm	8 mm	7 mm	8.18 mm	3.8 mm
021414816	4.8 mm	16 mm	1.75-4.4 mm	4 mm	8 mm	9.75 mm	5.2 mm
021414819	4.8 mm	19 mm	1.75-4.4 mm	6 mm	8 mm	9.75 mm	5.2 mm
021414825	4.8 mm	25 mm	1.75-4.4 mm	10 mm	8 mm	9.75 mm	5.2 mm
021416319	6.3 mm	19 mm	2.0-6 mm	4 mm	10 mm	13 mm	6.4 mm
021416325	6.3 mm	25 mm	2.0-6 mm	10 mm	10 mm	13 mm	6.4 mm
021416338	6.3 mm	38 mm	2.0-6 mm	23 mm	10 mm	13 mm	6.4 mm
021416350	6.3 mm	50 mm	2.0-6 mm	35 mm	10 mm	13 mm	6.4 mm



Drilling screw, hexagon head PIASTA

DIN 7504-K, stainless A2 + RUSPERT coating

Drilling, threading and screwing all in one step

Stainless steel A2

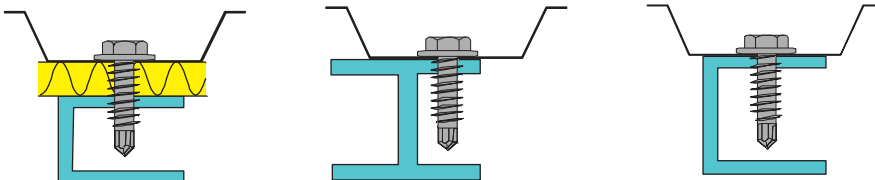
- A2 (AISI 304) – screw head and screw shaft made of stainless steel
- Drill tip and first threads from hardened steel ensure good drilling capability

- **Material :** Bimetal
- **Surface :** Flake zinc
- **Drive type :** Outer hexagon

Precise bore diameter in each screw connection

- Minimum thread tolerance
- Always optimum mounting

Art. No.	Nominal diameter	Length	Min./max. material thickness for steel	Max. attachment thickness	Width across flats	Flange diameter	Head height
721448 16	4.8 mm	16 mm	1.75-4.4 mm	3 mm	8 mm	9.75 mm	5.2 mm
721448 19	4.8 mm	19 mm	1.75-4.4 mm	5 mm	8 mm	9.75 mm	5.2 mm
721448 25	4.8 mm	25 mm	1.75-4.4 mm	9 mm	8 mm	9.75 mm	5.2 mm
721448 32	4.8 mm	32 mm	1.75-4.4 mm	15 mm	8 mm	9.75 mm	5.2 mm
721448 38	4.8 mm	38 mm	1.75-4.4 mm	20 mm	8 mm	9.75 mm	5.2 mm
721455 25	5.5 mm	25 mm	1.75-5.25 mm	10 mm	8 mm	10.1 mm	5.45 mm
721455 38	5.5 mm	38 mm	1.75-5.25 mm	23 mm	8 mm	10.1 mm	5.45 mm
721455 50	5.5 mm	50 mm	1.75-5.25 mm	35 mm	8 mm	10.1 mm	5.45 mm
721455 60	5.5 mm	60 mm	1.75-5.25 mm	45 mm	8 mm	10.1 mm	5.45 mm
721463 25	6.3 mm	27 mm	2.0-6 mm	8 mm	10 mm	12.19 mm	6.45 mm
721463 32	6.3 mm	32 mm	2.0-6 mm	15 mm	10 mm	12.19 mm	6.45 mm
721463 38	6.3 mm	38 mm	2.0-6 mm	21 mm	10 mm	12.19 mm	6.45 mm
721463 50	6.3 mm	50 mm	2.0-6 mm	33 mm	10 mm	12.19 mm	6.45 mm
721463 60	6.3 mm	60 mm	2.0-6 mm	43 mm	10 mm	12.19 mm	6.45 mm



Piasta d 4.8 properties

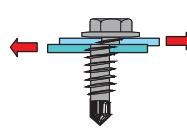
Break load (tensile)

9.50 kN



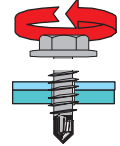
Break load (shear)

6.10 kN

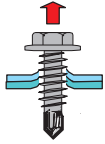


Break load (torsion)

6.38 kN



Piasta d 4.8 pull-out values from cold rolled sheet metal



Sheet thickness (mm)

1.6 mm

2.3 mm

3.2 mm

4.2 mm

Pull-out value (kN)

2.7 kN

4.3 kN

6.4 kN

8.6 kN

Piasta d 5.5 properties

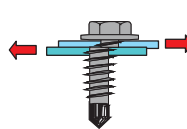
Break load (tensile)

13.60 kN



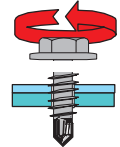
Break load (shear)

8.80 kN

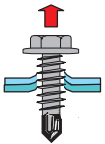


Break load (torsion)

8.50 kN



Piasta d 5.5 pull-out values from cold rolled steel sheet



Sheet thickness (mm)

2.3 mm

3.2 mm

4.2 mm

6.0 mm

Pull-out value (kN)

4.4 kN

6.9 kN

9.1 kN

10.2 kN

Piasta d 6.3 properties

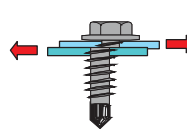
Break load (tensile)

16.6 kN



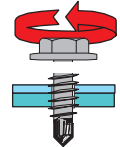
Break load (shear)

10.8 kN

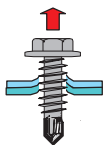


Break load (torsion)

13.9 kN



Piasta d 6.3 pull-out values from cold rolled steel sheet



Sheet thickness (mm)

2.3 mm

3.2 mm

4.2 mm

6.0 mm

Pull-out value (kN)

4.4 kN

7.8 kN

9.5 kN

13.8 kN

According to the manufacturer, the above values are averages based on test results and are not the minimum values guaranteed by the manufacturer. The minimum values are usually reported as about 30% of the averages of the test results.



PIASTA™

Drilling screw, hexagon head, with lapping bit PIASTA

DIN 7504-K, stainless A2 + RUSPERT coating

Small drill tip

Stainless steel A2

- A2 (AISI 304) – screw head and screw shaft made of stainless steel
- Drill tip and first threads from hardened steel ensure good drilling capability

Precise bore diameter in each screw connection

- Minimum thread tolerance
- Always optimum mounting

- **Nominal diameter :** 4.8 mm
- **Min./max. material thickness for steel :** 0.8-2 mm
- **Material :** Bimetal
- **Surface :** Flake zinc
- **Width across flats :** 8 mm
- **Drive type :** Outer hexagon
- **Flange diameter :** 10.5 mm
- **Head height :** 5.2 mm

Art. No.	Length	Max. attachment thickness
721448 20	20 mm	7 mm
721448 26	25 mm	12 mm
721448 39	38 mm	25 mm



Drilling screw, hexagon head, long drill tip PIASTA

DIN 7504-K, stainless A2 + RUSPERT coating

Drilling, threading and screwing all in one step

Long drill tip : drilling depth min 3mm – max 12mm

Stainless steel A2

- A2 (AISI 304) – screw head and screw shaft made of stainless steel
- Drill tip and first threads from hardened steel ensure good drilling capability

- **Nominal diameter :** 5.5 mm
- **Length :** 40 mm
- **Min./max. material thickness for steel :** 3.0-12 mm
- **Max. attachment thickness :** 19 mm
- **Material :** Bimetal
- **Surface :** Flake zinc
- **Width across flats :** 8 mm
- **Drive type :** Outer hexagon
- **Flange diameter :** 10.5 mm
- **Head height :** 5.45 mm

Art. No.	
721455 40	



Self-drilling screw, hexagon head, includes seal PIAS zinc-electroplated

DIN7504-K ZN + seal

Drilling, threading and screwing all in one step

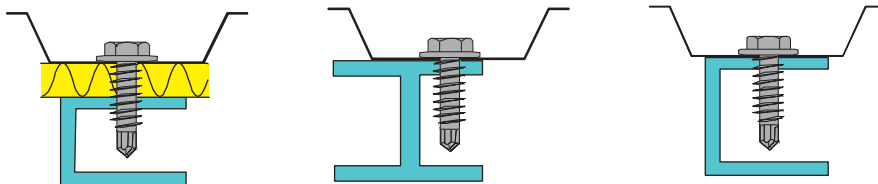
With sealing washer, washer material : aluminium + EPMD rubber

- **Material :** Steel
- **Surface :** Zinc plated
- **Sealing-washer material :** Aluminium

Exact drilling diameter for each screw-mounting

- Minimum thread tolerance
- Always optimum mounting

Art. No.	Nominal diameter	Length	Min./max. material thickness	Max. attachment thickness	Width across flats	Outside diameter of the sealing washer
321448 19	4.8 mm	19 mm	1.75-4.4 mm	6.7 mm	8 mm	14 mm
321448 25	4.8 mm	25 mm	1.75-4.4 mm	12.7 mm	8 mm	14 mm
321448 32	4.8 mm	32 mm	1.75-4.4 mm	19.5 mm	8 mm	14 mm
321448 38	4.8 mm	38 mm	1.75-4.4 mm	25.5 mm	8 mm	14 mm
321448 50	4.8 mm	50 mm	1.75-4.4 mm	37.5 mm	8 mm	14 mm
321455 19	5.5 mm	19 mm	1.75-5.25 mm	6 mm	8 mm	16 mm
321455 25	5.5 mm	25 mm	1.75-5.25 mm	12 mm	8 mm	16 mm
321455 32	5.5 mm	32 mm	1.75-5.25 mm	19 mm	8 mm	16 mm
321455 38	5.5 mm	38 mm	1.75-5.25 mm	25 mm	8 mm	16 mm
321463 25	6.3 mm	25 mm	2-6 mm	13 mm	10 mm	16 mm
321463 32	6.3 mm	32 mm	2-6 mm	20 mm	10 mm	16 mm
321463 50	6.3 mm	50 mm	2-6 mm	38 mm	10 mm	16 mm



Pias d 4.8 properties

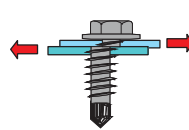
Break load (tensile)

13.88 kN



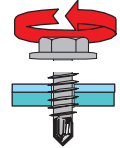
Break load (shear)

9.02kN

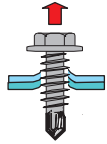


Break load (torsion)

11.36kN



Pias d 4.8 pull-out values from cold rolled steel sheet



Sheet thickness (mm)

2.3 mm

3.2 mm

4.2 mm

Pull-out value (kN)

4.0 kN

6.8 kN

10.5 kN

Pias d 5.5 properties

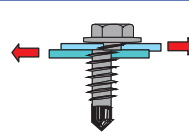
Break load (tensile)

18.92 kN



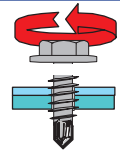
Break load (shear)

12.30kN

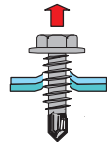


Break load (torsion)

15.72kN



Pias d 5.5 pull-out values from cold rolled steel sheet



Sheet thickness (mm)

4.2 mm

Pull-out value (kN)

11.1 kN

Pias d 6.3 properties

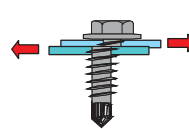
Break load (tensile)

20.84kN



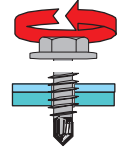
Break load (shear)

14.61 kN

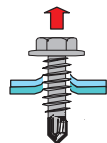


Break load (torsion)

21.98kN



Pias d 6.3 pull-out values from cold rolled steel sheet



Sheet thickness (mm)

2.3 mm

3.2 mm

4.2 mm

6.0 mm

Pull-out value (kN)

4.4 kN

7.3 kN

12.8 kN

20.7 kN *

*) Screw shank breaks

According to the manufacturer, the above values are averages based on test results and are not the minimum values guaranteed by the manufacturer. The minimum values are usually reported as about 30% of the averages of the test results.



Self-drilling screw, hexagon head, includes seal PIAS zinc-electroplated, long drill tip

DIN7504-K ZN + seal, long drill tip

Drilling, threading and screwing all in one step

Long drill tip : drilling depth min. 3mm - max. 12mm

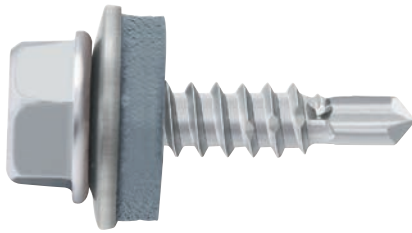
With sealing washer, washer material : aluminium + EPMD rubber

Exact drilling diameter for each screw-mounting

- Minimum thread tolerance
- Always optimum mounting

- **Nominal diameter :** 5.5 mm
- **Min./max. material thickness :** 3-12 mm
- **Material :** Steel
- **Surface :** Zinc plated
- **Width across flats :** 8 mm
- **Head height :** 5.45 mm
- **Outside diameter of the sealing washer :** 16 mm
- **Sealing-washer material :** Aluminium

Art. No.	Length	Max. attachment thickness
321455 33	32 mm	14 mm
321455 77	75 mm	55 mm



Self-drilling screw, hexagon head, includes seal PIAS carbon steel + RUSPERT

DIN7504-K RUSPERT + seal

Drilling, threading and screwing all in one step

Less time and effort

Exact drilling diameter for each screw-mounting

- Minimum thread tolerance
- Always optimum mounting

- **Length :** 25 mm
- **Material :** Steel
- **Surface :** Flake zinc
- **Sealing-washer material :** Stainless steel A2

Art. No.	Nominal diameter	Min./max. material thickness	Max. attachment thickness	Width across flats	Outside diameter of the sealing washer
621474825	4.8 mm	1.75-4.4 mm	12.7 mm	8 mm	14 mm
621475525	5.5 mm	1.75-5.25 mm	12 mm	8 mm	16 mm
621476325	6.3 mm	2-6 mm	13 mm	10 mm	16 mm



Self-drilling screw, hexagon head, includes seal PIAS carbon steel + RUSPERT, long drill tip

DIN7504-K RUSPERT + seal, long drill tip

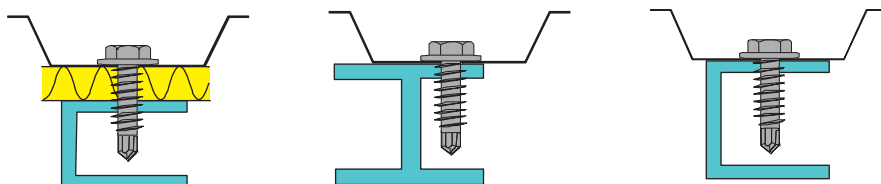
Drilling, threading and screwing all in one step

Long drill tip : drilling depth min. 3mm - max. 12mm

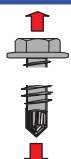
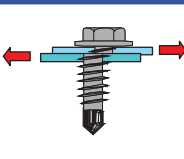
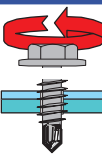
Exact drilling diameter for each screw-mounting

- **Nominal diameter :** 5.5 mm
- **Length :** 32 mm
- **Min./max. material thickness :** 3-12 mm
- **Max. attachment thickness :** 14 mm
- **Material :** Steel
- **Surface :** Flake zinc
- **Width across flats :** 8 mm
- **Head height :** 5.45 mm
- **Outside diameter of the sealing washer :** 16 mm
- **Sealing-washer material :** Stainless steel A2

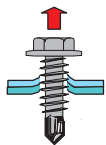
Art. No.	
621495533	



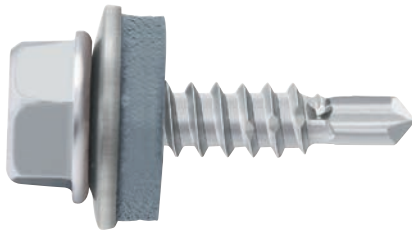
Pias d 5.5 properties

Break load (tensile)		Break load (shear)		Break load (torsion)	
18.92kN		12.30kN		15.72kN	

Pias d 5.5 pull-out values from cold rolled steel sheet

	Sheet thickness (mm)	4.2 mm	6.0 mm
	Pull-out value (kN)	11.1 kN	18.2 kN *
			*) Screw shank breaks

According to the manufacturer, the above values are averages based on test results and are not the minimum values guaranteed by the manufacturer. The minimum values are usually reported as about 30% of the averages of the test results.



Self-drilling screw, hexagon head, includes seal PIAS AISI 410 + RUSPERT

DIN 7504-K + seal

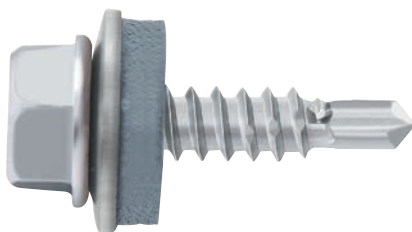
Drill, tap and screw – all in one go

Less time and effort

Exact hole diameter for each screw

- Minimum thread tolerance
- Optimal mounting, every time

Art. No.	
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Self-drilling screw, hexagon head, includes seal PIASTA A2 + RUSPERT

DIN7504-K A2 + seal

Drilling, threading and screwing all in one step

Stainless steel A2

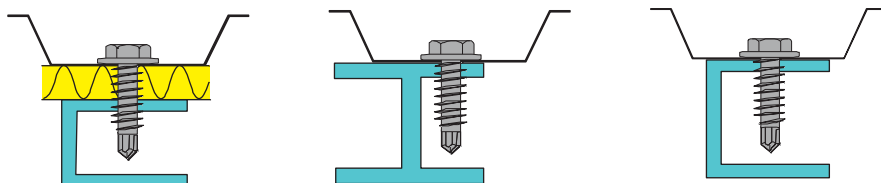
- A2 (AISI 304) – screw head and screw shaft made of stainless steel
- Drill tip and first threads from hardened steel ensure good drilling capability
- Sealing washer : stainless steel A2 + EPDM rubber

Precise bore diameter in each screw connection

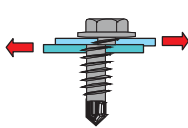
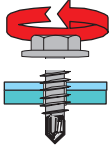
- Minimum thread tolerance
- Always optimum mounting

- **Material :** Bimetal
- **Surface :** Flake zinc
- **Sealing-washer material :** Stainless steel A2

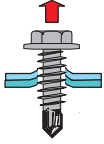
Art. No.	Nominal diameter	Length	Min./max. material thickness	Max. attachment thickness	Width across flats	Outside diameter of the sealing washer
421448 25	4.8 mm	25 mm	1.75-4.4 mm	10 mm	8 mm	14 mm
421448 32	4.8 mm	32 mm	1.75-4.4 mm	17 mm	8 mm	14 mm
421448 38	4.8 mm	38 mm	1.75-4.4 mm	23 mm	8 mm	14 mm
421455 25	5.5 mm	25 mm	1.75-5.25 mm	8 mm	8 mm	16 mm
421455 38	5.5 mm	38 mm	1.75-5.25 mm	21 mm	8 mm	16 mm
421455 50	5.5 mm	50 mm	1.75-5.25 mm	33 mm	8 mm	16 mm
421455 60	5.5 mm	60 mm	1.75-5.25 mm	43 mm	8 mm	16 mm
421455 80	5.5 mm	80 mm	1.75-5.25 mm	63 mm	8 mm	16 mm
421463 25	6.3 mm	25 mm	2-6 mm	6 mm	10 mm	16 mm
421463 38	6.3 mm	38 mm	2-6 mm	19 mm	10 mm	16 mm
421463 60	6.3 mm	60 mm	2-6 mm	41 mm	10 mm	16 mm



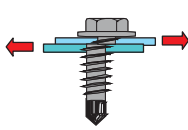
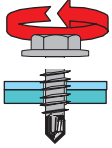
Piasta d 4.8 properties

Break load (tensile)		Break load (shear)		Break load (torsion)	
9.50 kN		6.10 kN		6.38 kN	

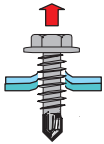
Piasta d 4.8 pull-out values from cold rolled sheet metal

	Sheet thickness (mm)	1.6 mm	2.3 mm	3.2 mm	4.2 mm
	Pull-out value (kN)	2.7 kN	4.3 kN	6.4 kN	8.6 kN

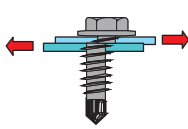
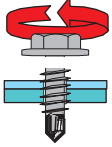
Piasta d 5.5 properties

Break load (tensile)		Break load (shear)		Break load (torsion)	
13.60 kN		8.80 kN		8.50 kN	

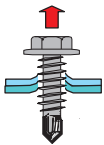
Piasta d 5.5 pull-out values from cold rolled steel sheet

	Sheet thickness (mm)	2.3 mm	3.2 mm	4.2 mm	
	Pull-out value (kN)	4.4 kN	6.9 kN	9.1 kN	

Piasta d 6.3 properties

Break load (tensile)		Break load (shear)		Break load (torsion)	
16.6 kN		10.8 kN		13.9 kN	

Piasta d 6.3 pull-out values from cold rolled steel sheet

	Sheet thickness (mm)	2.3 mm	3.2 mm	4.2 mm	6.0 mm
	Pull-out value (kN)	4.4 kN	7.8 kN	9.5 kN	13.8 kN

According to the manufacturer, the above values are averages based on test results and are not the minimum values guaranteed by the manufacturer. The minimum values are usually reported as about 30% of the averages of the test results.



Drilling screw, hexagon head, with lapping bit and seal PIASTA A2 + RUSPERT

DIN7504-K A2 + seal

Small drill tip, for attaching sheet metal onto each other

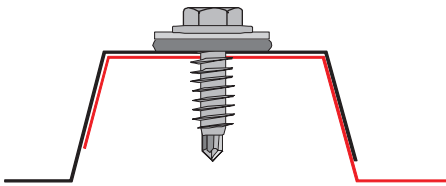
Stainless steel A2

- A2 (AISI 304) – screw head and screw shaft made of stainless steel
- Drill tip and first threads from hardened steel ensure good drilling capability
- Sealing washer : stainless steel A2 + EPDM rubber

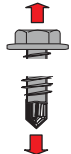
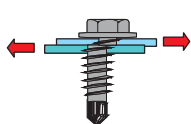
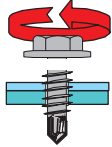
Precise bore diameter in each screw connection

- **Nominal diameter :** 4.8 mm
- **Min./max. material thickness :** 0.8-2 mm
- **Material :** Bimetal
- **Surface :** Flake zinc
- **Width across flats :** 8 mm
- **Outside diameter of the sealing washer :** 14 mm
- **Sealing-washer material :** Stainless steel A2

Art. No.	Length	Max. attachment thickness
421448 20	20 mm	7 mm
421448 26	25 mm	12 mm
421448 39	38 mm	25 mm



Piasta d 4.8 properties

Break load (tensile) 9.50kN 	Break load (shear) 6.10kN 	Break load (torsion) 6.38kN 
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According to the manufacturer, the above values are averages based on test results and are not the minimum values guaranteed by the manufacturer. The minimum values are usually reported as about 30% of the averages of the test results.



Self-drilling screw, hexagon head, includes seal PIASTA A2 + RUSPERT, long drill tip

DIN7504-K A2 + seal, long drill tip

Drilling, threading and screwing all in one step

Stainless steel A2

- A2 (AISI 304) – screw head and screw shaft made of stainless steel
- Drill tip and first threads from hardened steel ensure good drilling capability
- Sealing washer : stainless steel A2 + EPDM rubber

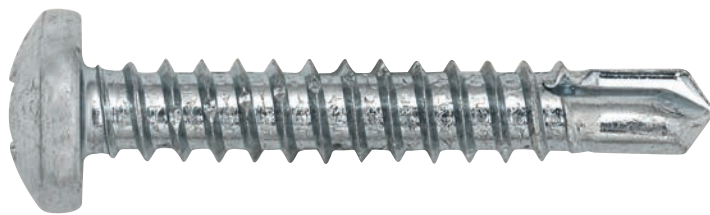
Long drill tip : drilling depth min. 3mm - max. 12mm

Exact drilling diameter for each screw-mounting

- Minimum thread tolerance
- Always optimum mounting

- **Nominal diameter :** 5.5 mm
- **Length :** 40 mm
- **Min./max. material thickness :** 3-12 mm
- **Max. attachment thickness :** 17 mm
- **Material :** Bimetal
- **Surface :** Flake zinc
- **Width across flats :** 8 mm
- **Head height :** 5.45 mm
- **Outside diameter of the sealing washer :** 16 mm
- **Sealing-washer material :** Stainless steel A2

Art. No.	
421455 40	



Drilling screw, round pan head, PH head with Phillips groove PIAS zinc-electroplated

Drilling, threading and screwing all in one step

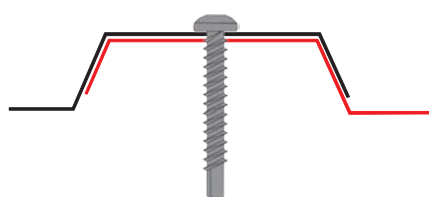
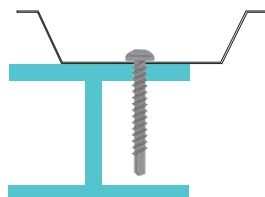
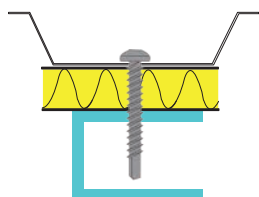
Less time and effort

- **Material** : Steel
- **Surface** : Zinc plated
- **Drive type** : Crosshead

Exact drilling diameter for each screw-mounting

- Minimum thread tolerance
- Always optimum mounting

Art. No.	Nominal diameter	Length	Min./max. material thickness for steel	Max. attachment thickness	Head diameter	Head height	Internal drive
021129 95	2.9 mm	9.5 mm	1.20-1.9 mm	4 mm	5.6 mm	2.2 mm	H1
021129 13	2.9 mm	13 mm	1.20-1.9 mm	8 mm	5.6 mm	2.2 mm	H1
021129 19	2.9 mm	19 mm	1.20-1.9 mm	14 mm	5.6 mm	2.2 mm	H1
021129 25	2.9 mm	25 mm	1.20-1.9 mm	20 mm	5.6 mm	2.2 mm	H1
021135 95	3.5 mm	9.5 mm	0.7-2.25 mm	4 mm	6.9 mm	2.6 mm	H2
021135 13	3.5 mm	13 mm	0.7-2.25 mm	8 mm	6.9 mm	2.6 mm	H2
021135 16	3.5 mm	16 mm	0.7-2.25 mm	11 mm	6.9 mm	2.6 mm	H2
021135 19	3.5 mm	19 mm	0.7-2.25 mm	14 mm	6.9 mm	2.6 mm	H2
021135 25	3.5 mm	25 mm	0.7-2.25 mm	20 mm	6.9 mm	2.6 mm	H2
021139 16	3.9 mm	16 mm	0.7-2.4 mm	10 mm	7.5 mm	2.8 mm	H2
021139 19	3.9 mm	19 mm	0.7-2.4 mm	13 mm	7.5 mm	2.8 mm	H2
021142 13	4.2 mm	13 mm	1.75-3 mm	7 mm	8.2 mm	3.05 mm	H2
021142 16	4.2 mm	16 mm	1.75-3 mm	10 mm	8.2 mm	3.05 mm	H2
021142 19	4.2 mm	19 mm	1.75-3 mm	13 mm	8.2 mm	3.05 mm	H2
021142 25	4.2 mm	25 mm	1.75-3 mm	19 mm	8.2 mm	3.05 mm	H2
021142 32	4.2 mm	32 mm	1.75-3 mm	26 mm	8.2 mm	3.05 mm	H2
021142 38	4.2 mm	38 mm	1.75-3 mm	32 mm	8.2 mm	3.05 mm	H2
021142 45	4.2 mm	45 mm	1.75-3 mm	38 mm	8.2 mm	3.05 mm	H2
021148 13	4.8 mm	13 mm	1.75-4 mm	4.7 mm	9.5 mm	3.55 mm	H2
021148 16	4.8 mm	16 mm	1.75-4 mm	6 mm	9.5 mm	3.55 mm	H2
021148 19	4.8 mm	19 mm	1.75-4 mm	9 mm	9.5 mm	3.55 mm	H2
021148 22	4.8 mm	22 mm	1.75-4 mm	12 mm	9.5 mm	3.55 mm	H2
021148 25	4.8 mm	25 mm	1.75-4 mm	14 mm	9.5 mm	3.55 mm	H2
021148 32	4.8 mm	32 mm	1.75-4 mm	21 mm	9.5 mm	3.55 mm	H2
021148 38	4.8 mm	38 mm	1.75-4 mm	27 mm	9.5 mm	3.55 mm	H2
021148 50	4.8 mm	50 mm	1.75-4 mm	39 mm	9.5 mm	3.55 mm	H2





Drilling screw, round pan head, PH head with Phillips groove PIAS stainless AISI410 + RUSPERT coating

Drilling, threading and screwing all in one step

Stainless steel AISI410

- AISI 410 – stainless steel, which can be hardened, magnetic

Precise bore diameter in each screw connection

- Minimum thread tolerance
- Always optimum mounting

- **Nominal diameter :** 4.2 mm
- **Min./max. material thickness for steel :** 1-2 mm
- **Material :** Stainless steel AISI 410
- **Surface :** Flake zinc
- **Head diameter :** 8.2 mm
- **Head height :** 3 mm
- **Internal drive :** H2
- **Drive type :** Crosshead

Art. No.	Length	Max. attachment thickness
021114213	13 mm	3 mm
021114216	16 mm	5 mm
021114219	19 mm	8 mm
021114225	25 mm	14 mm



PIASTA™

Drilling screw, round pan head, PH head with Phillips groove PIASTA stainless A2 + RUSPERT coating

Drilling, threading and screwing all in one step

Stainless steel A2

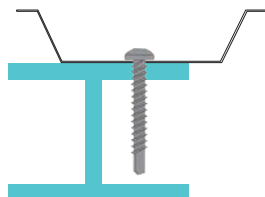
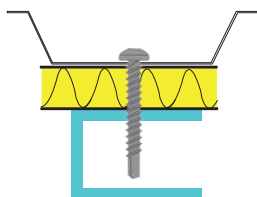
- A2 (AISI 304) – screw head and screw shaft made of stainless steel
- Drill tip and first threads from hardened steel ensure good drilling capability
-

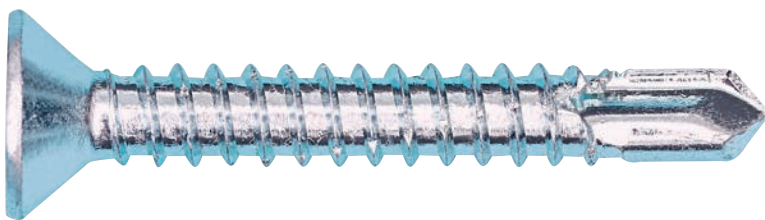
Precise bore diameter in each screw connection

- Minimum thread tolerance
- Always optimum mounting

- **Material :** Bimetal
- **Surface :** Flake zinc
- **Internal drive :** H2
- **Drive type :** Crosshead

Art. No.	Nominal diameter	Length	Min./max. material thickness for steel	Max. attachment thickness	Head diameter	Head height
721135 16	3.5 mm	16 mm	0.7-2.25 mm	6 mm	7.5 mm	2.8 mm
721142 16	4.2 mm	16 mm	1.75-3 mm	5 mm	8.2 mm	3 mm
721142 19	4.2 mm	19 mm	1.75-3 mm	8 mm	8.2 mm	3 mm
721142 25	4.2 mm	25 mm	1.75-3 mm	14 mm	8.2 mm	3 mm
721142 32	4.2 mm	32 mm	1.75-3 mm	20 mm	8.2 mm	3 mm
721142 38	4.2 mm	38 mm	1.75-3 mm	27 mm	8.2 mm	3 mm
721148 19	4.8 mm	19 mm	1.75-4.4 mm	3 mm	9.5 mm	3.5 mm
721148 25	4.8 mm	25 mm	1.75-4.4 mm	9 mm	9.5 mm	3.5 mm
721148 32	4.8 mm	32 mm	1.75-4.4 mm	16 mm	9.5 mm	3.5 mm
721148 38	4.8 mm	38 mm	1.75-4.4 mm	22 mm	9.5 mm	3.5 mm





Drilling screw, countersunk head, PH head with Phillips groove PIAS

DIN 7504-P, zinc-coated, blue passivated, A3K, Phillips head with groove, H

Drilling, threading and screwing all in one step

Exact drilling diameter for each screw-mounting

- Minimum thread tolerance
- Always optimum mounting

- **Material :** Steel
- **Surface :** Zinc plated
- **Internal drive :** H2
- **Drive type :** Crosshead

Art. No.	Nominal diameter	Length	Min./max. material thickness for steel	Head diameter	Head height
021235 13	3.5 mm	13 mm	1.40-2.25 mm	6.8 mm	2.4 mm
021235 16	3.5 mm	16 mm	1.40-2.25 mm	6.8 mm	2.4 mm
021235 19	3.5 mm	19 mm	1.40-2.25 mm	6.8 mm	2.4 mm
021235 25	3.5 mm	25 mm	1.40-2.25 mm	6.8 mm	2.4 mm
021239 16	3.9 mm	16 mm	1.40-2.4 mm	7.5 mm	2.6 mm
021239 25	3.9 mm	25 mm	1.40-2.4 mm	7.5 mm	2.6 mm
021239 32	3.9 mm	32 mm	1.40-2.4 mm	7.5 mm	2.6 mm
021242 13	4.2 mm	13 mm	1.40-3 mm	8.1 mm	2.8 mm
021242 16	4.2 mm	16 mm	1.40-3 mm	8.1 mm	2.8 mm
021242 19	4.2 mm	19 mm	1.40-3 mm	8.1 mm	2.8 mm
021242 25	4.2 mm	25 mm	1.40-3 mm	8.1 mm	2.8 mm
021242 32	4.2 mm	32 mm	1.40-3 mm	8.1 mm	2.8 mm
021242 38	4.2 mm	38 mm	1.40-3 mm	8.1 mm	2.8 mm
021248 16	4.8 mm	16 mm	1.75-4 mm	9.5 mm	3.3 mm
021248 19	4.8 mm	19 mm	1.75-4 mm	9.5 mm	3.3 mm
021248 25	4.8 mm	25 mm	1.75-4 mm	9.5 mm	3.3 mm
021248 32	4.8 mm	32 mm	1.75-4 mm	9.5 mm	3.3 mm
021248 38	4.8 mm	38 mm	1.75-4 mm	9.5 mm	3.3 mm
021248 50	4.8 mm	50 mm	1.75-4 mm	9.5 mm	3.3 mm



Drilling screw, countersunk head with wings, TX head with groove PIAS Flygel

DIN 7504, RUSPERT-coated

Fixing wood to steel frame in one step.

- The wings of the Flygel screw make a clearance hole into the wood and break off during drilling.

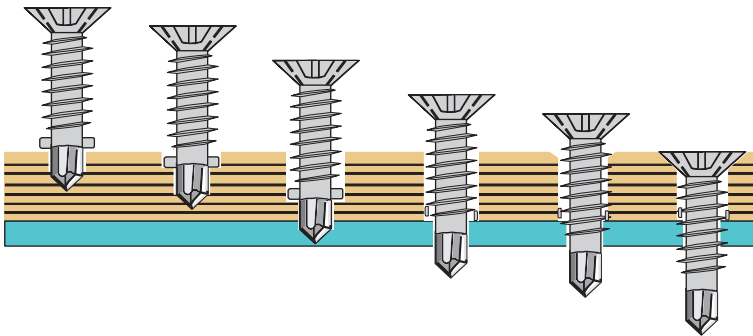
- **Material :** Steel
- **Surface :** Flake zinc
- **Internal drive :** TX30
- **Drive type :** Internal hexalobular

Carbon steel with RUSPERT coating

Precise bore diameter in each screw connection

- Always an optimum fixing

Art. No.	Nominal diameter	Length	Min./max. material thickness for steel	Max. attachment thickness	Head diameter
021915538	5.5 mm	38 mm	1.75-5.25 mm	20 mm	13.8 mm
021915550	5.5 mm	50 mm	1.75-5.25 mm	32 mm	13.8 mm
0219155651	5.5 mm	65 mm	1.75-5.25 mm	47 mm	13.8 mm
021916350	6.3 mm	50 mm	2-6 mm	31 mm	14.9 mm
021916385	6.3 mm	85 mm	2-6 mm	66 mm	14.9 mm
0219163110	6.3 mm	110 mm	2-6 mm	91 mm	14.9 mm



Flygel-Pias d 5.5 properties

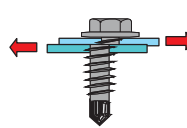
Break load (tensile)

18.92kN



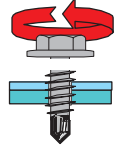
Break load (shear)

12.30kN

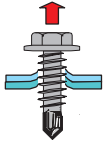


Break load (torsion)

15.72kN



Flygel-Pias d 5.5 **pull-out values** from cold rolled steel sheet



Sheet thickness (mm)

2.3 mm

3.2 mm

4.2 mm

Pull-out value (kN)

4.2 kN

7.1 kN

11.1 kN

Flygel-Pias d 6.3 properties

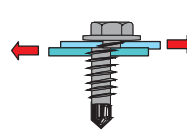
Break load (tensile)

20.84kN



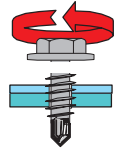
Break load (shear)

14.61kN

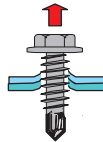


Break load (torsion)

21.98kN



Flygel-Pias d 6.3 **pull-out values** from cold rolled steel sheet



Sheet thickness (mm)

2.3 mm

3.2 mm

4.2 mm

6.0 mm

Pull-out value (kN)

4.4 kN

7.3 kN

12.8 kN

20.7 kN *)

*) Screw shank breaks

According to the manufacturer, the above values are averages based on test results and are not guaranteed by the manufacturer. The minimum values are usually reported as about 30% of the averages of the test results.



PIASTA™

Drilling screw, countersunk head with wings, PH head with groove PIASTA Flygel

DIN7504, stainless A2 + RUSPERT coating

Fixing wood to steel frame in one step.

- The wings of the Flygel screw make a clearance hole into the wood and break off during drilling.

- **Material :** Bimetal
- **Surface :** Flake zinc
- **Drive type :** Crosshead

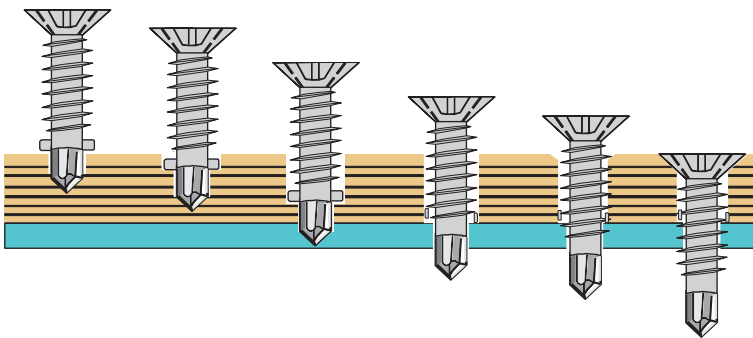
Stainless steel A2

- A2 (AISI 304) – screw head and screw shaft made of stainless steel
- Drill tip and first threads from hardened steel ensure good drilling capability

Precise bore diameter in each screw connection

- Always an optimum fixing

Art. No.	Nominal diameter	Length	Min./max. material thickness for steel	Max. attachment thickness	Head diameter	Internal drive
721548 44	4.8 mm	44 mm	1.75-4.4 mm	26 mm	9.5 mm	H2
721555 55	5.5 mm	55 mm	1.75-5.25 mm	35 mm	10.6 mm	H3
721555 65	5.5 mm	65 mm	1.75-5.25 mm	45 mm	10.6 mm	H3
721555 90	5.5 mm	90 mm	1.75-5.25 mm	65 mm	10.6 mm	H3



Flygel-Piasta d 4.8 properties

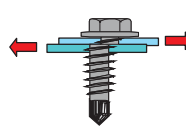
Break load (tensile)

9.50 kN



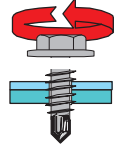
Break load (shear)

6.10 kN

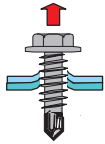


Break load (torsion)

6.38 kN



Flygel-Piasta d 4.8 **pull-out values** from cold rolled steel sheet



Sheet thickness (mm)

2.3 mm

3.2 mm

4.2 mm

Pull-out value (kN)

4.0 kN

6.4 kN

8.6 kN

Flygel-Piasta d 5.5 properties

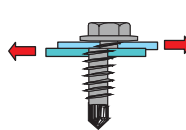
Break load (tensile)

13.60 kN



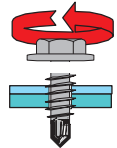
Break load (shear)

8.80 kN

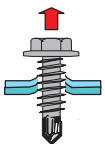


Break load (torsion)

8.50 kN



Flygel-Piasta d 5.5 **pull-out values** from cold rolled steel sheet



Sheet thickness (mm)

2.3 mm

3.2 mm

4.2 mm

Pull-out value (kN)

4.2 kN

6.9 kN

9.1 kN

According to the manufacturer, the above values are averages based on test results and are not guaranteed by the manufacturer. The minimum values are usually reported as about 30% of the averages of the test results.



Drilling screw, countersunk head with wings, PH head with Phillips groove PIAS Flygel

DIN7504, zinc-electroplated

Fixing wood to steel frame in one step.

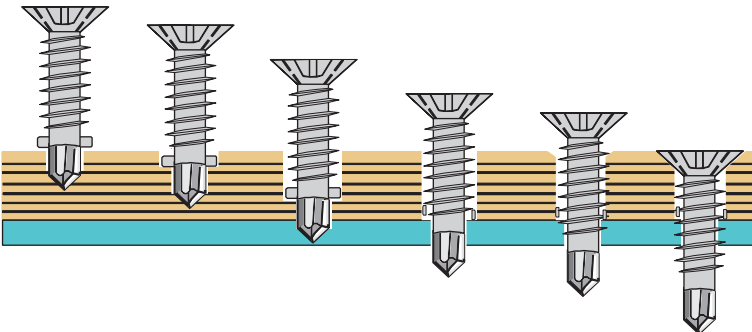
- The wings of the Flygel screw make a clearance hole into the wood and break off during drilling.

Precise bore diameter in each screw connection

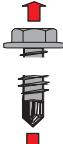
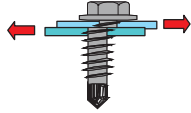
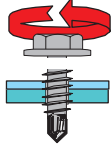
- Always an optimum fixing

- **Material :** Steel
- **Surface :** Zinc plated
- **Internal drive :** H2
- **Drive type :** Crosshead

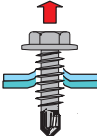
Art. No.	Nominal diameter	Length	Min./max. material thickness for steel	Max. attachment thickness	Head diameter
021542 25	4.2 mm	25 mm	1.75-3 mm	13 mm	7.8 mm
021542 32	4.2 mm	32 mm	1.75-3 mm	20 mm	7.8 mm
021542 38	4.2 mm	38 mm	1.75-3 mm	26 mm	7.8 mm
021548 25	4.8 mm	25 mm	1.75-4.4 mm	13 mm	9.3 mm
021548 32	4.8 mm	32 mm	1.75-4.4 mm	20 mm	9.3 mm
021548 38	4.8 mm	38 mm	1.75-4.4 mm	26 mm	9.3 mm
021548 50	4.8 mm	50 mm	1.75-4.4 mm	38 mm	9.3 mm
021548 70	4.8 mm	70 mm	1.75-4.4 mm	58 mm	9.3 mm



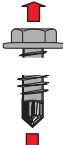
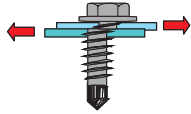
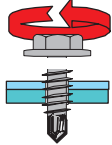
Flygel-Pias d 4.2 properties

Break load (tensile)		Break load (shear)		Break load (torsion)	
11.38 kN		7.40 kN		6.82 kN	

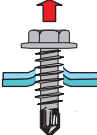
Flygel-Pias d 4.2 pull-out values from cold rolled steel sheet

	Sheet thickness (mm)	2.3 mm	
	Pull-out value (kN)	3.9 kN	

Flygel-Pias d 4.8 properties

Break load (tensile)		Break load (shear)		Break load (torsion)	
13.88 kN		9.02 kN		11.36 kN	

Flygel-Pias d 4.8 pull-out values from cold rolled steel sheet

	Sheet thickness (mm)	2.3 mm	3.2 mm	4.2 mm
	Pull-out value (kN)	4.0 kN	6.8 kN	10.5 kN

According to the manufacturer, the above values are averages based on test results and are not the minimum values guaranteed by the manufacturer. The minimum values are usually reported as about 30% of the averages of the test results.



Drilling screw, countersunk head with wings, Torx PIAS Flygel

DIN7504, zinc-electroplated

Fixing wood to steel frame in one step.

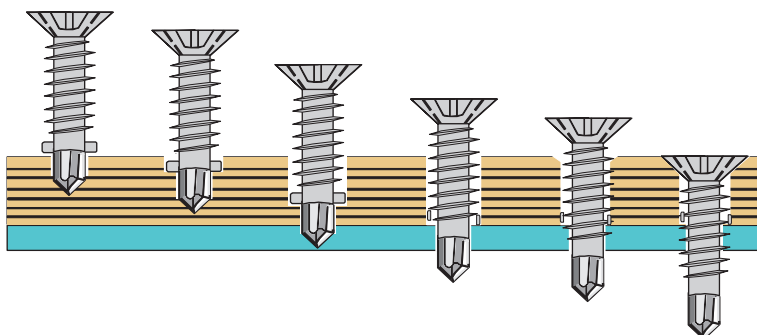
- The wings of the Flygel screw make a clearance hole into the wood and break off during drilling.

Precise bore diameter in each screw connection

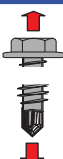
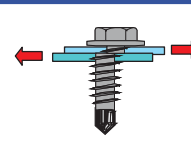
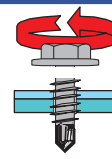
- Always an optimum fixing

- Nominal diameter :** 6.3 mm
- Length :** 65 mm
- Min./max. material thickness for steel :** 2-6 mm
- Max. attachment thickness :** 46 mm
- Material :** Steel
- Surface :** Zinc plated
- Head diameter :** 14.9 mm
- Internal drive :** TX30
- Drive type :** Internal hexalobular

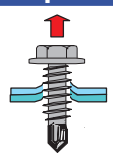
Art. No.	
021916365	



Flygel-Pias d 6.3 properties

Break load (tensile)		Break load (shear)		Break load (torsion)	
20.84 kN		14.61 kN		21.98 kN	

Flygel-Pias d 6.3 pull-out values from cold rolled steel sheet

	Sheet thickness (mm)	2.3 mm	3.2 mm	4.2 mm	6.0 mm
	Pull-out value (kN)	4.4 kN	7.3 kN	12.8 kN	20.7 kN *)
				*) Screw shank breaks	

According to the manufacturer, the above values are averages based on test results and are not the minimum values guaranteed by the manufacturer. The minimum values are usually reported as about 30% of the averages of the test results.



Element screw, carbon steel + RUSPERT coating PIAS

DIN7504-K RUSPERT, with seal, long drill tip

For fastening insulation elements to steel structures.

Drilling length 12 mm. AV 8

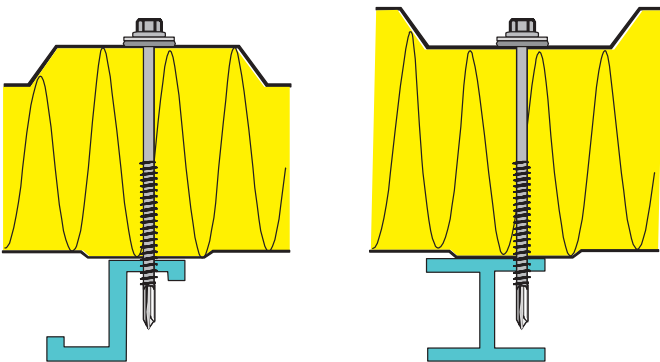
Carbon steel, Ruspert-coated

Screw :

- Hardened carbon steel
- Ruspert-coated
- Head DIN 7504 K
- Washer Ø 19mm
- Stainless steel A2 and vulcanised EPDM rubber seal

- **Nominal diameter :** 6.3 mm
- **Min./max. material thickness for steel :** 3-12 mm
- **Material :** Hardened steel
- **Surface :** Flake zinc
- **Sealing-washer material :** Stainless steel A2
- **Outside diameter of the sealing washer :** 19 mm
- **Width across flats :** 8 mm

Art. No.	Length	Min./max. attachment thickness
0200063110	110 mm	30-90 mm
0200063120	120 mm	40-100 mm
0200063130	130 mm	50-110 mm
0200063141	140 mm	60-120 mm
0200063151	150 mm	70-130 mm
0200063190	193 mm	100-170 mm
0200063235	235 mm	145-215 mm
0200063285	285 mm	195-265 mm



Pias d 6.3 properties

Break load (tensile)		Break load (shear)		Break load (torsion)	
20.84kN		14.61 kN		21.98kN	

Pias d 6.3 pull-out values from cold rolled steel sheet

	Sheet thickness (mm)	2.3 mm	3.2 mm	4.2 mm	6.0 mm
	Pull-out value (kN)	4.4 kN	7.3 kN	12.8 kN	20.7 kN *

*) Screw shank breaks

According to the manufacturer, the above values are averages based on test results and are not guaranteed by the manufacturer. The minimum values are usually reported as about 30% of the averages of the test results.



Element screw, stainless, A2 PIASTA

DIN7504-K A2, with seal, long drill tip

For fastening insulation elements to steel structures.

Drilling length 12 mm. AV 8

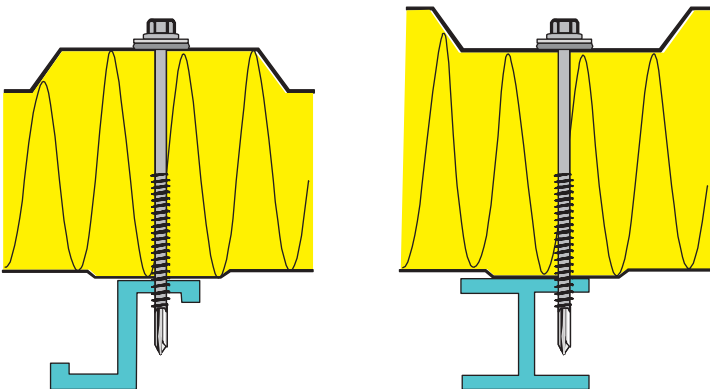
Stainless steel A2, Ruspert-coated

Screw :

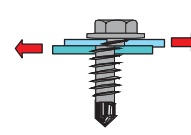
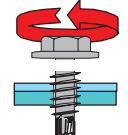
- Bimetal (A2 screw/drill tip from hardened carbon steel)
- Ruspert-coated
- Head DIN 7504 K
- Washer Ø 19 mm
- Stainless steel A2 and vulcanised EPDM rubber seal

- **Nominal diameter :** 5.5 mm
- **Min./max. material thickness for steel :** 3-12 mm
- **Material :** Bimetal
- **Surface :** Flake zinc
- **Sealing-washer material :** Stainless steel A2
- **Outside diameter of the sealing washer :** 19 mm
- **Width across flats :** 8 mm

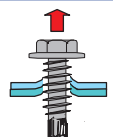
Art. No.	Length	Min./max. attachment thickness
720055 140	140 mm	72-115 mm
720055 198	198 mm	130-173 mm



Piasta d 5.5 properties

Break load (tensile)		Break load (shear)		Break load (torsion)	
13.60kN		8.80kN		8.50kN	

Piasta d 5.5 pull-out values from cold rolled steel sheet

	Sheet thickness (mm)	2.3 mm	3.2 mm	4.2 mm	6.0 mm
	Pull-out value (kN)	4.4 kN	6.9 kN	9.1 kN	10.2 kN

According to the manufacturer, the above values are averages based on test results and are not guaranteed by the manufacturer. The minimum values are usually reported as about 30% of the averages of the test results.

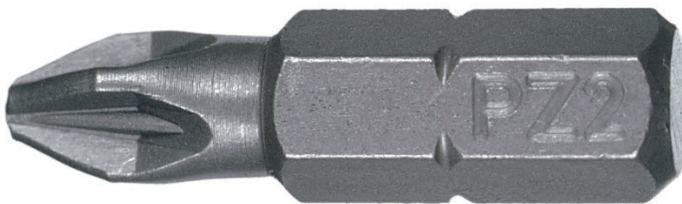


Screwdriver bit PH,

For Phillips heads

- **Drive type :** Outer hexagon
- **Tip type :** PH

Art. No.	Type description	Tip size	Drive	Length
0614176739	NO 2 110 MM	PH2	E 6.3 (1/4 inch)	110 mm
0614176737	PH 2/50	PH2	E 6.3 (1/4 inch)	50 mm
0614176775	PH 2/73	PH2	E 6.3 (1/4 inch)	73 mm
0614176274	PH1/25	PH1	C 6.3 (1/4 inch)	25 mm
0614176461	PH2/25	PH2	C 6.3 (1/4 inch)	25 mm
0614176736	PH2/50	PH2	E 6.3 (1/4 inch)	50 mm
0614176648	PH3/25	PH3	C 6.3 (1/4 inch)	25 mm



Screwdriver bit PZ,

For Pozidriv heads

- **Drive type :** Outer hexagon
- **Tip type :** PZ

Art. No.	Type description	Tip size	Drive	Length
0614176738	NO 2 110 MM	PZ2	E 6.3 (1/4 inch)	110 mm
0614176651	PZ1/25	PZ1	C 6.3 (1/4 inch)	25 mm
0614176652	PZ2/25	PZ2	C 6.3 (1/4 inch)	25 mm
0614176660	PZ2/50	PZ2	E 6.3 (1/4 inch)	50 mm
0614176653	PZ3/25	PZ3	C 6.3 (1/4 inch)	25 mm
0614176661	PZ3/50	PZ3	E 6.3 (1/4 inch)	50 mm

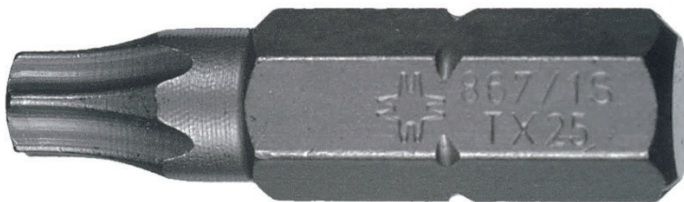


Screwdriver bit PH, narrow

For Phillips heads, narrow type

- **Type description :** 1/4"
- **Tip size :** PH2
- **Drive type :** Crosshead
- **Drive :** C 6.3 (1/4 inch)
- **Tip type :** PH
- **Length :** 25 mm

Art. No.	
16144612	

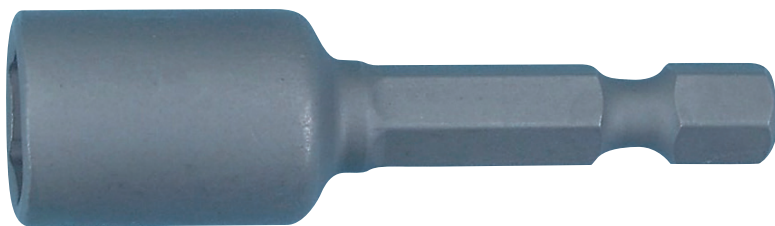


Screwdriver bit TX

For Torx heads

- **Drive type :** Outer hexagon
- **Drive :** C 6.3 (1/4 inch)

Art. No.	Type description	Tip size	Length
06143110	10	TX10	25 mm
06143115	15	TX15	25 mm
06143120	20	TX20	25 mm
06143125	25	TX25	25 mm
06143150	25MM X 1/4"	TX50	25 mm
06143130	30	TX30	25 mm
06143140	40	TX40	25 mm
06143315	TX15 70 MM	TX15	70 mm
06143320	TX20 70 MM	TX20	70 mm
06143325	TX25 70MM	TX25	70 mm
06143330	TX30 70 MM	TX30	70 mm



Magnetic chuck

Art. No.	Type description	Width across flats	Drive
16140 141	1/4"	1/4 inch	C 6.3 (1/4 inch)
16140 14	AV 1/4"	1/4 inch	C 6.3 (1/4 inch)
0614176716	AV 3/8"	3/8 inch	E 6.3 (1/4 inch)
0614176712	AV 5,5 MM	5.5 mm	E 6.3 (1/4 inch)
0614176714	AV 7 MM	7 mm	E 6.3 (1/4 inch)
0614176715	AV 8 MM	8 mm	E 6.3 (1/4 inch)
16140 10	AV 10 MM	10 mm	C 6.3 (1/4 inch)
0614176718	AV 13 MM	13 mm	E 6.3 (1/4 inch)



Adjustable magnetic chuck

- Type description : 1/4"
- Width across flats : 1/4 inch
- Drive : C 6.3 (1/4 inch)

Art. No.	
0614811361	

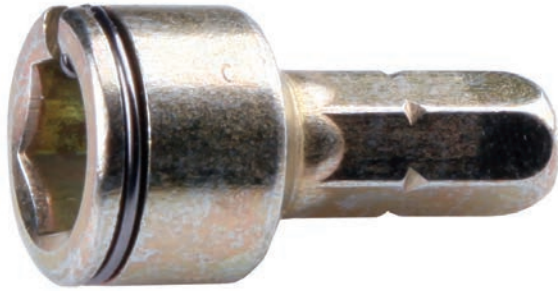


Magnetic holder

1/4" x 60 mm

- Type description : 1/4"X60
- Width across flats : 1/4 inch
- Drive : C 6.3 (1/4 inch)

Art. No.	
161414 60	



Spring chuck

For fastening cladding screws and stainless screws

- **Type description :** AV 8 MM
- **Width across flats :** 8 mm
- **Drive :** C 6.3 (1/4 inch)

Art. No.	
16140 825	



Magnetic impact bit holder, 1/4"

Bit change with a quick-release lock.

Ideal when working in hard-to-reach places.

Art. No.	Type description	Product weight (per item)
850010347	150mm	84 g
850020094	300mm	145 g
850020093	450mm	215 g



Magnetic impact bit holder, 1/4"

- **Type description :** 1/4"
- **Product weight (per item):** 42 g

Art. No.	
850010346	



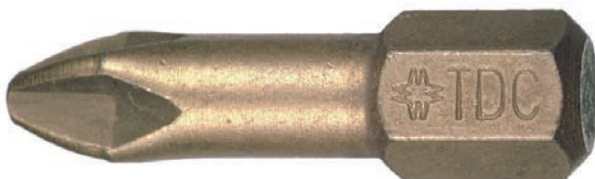
Bit set

Art. No.	Type description	Product weight (per item)
850010301	PH/PZ	84 g
850020091	SECURITY	305 g
850010303	TORSION	249 g
850010302	TORX	92 g



PH bit

Art. No.	Type description	Product weight (per item)
850010313	PH1	12 g
850010314	PH2	13.5 g
850010315	PH3	13.9 g



PH bit, diamond, TORSION

Art. No.	Type description	Product weight (per item)
850010304	PH1	10.7 g
850010305	PH2	12.8 g
850010306	PH3	13.6 g



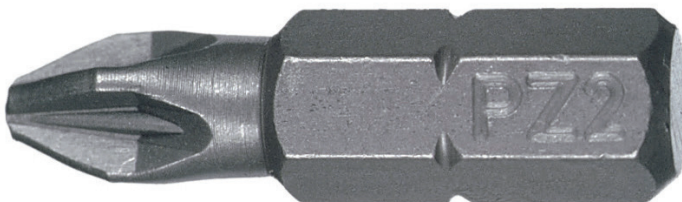
PH bit, tin

Art. No.	Type description	Product weight (per item)
850010310	PH 1	11.6 g
850010311	PH 2	13.1 g
850010312	PH 3	11 g



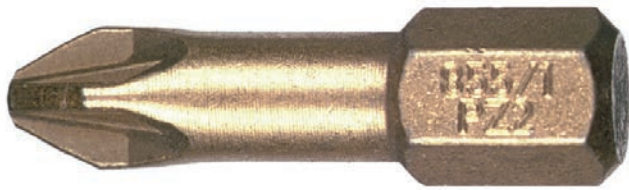
PH bit, TORSION, ACR

Art. No.	Type description	Product weight (per item)
850010307	PH 1 TORSION	10 g
850010308	PH 2 TORSION	12.3 g
850010309	PH 3 TORSION	13.5 g



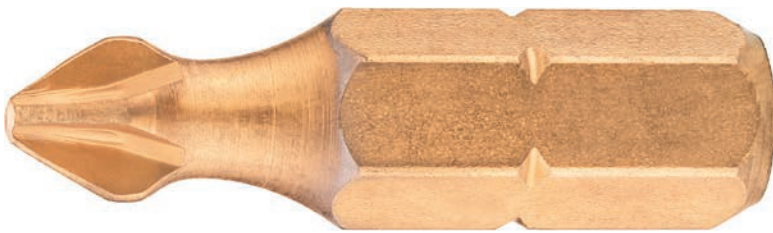
PZ bit

Art. No.	Type description	Product weight (per item)
850010325	PZ 1	12.7 g
850010326	PZ 2	13.5 g
850010327	PZ 3	14.4 g



PZ bit, diamond, TORSION

Art. No.	Type description	Product weight (per item)
850010316	PZ 1 TIMATTI TORSION	10 g
850010317	PZ 2 TIMANTTI TORSION	13.2 g
850010318	PZ 3 TIMANTTI TORSION	13.6 g



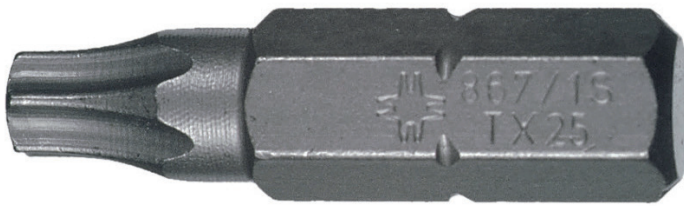
PZ bit, tin

Art. No.	Type description	Product weight (per item)
850010322	PZ1	11.2 g
850010323	PZ2	13 g
850010324	PZ3	12.6 g



PZ bit, TORSION, ACR

Art. No.	Type description	Product weight (per item)
850010319	PZ1	10.8 g
850010320	PZ2	12 g
850010321	PZ3	13.5 g



TX bit

Art. No.	Type description	Product weight (per item)
850010340	TX10	12 g
850010345	TX15	12.7 g
850010341	TX20	13.1 g
850010342	TX25	13.5 g
850010343	TX30	14.4 g
850010344	TX40	15.6 g



TX bit, diamond, TORSION

Art. No.	Type description	Product weight (per item)
850010328	TX10	11 g
850010329	TX15	11 g
850010330	TX20	12 g
850010331	TX25	13.2 g
850010332	TX30	14.1 g
850010333	TX40	14.4 g



TX bit, tin

Art. No.	Type description	Product weight (per item)
850010334	TX10	10.3 g
850010335	TX15	11.1 g
850010336	TX20	11.6 g
850010337	TX25	12 g
850010338	TX30	13.8 g
850010339	TX40	15.2 g



Bit set with wrench for precision mechanics

- **Type description :** SARJA VÄÄNTIMELLÄ
- **Product weight (per item):** 124 g

Art. No.	
850010505	



Bit and socket set with ratchet, 25 pcs

- **Type description :** SARJA 25 OS.
- **Product weight (per item):** 345 g

Art. No.	
850010501	



Bit set, 75 mm, 18 pcs

- **Type description :** 75mm
- **Product weight (per item):** 555.9 g

Art. No.	
850010348	



Bit set with TX/PZ/PH shank, 31 pcs

- **Type description :** TX/PZ/PH
- **Product weight (per item):** 300 g

Art. No.	
850010503	



Bit set with TX/PZ/PH/straight shank, 15 pcs

- **Type description :** TX/PZ/PH
- **Product weight (per item):** 150 g

Art. No.	
850010502	



Impact bit set, 6 pieces

- **Type description :** SARJA 6 OSAA
- **Product weight (per item):** 83 g

Art. No.	
850010507	



Impact bit adapter 110

1/4", 105-degree inclination, magnetic. Handle rotates 360 degrees. Suitable for use with battery powered wrenches.

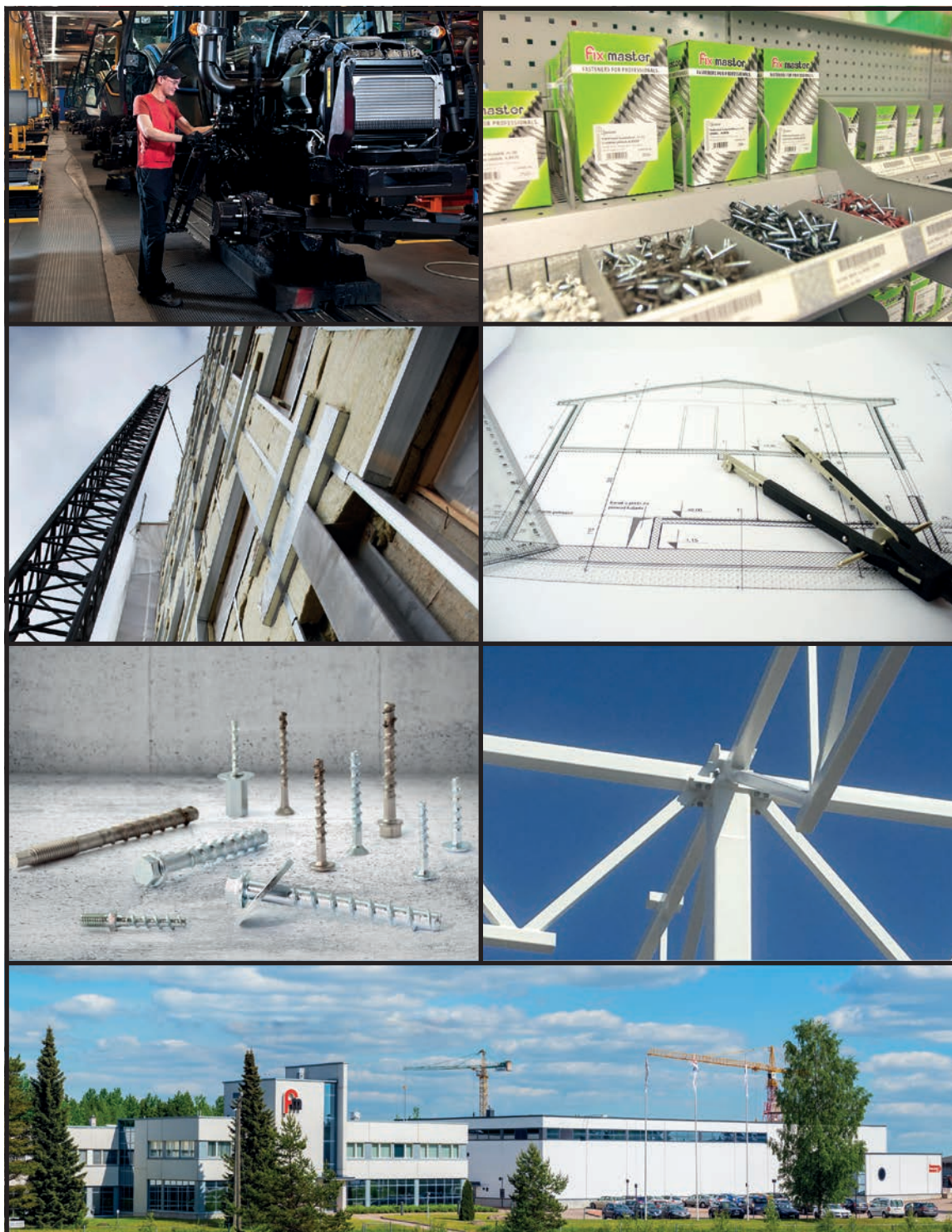
• **Type description :** ADAPTERI

Art. No.	
850020092	



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