

HILTI

2012 siding and
decking catalog



HILTI

Hilti ST 1800-A22
cordless screwdriver
for metal construction



**Mobile power for
metal construction.**

Delivering the power of a corded tool, the new ruggedly-built Hilti ST 1800-A22 cordless metal construction screwdriver makes light work of virtually all screw fastenings, even on thick, solid steel beams. Together with Hilti's comprehensive range of screws and matching accessories it lets you benefit from all the advantages of a unique, unrivalled system.

Find out more at: www.hilti.com

Hilti. Outperform. Outlast.

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Roofing using self-drilling screws

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1
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2
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2
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5
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7
S-CDW 61C; P. 71
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8
X-ENP; P. 101/102
SDK2/PDK2; P. 106

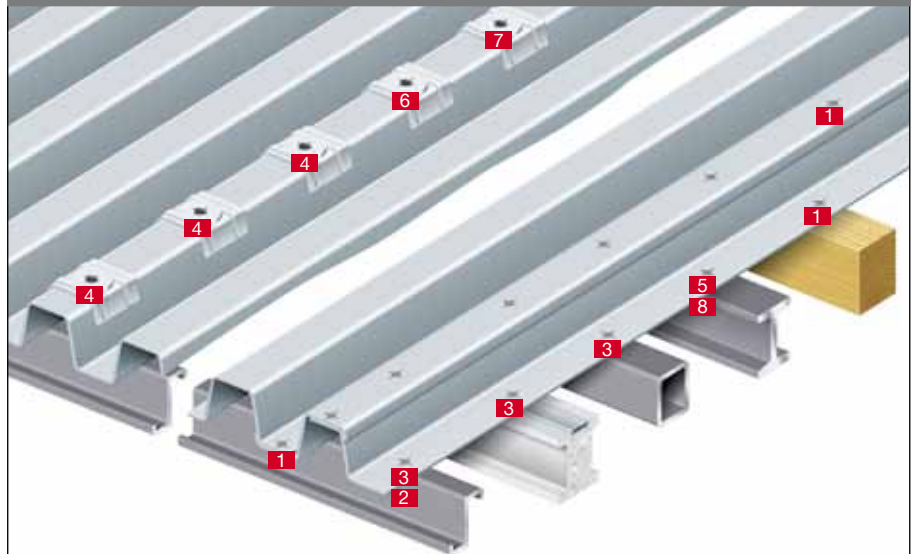
6
S-MD 51Z; P. 39
S-MD 51S; P. 51

7
S-CD 63C; P. 72
S-CD 63S; P. 77

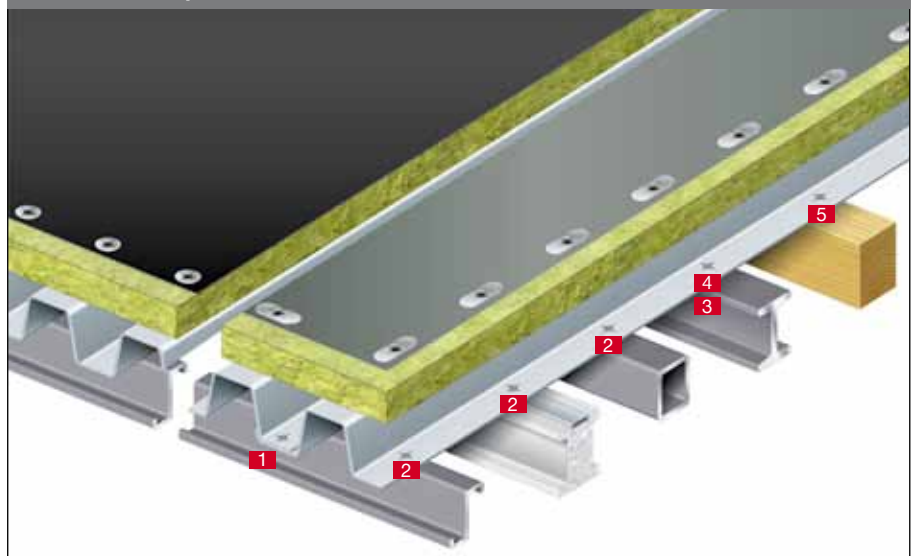
8
S-MD 01S; P. 47
S-MD 51S; P. 51

Z = galvanized
C = coated
S = stainless steel

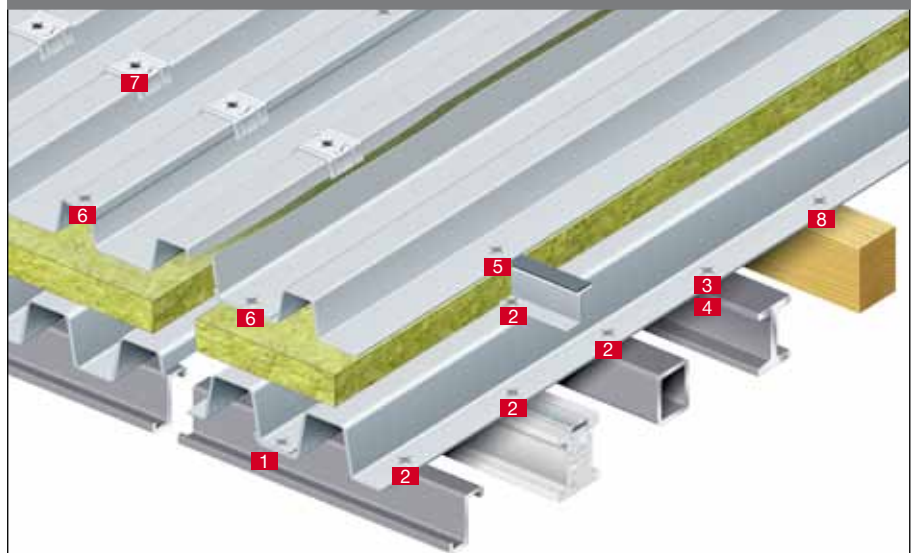
Uninsulated roof with steel or aluminium sheet



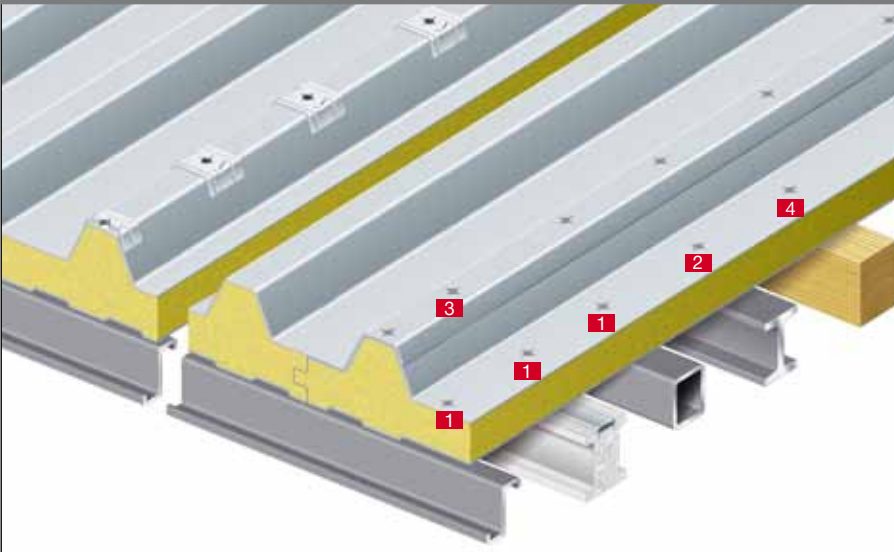
Flat built-up roof



Insulated roof with steel or aluminium sheet

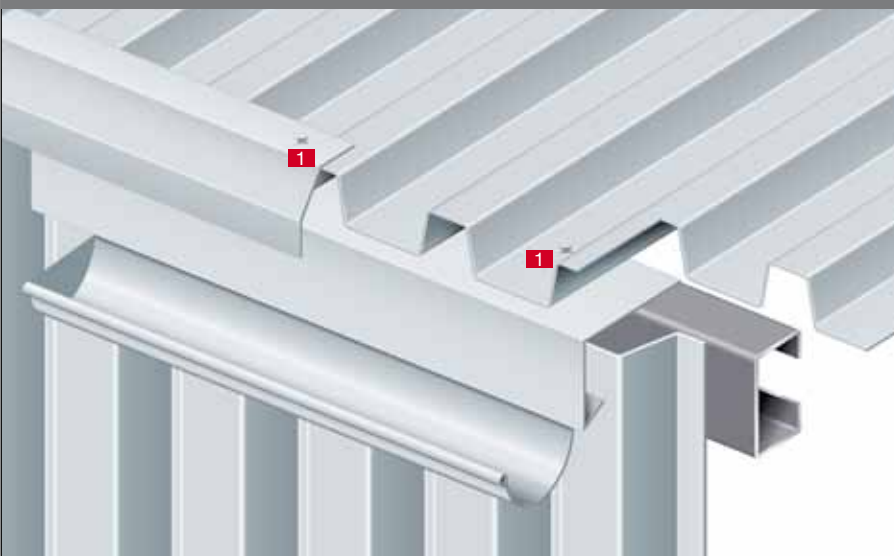


Sandwich roof



- 1** S-CD 63C; P. 72
- S-CD 63S; P. 77
- S-CD 73S; P. 00
- 2** S-CD 65C; P. 73
- S-CD 65S; P. 78
- 3** S-MD 51Z; P. 39
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- 4** S-CDW 61C; P. 71
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Eaves



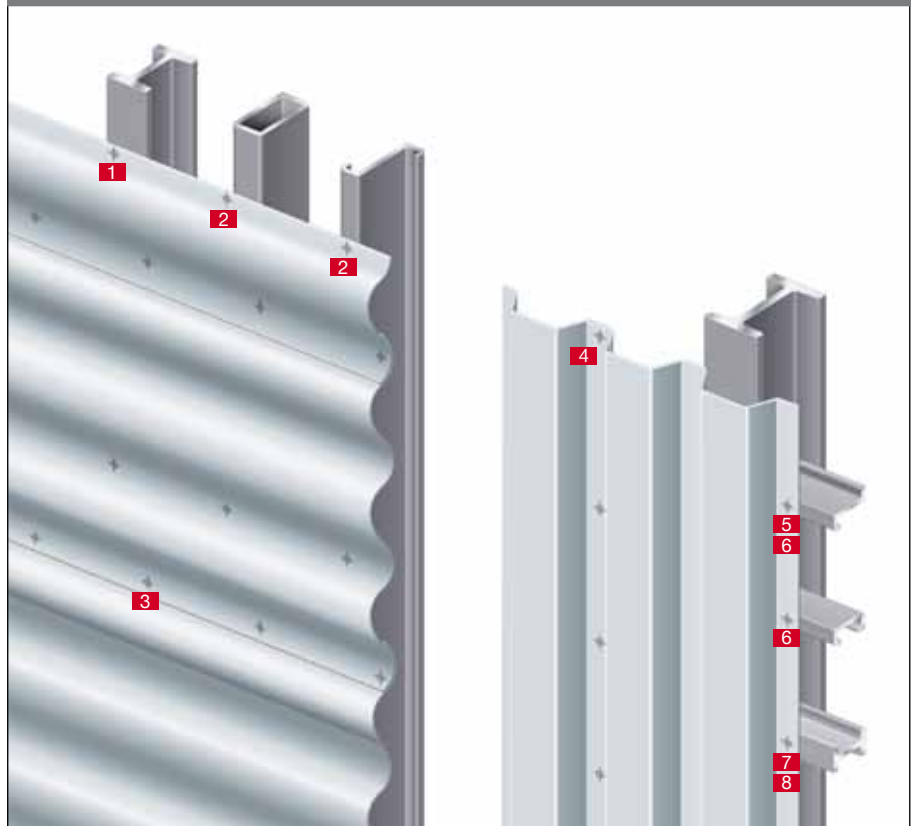
- 1** S-MD 51LZ; P. 40
- S-MD 51LS; P. 53
- S-MD 51Z; P. 39
- S-MD 51S; P. 51

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Roofing using self-drilling screws

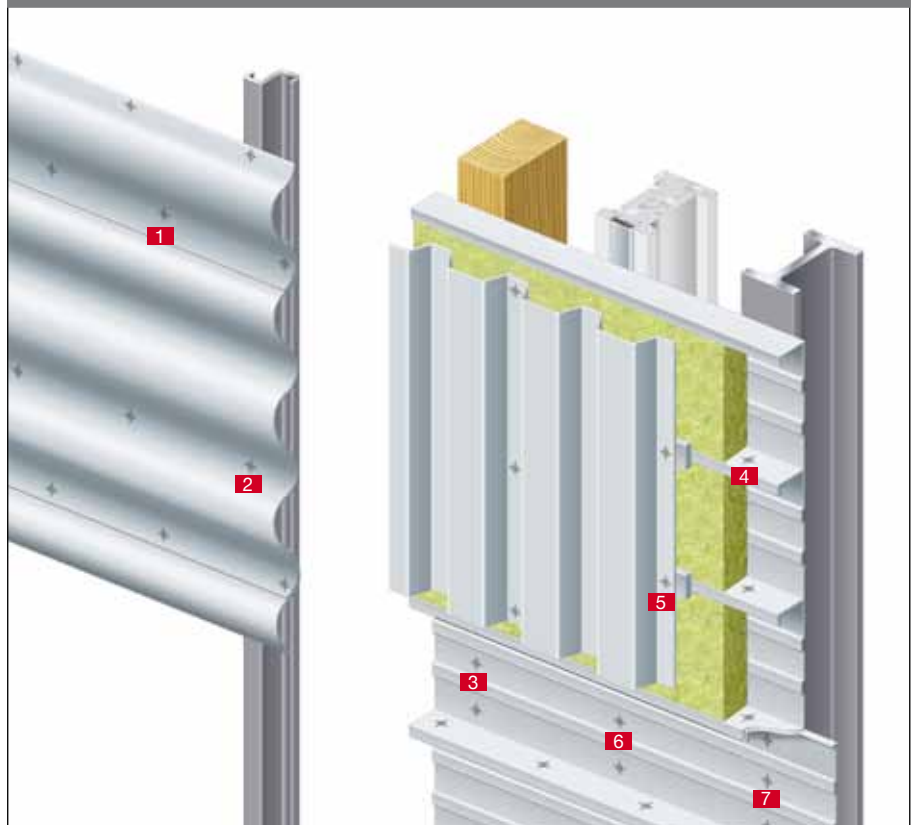
1	S-MD 35PS;	P. 69
2	S-MD 33PS;	P. 68
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3	S-MD 31PS;	P. 67
4	S-MD 51Z;	P. 39
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	S-MD 51LZ;	P. 40
	S-MD 51LS;	P. 53
5	S-MD 51LZ;	P. 40
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6	S-MD 53Z;	P. 41
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7	S-MD 55Z;	P. 42
	S-MD 55S;	P. 58
8	X-ENP;	P. 101/102
	SDK2/PDK2;	P. 106

Uninsulated siding with steel or aluminium sheet



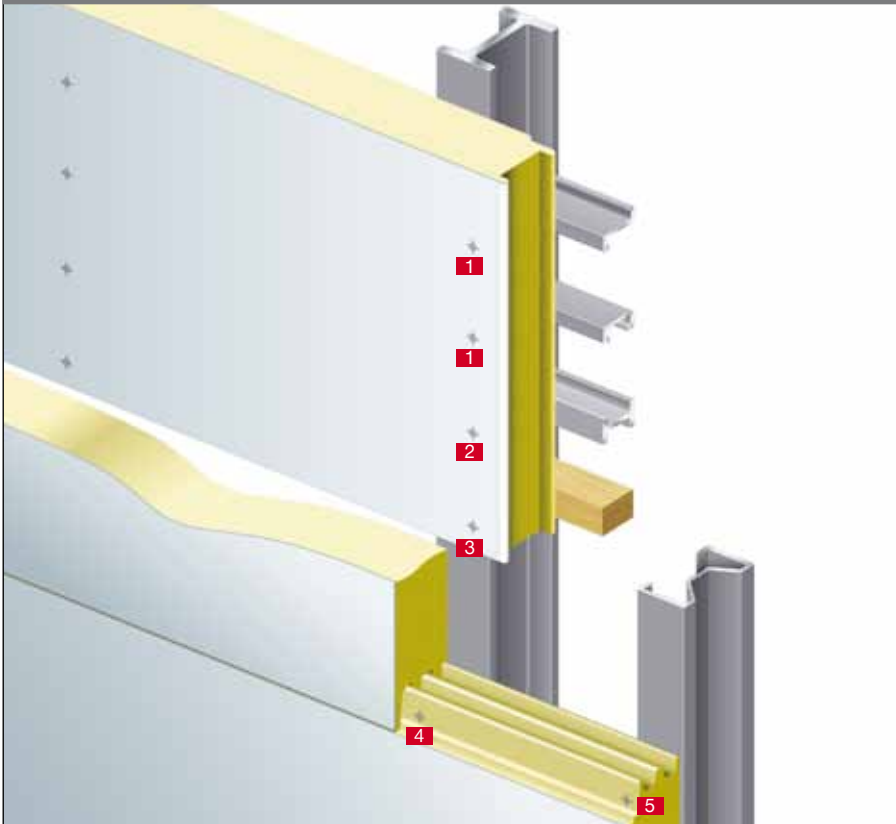
1	S-MD 31PS;	P. 67	6	S-MD 21Z;	P. 33
2	S-MD 33PS;	P. 68		S-MD 23Z;	P. 34
	S-MD 43S;	P. 54	7	X-ENP;	P. 101/102
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3	S-MD 01PS;	P. 63			
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4	S-MS 01Z;	P. 27			
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5	S-MD 51LZ;	P. 40			
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	S-MD 51LS;	P. 53			
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	S-MD 53S;	P. 55			

Insulated siding with steel or aluminium sheet



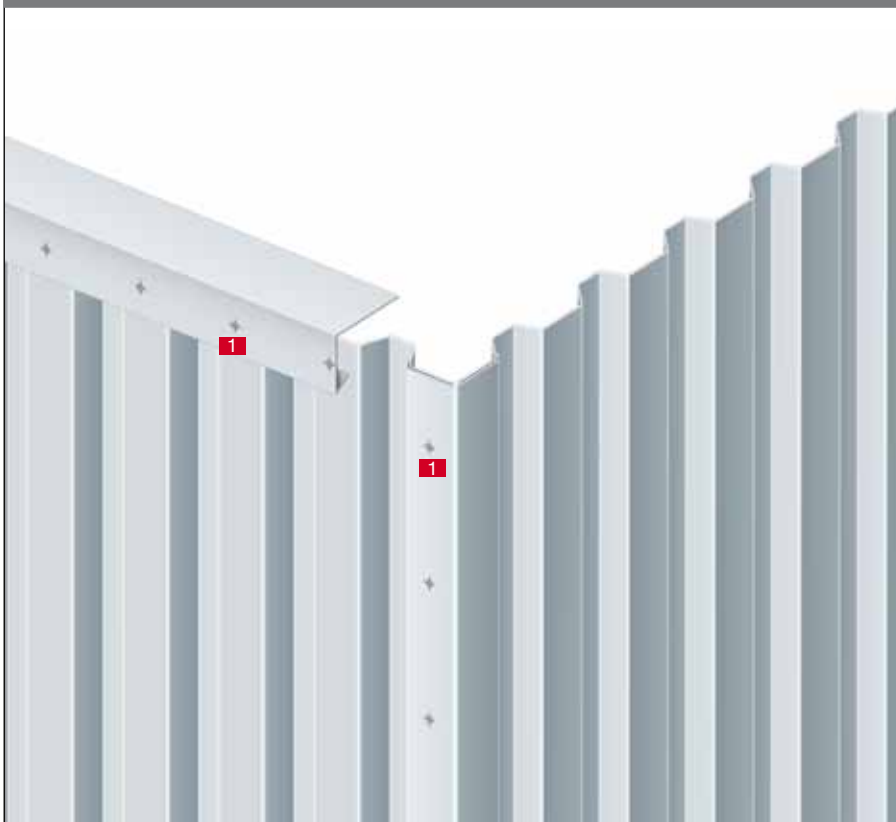
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Sandwich siding



1	S-CD 63C;	P. 72
	S-CD 63S;	P. 77
	S-CD 73S;	-
2	S-CD 65C;	P. 73
	S-CD 65S;	P. 78
	S-CD 75S;	P. 79
3	S-CDW 61C;	P. 71
	S-CDW 61S;	P. 75
	S-CDW 71S;	P. 76
4	S-CD 55C;	-
	S-CD 55S;	-
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	S-CD 53S;	-

Finishing at corners and edges



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	S-MD 51S;	P. 51
	S-MD 31PS;	P. 67
	S-MD 51LZ;	P. 40
	S-MD 51LS;	P. 53

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Roofing using self-tapping screws

1	S-MP 53Z; P. 81	5	S-MP 53Z; P. 81
	S-MP 53S; P. 85		S-MP 53S; P. 85
	S-MP 63S; P. 86		S-MP 63S; P. 86
	S-MP 73S; P. 87		S-MP 73S; P. 87

2	S-MP 52Z; P. 82
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	S-MP 64S; P. 89
	S-MP 74S; P. 90

3	X-ENP; P. 101/102
	SDK2/PDK2; P. 106

4	S-MP 52Z; P. 82
	S-MP 54S; P. 88
	S-MP 64S; P. 89
	S-MP 74S; P. 90

1	S-MS 01Z; P. 27
	S-MD 01Z; P. 28
	S-MDU 21Z; P. 33
	S-MD M; P. 37

2	S-MP 53Z; P. 81
	S-MP 53S; P. 85

3	S-MP 52Z; P. 82
	S-MP 54S; P. 88

4	X-ENP; P. 101/102
	X-U16 S12; -

1	S-MP 53Z; P. 81
	S-MP 53S; P. 85

2	S-MP 52Z; P. 82
	S-MP 54S; P. 88

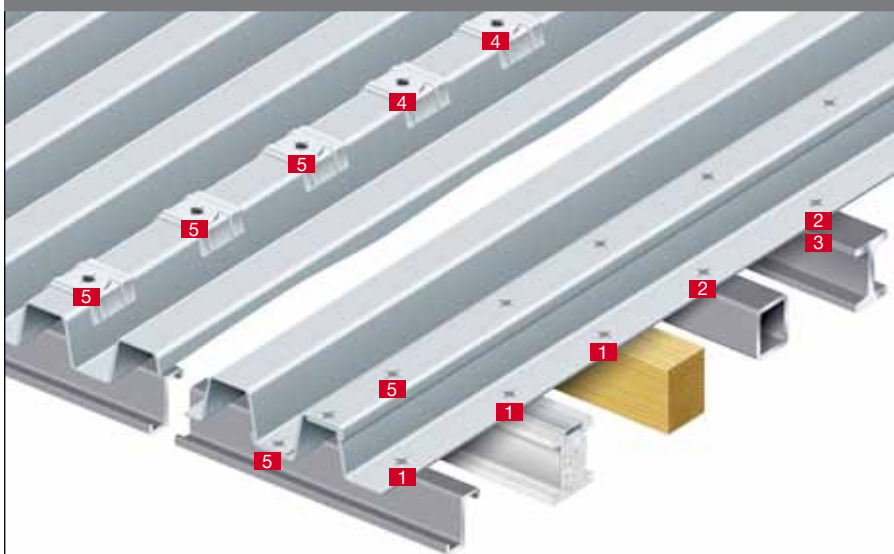
3	X-ENP; P. 101/102
	X-U16 S12; -

4	S-MP 52Z; P. 82
	S-MP 54S; P. 88
	S-MP 64S; P. 89
	S-MP 74S; P. 90

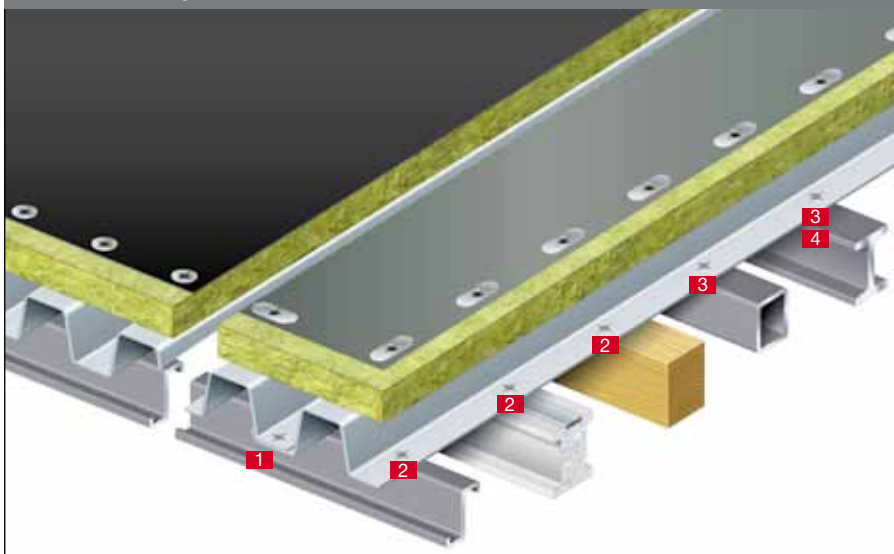
5	S-MP 53Z; P. 81
	S-MP 53S; P. 85
	S-MP 63S; P. 86
	S-MP 73S; P. 87

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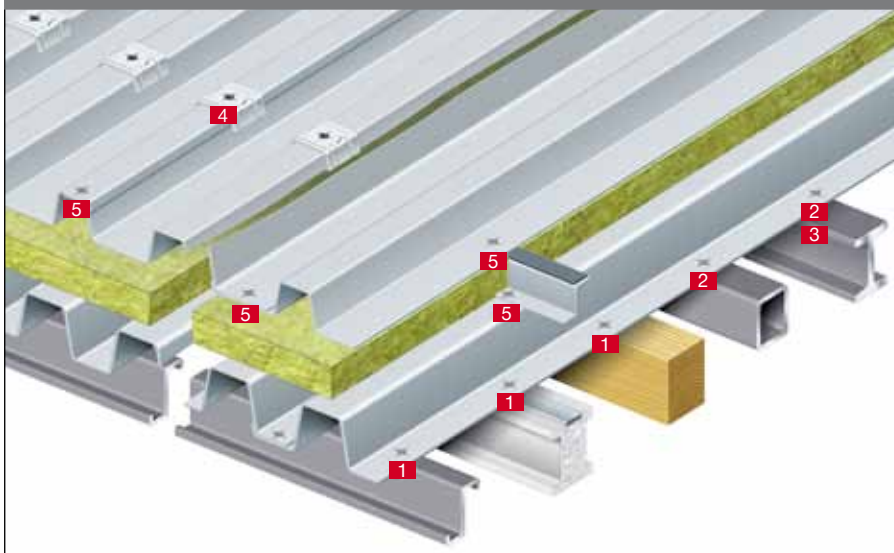
Uninsulated roof with steel or aluminium sheet



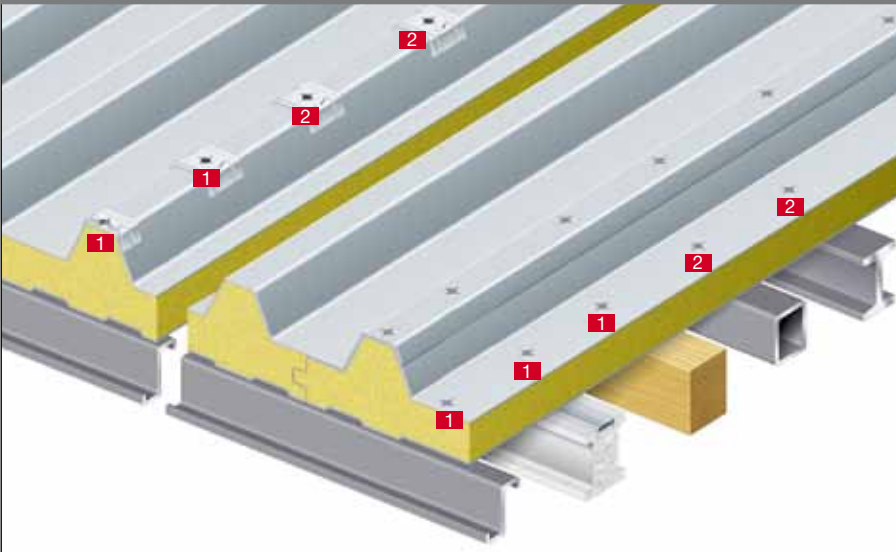
Flat built-up roof



Insulated roof with steel or aluminium sheet



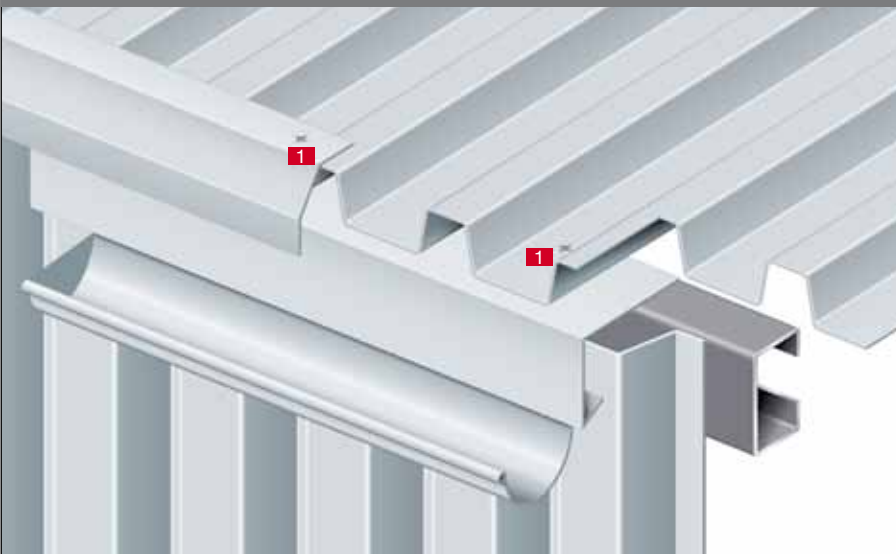
Sandwich roof



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- S-MP 63S; P. 86
- S-MP 73S; P. 87

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- S-MP 54S; P. 88
- S-MP 64S; P. 89
- S-MP 74S; P. 90

Eaves



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- S-MP 53S; P. 85

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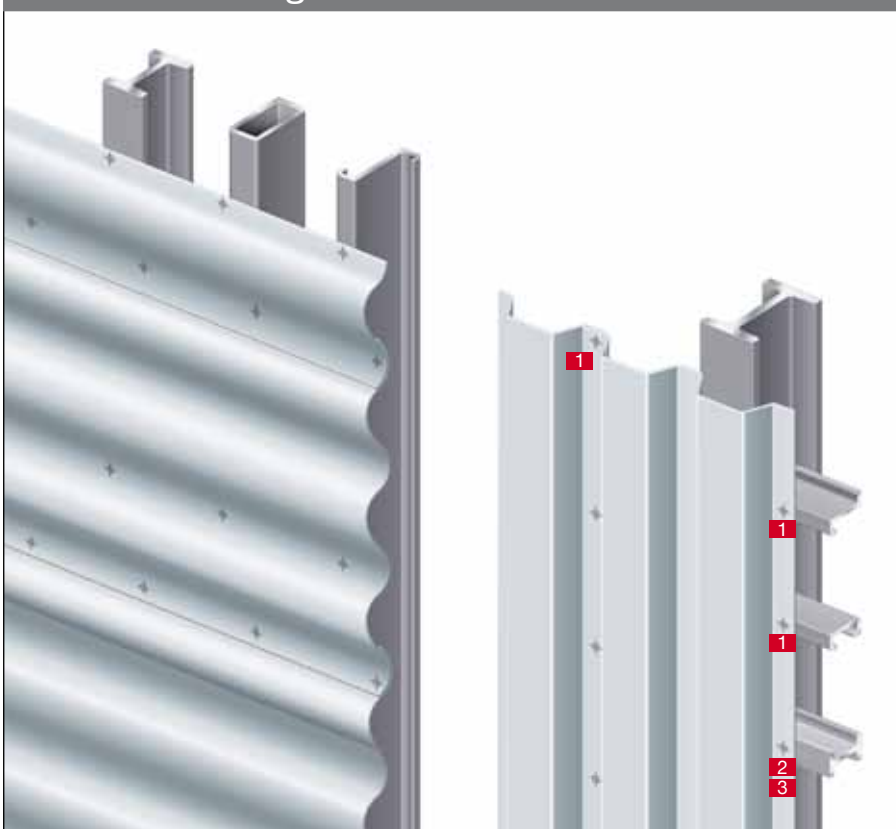
Siding using self-tapping screws

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- S-MP 53S; P. 85
- S-MP 63S; P. 86
- S-MP 73S; P. 87

- 2** S-MP 52Z; P. 82
- S-MP 54S; P. 88

- 3** X-ENP; P. 101/102
- SDK2/PDK2; P. 106

Uninsulated siding with steel or aluminium sheet

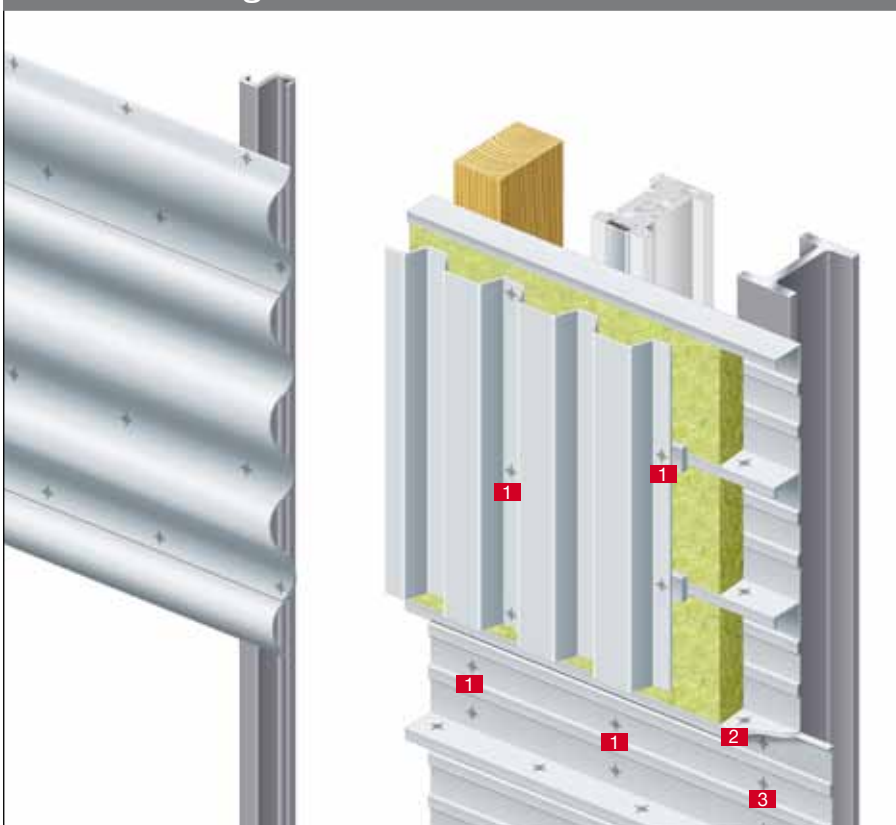


- 1** S-MP 53Z; P. 81
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- S-MP 73S; P. 87

- 2** S-MP 52Z; P. 82
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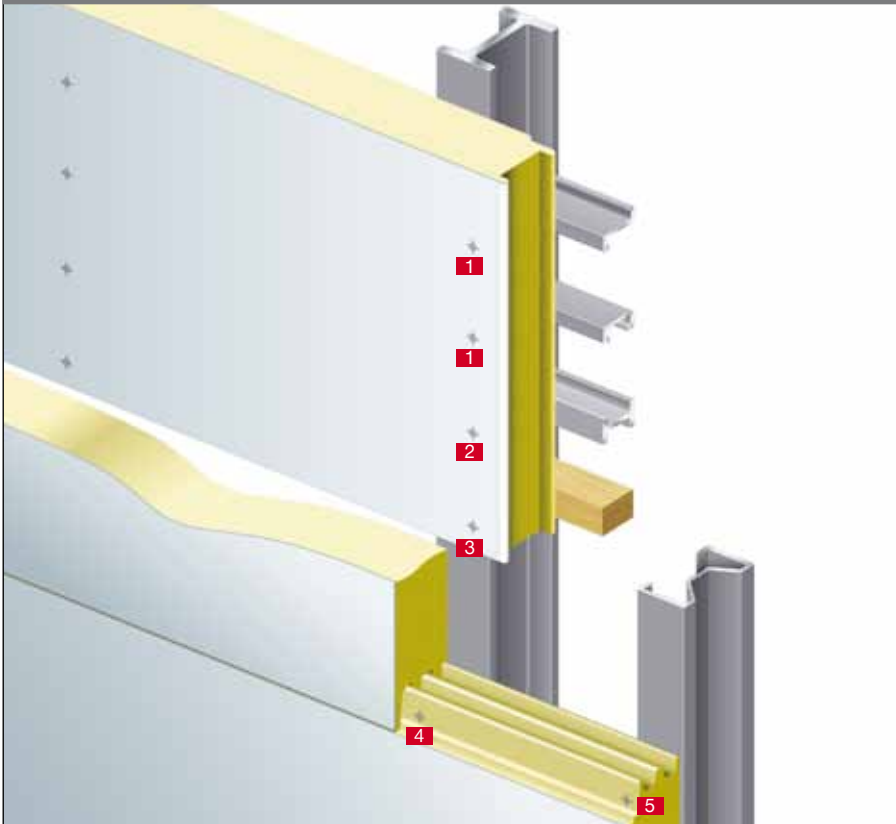
- 3** X-ENP; P. 101/102
- SDK2/PDK2; P. 106

Insulated siding with steel or aluminium sheet



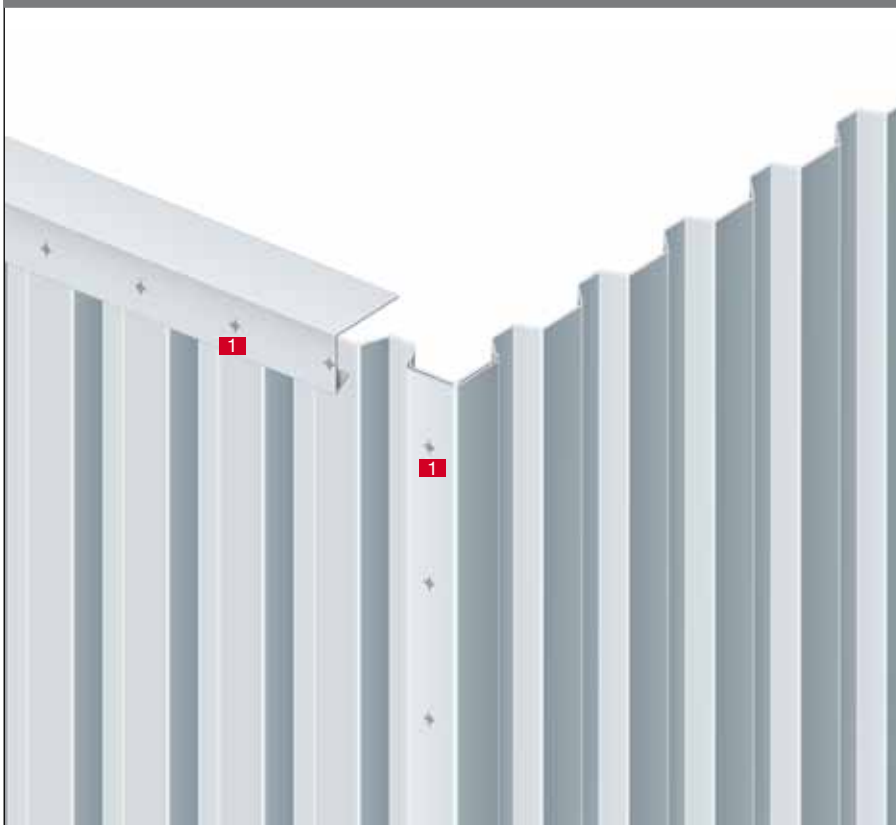
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Sandwich siding



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S-MP 63S; P. 86
- 4**
S-MP 52Z; P. 82
S-MP 54S; P. 88
- 5**
S-MP 53Z; P. 81
S-MP 53S; P. 85

Finishing at corners and edges



- 1**
S-MP 53Z; P. 81
S-MP 53S; P. 85

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Screwdriving at high speed.

The S-MS is clearly much more than “just a screw”. It displaces the metal around it as it penetrates and therefore creates no troublesome metal chips. In its role as a part of the system comprising the SDT 30 stand-up tool and the new ST 1800-A22 cordless metal construction screwdriver, the S-MS cuts screw fastening time by up to 60 percent.

The Hilti S-MS is available in single or collated form and is perfectly matched to the other components of the system. High-speed fastening is possible because the screws, the screwdriver and the stand-up tool all work together in perfect harmony, achieving a considerable productivity increase over conventional screw fastening systems. Screwdriving becomes a new, high-speed experience!

The innovative screw-fastening technology incorporated in this self-piercing overlap screw brings many advantages. The metal around the screw, for instance, is simply displaced as it penetrates. As no metal chips are formed there's no need for subsequent cleaning up and the risk of discoloration due to corrosion of metal chips can be ruled out.

Because metal is simply displaced as the screw penetrates, the screw hole remains surrounded by a greater volume of metal, resulting in a higher permissible loading capacity compared to conventional screw fastenings. As a result, the S-MS screw achieves best-in-class load values.

The special “ballistic” shape of the screw tip prevents slipping when starting. Maximum reliability is thus guaranteed, even when driving screws at an angle or when the working surface is wet.

The ergonomically designed SDT 30 stand-up tool for use with collated screws lets the operator work in a relaxed, upright and thus less-tiring standing position, even for long periods. Thanks to its pivoting nose section, the tool can be used comfortably on trapezoidal profile sheets with deep, narrow corrugations.

The third member of this screw fastening system, and ideal for the job, is the new ST 1800-A22 cordless metal construction screwdriver.



Mobile power for decking and siding.

With the power of a corded tool, the new Hilti ST 1800-A22 cordless metal construction screwdriver makes light work of the toughest jobs, even on thick, solid steel beams. With Hilti's comprehensive range of screws and matching accessories it forms an unrivalled cordless system that's unique in this field. Go mobile and raise your productivity – with the Hilti Screw Fastening System and this outstanding cordless tool from the Hilti 22 volt range.



With the power of a corded tool, the ST 1800-A22 makes light work of the toughest jobs

Ideal for driving screws in sheet metal or aluminium structures and for fastening profile metal sheets to steel or timber supports, the red dot design award-winning ST 1800-A22 brings mobile power to decking and siding work. Thanks also to the Hilti ST-SG screw guide, sandwich panel screws can now be driven more efficiently and reliably than ever before. Developed specially for this application and single-hand use, the ST-SG screw guide enables you to drive long sandwich panel screws with ease, accuracy and without scratching or denting the sensitive panel surface.



Compact and perfectly balanced

The tool's comfortable in-line grip allows optimum power transmission and a relaxed hand position.



Extremely cost-efficient

The SDT30 helps you increase your output by up to 300%. It lets you work cordlessly while maintaining a comfortable, upright stance.



Optimum screw guidance

The practical ST-SG screw guide lets you drive sandwich panel screws accurately with one hand and without denting the panels.

Make reliable, high-speed screw fastenings without tip failure, even in high-strength steel.

Hilti screw fastening technology sets new standards because, on the one hand, virtually no drill point failure occurs even in high-strength steel with a thickness of up to 15 mm and, on the other, because sealing washers are always perfectly and reliably compressed even when the screws are driven at high speed.

We offer an immediate solution for all of your screw fastening applications where a drilling capacity of greater than 3 mm is required.



The Hilti “RT” drill point for fast, reliable screwdriving characteristics

Burned out or broken drill points are not only a thorn in the side of the user. The remedial work required is costly and time-consuming. Thanks to the new, patented, RT wave-form cutting edge, burned out drill points become a thing of the past, even in high-strength S355 steel. Rapid removal of the drilling chips allows the screw to penetrate the base material more quickly and prevents point burn-out in materials with a thickness of up to 15 mm. All screws featuring the new technology carry the “RT” logo on the package.



“PS” sealing through customized below-head geometry

The sealing washers at screws on decking, siding and facades are often over compressed. Excessive pressure between the screw head and the sheets fastened causes fine cracks to occur in the EPDM sealing washer. This leads to leakage through the outer skin of the building at the fastening point and thus to an increase in the amount of subsequent remedial work required. The innovative and patented “PS” feature incorporated in all Hilti self-drilling screws with a drilling capacity of more than 3 mm provides a simple solution to the problem of over compression. Hilti screws with this new feature can be identified by the “PS” logo on the package.

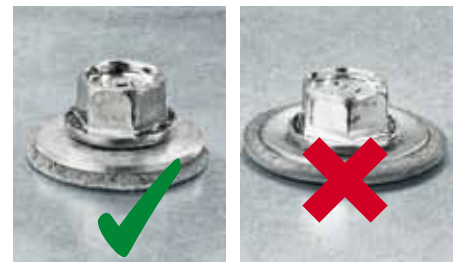


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Selection of the right screw

Selection of the right screw depends on a number of factors determined by the application and the circumstances or conditions under which the screw is to be used. If the application is known, the Hilti screw designation system provides a quick and reliable screw selection aid.



To quickly find the most suitable product for the specific application on hand, simply ask yourself the following questions.

1. Which type of Hilti fastener do you wish to use?

S: Screw

Example: Screw
S- always stands for Hilti screw fastening

2. Which material is to be fastened?

- M:** Metal
- C:** Sandwich panel
- W:** Wood
- I:** Insulation
- D:** Drywall (gypsum board)

Example: Fastening metal profile sheet
S-M

3. Do you wish to use a self-tapping, self-drilling or pointed self-piercing (chipless) screw?

- S:** Pointed, self-piercing
- D:** Self-drilling
- P:** Self-tapping
- DU:** Self-drilling with undercut
- T:** Treadfast

Example: Self-drilling
S-MD

4. Is a sealing washer or a pressed-on washer required?

- 0:** No sealing washer
- 2:** Pressed-on washer
- 3:** 12 mm sealing washer
- 4:** 14 mm sealing washer
- 5:** 16 mm sealing washer
- 6:** 19 mm sealing washer
- 7:** 22 mm sealing washer
- 8:** 29 mm sealing washer
- 9:** BAZ element

Example: 19mm sealing washer
S-MD 6

5. How thick is the material to be drilled through by the screw?

S-MS stitching screw

- 1: Drilling capacity 2 x 0.75 mm to 2 x 1.25 mm

Example: Drilling capacity 5 mm

S-MD 63

Self-drilling screw

- 1: Drilling capacity 1.0 to approx. 3.0 mm
 3: Drilling capacity 2.1 to approx. 6.0 mm
 5: Drilling capacity 4.6 to approx. 15.0 mm

Self-tapping screw

- 2: Blunt thread run-out >1.25 mm steel substructure
 3: Pointed thread run-out <3 mm steel substructure
 Timber substructure
 4: Blunt, hardened thread run-out
 Suitable for S355/ST52 high strength steel
 >1.25 mm steel substructure

6. Which type of corrosion protection and head geometry are required?

Material

- Z: Galvanized carbon steel
 C: Duplex coated carbon steel
 S: A2 grade stainless steel

Example: Stainless steel

S-MD 63 S

Head geometry

- PS: Round head, stainless steel
 LS: Long drill point / A2 drilling capacity 1.0 to approx. 4.0 mm
 LZ: Long drill point / galvanized carbon steel
 Drilling capacity 1.0 to approx. 4.0 mm
 ZP: Plastic-coated head
 ZW: Pan head, galvanized

Example: diameter 5.5 mm
 length 40 mm

S-MD 63 S 5.5x40

7. Dimensions and screw diameter

Screw diameter

4.8 mm / 5.5 mm / 6.3 mm / 6.5 mm

Screw length

19 mm – 102 mm S-MD screws
 80 mm – 300 mm S-CD screws

Corrosion protection

With a view to supplying reliable and durable products, Hilti is constantly active in the development of methods of corrosion protection suitable for use with screws and fastening systems.

Ambient conditions, categories of corrosion

Corrosion occurs under a variety of conditions. It may be caused or increased by the following:

- microclimatic conditions
- the installation process and working with the items concerned
- contact with various materials

In order to select the most suitable type of corrosion protection for screws, the ambient conditions and the situation in which screws are to be used as well as the materials to be fastened must be taken into account.

In accordance with DIN EN ISO 12944-2, the ambient conditions can be divided into six categories:

	Examples
C1 = insignificant	heated buildings (schools, offices, etc.)
C2 = low	rural areas, unheated buildings (warehouses)
C3 = moderate	urban and industrial areas with moderate pollution
C4 = heavy	industrial and coastal areas with moderate salt pollution
C5i = very heavy (industry)	industrial areas with high rel. humidity and heavy pollution
C5m = very heavy (coastal)	coastal and offshore areas with high salt pollution

While it is usually easy to differentiate between dry interiors (C1) and extreme conditions (C5), it is often difficult to differentiate between C2, C3 and C4.

For this reason, the screw selection aid provided in Section 3.5 is based on examples. These examples also take contact with the material to be fastened into account.

Standards, approvals

When choosing the right material or corrosion protection for a fastener, the conditions under which it will be used, the applicable loads and the expected duration of use must be taken into account.

It is essential that the requirements laid out in the applicable regulations or codes, standards and approvals for the corresponding countries (e.g. ETA, DTU, etc.) are observed.

Below, as an example, is an extract from the ETA-10/0182 approval for the S-MD, S-MP and S-MS:

“The provisions made in this European technical approval are based on an assumed working life of the fastening screws of 25 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.”

Duration of use and warranty

- Service life (or effective useful life) provides an indication of the duration for which the fastener can be expected to provide an intact connection between the components without impairment of its loadbearing characteristics or reduction of its loadbearing capacity. It is possible that signs of corrosion such as white rust or red rust may occur during the service life of the fastening but these only affect its appearance.
- Warranty period is a legal term that regulates the subject of liability for defective products.
- The service life possible without functional impairment and without increased risk of failure is usually significantly longer than the duration of the warranty period. Both, however, depend on whether the recommendations concerning the choice of material in relation to the conditions of use, including the surrounding atmosphere, have been observed.

Test procedures and evaluation of corrosion protection systems

Hilti operates a corrosion laboratory and several test stands where items are subjected to weathering under various climatic conditions. Regular laboratory tests ensure the consistently high quality of well-proven corrosion protection solutions. Descriptions of products often contain references to the laboratory tests carried out. The most important of these are described below.

The salt spray test

A standardized test for the evaluation of the corrosion protection offered by various coatings. The procedure followed by the tests is laid down in the ASTM B117 and DIN EN ISO 9227 standards. The items to be evaluated are placed in a test chamber in which they are sprayed constantly with a salt solution (usually sodium chloride). The duration of the test depends on the type and thickness of the coating on the item and the coating's corrosion resistance, and may vary between 6 hours and more than 1000 hours. Coatings with a high corrosion resistance require a longer test duration.

Kesternich test and alternating humidity test

"Kesternich test" is the name given to a corrosion resistance test in which specimens are exposed to sulfur dioxide in an atmosphere of condensing humidity. This test was developed in 1951 by Wilhelm Kesternich in order to simulate the damaging effect of acid rain and can be used for coatings as well as base materials. The test method is laid down in various standards (DIN EN ISO 6988, DIN 50018). The test specimens are placed in a test chamber where they are exposed to warm, humid air in conjunction with a defined quantity of sulfur dioxide. The test is conducted in 24-hour cycles. The alternating humidity test (ISO 6270) is carried out in a similar manner but without the addition of sulfur dioxide.

Corrosion protection systems used by Hilti for screws

Hilti currently offers three different corrosion protection solutions which are adapted according to how the products are to be used and the applicable ambient conditions:

Galvanic zinc plated (electrogalvanized) carbon steel

The thickness of the zinc layer is between 4 and 15 μm , depending on the type of screw. The steel is protected from corrosion by sacrificial corrosion of the zinc, which is a base metal (i.e. not a noble metal). The zinc layer dissolves during the course of this protective procedure. The period of time until the steel begins to rust is thus defined by the rate at which the zinc corrodes.

Duplex-coated carbon steel

A duplex coating system is a corrosion protection system consisting of galvanizing (see above) in combination with other coatings. The galvanizing and the additional coating work together as a protective system. The coating protects the zinc layer from the effects of the atmosphere and chemical influences, thereby reducing the rate of corrosion. This increases the life of the screw, making its use possible in corrosive atmospheres.

A2 stainless steel

A2 stainless steel is an austenitic, acid-resistant Cr-Ni steel with a low carbon content. Its high chromium content leads to formation of an oxide layer which provides a high level of corrosion protection. In situations where the oxide layer is destroyed it usually reforms if oxygen and moisture are present.

Hilti screw selection aid

Classification in environment categories has been simplified and takes the materials with which the screw will be in contact into account. An extended presentation of this information for general selection of materials is provided in the brochure “Corrosion aspects of fastening systems, Hilti 2010” which can be downloaded from the Internet or ordered from Hilti. (http://www.hilti.dk/fstore/holdk/techlib/docs/Hilti_Broch_Corrosion_W3910_en.pdf)

			Hilti corrosion protection systems		
Environmental conditions	Example	Materials to be fastened	Galvanic zinc plated carbon steel	Duplex-coated carbon steel	A2 stainless steel
Dry interiors without condensation (C1)	Offices, schools, hotels, shops	Steel (galvanized, painted), aluminium, stainless steel			
Interiors with condensation but without pollution (C2)	Warehouses, sports halls	Steel, (galvanized, painted)			
		Aluminium, stainless steel			
Outdoors, under cover or fully exposed to the weather, far from the coast (C2)		Steel, (galvanized, painted)			
		Aluminium, stainless steel			
Outdoors, under cover, urban atmosphere (C2-C3)		Steel, (galvanized, painted)			
		Aluminium, stainless steel			
Outdoors, fully exposed to the weather, urban atmosphere (C2-C3)		Steel (galvanized, painted), aluminium, stainless steel			
Outdoors, industrial atmosphere with moderate pollution and exposed to chlorides (C4)	Industrial (chemical) facilities	Steel (galvanized, painted), aluminium, stainless steel			
Outdoors, coastal atmosphere, more than 100 m from the sea (C4)	Boat sheds	Steel (galvanized, painted), aluminium, stainless steel			

	Recommended application
	Not recommended application

Material and corrosion resistance data for steel/metal screws

Screw	Materials and coatings	Corrosion resistance
S-MS 01 Z 4.8 x 20	Case-hardened carbon steel according to DIN EN 10084 and ASTM A510 Tensile strength $f_{u,k} = 1200 \text{ N/mm}^2$ Shear strength $\tau_{u,k} = 700 \text{ N/mm}^2$ $\geq 8 \mu\text{m}$ galvanized as per ISO 4042	$\geq 48 \text{ h}$ salt spray test without red rust on screw head according to EN ISO 9227
S-MD 01 Z 4.2 x L		
S-MD 01 Z/LZ 4.8 x L		
S-MD 01 Z 5.5 x L		
S-MD 01 Z 6.3 x L		
S-MD 03 Z 4.8 x L		
S-MD 03 Z 5.5 x L		
S-MD 03 Z 6.3 x L		
S-MD 05 Z 5.5 x L		
S-MDU 21 Z 6.3 x 22		
S-MD 21 Z 5.5 x 25		
S-MD 23 Z 5.5 x 22		
S-MD 23 Z 6.3 x L		
S-MD 25 Z 5.5 x 40		
S-MD 51 Z 4.2 x L		
S-MD 51 Z 4.8 x L		
S-MD 51 Z 5.5 x L		
S-MD 51 Z 6.3 x L		
S-MD 53 Z 4.8 x L		
S-MD 53 Z 5.5 x L		
S-MD 53 Z 6.3 x L		
S-MD 55 Z 5.5 x L		
S-MD 01 S 4.8 x L	Stainless steel (1.4301 / A2) according to EN 10088 Tensile strength $f_{u,k} = 850 \text{ N/mm}^2$ Shear strength $\tau_{u,k} = 500 \text{ N/mm}^2$	≥ 20 cycles Kesternich test according to DIN EN ISO 6988
S-MD 01 LS 5.5 x L		
S-MD 03 S 5.5 x L		
S-MD 05 S 5.5 x L		
S-MD 51 S 4.8 x L		
S-MD 51 S 5.5 x L		
S-MD 61 S 5.5 x L		
S-MD 51 LS 5.5 x L		
S-MD 61 LS 5.5 x L		
S-MD 71 LS 5.5 x L		
S-MD 43 S 5.5 x L		
S-MD 53 S 5.5 x L		
S-MD 63 S 5.5 x L		
S-MD 73 S 5.5 x L		
S-MD 53 S 6.3 x L		
S-MD 63 S 6.3 x L		
S-MD 73 S 6.3 x L		
S-MD 55 S 5.5 x L		
S-MD 65 S 5.5 x L		
S-MD 75 S 5.5 x L		

Material and corrosion resistance data for steel/metal screws

Screw	Materials and coatings	Corrosion resistance
S-MD 01 PS 4.8 x L	Stainless steel (1.4567 / A2L) according to EN 10088 Tensile strength $f_{u,k} = 650 \text{ N/mm}^2$ Shear strength $\tau_{u,k} = 400 \text{ N/mm}^2$	≥ 20 cycles Kesternich test according to DIN EN ISO 6988
S-MD 01 PS 5.5 x L		
S-MD 03 PS 5.5 x L		
S-MD 05 PS 5.5 x L		
S-MD 31 PS 4.8 x L		
S-MD 31 PS 5.5 x L		
S-MD 33 PS 5.5 x L		
S-MD 35 PS 5.5 x L		
S-CDW 51 C 6.5 x L	Carbon nitride hardened carbon steel according to DIN EN 10084 and ASTM A510. duplex coated	≥ 48 h salt spray test without red rust on screw head according to EN ISO 9227 ≥ 15 cycles Kesternich test according to DIN EN ISO 6988
S-CDW 61 C 6.5 x L		
S-CD 53 C 5.5 x L		
S-CD 63 C 5.5 x L		
S-CD 73 C 5.5 x L		
S-CD 93 C 5.5 x L		
S-CD 55 C 5.5 x L		
S-CD 65 C 5.5 x L		
S-CD 75 C 5.5 x L		
S-CDW 51 S 6.5 x L		
S-CDW 61 S 6.5 x L		
S-CDW 71 S 6.5 x L		
S-CD 53 S 5.5 x L		
S-CD 63 S 5.5 x L		
S-CD 73 S 5.5 x L		
S-CD 93 S 5.5 x L		
S-CD 55 S 5.5 x L		
S-CD 65 S 5.5 x L		
S-CD 75 S 5.5 x L		
S-MP 53 Z 6.5 x L	Case-hardened carbon steel according to DIN EN 10084 and ASTM A510	≥ 48 h salt spray test without red rust on screw head according to EN ISO 9227
S-MP 93 Z 6.5 x L BAZ		
S-MP 52 Z 6.3 x L		
S-MP 53 S 6.5 x L	Stainless steel (1.4301) according to EN 10269 or ASTM A 276	≥ 20 cycles Kesternich test according to DIN EN ISO 6988
S-MP 93 S 6.5 x L BAZ		
S-MP 54 S 6.3 x L	Stainless steel (1.4301 or 1.4303) according to EN 10269 or ASTM A 276	≥ 20 cycles Kesternich test according to DIN EN ISO 6988
S-MP 64 S 6.3 x L		
S-MP 74 S 6.3 x L		
S-WD 11 C 3.8 x L	Case-hardened carbon steel according to DIN EN 10084 and ASTM A510	≥ 48 h salt spray test without red rust on screw head according to EN ISO 9227
S-WD 11 C 4.2 x L		
S-WD 13 C 4.8 x L	Tensile strength $f_{u,k} = 1200 \text{ N/mm}^2$ Shear strength $\tau_{u,k} = 700 \text{ N/mm}^2$ Duplex coated	
S-WD 13 C 5.5 x L		
S-WD 13 C 6.3 x L		
S-WD 15 C 5.5 x L		
S-IT 01C 6.3 x L	Case-hardened steel according to SAE 1018 Duplex coated	≥ 20 cycles Kesternich test according to DIN 50018

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- 18 Technical data, e.g. ETA approval, DiBT approval, technical data sheets**

S - M D 5 3 Z 5.5 X 25 M

Screw fastening

Application

M: metal
 C: sandwich panels
 W: wood / wing tip
 I: insulation
 D: drywall

Function

S: point
 D: self-drilling
 P: self-tapping
 DU: self-drilling with undercut
 T: treadfast

Information about washers and sealing washers

0: no washer
 2: pressed-on washer
 3: 12 mm sealing washer
 4: 14 mm sealing washer
 5: 16 mm sealing washer
 6: 19 mm sealing washer
 7: 22 mm sealing washer
 8: 29 mm sealing washer
 9: BAZ sealing washer

Dimensions

Thread outer dia. x length in mm

Further information

M: collated
 RAL XXXX: RAL colors

Material

Z: galvanized carbon steel
 C: carbon steel with duplex coating
 S: stainless steel

Additional information

PS: round head, stainless steel
 LS: long drill point, stainless steel
 LZ: long drill point, galvanized carbon steel
 ZP: plastic-coated head
 ZW: flat head, galvanized

Information about the screw point

Speedy screw

1: drilling capacity 0.75 to 2.5 mm

Self-drilling screw

1: drilling capacity 1.0 to approx. 3.0 mm
 3: drilling capacity 2.1 to approx. 6.0 mm
 5: drilling capacity 4.6 to approx. 15.0 mm

Self-tapping screw

2: flat thread run-out
 substructures approx. 1.25 mm and thicker
 3: pointed thread run-out
 substructure thickness up to max. 3.0 mm and for wood substructures
 4: flat thread run-out and hardened drill point
 substructures approx. 1.25 mm and thicker

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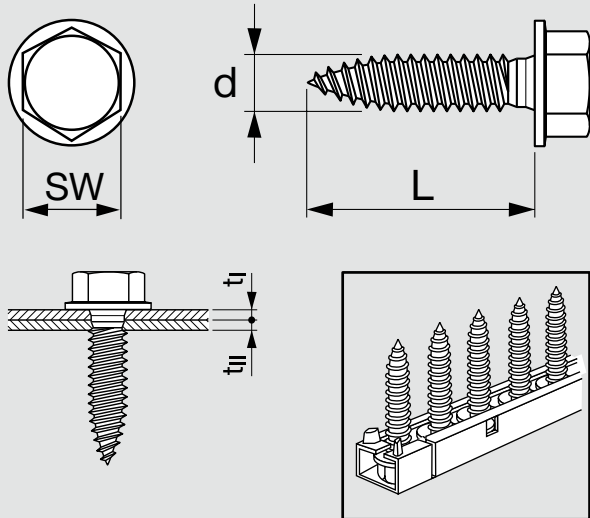
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Overlapping Screw, chipless S-MS 01 Z

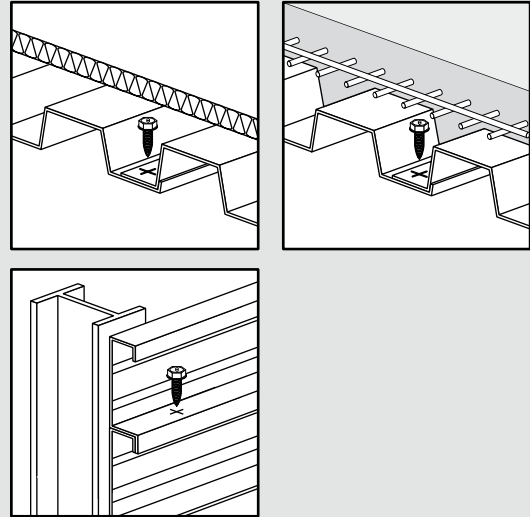


The fastest chipless overlapping screw

Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MS01Z 4,8x20	0.63 mm - 2.5 mm	2.5 mm	4.8 mm	20 mm	8 mm	Hexagon 8	1000 PC	00385448
Self-drilling screw S-MS01Z 4,8x20 M	0.63 mm - 2.5 mm	2.5 mm	4.8 mm	20 mm	8 mm	Hexagon 8	250 PC	00385450

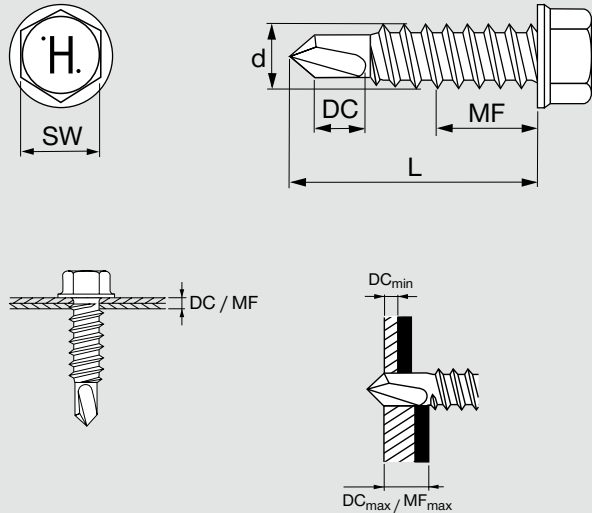


Carbon self-drilling screw S-MD 01 Z

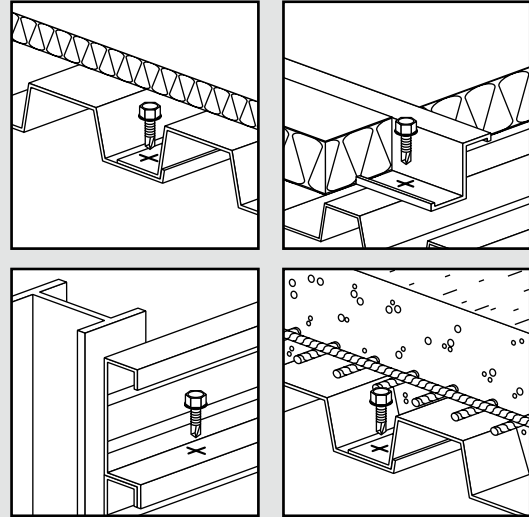


Universal carbon self-drilling screw for a wide range of light inside applications

Fields of application



Application examples

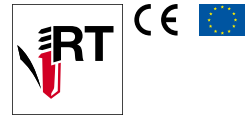


Ordering

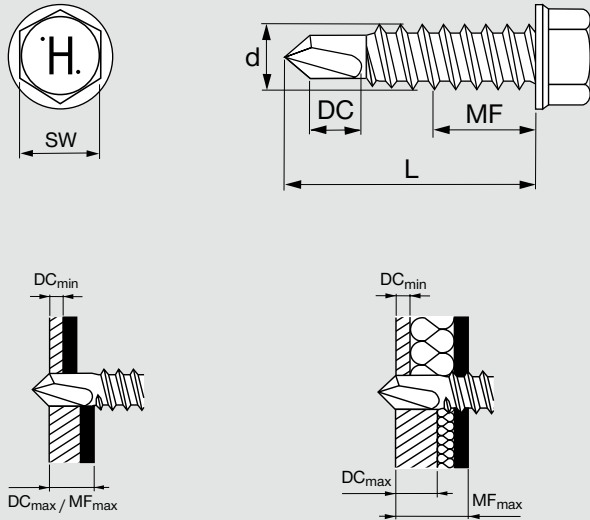
Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD01Z 4,2X13	1.2 mm - 2.5 mm	4.5 mm	4.2 mm	13 mm	7 mm	Hexagon 7	1000 PC	00224500
Self-drilling screw S-MD01Z 4,2X16	1.2 mm - 2.5 mm	7.5 mm	4.2 mm	16 mm	7 mm	Hexagon 7	1000 PC	00010405
Self-drilling screw S-MD01Z 4,8X13	1.2 mm - 2.75 mm	3.5 mm	4.8 mm	13 mm	8 mm	Hexagon 8	1000 PC	00224501
Self-drilling screw S-MD01Z 4,8X19	1.2 mm - 2.75 mm	8.5 mm	4.8 mm	19 mm	8 mm	Hexagon 8	500 PC	00219557
Self-drilling screw S-MD01Z 5,5X19	1.2 mm - 3 mm	7.5 mm	5.5 mm	19 mm	8 mm	Hexagon 8	500 PC	00219558
Self-drilling screw S-MD01Z 6,3X19	1.2 mm - 3 mm	7 mm	6.3 mm	19 mm	10 mm	Hexagon 3/8	500 PC	00219559

Carbon self-drilling screw S-MD 03 Z

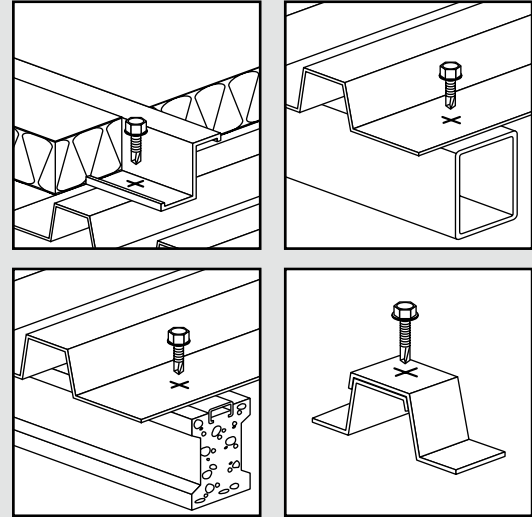
The universal and robust carbon steel self-drilling screw for a wide range of fastenings on steel framing



Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD03Z 4,2X16 *	2.1 mm - 3.5 mm	7 mm	4.2 mm	16 mm	7 mm	Hexagon 7	1000 PC	00219013
Self-drilling screw S-MD03Z 4,8X16 *	2.1 mm - 4.5 mm	7 mm	4.8 mm	16 mm	8 mm	Hexagon 8	500 PC	00219015
Self-drilling screw S-MD03Z 4,8X19 *	2.1 mm - 4.5 mm	10 mm	4.8 mm	19 mm	8 mm	Hexagon 8	500 PC	00219016
Self-drilling screw S-MD03Z 5,5x19	2.6 mm - 6 mm	7 mm	5.5 mm	19 mm	8 mm	Hexagon 8	500 PC	00413415
Self-drilling screw S-MD03Z 5,5x22	2.6 mm - 6 mm	10 mm	5.5 mm	22 mm	8 mm	Hexagon 8	500 PC	00413416
Self-drilling screw S-MD03Z 5,5x25	2.6 mm - 6 mm	13 mm	5.5 mm	25 mm	8 mm	Hexagon 8	500 PC	00413417
Self-drilling screw S-MD03Z 5,5x32	2.6 mm - 6 mm	20 mm	5.5 mm	32 mm	8 mm	Hexagon 8	500 PC	00413419
Self-drilling screw S-MD03Z 5,5x38	2.6 mm - 6 mm	26 mm	5.5 mm	38 mm	8 mm	Hexagon 8	500 PC	00413420
Self-drilling screw S-MD03Z 5,5x50	2.6 mm - 6 mm	38 mm	5.5 mm	50 mm	8 mm	Hexagon 8	500 PC	00414293
Self-drilling screw S-MD03Z 6,3x19	2.6 mm - 6 mm	7 mm	6.3 mm	19 mm	8 mm	Hexagon 8	500 PC	00413421
Self-drilling screw S-MD03Z 6,3x22	2.6 mm - 6 mm	10 mm	6.3 mm	22 mm	8 mm	Hexagon 8	500 PC	00413422
Self-drilling screw S-MD03Z 6,3x25	2.6 mm - 6 mm	13 mm	6.3 mm	25 mm	8 mm	Hexagon 8	500 PC	00413423
Self-drilling screw S-MD03Z 6,3x32	2.6 mm - 6 mm	20 mm	6.3 mm	32 mm	8 mm	Hexagon 8	500 PC	00413424
Self-drilling screw S-MD03Z 6,3x38	2.6 mm - 6 mm	26 mm	6.3 mm	38 mm	8 mm	Hexagon 8	500 PC	00414295
Self-drilling screw S-MD03Z 6,3x50	2.6 mm - 6 mm	38 mm	6.3 mm	50 mm	8 mm	Hexagon 8	250 PC	00413425
Self-drilling screw S-MD03Z 6,3x70	2.6 mm - 6 mm	58 mm	6.3 mm	70 mm	8 mm	Hexagon 8	250 PC	00413426

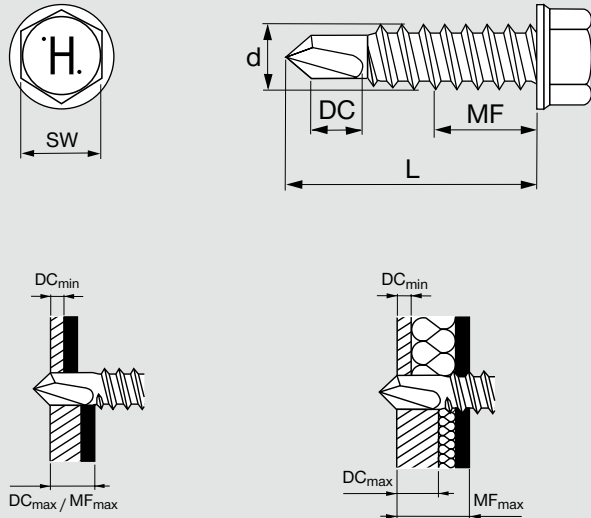
* Without RT

Carbon self-drilling screw S-MD 05 Z

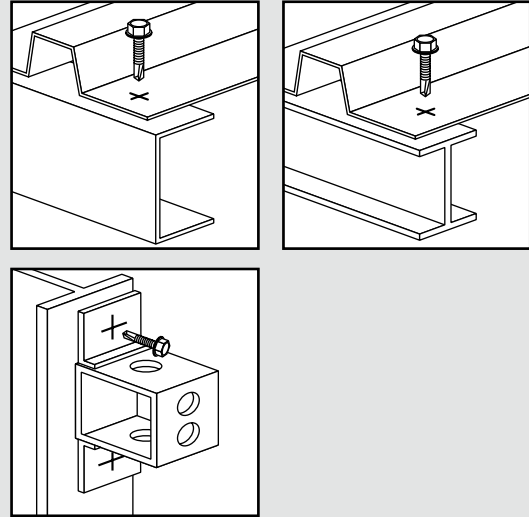
Universal carbon steel self-drilling screw for a wide range of medium and heavy inside applications



Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Screw-head diameter	Screw drive/ recess type	Sales Quantity	Item Number
Self-drilling screw S-MD05Z 5,5x40	4.6 mm - 15 mm	18 mm	5.5 mm	40 mm	8 mm	Hexagon 8	250 PC	00414176
Self-drilling screw S-MD05Z 5,5x52	4.6 mm - 15 mm	18 mm	5.5 mm	52 mm	8 mm	Hexagon 8	250 PC	00414177
Self-drilling screw S-MD05Z 5,5x65	4.6 mm - 15 mm	43 mm	5.5 mm	65 mm	8 mm	Hexagon 8	100 PC	00414178
Self-drilling screw S-MD05Z 5,5x102	4.6 mm - 15 mm	80 mm	5.5 mm	102 mm	8 mm	Hexagon 8	100 PC	00414179

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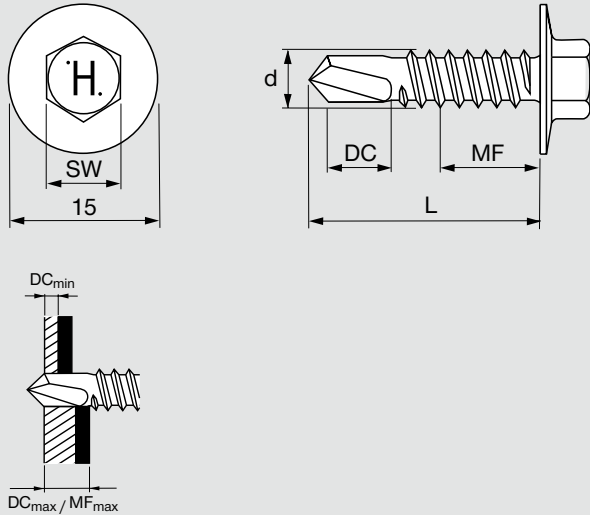
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Carbon self-drilling screw with pressed-on flange

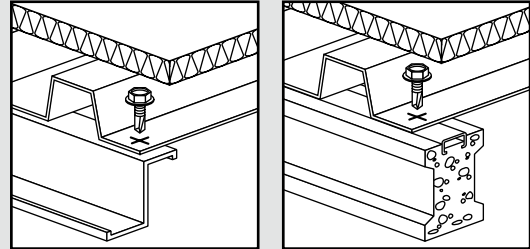
S-MD 21 Z

The universal and robust carbon steel self-drilling screw for a wide range of fastenings on steel framing

Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD21Z 5,5X25	1.2 mm - 3 mm	15 mm	5.5 mm	25 mm	8 mm	Hexagon 8	500 PC	00234588
Self-drilling screw S-MDU21 Z 6,3x22	1.2 mm - 3 mm	9 mm	6.3 mm	22 mm	10 mm	Hexagon 10	500 PC	00201990

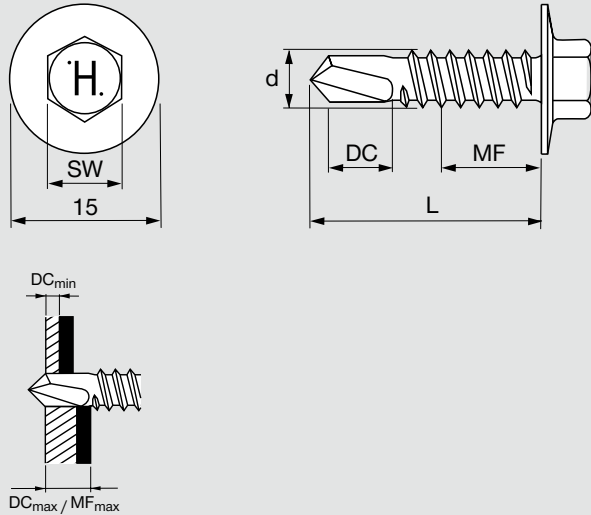


Self-drilling screw with pressed-on flange S-MD 23 Z

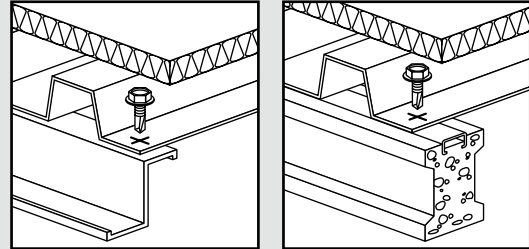
The universal and robust carbon steel self-drilling screw for a wide range of fastenings on steel framing



Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD23Z 5,5x22	2.6 mm - 6 mm	10 mm	5.5 mm	22 mm	8 mm	Hexagon 8	500 PC	00413427
Self-drilling screw S-MD23Z 6,3x19	2.6 mm - 6 mm	7 mm	6.3 mm	19 mm	8 mm	Hexagon 8	500 PC	00413429
Self-drilling screw S-MD23Z 6,3x22	2.6 mm - 6 mm	10 mm	6.3 mm	22 mm	8 mm	Hexagon 8	500 PC	00413430
Self-drilling screw S-MD23Z 6,3x25	2.6 mm - 6 mm	13 mm	6.3 mm	25 mm	8 mm	Hexagon 8	500 PC	00413432
Self-drilling screw S-MD23Z 6,3x50	2.6 mm - 6 mm	38 mm	6.3 mm	50 mm	8 mm	Hexagon 8	250 PC	00413433

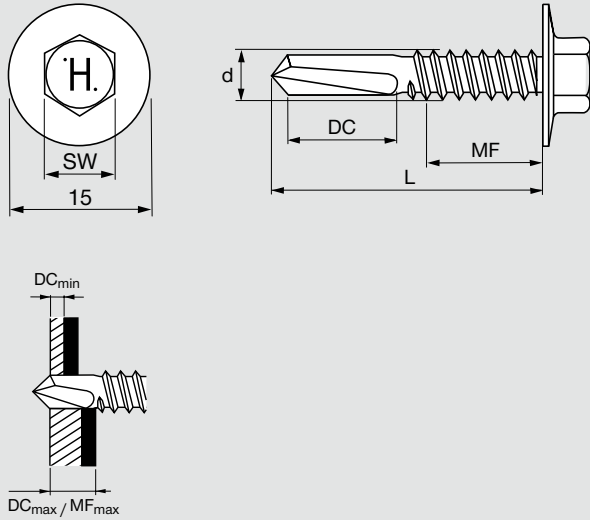
Carbon self-drilling screw with pressed-on flange

S-MD 25 Z

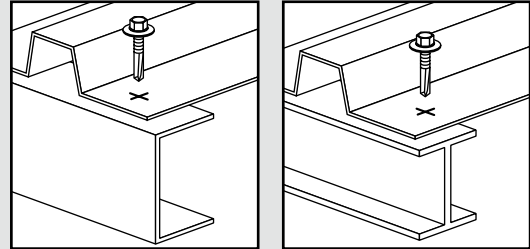
Universal carbon steel self-drilling screw for a wide range of medium and heavy inside applications



Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD25Z 5,5x40	4.6 mm - 15 mm	18 mm	5.5 mm	40 mm	8 mm	Hexagon 8	250 PC	00290670

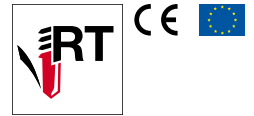


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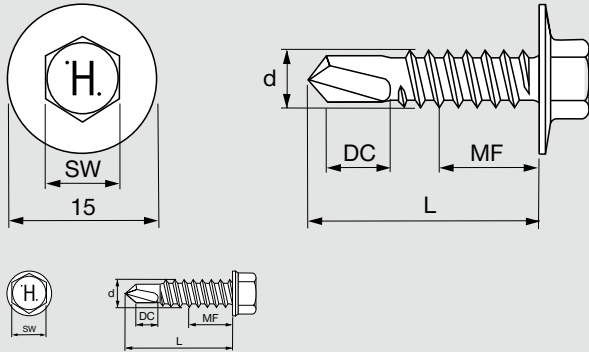
- 1 Overview of siding and decking applications
- 2 Hilti innovations in screw fastening
- 3 Selection of the right screw - the basics
- 4 Hilti screw nomenclature
- 5 Carbon steel self-drilling screws**
 - 5.1 Carbon steel self-drilling screws without washer
 - 5.2 Carbon steel self-drilling screws with pressed-on flange
 - 5.3 Carbon steel self-drilling screws collated
 - 5.4 Carbon steel self-drilling screws with sealing washer
 - 5.5 Carbon steel self-drilling screws with waferhead
- 6 Stainless steel self-drilling screws**
 - 6.1 Stainless steel self-drilling screws without washer
 - 6.2 Stainless steel self-drilling screws with sealing washer
 - 6.3 Stainless steel self-drilling screws with panhead and without washer
 - 6.4 Stainless steel self-drilling screws with panhead and sealing washer
- 7 Carbon steel sandwich panel screws
- 8 Stainless steel sandwich panel screws
- 9 Carbon steel self-tapping screws
- 10 Stainless steel self-tapping screws
- 11 Carbon steel self-drilling wing screws
- 12 Flat roof insulation screws and load plates**
 - 12.1 Flat roof insulation screws, 4.8 mm diameter
 - 12.2 Flat roof insulation screws, 6.7 mm diameter
- 13 Special items, e.g. washers
- 14 Direct fastening nails for siding and decking
- 15 Screw fastening basics
- 16 Direct fastening basics
- 17 Overview of tools and accessories
- 18 Technical data, e.g. ETA approval, DiBT approval, technical data sheets

Collated carbon self-drilling screw S-MD M

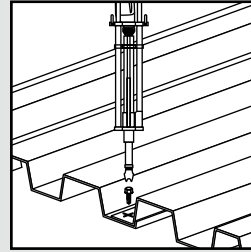
Collated carbon steel self-drilling screws for higher productivity



Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD01Z 4,8x19 M *	1.2 mm - 2.75 mm	8.5 mm	4.8 mm	19 mm	8 mm	Hexagon 8	250 PC	00378978
Self-drilling screw S-MD23Z 5,5x22 M	2.6 mm - 6 mm	10 mm	5.5 mm	22 mm	8 mm	Hexagon 8	200 PC	00413428
Self-drilling screw S-MD03Z 5,5x25 M	2.6 mm - 6 mm	13 mm	5.5 mm	25 mm	8 mm	Hexagon 8	250 PC	00413418
Self-drilling screw S-MD23Z 6,3x22 M	2.6 mm - 6 mm	10 mm	6.3 mm	22 mm	10 mm	Hexagon 8	200 PC	00413431
Self-drilling screw S-MDU21Z 6,3X22 M *	1.2 mm - 3 mm	9 mm	6.3 mm	22 mm	10 mm	Hexagon 10	200 PC	00228237

* without RT and ETA approval



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 - 5.2 Carbon steel self-drilling screws with pressed-on flange
 - 5.3 Carbon steel self-drilling screws collated
 - 5.4 Carbon steel self-drilling screws with sealing washer
 - 5.5 Carbon steel self-drilling screws with waferhead
- 6 Stainless steel self-drilling screws**
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 - 6.2 Stainless steel self-drilling screws with sealing washer
 - 6.3 Stainless steel self-drilling screws with panhead and without washer
 - 6.4 Stainless steel self-drilling screws with panhead and sealing washer
- 7 Carbon steel sandwich panel screws
- 8 Stainless steel sandwich panel screws
- 9 Carbon steel self-tapping screws
- 10 Stainless steel self-tapping screws
- 11 Carbon steel self-drilling wing screws
- 12 Flat roof insulation screws and load plates**
 - 12.1 Flat roof insulation screws, 4.8 mm diameter
 - 12.2 Flat roof insulation screws, 6.7 mm diameter
- 13 Special items, e.g. washers
- 14 Direct fastening nails for siding and decking
- 15 Screw fastening basics
- 16 Direct fastening basics
- 17 Overview of tools and accessories
- 18 Technical data, e.g. ETA approval, DiBT approval, technical data sheets

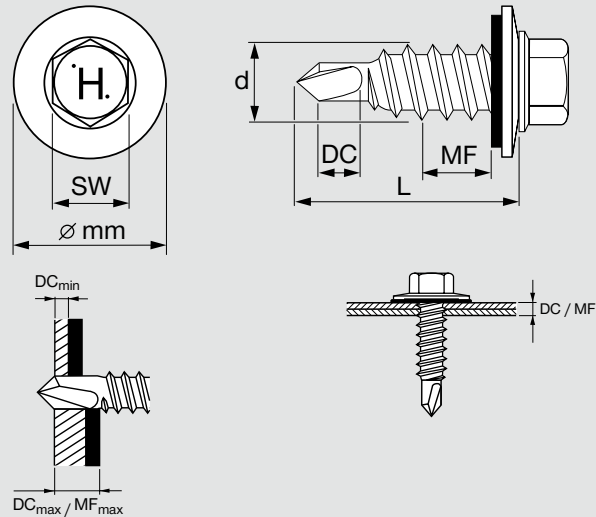
Carbon self-drilling screw (Ø16)



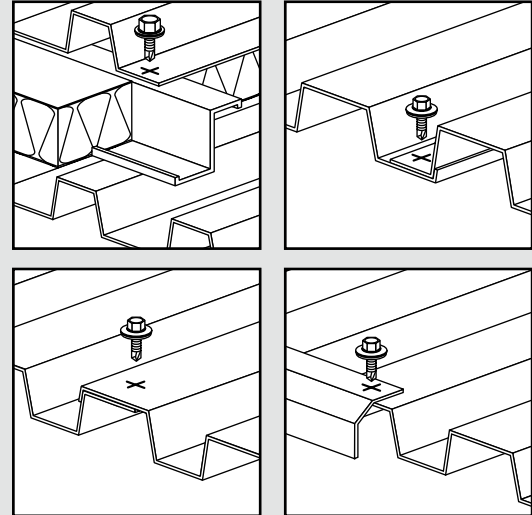
S-MD 51 Z

Carbon steel self-drilling screw with 16mm sealing washer for light applications

Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD51Z 4,8X19	1.2 mm - 2.75 mm	5.5 mm	4.8 mm	19 mm	16 mm	8 mm	Hexagon 8	500 PC	00219032
Self-drilling screw S-MD51Z 6,3X19	1.2 mm - 3 mm	4 mm	6.3 mm	19 mm	16 mm	10 mm	Hexagon 3/8	500 PC	00219034

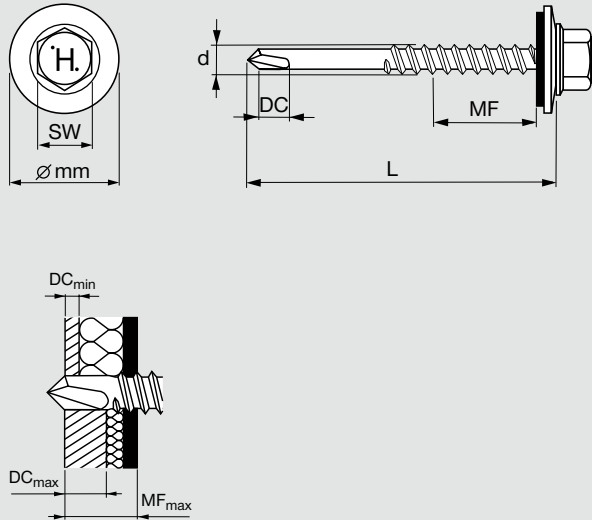


Carbon self-drill screw (Ø16)

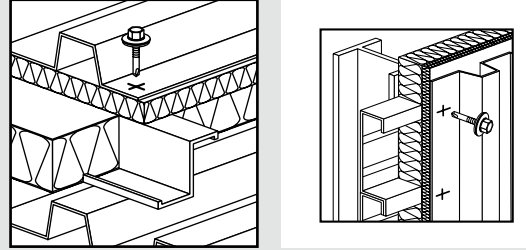
S-MD 51 LZ

Carbon steel self-drilling screw with 16mm sealing washer for light applications

Fields of application



Application examples



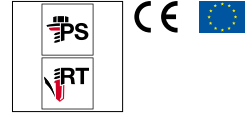
Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD51LZ 4,8X38	1.2 mm - 2.75 mm	13 mm	4.8 mm	38 mm	16 mm	8 mm	Hexagon 8	250 PC	00252801

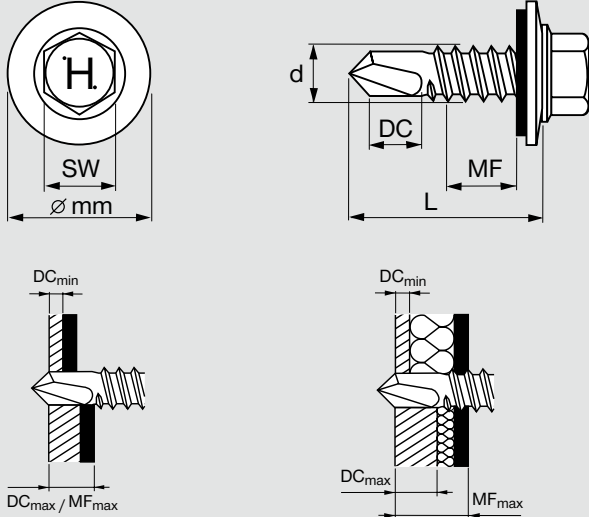
Carbon steel self-drilling screw (Ø 16)

S-MD 53 Z

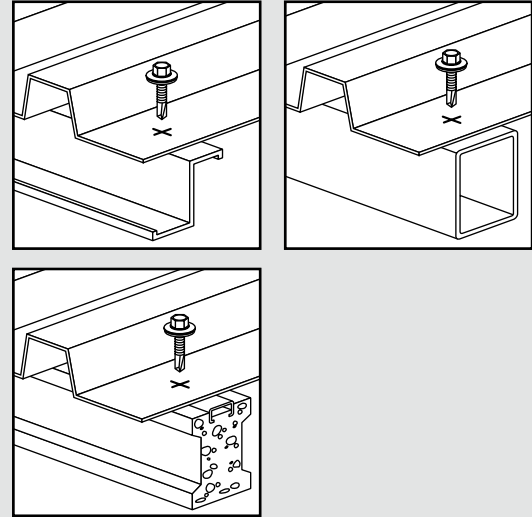
Carbon steel self-drilling screw with 16mm sealing washer for light and medium applications



Fields of application



Application examples



Ordering

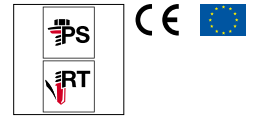
Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD53Z 4,8X19 *	2.1 mm - 4.5 mm	5 mm	4.8 mm	19 mm	16 mm	8 mm	Hexagon 8	500 PC	00219035
Self-drilling screw S-MD53Z 4,8X32 *	2.1 mm - 4.5 mm	10 mm	4.8 mm	32 mm	16 mm	8 mm	Hexagon 8	500 PC	00224612
Self-drilling screw S-MD53Z 5,5x19	2.6 mm - 6 mm	4 mm	5.5 mm	19 mm	16 mm	8 mm	Hexagon 8	500 PC	00413440
Self-drilling screw S-MD53Z 5,5x25	2.6 mm - 6 mm	10 mm	5.5 mm	25 mm	16 mm	8 mm	Hexagon 8	500 PC	00413441
Self-drilling screw S-MD53Z 5,5x32	2.6 mm - 6 mm	17 mm	5.5 mm	32 mm	16 mm	8 mm	Hexagon 8	500 PC	00413442
Self-drilling screw S-MD53Z 5,5x38	2.6 mm - 6 mm	23 mm	5.5 mm	38 mm	16 mm	8 mm	Hexagon 8	250 PC	00413443
Self-drilling screw S-MD53Z 5,5x50	2.6 mm - 6 mm	35 mm	5.5 mm	50 mm	16 mm	8 mm	Hexagon 8	250 PC	00413444
Self-drilling screw S-MD53Z 6,3x19	2.6 mm - 6 mm	4 mm	6.3 mm	19 mm	16 mm	8 mm	Hexagon 8	500 PC	00413445
Self-drilling screw S-MD53Z 6,3x25	2.6 mm - 6 mm	10 mm	6.3 mm	25 mm	16 mm	8 mm	Hexagon 8	500 PC	00413446
Self-drilling screw S-MD53Z 6,3x32	2.6 mm - 6 mm	17 mm	6.3 mm	32 mm	16 mm	8 mm	Hexagon 8	500 PC	00413447
Self-drilling screw S-MD53Z 6,3x38	2.6 mm - 6 mm	23 mm	6.3 mm	38 mm	16 mm	8 mm	Hexagon 8	250 PC	00413448
Self-drilling screw S-MD53Z 6,3x50	2.6 mm - 6 mm	35 mm	6.3 mm	50 mm	16 mm	8 mm	Hexagon 8	250 PC	00413449
Screw S-MD53Z 5,5x25 RAL9006	2.6 mm - 6 mm	10 mm	5.5 mm	25 mm	16 mm	8 mm	Hexagon 8	500 PC	00413320
Screw S-MD53Z 5,5x25 RAL9010	2.6 mm - 6 mm	10 mm	5.5 mm	25 mm	16 mm	8 mm	Hexagon 8	500 PC	00413319

* without RT and PS

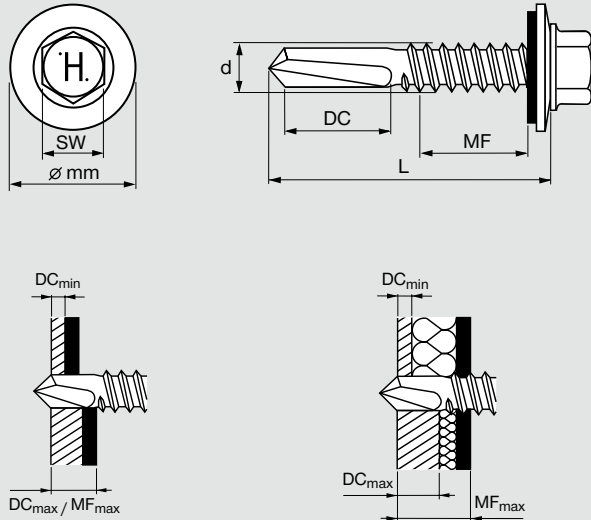
Carbon steel self-drilling screw (Ø 16)

S-MD 55 Z

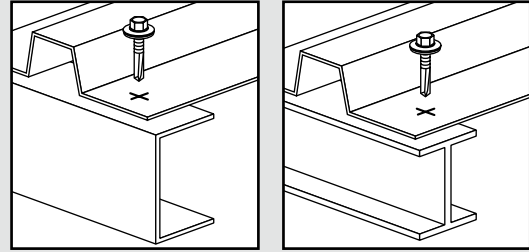
Carbon steel self-drilling screw with 16mm sealing washer for medium and heavy applications



Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD55Z 5,5x40	4.6 mm - 15 mm	15 mm	5.5 mm	40 mm	16 mm	8 mm	Hexagon 8	250 PC	00414180
Self-drilling screw S-MD55Z 5,5x52	4.6 mm - 15 mm	27 mm	5.5 mm	52 mm	16 mm	8 mm	Hexagon 8	250 PC	00414181
Self-drilling screw S-MD55Z 5,5x65	4.6 mm - 15 mm	40 mm	5.5 mm	65 mm	16 mm	8 mm	Hexagon 8	100 PC	00414182
Self-drilling screw S-MD55Z 5,5x82	4.6 mm - 15 mm	57 mm	5.5 mm	82 mm	16 mm	8 mm	Hexagon 8	100 PC	00414183
Self-drilling screw S-MD55Z 5,5x102	4.6 mm - 15 mm	77 mm	5.5 mm	102 mm	16 mm	8 mm	Hexagon 8	100 PC	00414184
Screw S-MD55Z 5,5x40 RAL9006	4.6 mm - 15 mm	15 mm	5.5 mm	40 mm	16 mm	8 mm	Hexagon 8	250 PC	00413318
Screw S-MD55Z 5,5x40 RAL9010	4.6 mm - 15 mm	15 mm	5.5 mm	40 mm	16 mm	8 mm	Hexagon 8	250 PC	00413317

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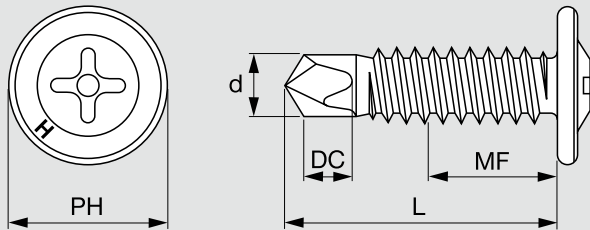
- 1 Overview of siding and decking applications**
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- 6 Stainless steel self-drilling screws**
 - 6.1 Stainless steel self-drilling screws without washer
 - 6.2 Stainless steel self-drilling screws with sealing washer
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- 8 Stainless steel sandwich panel screws**
- 9 Carbon steel self-tapping screws**
- 10 Stainless steel self-tapping screws**
- 11 Carbon steel self-drilling wing screws**
- 12 Flat roof insulation screws and load plates**
 - 12.1 Flat roof insulation screws, 4.8 mm diameter
 - 12.2 Flat roof insulation screws, 6.7 mm diameter
- 13 Special items, e.g. washers**
- 14 Direct fastening nails for siding and decking**
- 15 Screw fastening basics**
- 16 Direct fastening basics**
- 17 Overview of tools and accessories**
- 18 Technical data, e.g. ETA approval, DiBT approval, technical data sheets**

Carbon steel self-drilling screw

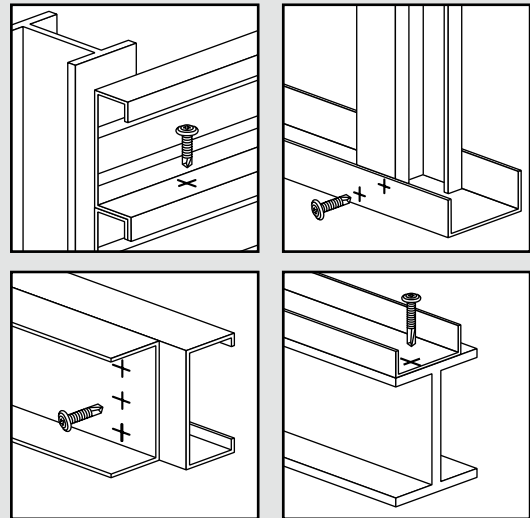
S-MD 01 - 05 ZW

The carbon steel wafer head screw for fastening metal sheets to steel structures

Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD01ZW 5,5x19	1.2 mm - 3 mm	7.5 mm	5.5 mm	19 mm	11 mm	PH#2	1000 PC	00408761
Self-drilling screw S-MD03ZW 5,5x25	2.6 mm - 6 mm	12 mm	5.5 mm	25 mm	11 mm	PH#2	1000 PC	00408762
Self-drilling screw S-MD05ZW 5,5x40	4.6 mm - 12 mm	18 mm	5.5 mm	40 mm	12.5 mm	PH#3	500 PC	00408763



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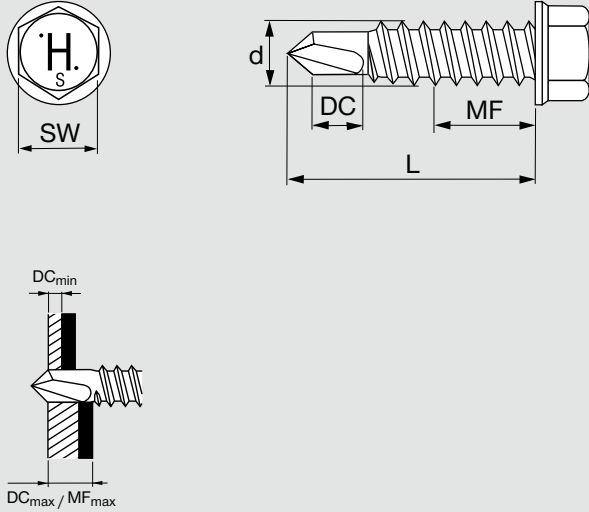
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- 8 Stainless steel sandwich panel screws**
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 - 12.2 Flat roof insulation screws, 6.7 mm diameter
- 13 Special items, e.g. washers**
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- 16 Direct fastening basics**
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Stainless steel self-drilling screw

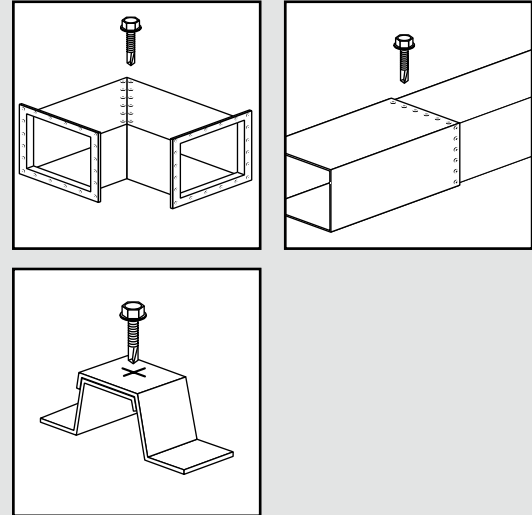
S-MD 01 S

Universal stainless self-drilling screw for a wide range of light inside applications

Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD01S 4,8x22	1.25 mm - 2 mm	9 mm	4.8 mm	22 mm	8 mm	Hexagon 8	500 PC	00285608
Self-drilling screw S-MD01LS 5,5x25	1.8 mm - 4 mm	8 mm	5.5 mm	25 mm	8 mm	Hexagon 8	500 PC	00285609



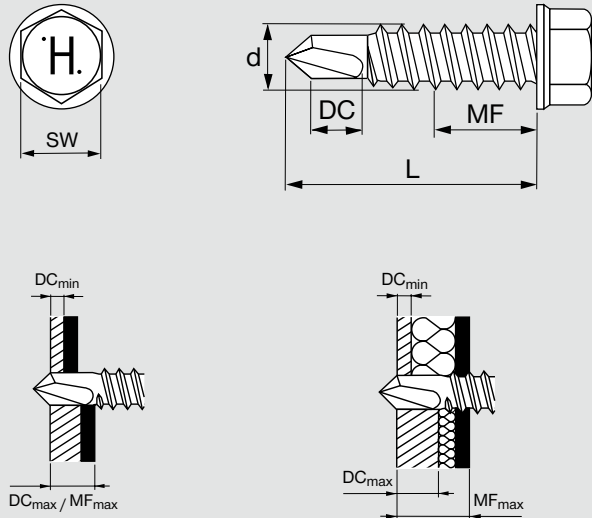
Stainless self-drilling screw

S-MD 03 S

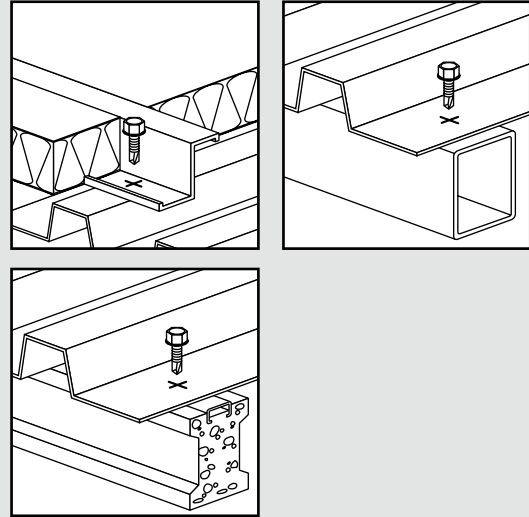
Universal stainless self-drilling screw for a wide range of light and medium inside applications



Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD03S 5,5x25	2.6 mm - 6 mm	10 mm	5.5 mm	25 mm	8 mm	Hexagon 8	500 PC	00413408
Self-drilling screw S-MD03S 5,5x32	2.6 mm - 6 mm	17 mm	5.5 mm	32 mm	8 mm	Hexagon 8	250 PC	00413409
Self-drilling screw S-MD03S 5,5x38	2.6 mm - 6 mm	23 mm	5.5 mm	38 mm	8 mm	Hexagon 8	250 PC	00413410
Self-drilling screw S-MD03S 5,5x50	2.6 mm - 6 mm	35 mm	5.5 mm	50 mm	8 mm	Hexagon 8	250 PC	00413411
Self-drilling screw S-MD03S 5,5x63	2.6 mm - 6 mm	48 mm	5.5 mm	63 mm	8 mm	Hexagon 8	100 PC	00413412
Self-drilling screw S-MD03S 6,3x25	2.6 mm - 6 mm	10 mm	6.3 mm	25 mm	8 mm	Hexagon 8	500 PC	00413413
Self-drilling screw S-MD03S 6,3x32	2.6 mm - 6 mm	17 mm	6.3 mm	32 mm	8 mm	Hexagon 8	500 PC	00413414

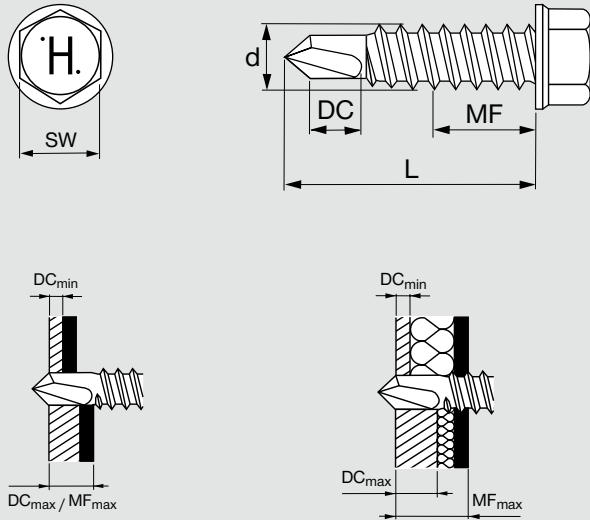
Stainless self-drilling screw

S-MD 05 S

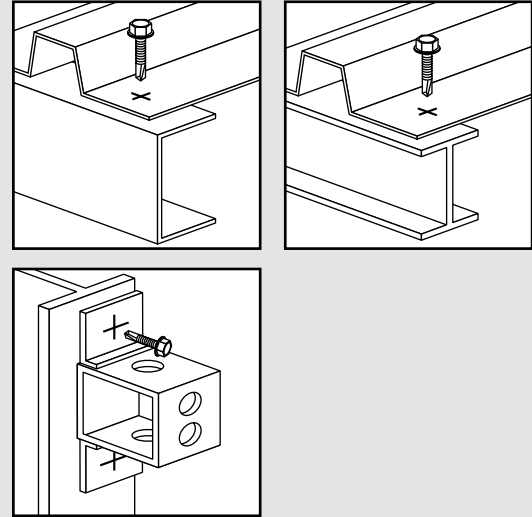
Universal stainless self-drilling screw for a wide range of medium and heavy inside applications



Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Screw-head diameter	Screw drive/ recess type	Sales Quantity	Item Number
Self-drilling screw S-MD05S 5,5x40	4.5 mm - 12 mm	11 mm	5.5 mm	40 mm	8 mm	Hexagon 8	250 PC	00290368
Self-drilling screw S-MD05S 5,5x52	4.6 mm - 12 mm	23 mm	5.5 mm	52 mm	8 mm	Hexagon 8	250 PC	00290369
Self-drilling screw S-MD05S 5,5x65	4.6 mm - 12 mm	36 mm	5.5 mm	65 mm	8 mm	Hexagon 8	100 PC	00290370
Self-drilling screw S-MD05S 5,5x82	4.6 mm - 12 mm	53 mm	5.5 mm	82 mm	8 mm	Hexagon 8	100 PC	00290371
Self-drilling screw S-MD05S 5,5x102	4.6 mm - 12 mm	73 mm	5.5 mm	102 mm	8 mm	Hexagon 8	100 PC	00290385



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 - 5.2 Carbon steel self-drilling screws with pressed-on flange
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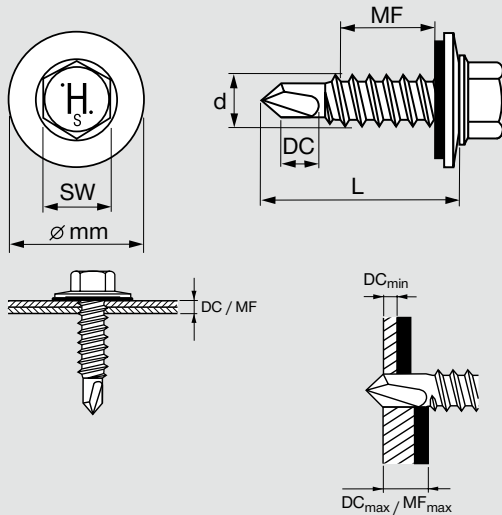
Stainless self-drilling screw (Ø16mm)



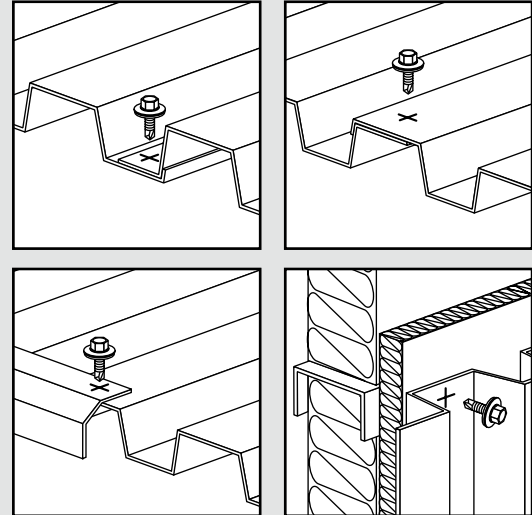
S-MD 51 S

Stainless steel self-drilling screw with 16mm sealing washer for light outside applications

Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD51S 4,8X22	1.25 mm - 2 mm	6 mm	4.8 mm	22 mm	16 mm	8 mm	Hexagon 8	250 PC	00375228
Self-drilling screw S-MD51S 4,8X25	1.25 mm - 2 mm	9 mm	4.8 mm	25 mm	16 mm	8 mm	Hexagon 8	500 PC	00375229
Self-drilling screw S-MD51S 5,5x25	1.25 mm - 3 mm	8 mm	5.5 mm	25 mm	16 mm	8 mm	Hexagon 8	500 PC	00378257
Self-drilling screw S-MD51S 5,5X32	1.25 mm - 3 mm	15 mm	5.5 mm	32 mm	16 mm	8 mm	Hexagon 8	250 PC	00375230
Self-drilling screw S-MD51S 5,5X38	1.25 mm - 3 mm	21 mm	5.5 mm	38 mm	16 mm	8 mm	Hexagon 8	250 PC	00375231
Self-drilling screw S-MD51S 5,5X50	1.25 mm - 3 mm	33 mm	5.5 mm	50 mm	16 mm	8 mm	Hexagon 8	250 PC	00375232



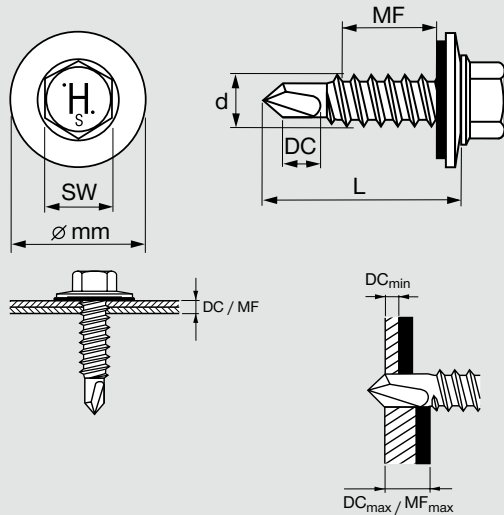
Stainless self-drilling screw (Ø19mm)



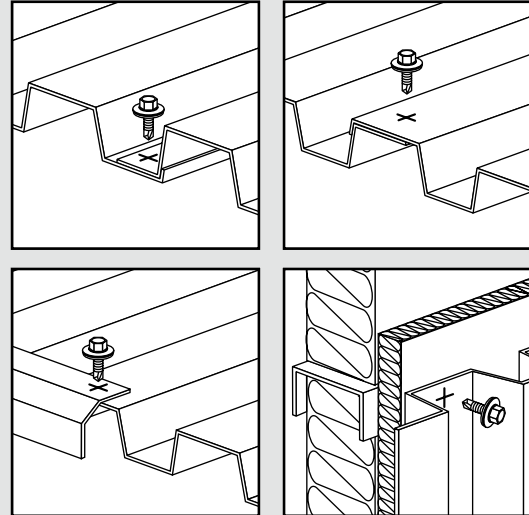
S-MD 61 S

Stainless steel self-drilling screw with 19mm sealing washer for light outside applications

Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/ recess type	Sales Quantity	Item Number
Self-drilling screw S-MD61S 4,8x22	1.25 mm - 2 mm	6 mm	4.8 mm	22 mm	19 mm	8 mm	Hexagon 8	500 PC	00283052

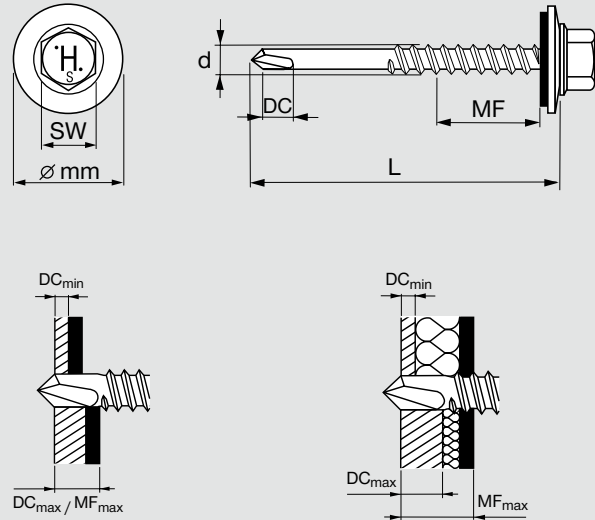
Stainless steel self-drilling screw



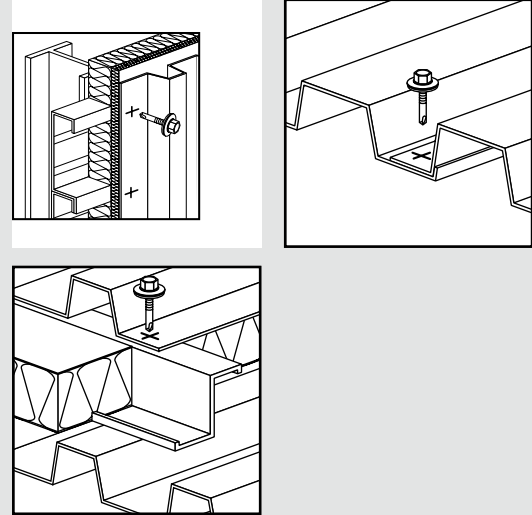
S-MD 51 LS

Stainless steel self-drilling screw with 16, 19 or 22mm sealing washer for light outside applications

Fields of application



Application examples



Ordering

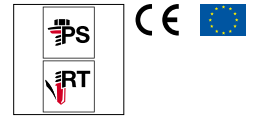
Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD51LS 5,5x25	1.8 mm - 4 mm	5 mm	5.5 mm	25 mm	8 mm	Hexagon 8	500 PC	00378258
Self-drilling screw S-MD61LS 5,5x25	1.8 mm - 4 mm	5 mm	5.5 mm	25 mm	8 mm	Hexagon 8	500 PC	00283058
Self-drilling screw S-MD71LS 5,5x25	1.8 mm - 4 mm	5 mm	5.5 mm	25 mm	8 mm	Hexagon 8	500 PC	00285596



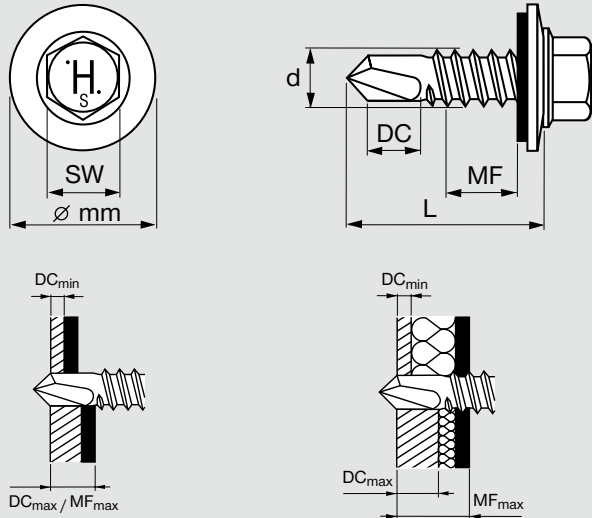
Stainless self-drilling screw (Ø 14)

S-MD 43 S

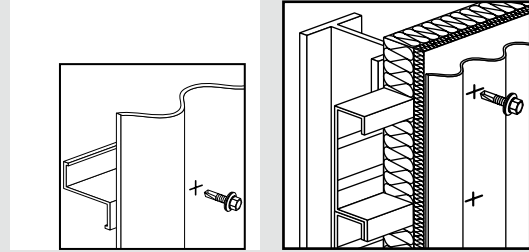
Stainless steel self-drilling screw with 14mm sealing washer for light and medium outside applications



Fields of application



Application examples



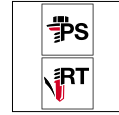
Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD43S 5,5x25	2.1 mm - 6 mm	7 mm	5.5 mm	25 mm	14 mm	8 mm	Hexagon 8	500 PC	00414297
Self-drilling screw S-MD43S 5,5x32	2.1 mm - 6 mm	14 mm	5.5 mm	32 mm	14 mm	8 mm	Hexagon 8	500 PC	00414300
Self-drilling screw S-MD43S 5,5x38	2.1 mm - 6 mm	20 mm	5.5 mm	38 mm	14 mm	8 mm	Hexagon 8	250 PC	00414302
Self-drilling screw S-MD43S 5,5x50	2.1 mm - 6 mm	32 mm	5.5 mm	50 mm	14 mm	8 mm	Hexagon 8	250 PC	00414304
Self-drilling screw S-MD43S 5,5x63	2.1 mm - 6 mm	45 mm	5.5 mm	63 mm	14 mm	8 mm	Hexagon 8	100 PC	00414307

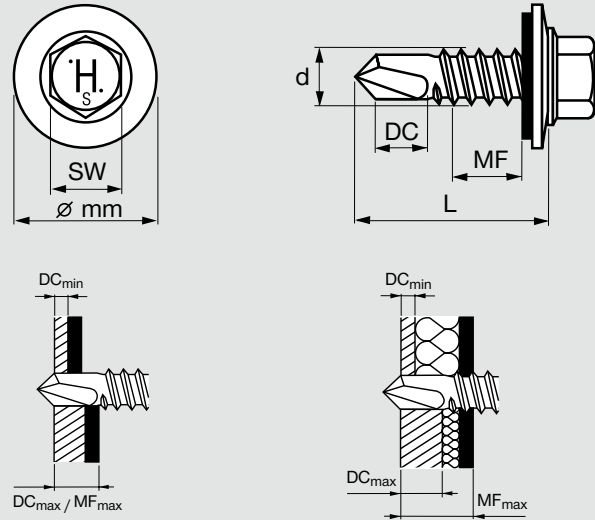
Stainless self-drilling screw (Ø 16)

S-MD 53 S

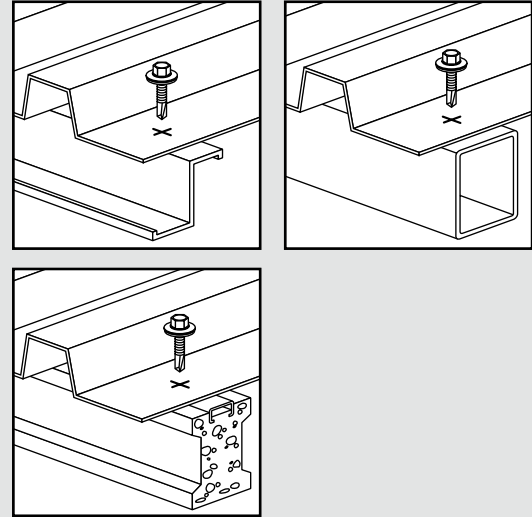
Stainless steel self-drilling screw with 16mm sealing washer for light and medium outside applications



Fields of application



Application examples



Ordering

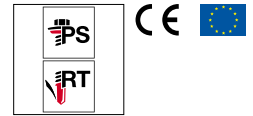
Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD53S 5,5x25	2.1 mm - 6 mm	7 mm	5.5 mm	25 mm	16 mm	8 mm	Hexagon 8	500 PC	00413434
Self-drilling screw S-MD53S 5,5x32	2.1 mm - 6 mm	14 mm	5.5 mm	32 mm	16 mm	8 mm	Hexagon 8	250 PC	00413435
Self-drilling screw S-MD53S 5,5x38	2.1 mm - 6 mm	20 mm	5.5 mm	38 mm	16 mm	8 mm	Hexagon 8	250 PC	00413436
Self-drilling screw S-MD53S 5,5x50	2.1 mm - 6 mm	32 mm	5.5 mm	50 mm	16 mm	8 mm	Hexagon 8	250 PC	00413437
Self-drilling screw S-MD53S 5,5x63	2.1 mm - 6 mm	45 mm	5.5 mm	63 mm	16 mm	8 mm	Hexagon 8	100 PC	00413438
Self-drilling screw S-MD53S 6,3x25	2.1 mm - 6 mm	7 mm	6.3 mm	25 mm	16 mm	8 mm	Hexagon 8	500 PC	00413439



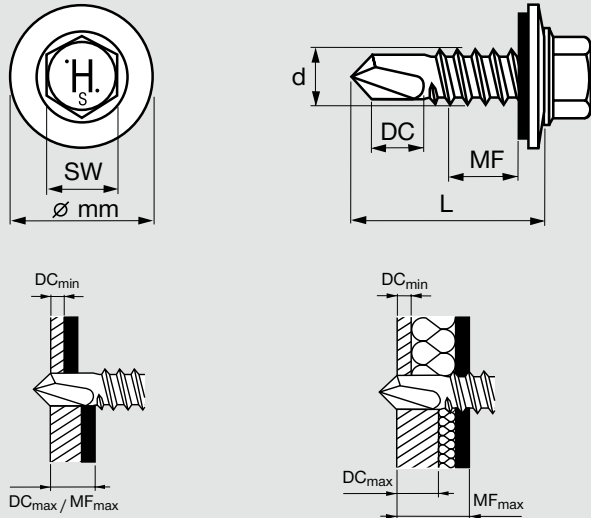
Stainless self-drilling screw (Ø 19)

S-MD 63 S

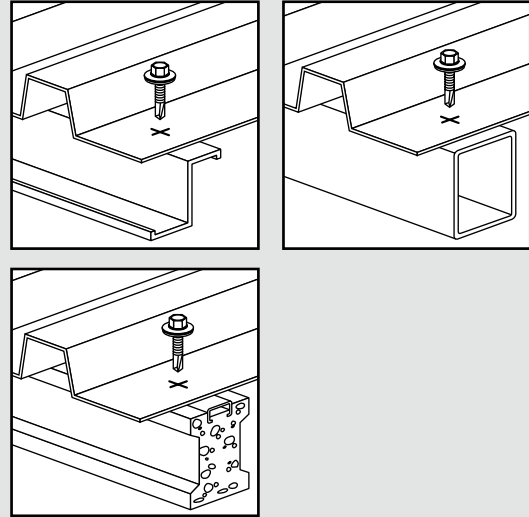
Stainless steel self-drilling screw with 19mm sealing washer for light and medium outside applications



Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD63S 5,5x25	2.1 mm - 6 mm	7 mm	5.5 mm	25 mm	19 mm	8 mm	Hexagon 8	500 PC	00413450
Self-drilling screw S-MD63S 5,5x32	2.1 mm - 6 mm	14 mm	5.5 mm	32 mm	19 mm	8 mm	Hexagon 8	250 PC	00413451
Self-drilling screw S-MD63S 5,5x38	2.1 mm - 6 mm	20 mm	5.5 mm	38 mm	19 mm	8 mm	Hexagon 8	250 PC	00413452
Self-drilling screw S-MD63S 5,5x50	2.1 mm - 6 mm	32 mm	5.5 mm	50 mm	19 mm	8 mm	Hexagon 8	250 PC	00413453
Self-drilling screw S-MD63S 5,5x63	2.1 mm - 6 mm	45 mm	5.5 mm	63 mm	19 mm	8 mm	Hexagon 8	100 PC	00413454
Self-drilling screw S-MD63S 6,3x25	2.1 mm - 6 mm	7 mm	6.3 mm	25 mm	19 mm	8 mm	Hexagon 8	500 PC	00413455

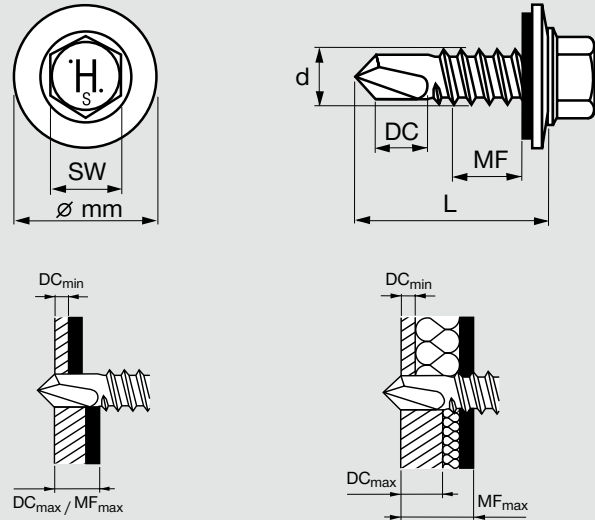
Stainless self-drilling screw (Ø 22)



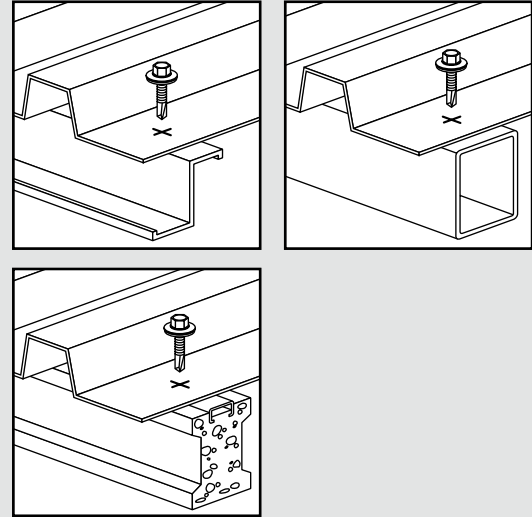
S-MD 73 S

The stainless steel self-drilling screw with 22mm sealing washer for light- and medium-duty outdoor applications

Fields of application



Application examples



Ordering

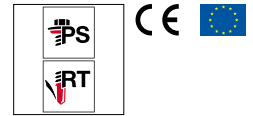
Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD73S 5,5x25	2.1 mm - 6 mm	7 mm	5.5 mm	25 mm	22 mm	8 mm	Hexagon 8	500 PC	00413456
Self-drilling screw S-MD73S 5,5x32	2.1 mm - 6 mm	14 mm	5.5 mm	32 mm	22 mm	8 mm	Hexagon 8	250 PC	00413457
Self-drilling screw S-MD73S 5,5x38	2.1 mm - 6 mm	20 mm	5.5 mm	38 mm	22 mm	8 mm	Hexagon 8	250 PC	00413458
Self-drilling screw S-MD73S 5,5x50	2.1 mm - 6 mm	32 mm	5.5 mm	50 mm	22 mm	8 mm	Hexagon 8	250 PC	00413459
Self-drilling screw S-MD73S 5,5x63	2.1 mm - 6 mm	45 mm	5.5 mm	63 mm	22 mm	8 mm	Hexagon 8	100 PC	00413460
Self-drilling screw S-MD73S 6,3x25	2.1 mm - 6 mm	7 mm	6.3 mm	25 mm	22 mm	8 mm	Hexagon 8	500 PC	00413461



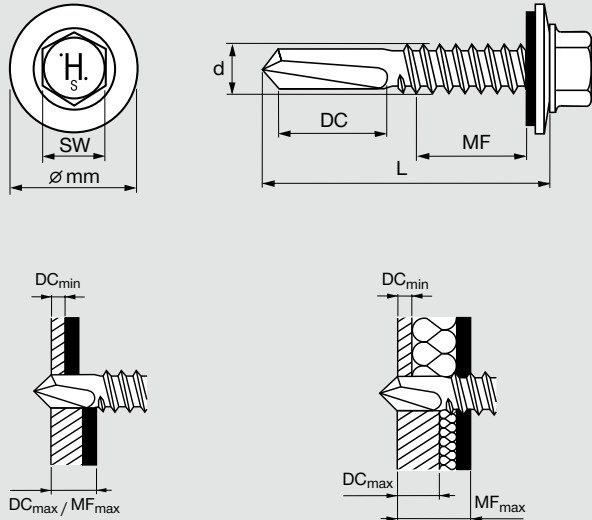
Stainless self-drilling screw (Ø 16)

S-MD 55 S

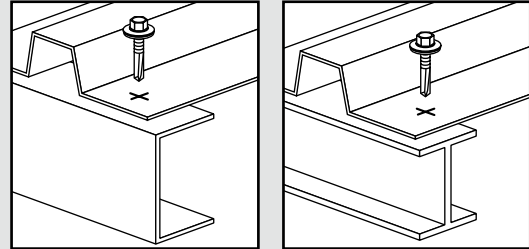
Stainless steel self-drilling screw with 16mm sealing washer for medium and heavy outside applications



Fields of application



Application examples



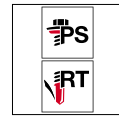
Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD55S 5,5x40	4.6 mm - 12 mm	11 mm	5.5 mm	40 mm	16 mm	8 mm	Hexagon 8	250 PC	00290674
Self-drilling screw S-MD55S 5,5x52	4.6 mm - 12 mm	23 mm	5.5 mm	52 mm	16 mm	8 mm	Hexagon 8	250 PC	00290675
Self-drilling screw S-MD55S 5,5x65	4.6 mm - 12 mm	36 mm	5.5 mm	65 mm	16 mm	8 mm	Hexagon 8	100 PC	00290676
Self-drilling screw S-MD55S 5,5x82	4.6 mm - 12 mm	53 mm	5.5 mm	82 mm	16 mm	8 mm	Hexagon 8	100 PC	00290677
Self-drilling screw S-MD55S 5,5x102	4.6 mm - 12 mm	73 mm	5.5 mm	102 mm	16 mm	8 mm	Hexagon 8	100 PC	00290678

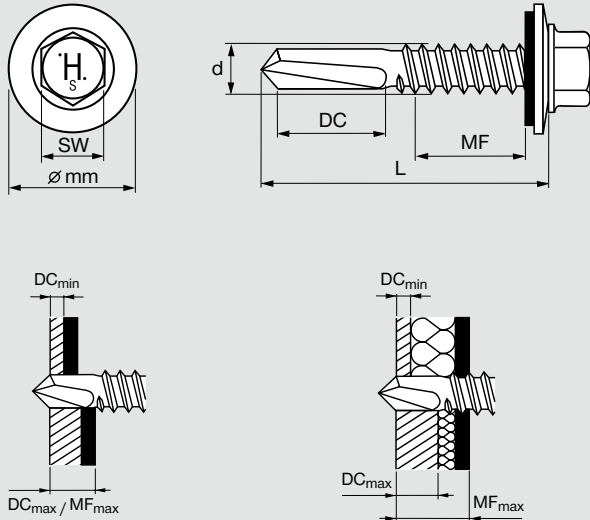
Stainless self-drilling screw (Ø 19)

S-MD 65 S

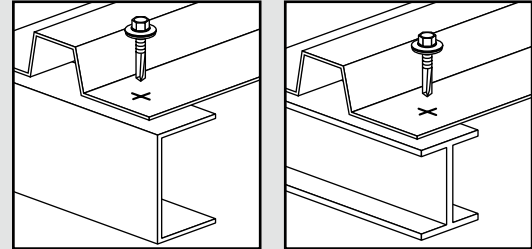
Stainless steel self-drilling screw with 19mm sealing washer for medium and heavy outside applications



Fields of application



Application examples



Ordering

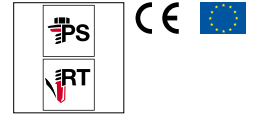
Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD65S 5,5x40	4.6 mm - 12 mm	11 mm	5.5 mm	40 mm	19 mm	8 mm	Hexagon 8	250 PC	00290679
Self-drilling screw S-MD65S 5,5x52	4.6 mm - 12 mm	23 mm	5.5 mm	52 mm	19 mm	8 mm	Hexagon 8	250 PC	00290684
Self-drilling screw S-MD65S 5,5x65	4.6 mm - 12 mm	36 mm	5.5 mm	65 mm	19 mm	8 mm	Hexagon 8	100 PC	00290685
Self-drilling screw S-MD65S 5,5x82	4.6 mm - 12 mm	53 mm	5.5 mm	82 mm	19 mm	8 mm	Hexagon 8	100 PC	00290686
Self-drilling screw S-MD65S 5,5x102	4.6 mm - 12 mm	73 mm	5.5 mm	102 mm	19 mm	8 mm	Hexagon 8	100 PC	00290687



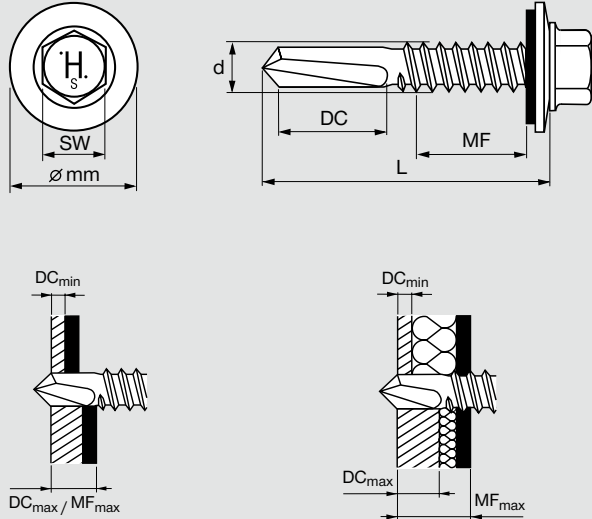
Stainless self-drilling screw (Ø 22)

S-MD 75 S

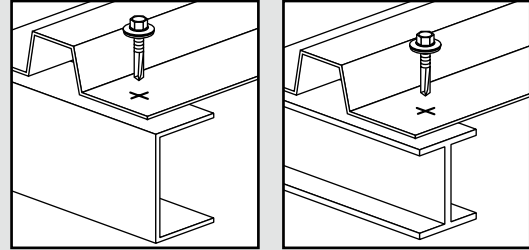
Stainless steel self-drilling screw with 22mm sealing washer for medium and heavy outside applications



Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD75S 5,5x40	4.6 mm - 12 mm	11 mm	5.5 mm	40 mm	22 mm	8 mm	Hexagon 8	250 PC	00290688
Self-drilling screw S-MD75S 5,5x52	4.6 mm - 12 mm	23 mm	5.5 mm	52 mm	22 mm	8 mm	Hexagon 8	250 PC	00290689
Self-drilling screw S-MD75S 5,5x65	4.6 mm - 12 mm	36 mm	5.5 mm	65 mm	22 mm	8 mm	Hexagon 8	100 PC	00290690
Self-drilling screw S-MD75S 5,5x82	4.6 mm - 12 mm	53 mm	5.5 mm	82 mm	22 mm	8 mm	Hexagon 8	100 PC	00290691
Self-drilling screw S-MD75S 5,5x102	4.6 mm - 12 mm	73 mm	5.5 mm	102 mm	22 mm	8 mm	Hexagon 8	100 PC	00290692

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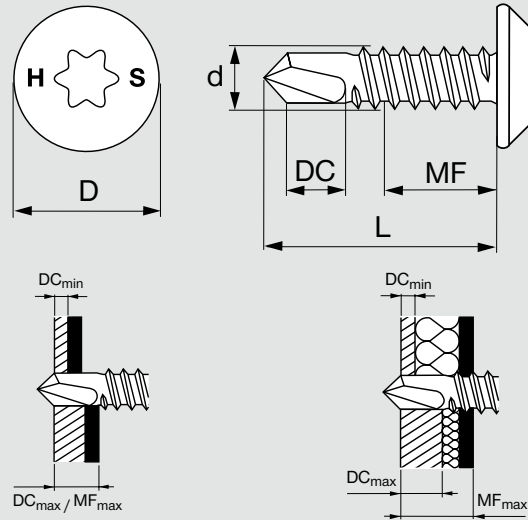
- 1 Overview of siding and decking applications**
- 2 Hilti innovations in screw fastening**
- 3 Selection of the right screw - the basics**
- 4 Hilti screw nomenclature**
- 5 Carbon steel self-drilling screws**
 - 5.1 Carbon steel self-drilling screws without washer
 - 5.2 Carbon steel self-drilling screws with pressed-on flange
 - 5.3 Carbon steel self-drilling screws collated
 - 5.4 Carbon steel self-drilling screws with sealing washer
 - 5.5 Carbon steel self-drilling screws with waferhead
- 6 Stainless steel self-drilling screws**
 - 6.1 Stainless steel self-drilling screws without washer
 - 6.2 Stainless steel self-drilling screws with sealing washer
 - 6.3 Stainless steel self-drilling screws with panhead and without washer
 - 6.4 Stainless steel self-drilling screws with panhead and sealing washer
- 7 Carbon steel sandwich panel screws**
- 8 Stainless steel sandwich panel screws**
- 9 Carbon steel self-tapping screws**
- 10 Stainless steel self-tapping screws**
- 11 Carbon steel self-drilling wing screws**
- 12 Flat roof insulation screws and load plates**
 - 12.1 Flat roof insulation screws, 4.8 mm diameter
 - 12.2 Flat roof insulation screws, 6.7 mm diameter
- 13 Special items, e.g. washers**
- 14 Direct fastening nails for siding and decking**
- 15 Screw fastening basics**
- 16 Direct fastening basics**
- 17 Overview of tools and accessories**
- 18 Technical data, e.g. ETA approval, DiBT approval, technical data sheets**

Stainless self-drilling panhead screw

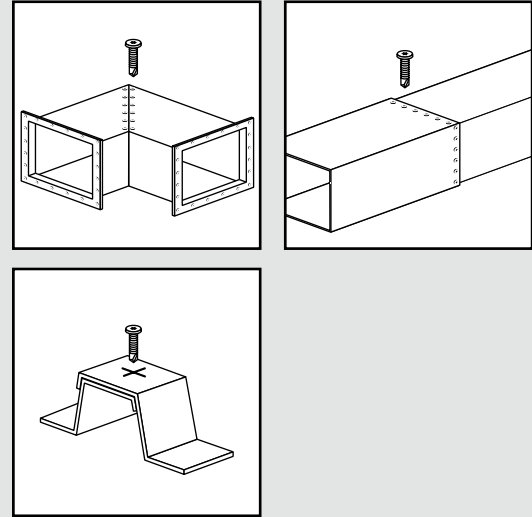
S-MD 01 PS

Universal stainless self-drilling screw for a wide range of light inside applications

Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD01PS 4,8x19	1 mm - 2.75 mm	3 mm	4.8 mm	19 mm	12 mm	TX 25	500 PC	00202432
Self-drilling screw S-MD01PS 4,8x38	1 mm - 2.75 mm	33 mm	4.8 mm	38 mm	12 mm	TX 25	250 PC	00387249
Self-drilling screw S-MD01PS 4,8x50	1 mm - 2.75 mm	34 mm	4.8 mm	50 mm	12 mm	TX 25	250 PC	00202433
Self-drilling screw S-MD01PS 5,5x22	1 mm - 3 mm	5 mm	5.5 mm	22 mm	12 mm	TX 25	500 PC	00202434
Self-drilling screw S-MD01PS 5,5x28	1 mm - 3 mm	11 mm	5.5 mm	28 mm	12 mm	TX 25	500 PC	00202435
Self-drilling screw S-MD01PS 5,5x38	1 mm - 3 mm	21 mm	5.5 mm	38 mm	12 mm	TX 25	250 PC	00202436
Self-drilling screw S-MD01PS 5,5x50	1 mm - 3 mm	31 mm	5.5 mm	50 mm	12 mm	TX 25	250 PC	00202437

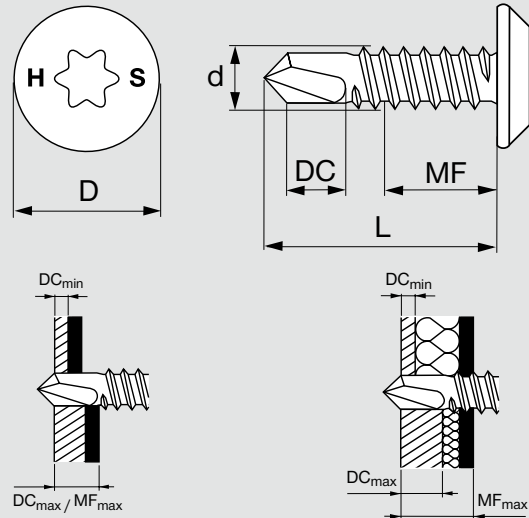


Stainless self-drilling panhead screw

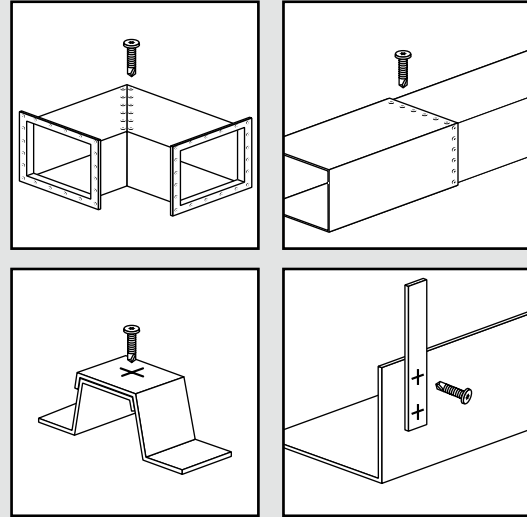
S-MD 03 PS

Universal stainless self-drilling screw for a wide range of light and medium inside applications

Fields of application



Application examples



Ordering

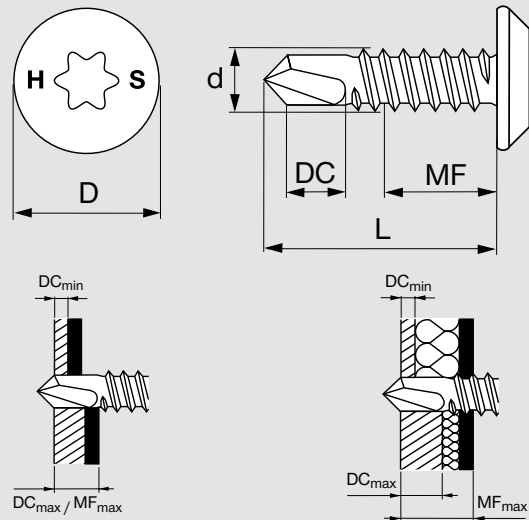
Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD03PS 5.5x22	2.1 mm - 5.5 mm	3 mm	5.5 mm	22 mm	12 mm	TX 25	500 PC	00202438
Self-drilling screw S-MD03PS 5.5x28	2.1 mm - 5.5 mm	9 mm	5.5 mm	28 mm	12 mm	TX 25	500 PC	00202439
Self-drilling screw S-MD03PS 5.5x38	2.1 mm - 5.5 mm	19 mm	5.5 mm	38 mm	12 mm	TX 25	250 PC	00202440
Self-drilling screw S-MD03PS 5.5x50	2.1 mm - 5.5 mm	31 mm	5.5 mm	50 mm	12 mm	TX 25	250 PC	00202441

Stainless self-drilling panhead screw

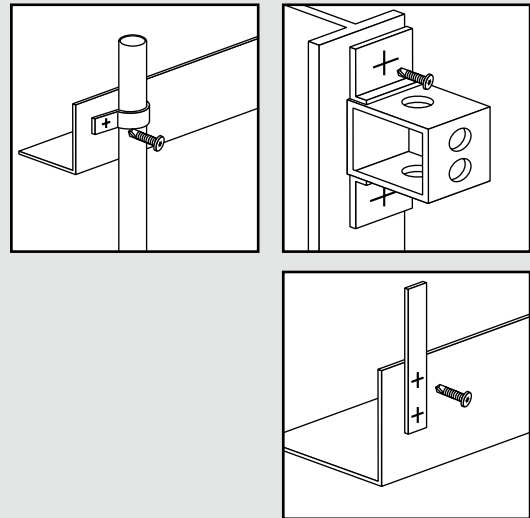
S-MD 05 PS

Universal stainless self-drilling screw for a wide range of medium and heavy inside applications

Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD05PS 5,5x45	4.6 mm - 12 mm	10 mm	5.5 mm	50 mm	12 mm	TX 25	250 PC	00202442



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- 16 Direct fastening basics**
- 17 Overview of tools and accessories**
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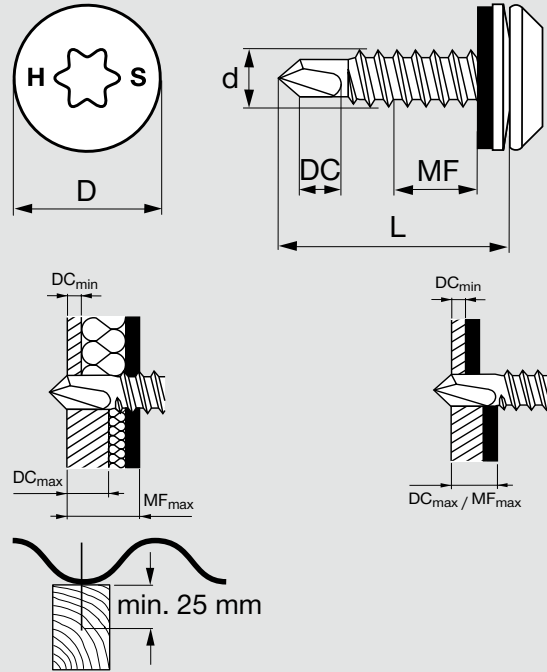
Stainless self-drill panhead screw (Ø12)



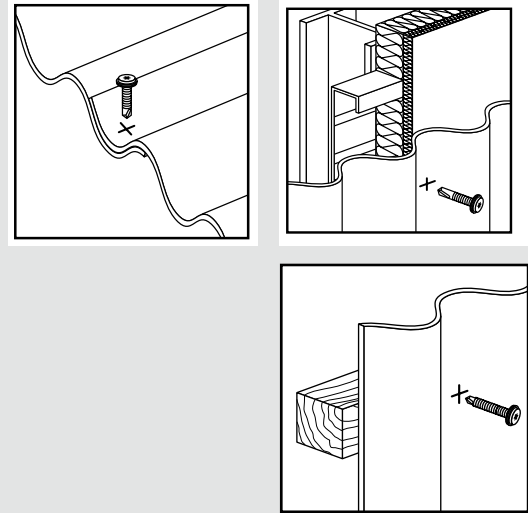
S-MD 31 PS

Stainless steel pan head screw with 12mm sealing washer for light outside application on steel or wood

Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD31PS 4,8x19	1 mm - 2.75 mm	5 mm	4.8 mm	19 mm	12 mm	12 mm	TX 25	500 PC	00202421
Self-drilling screw S-MD31PS 4,8x38 *	1 mm - 2.75 mm	13 mm	4.8 mm	38 mm	12 mm	12 mm	TX 25	250 PC	00387248
Self-drilling screw S-MD31PS 4,8x50 *	1 mm - 2.75 mm	25 mm	4.8 mm	50 mm	12 mm	12 mm	TX 25	250 PC	00202422
Self-drilling screw S-MD31PS 5,5x22	1 mm - 3 mm	7 mm	5.5 mm	22 mm	12 mm	12 mm	TX 25	500 PC	00202423
Self-drilling screw S-MD31PS 5,5x28	1 mm - 3 mm	13 mm	5.5 mm	28 mm	12 mm	12 mm	TX 25	500 PC	00202424
Self-drilling screw S-MD31PS 5,5x38	1 mm - 3 mm	23 mm	5.5 mm	38 mm	12 mm	12 mm	TX 25	250 PC	00202425
Self-drilling screw S-MD31PS 5,5x50	1 mm - 3 mm	35 mm	5.5 mm	50 mm	12 mm	12 mm	TX 25	250 PC	00202426

* fastening on wood; respect national regulations

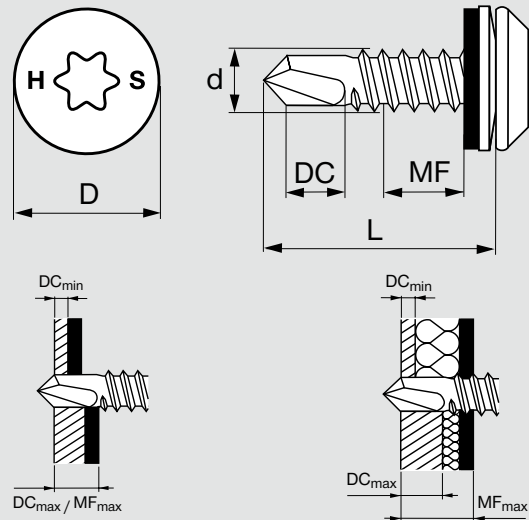
Stainless self-drill panhead screw (Ø12)



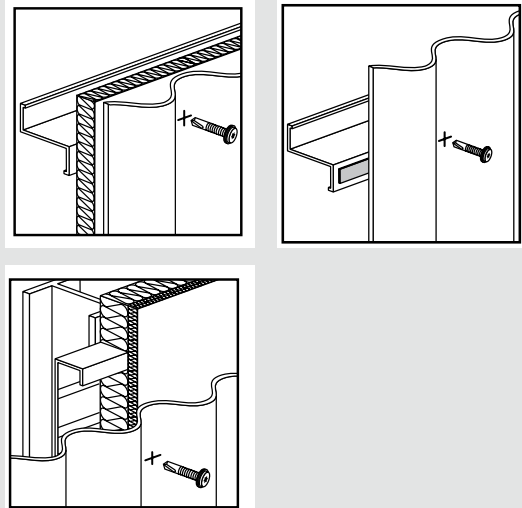
S-MD 33 PS

Stainless steel pan head screw with 12mm sealing washer for light and medium outside application on steel

Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD33PS 5.5x22	2.1 mm - 5.5 mm	5 mm	5.5 mm	22 mm	12 mm	12 mm	TX 25	500 PC	00202427
Self-drilling screw S-MD33PS 5.5x28	2.1 mm - 5.5 mm	11 mm	5.5 mm	28 mm	12 mm	12 mm	TX 25	500 PC	00202428
Self-drilling screw S-MD33PS 5.5x38	2.1 mm - 5.5 mm	21 mm	5.5 mm	38 mm	12 mm	12 mm	TX 25	250 PC	00202429
Self-drilling screw S-MD33PS 5.5x50	2.1 mm - 5.5 mm	33 mm	5.5 mm	50 mm	12 mm	12 mm	TX 25	250 PC	00202430

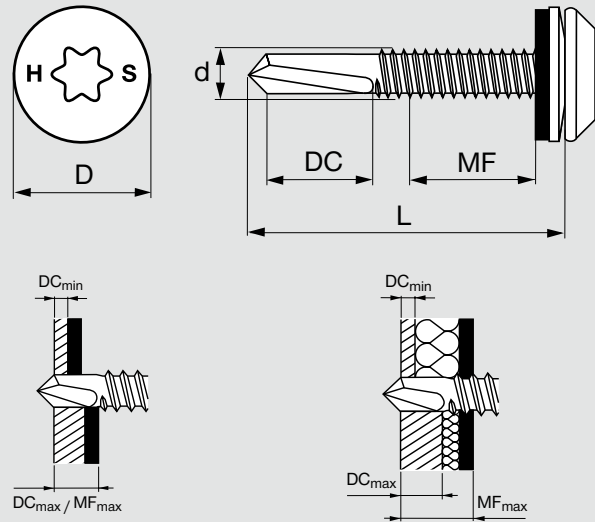
Stainless self-drill panhead screw (Ø12)



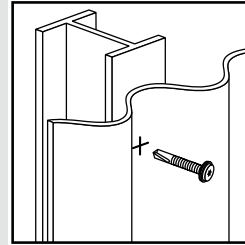
S-MD 35 PS

Stainless steel pan head screw with 12mm sealing washer for medium and heavy outside application on steel

Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-drilling screw S-MD35PS 5,5x45	4.6 mm - 12 mm	12 mm	5.5 mm	50 mm	12 mm	12 mm	TX 25	250 PC	00202431



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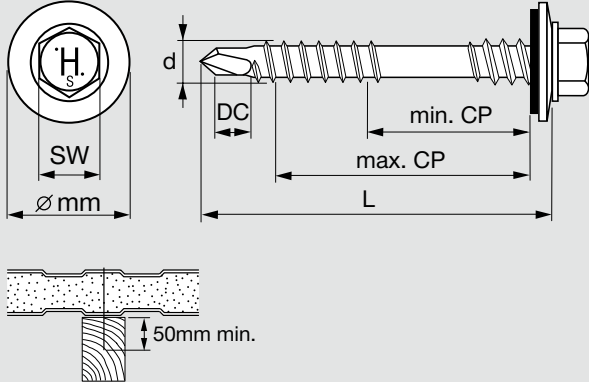
- 1 Overview of siding and decking applications**
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- 5 Carbon steel self-drilling screws**
 - 5.1 Carbon steel self-drilling screws without washer
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 - 5.3 Carbon steel self-drilling screws collated
 - 5.4 Carbon steel self-drilling screws with sealing washer
 - 5.5 Carbon steel self-drilling screws with waferhead
- 6 Stainless steel self-drilling screws**
 - 6.1 Stainless steel self-drilling screws without washer
 - 6.2 Stainless steel self-drilling screws with sealing washer
 - 6.3 Stainless steel self-drilling screws with panhead and without washer
 - 6.4 Stainless steel self-drilling screws with panhead and sealing washer
- 7 Carbon steel sandwich panel screws**
- 8 Stainless steel sandwich panel screws**
- 9 Carbon steel self-tapping screws**
- 10 Stainless steel self-tapping screws**
- 11 Carbon steel self-drilling wing screws**
- 12 Flat roof insulation screws and load plates**
 - 12.1 Flat roof insulation screws, 4.8 mm diameter
 - 12.2 Flat roof insulation screws, 6.7 mm diameter
- 13 Special items, e.g. washers**
- 14 Direct fastening nails for siding and decking**
- 15 Screw fastening basics**
- 16 Direct fastening basics**
- 17 Overview of tools and accessories**
- 18 Technical data, e.g. ETA approval, DiBT approval, technical data sheets**

Carbon steel sandwich panel screw (Ø 19)

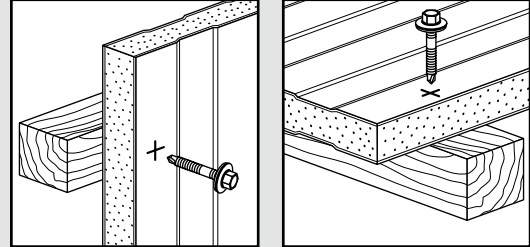
S-CDW 61 C

The sandwich panel screw for fastening to wood

Fields of application



Application examples



Ordering

Order designation	Min. thickness of base material	Thickness fastened range	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Sandwich panel screw S-CDW61C 6,5X100	50 mm	27 mm - 47 mm	6.5 mm	100 mm	19 mm	8 mm	Hexagon 8	100 PC	00206981
Sandwich panel screw S-CDW61C 6,5X110	50 mm	37 mm - 57 mm	6.5 mm	110 mm	19 mm	8 mm	Hexagon 8	100 PC	00206982
Sandwich panel screw S-CDW61C 6,5X120	50 mm	47 mm - 67 mm	6.5 mm	120 mm	19 mm	8 mm	Hexagon 8	100 PC	00206983
Sandwich panel screw S-CDW61C 6,5X140	50 mm	67 mm - 87 mm	6.5 mm	140 mm	19 mm	8 mm	Hexagon 8	100 PC	00206984
Sandwich panel screw S-CDW61C 6,5X160	50 mm	87 mm - 107 mm	6.5 mm	160 mm	19 mm	8 mm	Hexagon 8	100 PC	00206985
Sandwich panel screw S-CDW61C 6,5X180	50 mm	107 mm - 127 mm	6.5 mm	180 mm	19 mm	8 mm	Hexagon 8	100 PC	00206986
Sandwich panel screw S-CDW61C 6,5X200	50 mm	127 mm - 147 mm	6.5 mm	200 mm	19 mm	8 mm	Hexagon 8	100 PC	00206987
Sandwich panel screw S-CDW61C 6,5X220	50 mm	147 mm - 167 mm	6.5 mm	220 mm	19 mm	8 mm	Hexagon 8	100 PC	00206988
Sandwich panel screw S-CDW61C 6,5X230	50 mm	157 mm - 177 mm	6.5 mm	230 mm	19 mm	8 mm	Hexagon 8	100 PC	00206989

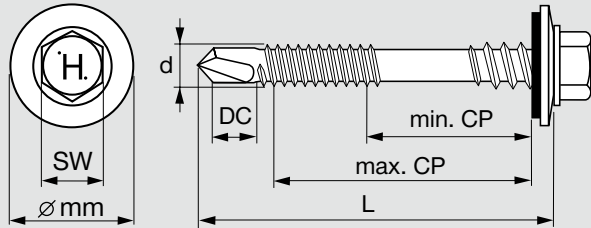


Carbon steel sandwich panel screw (Ø 19)

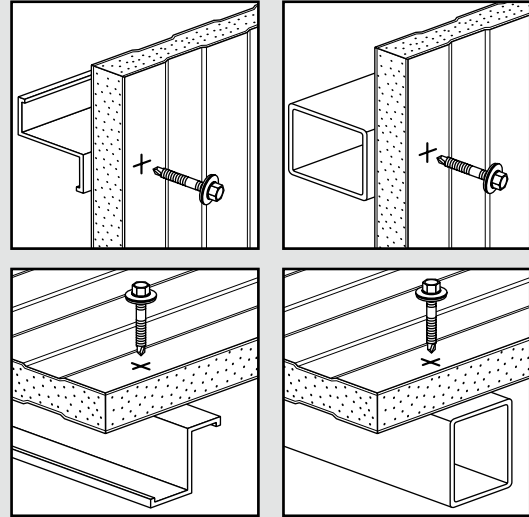
S-CD 63 C

The sandwich panel screw for fastening on light and medium base materials

Fields of application



Application examples



Ordering

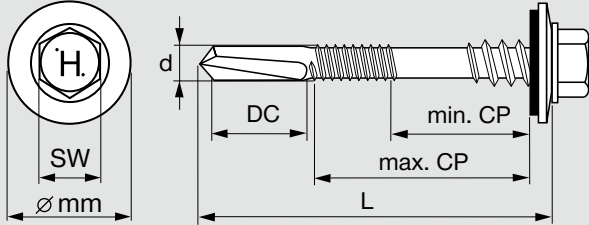
Order designation	Drilling capacity range	Thickness fastened range	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Sandwich panel screw S-CD63C 5,5X75	2 mm - 5.5 mm	22 mm - 47 mm	5.5 mm	75 mm	19 mm	8 mm	Hexagon 8	100 PC	00206965
Sandwich panel screw S-CD63C 5,5X85	2 mm - 5.5 mm	32 mm - 57 mm	5.5 mm	85 mm	19 mm	8 mm	Hexagon 8	100 PC	00206966
Sandwich panel screw S-CD63C 5,5X95	2 mm - 5.5 mm	42 mm - 67 mm	5.5 mm	95 mm	19 mm	8 mm	Hexagon 8	100 PC	00206967
Sandwich panel screw S-CD63C 5,5X115	2 mm - 5.5 mm	62 mm - 87 mm	5.5 mm	115 mm	19 mm	8 mm	Hexagon 8	100 PC	00206968
Sandwich panel screw S-CD63C 5,5X135	2 mm - 5.5 mm	82 mm - 107 mm	5.5 mm	135 mm	19 mm	8 mm	Hexagon 8	100 PC	00206969
Sandwich panel screw S-CD63C 5,5X155	2 mm - 5.5 mm	102 mm - 127 mm	5.5 mm	155 mm	19 mm	8 mm	Hexagon 8	100 PC	00206970
Sandwich panel screw S-CD63C 5,5X175	2 mm - 5.5 mm	122 mm - 147 mm	5.5 mm	175 mm	19 mm	8 mm	Hexagon 8	100 PC	00206971
Sandwich panel screw S-CD63C 5,5X210	2 mm - 5.5 mm	137 mm - 182 mm	5.5 mm	210 mm	19 mm	8 mm	Hexagon 8	100 PC	00206972

Carbon steel sandwich panel screw (Ø 19)

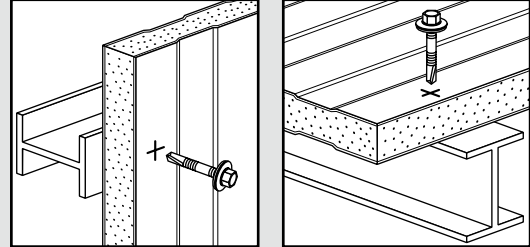
S-CD 65 C

The sandwich panel screw for thick base materials

Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened range	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Sandwich panel screw S-CD65C 5,5X90	3.5 mm - 12 mm	22 mm - 45 mm	5.5 mm	90 mm	19 mm	8 mm	Hexagon 8	100 PC	00206973
Sandwich panel screw S-CD65C 5,5X100	3.5 mm - 12 mm	32 mm - 55 mm	5.5 mm	100 mm	19 mm	8 mm	Hexagon 8	100 PC	00206974
Sandwich panel screw S-CD65C 5,5X110	3.5 mm - 12 mm	42 mm - 65 mm	5.5 mm	110 mm	19 mm	8 mm	Hexagon 8	100 PC	00206975
Sandwich panel screw S-CD65C 5,5X130	3.5 mm - 12 mm	62 mm - 85 mm	5.5 mm	130 mm	19 mm	8 mm	Hexagon 8	100 PC	00206976
Sandwich panel screw S-CD65C 5,5X150	3.5 mm - 12 mm	82 mm - 105 mm	5.5 mm	150 mm	19 mm	8 mm	Hexagon 8	100 PC	00206977
Sandwich panel screw S-CD65C 5,5X170	3.5 mm - 12 mm	102 mm - 125 mm	5.5 mm	170 mm	19 mm	8 mm	Hexagon 8	100 PC	00206978
Sandwich panel screw S-CD65C 5,5X190	3.5 mm - 12 mm	122 mm - 145 mm	5.5 mm	190 mm	19 mm	8 mm	Hexagon 8	100 PC	00206979
Sandwich panel screw S-CD65C 5,5X220	3.5 mm - 12 mm	137 mm - 175 mm	5.5 mm	220 mm	19 mm	8 mm	Hexagon 8	100 PC	00206980



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 - 5.3 Carbon steel self-drilling screws collated
 - 5.4 Carbon steel self-drilling screws with sealing washer
 - 5.5 Carbon steel self-drilling screws with waferhead
- 6 Stainless steel self-drilling screws**
 - 6.1 Stainless steel self-drilling screws without washer
 - 6.2 Stainless steel self-drilling screws with sealing washer
 - 6.3 Stainless steel self-drilling screws with panhead and without washer
 - 6.4 Stainless steel self-drilling screws with panhead and sealing washer
- 7 Carbon steel sandwich panel screws**
- 8 Stainless steel sandwich panel screws**
- 9 Carbon steel self-tapping screws**
- 10 Stainless steel self-tapping screws**
- 11 Carbon steel self-drilling wing screws**
- 12 Flat roof insulation screws and load plates**
 - 12.1 Flat roof insulation screws, 4.8 mm diameter
 - 12.2 Flat roof insulation screws, 6.7 mm diameter
- 13 Special items, e.g. washers**
- 14 Direct fastening nails for siding and decking**
- 15 Screw fastening basics**
- 16 Direct fastening basics**
- 17 Overview of tools and accessories**
- 18 Technical data, e.g. ETA approval, DiBT approval, technical data sheets**

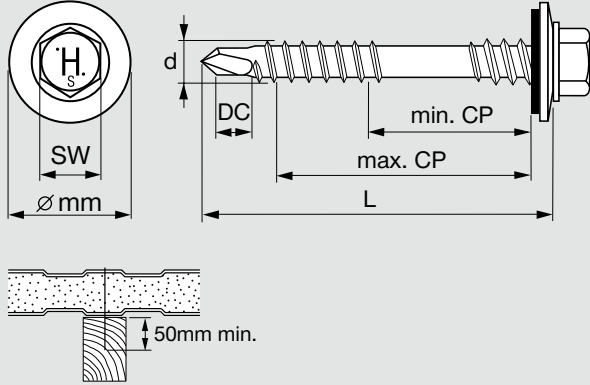
Stainless sandwich panel screw (Ø 19)

S-CDW 61 S

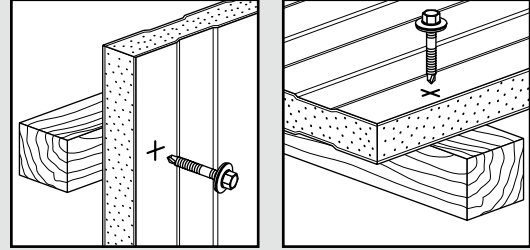
The sandwich panel screw for fastening to wood



Fields of application



Application examples



Ordering

Order designation	Min. thickness of base material	Thickness fastened range	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Sandwich panel screw S-CDW61S 6,5x100	50 mm	27 mm - 47 mm	6.5 mm	100 mm	19 mm	8 mm	Hexagon 8	100 PC	00375256
Sandwich panel screw S-CDW61S 6,5x110	50 mm	37 mm - 57 mm	6.5 mm	110 mm	19 mm	8 mm	Hexagon 8	100 PC	00375257
Sandwich panel screw S-CDW61S 6,5x120	50 mm	47 mm - 67 mm	6.5 mm	120 mm	19 mm	8 mm	Hexagon 8	100 PC	00375258
Sandwich panel screw S-CDW61S 6,5x140	50 mm	67 mm - 87 mm	6.5 mm	140 mm	19 mm	8 mm	Hexagon 8	100 PC	00375259
Sandwich panel screw S-CDW61S 6,5x160	50 mm	87 mm - 107 mm	6.5 mm	160 mm	19 mm	8 mm	Hexagon 8	100 PC	00375260
Sandwich panel screw S-CDW61S 6,5x180	50 mm	107 mm - 127 mm	6.5 mm	180 mm	19 mm	8 mm	Hexagon 8	100 PC	00375261
Sandwich panel screw S-CDW61S 6,5x200	50 mm	127 mm - 147 mm	6.5 mm	200 mm	19 mm	8 mm	Hexagon 8	100 PC	00284540
Sandwich panel screw S-CDW61S 6,5x220	50 mm	147 mm - 167 mm	6.5 mm	220 mm	19 mm	8 mm	Hexagon 8	100 PC	00284541
Sandwich panel screw S-CDW61S 6,5x230	50 mm	157 mm - 177 mm	6.5 mm	230 mm	19 mm	8 mm	Hexagon 8	100 PC	00284597



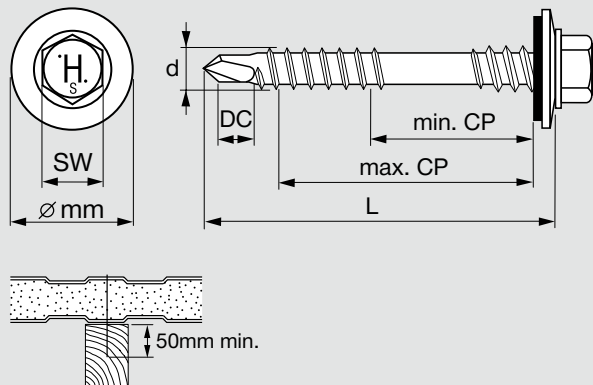
Stainless sandwich panel screw (Ø 22)

S-CDW 71 S

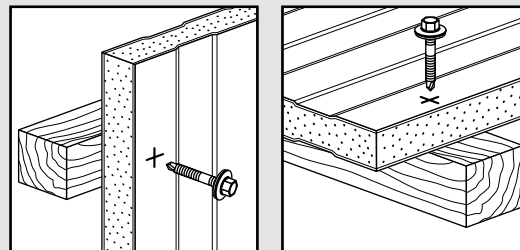
The sandwich panel screw for fastenings on wood



Fields of application



Application examples



Ordering

Order designation	Min. thickness of base material	Thickness fastened range	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Sandwich panel screw S-CDW71S 6,5x100	50 mm	27 mm - 47 mm	6.5 mm	100 mm	22 mm	8 mm	Hexagon 8	100 PC	00285658
Sandwich panel screw S-CDW71S 6,5x110	50 mm	37 mm - 57 mm	6.5 mm	110 mm	22 mm	8 mm	Hexagon 8	100 PC	00285659
Sandwich panel screw S-CDW71S 6,5x120	50 mm	47 mm - 67 mm	6.5 mm	120 mm	22 mm	8 mm	Hexagon 8	100 PC	00285660
Sandwich panel screw S-CDW71S 6,5x140	50 mm	67 mm - 87 mm	6.5 mm	140 mm	22 mm	8 mm	Hexagon 8	100 PC	00285661
Sandwich panel screw S-CDW71S 6,5x160	50 mm	87 mm - 107 mm	6.5 mm	160 mm	22 mm	8 mm	Hexagon 8	100 PC	00285662
Sandwich panel screw S-CDW71S 6,5x180	50 mm	107 mm - 127 mm	6.5 mm	180 mm	22 mm	8 mm	Hexagon 8	100 PC	00285663
Sandwich panel screw S-CDW71S 6,5x200	50 mm	127 mm - 147 mm	6.5 mm	200 mm	22 mm	8 mm	Hexagon 8	100 PC	00285664
Sandwich panel screw S-CDW71S 6,5x220	50 mm	147 mm - 167 mm	6.5 mm	220 mm	22 mm	8 mm	Hexagon 8	100 PC	00285665
Sandwich panel screw S-CDW71S 6,5x230	50 mm	157 mm - 177 mm	6.5 mm	230 mm	22 mm	8 mm	Hexagon 8	100 PC	00285666

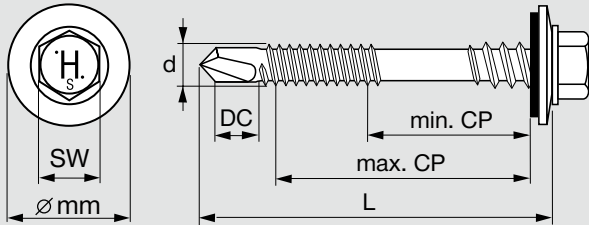
Stainless sandwich panel screw (Ø 19)

S-CD 63 S

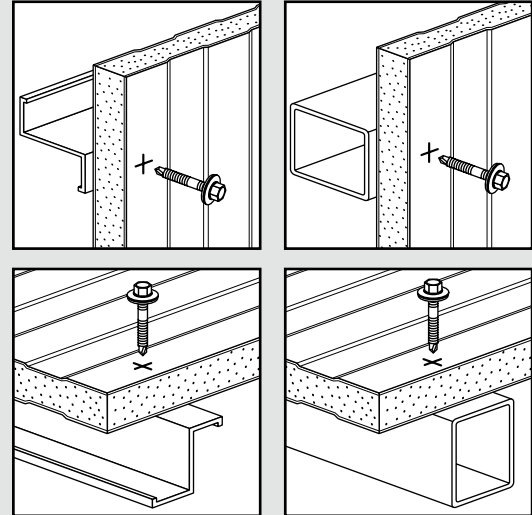
The sandwich panel screw for use on light- and medium-gauge framing



Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened range	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Sandwich panel screw S-CD63S 5,5X75	2 mm - 5.5 mm	22 mm - 47 mm	5.5 mm	75 mm	19 mm	8 mm	Hexagon 8	100 PC	00375244
Sandwich panel screw S-CD63S 5,5X85	2 mm - 5.5 mm	32 mm - 57 mm	5.5 mm	85 mm	19 mm	8 mm	Hexagon 8	100 PC	00375245
Sandwich panel screw S-CD63S 5,5X95	2 mm - 5.5 mm	42 mm - 67 mm	5.5 mm	95 mm	19 mm	8 mm	Hexagon 8	100 PC	00375246
Sandwich panel screw S-CD63S 5,5X115	2 mm - 5.5 mm	62 mm - 87 mm	5.5 mm	115 mm	19 mm	8 mm	Hexagon 8	100 PC	00375247
Sandwich panel screw S-CD63S 5,5X135	2 mm - 5.5 mm	82 mm - 107 mm	5.5 mm	135 mm	19 mm	8 mm	Hexagon 8	100 PC	00375248
Sandwich panel screw S-CD63S 5,5X155	2 mm - 5.5 mm	102 mm - 127 mm	5.5 mm	155 mm	19 mm	8 mm	Hexagon 8	100 PC	00375249
Sandwich panel screw S-CD63S 5,5x175	2 mm - 5.5 mm	122 mm - 147 mm	5.5 mm	175 mm	19 mm	8 mm	Hexagon 8	100 PC	00284542
Sandwich panel screw S-CD63S 5,5x210	2 mm - 5.5 mm	137 mm - 182 mm	5.5 mm	210 mm	19 mm	8 mm	Hexagon 8	100 PC	00284543



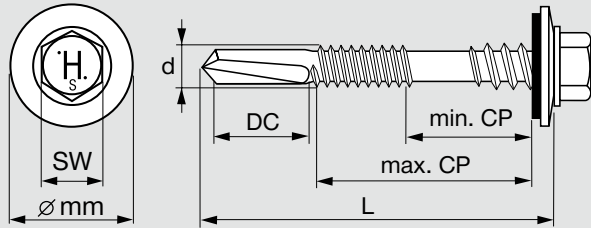
Stainless sandwich panel screw (Ø 19)

S-CD 65 S

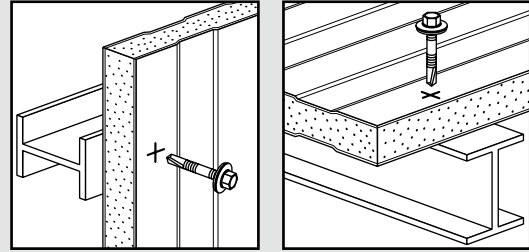
The sandwich panel screw for thick base materials



Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened range	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Sandwich panel screw S-CD65S 5,5X90	3.5 mm - 12 mm	22 mm - 45 mm	5.5 mm	90 mm	19 mm	8 mm	Hexagon 8	100 PC	00375250
Sandwich panel screw S-CD65S 5,5X100	3.5 mm - 12 mm	32 mm - 55 mm	5.5 mm	100 mm	19 mm	8 mm	Hexagon 8	100 PC	00375251
Sandwich panel screw S-CD65S 5,5X110	3.5 mm - 12 mm	42 mm - 65 mm	5.5 mm	110 mm	19 mm	8 mm	Hexagon 8	100 PC	00375252
Sandwich panel screw S-CD65S 5,5X130	3.5 mm - 12 mm	62 mm - 85 mm	5.5 mm	130 mm	19 mm	8 mm	Hexagon 8	100 PC	00375253
Sandwich panel screw S-CD65S 5,5X150	3.5 mm - 12 mm	82 mm - 105 mm	5.5 mm	150 mm	19 mm	8 mm	Hexagon 8	100 PC	00375254
Sandwich panel screw S-CD65S 5,5X170	3.5 mm - 12 mm	102 mm - 125 mm	5.5 mm	170 mm	19 mm	8 mm	Hexagon 8	100 PC	00375255
Sandwich panel screw S-CD65S 5,5x190	3.5 mm - 12 mm	122 mm - 145 mm	5.5 mm	190 mm	19 mm	8 mm	Hexagon 8	100 PC	00284544
Sandwich panel screw S-CD65S 5,5x220	3.5 mm - 12 mm	137 mm - 175 mm	5.5 mm	220 mm	19 mm	8 mm	Hexagon 8	100 PC	00284545

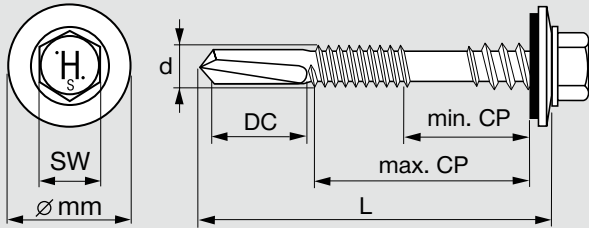
Stainless sandwich panel screw (Ø 22)

S-CD 75 S

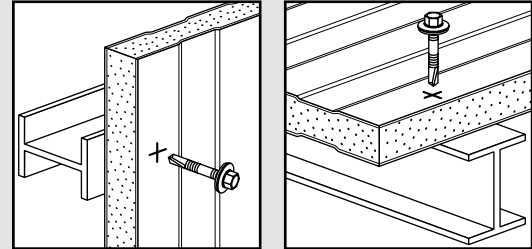
The sandwich panel screw for thick base materials



Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened range	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Sandwich panel screw S-CD75S 5,5x90	3.5 mm - 12 mm	22 mm - 45 mm	5.5 mm	90 mm	22 mm	8 mm	Hexagon 8	100 PC	00285650
Sandwich panel screw S-CD75S 5,5x100	3.5 mm - 12 mm	32 mm - 55 mm	5.5 mm	100 mm	22 mm	8 mm	Hexagon 8	100 PC	00285651
Sandwich panel screw S-CD75S 5,5x110	3.5 mm - 12 mm	42 mm - 65 mm	5.5 mm	110 mm	22 mm	8 mm	Hexagon 8	100 PC	00285652
Sandwich panel screw S-CD75S 5,5x130	3.5 mm - 12 mm	62 mm - 85 mm	5.5 mm	130 mm	22 mm	8 mm	Hexagon 8	100 PC	00285653
Sandwich panel screw S-CD75S 5,5x150	3.5 mm - 12 mm	82 mm - 105 mm	5.5 mm	150 mm	22 mm	8 mm	Hexagon 8	100 PC	00285654
Sandwich panel screw S-CD75S 5,5x170	3.5 mm - 12 mm	102 mm - 125 mm	5.5 mm	170 mm	22 mm	8 mm	Hexagon 8	100 PC	00285655
Sandwich panel screw S-CD75S 5,5x190	3.5 mm - 12 mm	122 mm - 145 mm	5.5 mm	190 mm	22 mm	8 mm	Hexagon 8	100 PC	00285656
Sandwich panel screw S-CD75S 5,5x220	4 mm - 12 mm	137 mm - 175 mm	5.5 mm	220 mm	22 mm	8 mm	Hexagon 8	100 PC	00285657



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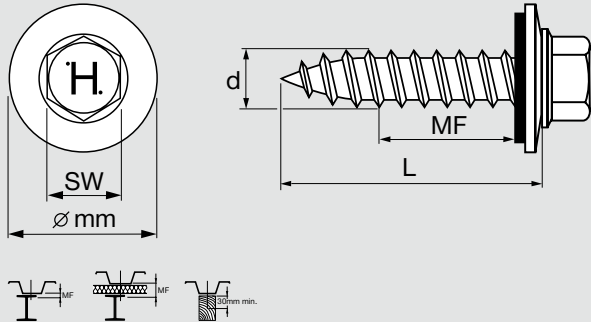
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- 8 Stainless steel sandwich panel screws**
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- 10 Stainless steel self-tapping screws**
- 11 Carbon steel self-drilling wing screws**
- 12 Flat roof insulation screws and load plates**
 - 12.1 Flat roof insulation screws, 4.8 mm diameter
 - 12.2 Flat roof insulation screws, 6.7 mm diameter
- 13 Special items, e.g. washers**
- 14 Direct fastening nails for siding and decking**
- 15 Screw fastening basics**
- 16 Direct fastening basics**
- 17 Overview of tools and accessories**
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Galvanized self-tapping screws (Ø16 mm)

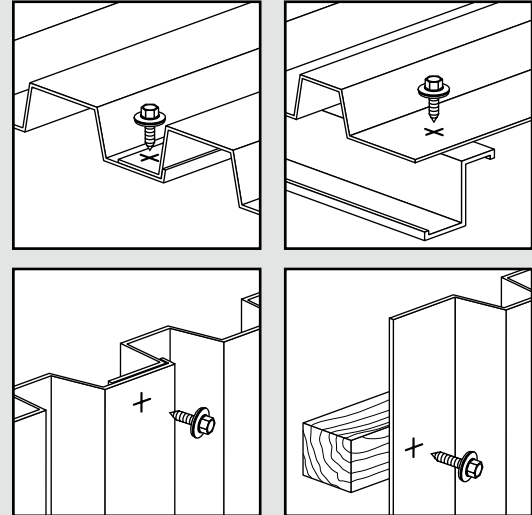
S-MP 53 Z

The universal self-tapping screw for thin materials and wood

Fields of application



Application examples



Ordering

Order designation	Min. thickness of base material	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-tapping screw S-MP53Z 6,5x19 *	30 mm	8 mm	6.5 mm	19 mm	16 mm	9.5 mm	Hexagon 3/8	500 PC	00375288
Self-tapping screw S-MP53Z 6,5x25 *	30 mm	14 mm	6.5 mm	25 mm	16 mm	9.5 mm	Hexagon 3/8	500 PC	00375289
Self-tapping screw S-MP53Z 6,5x32 *	30 mm	21 mm	6.5 mm	32 mm	16 mm	9.5 mm	Hexagon 3/8	250 PC	00375290
Self-tapping screw S-MP53Z 6,5x38 *	30 mm	27 mm	6.5 mm	38 mm	16 mm	9.5 mm	Hexagon 3/8	250 PC	00375291
Self-tapping screw S-MP53Z 6,5x50 *	30 mm	39 mm	6.5 mm	50 mm	16 mm	9.5 mm	Hexagon 3/8	250 PC	00375292
Self-tapping screw S-MP53Z 6,5x63 *	30 mm	52 mm	6.5 mm	63 mm	16 mm	9.5 mm	Hexagon 3/8	100 PC	00375293
Self-tapping screw S-MP53Z 6,5x100 *	30 mm	89 mm	6.5 mm	100 mm	16 mm	9.5 mm	Hexagon 3/8	100 PC	00375287

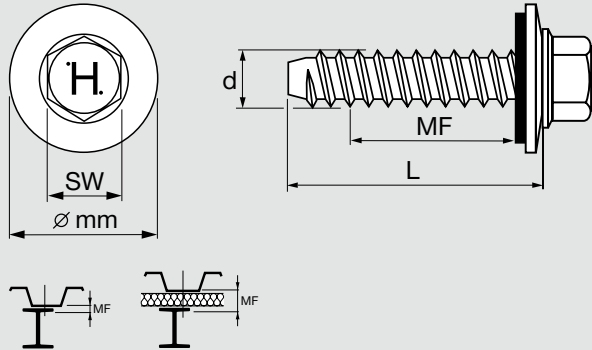
* max thickness of steel framing 3mm

Galvanized self-tapping screws (Ø 16 mm)

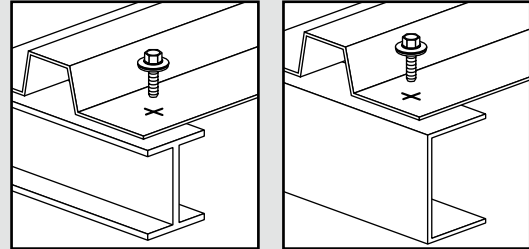
S-MP 52 Z

The universal self-tapping screw for thick base materials

Fields of application



Application examples



Ordering

Order designation	Min. thickness of base material	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-tapping screw S-MP52Z 6,3x19	1.25 mm	10 mm	6.3 mm	19 mm	16 mm	9.5 mm	Hexagon 3/8	500 PC	00375279
Self-tapping screw S-MP52Z 6,3x25	1.25 mm	16 mm	6.3 mm	25 mm	16 mm	9.5 mm	Hexagon 3/8	500 PC	00375280
Self-tapping screw S-MP52Z 6,3x32	1.25 mm	23 mm	6.3 mm	32 mm	16 mm	9.5 mm	Hexagon 3/8	250 PC	00375281
Self-tapping screw S-MP52Z 6,3x38	1.25 mm	29 mm	6.3 mm	38 mm	16 mm	9.5 mm	Hexagon 3/8	250 PC	00375282
Self-tapping screw S-MP52Z 6,3x50	1.25 mm	41 mm	6.3 mm	50 mm	16 mm	9.5 mm	Hexagon 3/8	250 PC	00375283
Self-tapping screw S-MP52Z 6,3x63	1.25 mm	54 mm	6.3 mm	63 mm	16 mm	9.5 mm	Hexagon 3/8	100 PC	00375284
Self-tapping screw S-MP52Z 6,3x75	1.25 mm	66 mm	6.3 mm	75 mm	16 mm	9.5 mm	Hexagon 3/8	100 PC	00375285
Self-tapping screw S-MP52Z 6,3x88	1.25 mm	79 mm	6.3 mm	88 mm	16 mm	9.5 mm	Hexagon 3/8	100 PC	00375286
Self-tapping screw S-MP52Z 6,3x100	1.25 mm	91 mm	6.3 mm	100 mm	16 mm	9.5 mm	Hexagon 3/8	100 PC	00375278

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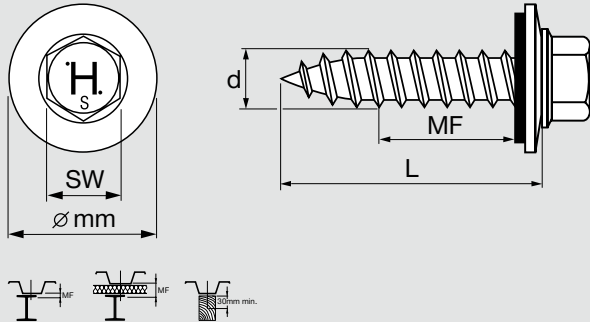
Stainless self-tapping screws (Ø 16 mm)



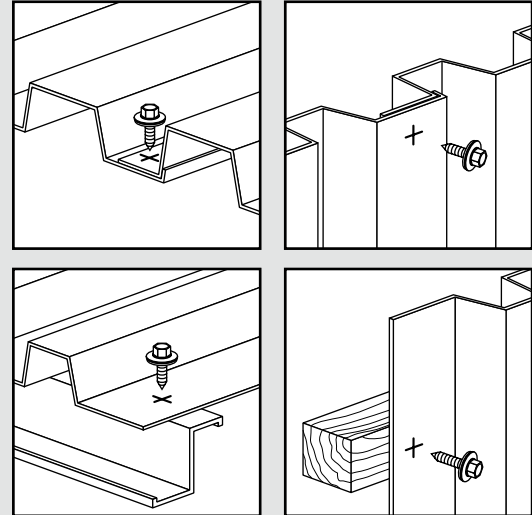
S-MP 53 S

The universal self-tapping screw for thin materials and wood

Fields of application



Application examples



Ordering

Order designation	Min. thickness of base material	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-tapping screw S-MP53S 6,5x19 *	30 mm	8 mm	6.5 mm	19 mm	16 mm	9.5 mm	Hexagon 3/8	500 PC	00080448
Self-tapping screw S-MP53S 6,5x25 *	30 mm	14 mm	6.5 mm	25 mm	16 mm	9.5 mm	Hexagon 3/8	500 PC	00080362
Self-tapping screw S-MP53S 6,5x32 *	30 mm	21 mm	6.5 mm	32 mm	16 mm	9.5 mm	Hexagon 3/8	250 PC	00080450
Self-tapping screw S-MP53S 6,5x38 *	30 mm	27 mm	6.5 mm	38 mm	16 mm	9.5 mm	Hexagon 3/8	250 PC	00080451
Self-tapping screw S-MP53S 6,5x50 *	30 mm	39 mm	6.5 mm	50 mm	16 mm	9.5 mm	Hexagon 3/8	250 PC	00080337
Self-tapping screw S-MP53S 6,5x63 *	30 mm	52 mm	6.5 mm	63 mm	16 mm	9.5 mm	Hexagon 3/8	100 PC	00085332
Self-tapping screw S-MP53S 6,5x75 *	30 mm	64 mm	6.5 mm	75 mm	16 mm	9.5 mm	Hexagon 3/8	100 PC	00224558
Self-tapping screw S-MP53S 6,5x88 *	30 mm	77 mm	6.5 mm	88 mm	16 mm	9.5 mm	Hexagon 3/8	100 PC	00085334
Self-tapping screw S-MP53S 6,5x100 *	30 mm	89 mm	6.5 mm	100 mm	16 mm	9.5 mm	Hexagon 3/8	100 PC	00085335
Self-tapping screw S-MP53S 6,5x125 *	30 mm	114 mm	6.5 mm	125 mm	16 mm	9.5 mm	Hexagon 3/8	100 PC	00219093
Self-tapping screw S-MP53S 6,5x150 *	30 mm	139 mm	6.5 mm	150 mm	16 mm	9.5 mm	Hexagon 3/8	100 PC	00219094
Self-tapping screw S-MP53S 6,5x175 *	30 mm	164 mm	6.5 mm	175 mm	16 mm	9.5 mm	Hexagon 3/8	100 PC	00224559

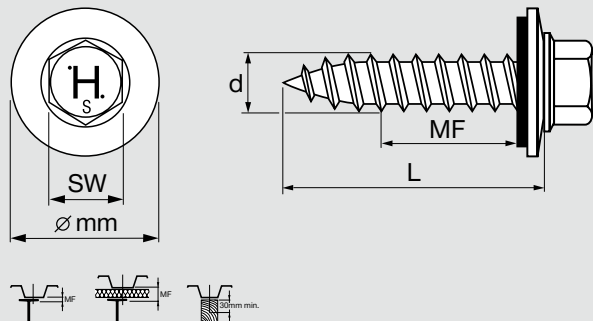
* max thickness of steel framing 3 mm

Stainless self-tapping screws (Ø 19 mm) S-MP 63 S

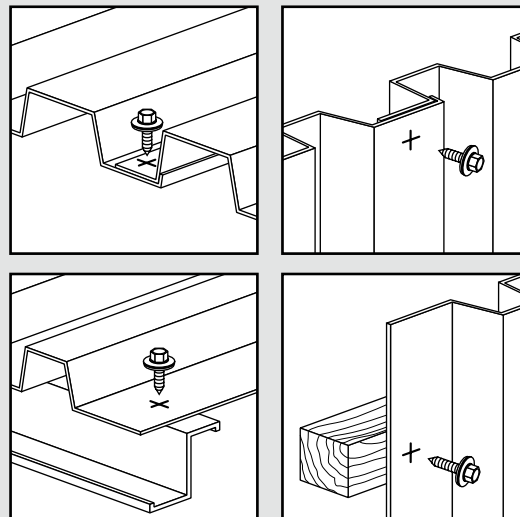


The universal self-tapping screw for thin materials and wood

Fields of application



Application examples



Ordering

Order designation	Min. thickness of base material	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-tapping screw S-MP63S 6,5x19 *	30 mm	8 mm	6.5 mm	19 mm	19 mm	9.5 mm	Hexagon 3/8	500 PC	00285217
Self-tapping screw S-MP63S 6,5x25 *	30 mm	14 mm	6.5 mm	25 mm	19 mm	9.5 mm	Hexagon 3/8	500 PC	00285218
Self-tapping screw S-MP63S 6,5x32 *	30 mm	21 mm	6.5 mm	32 mm	19 mm	9.5 mm	Hexagon 3/8	250 PC	00285219
Self-tapping screw S-MP63S 6,5x38 *	30 mm	27 mm	6.5 mm	38 mm	19 mm	9.5 mm	Hexagon 3/8	250 PC	00285220
Self-tapping screw S-MP63S 6,5x50 *	30 mm	39 mm	6.5 mm	50 mm	19 mm	9.5 mm	Hexagon 3/8	250 PC	00285221
Self-tapping screw S-MP63S 6,5x63 *	30 mm	52 mm	6.5 mm	63 mm	19 mm	9.5 mm	Hexagon 3/8	100 PC	00285222
Self-tapping screw S-MP63S 6,5x75 *	30 mm	64 mm	6.5 mm	75 mm	19 mm	9.5 mm	Hexagon 3/8	100 PC	00285223
Self-tapping screw S-MP63S 6,5x88 *	30 mm	77 mm	6.5 mm	88 mm	19 mm	9.5 mm	Hexagon 3/8	100 PC	00285224
Self-tapping screw S-MP63S 6,5x100 *	30 mm	89 mm	6.5 mm	100 mm	19 mm	9.5 mm	Hexagon 3/8	100 PC	00285225
Self-tapping screw S-MP63S 6,5x125 *	30 mm	114 mm	6.5 mm	125 mm	19 mm	9.5 mm	Hexagon 3/8	100 PC	00285226
Self-tapping screw S-MP63S 6,5x150 *	30 mm	139 mm	6.5 mm	150 mm	19 mm	9.5 mm	Hexagon 3/8	100 PC	00285227
Self-tapping screw S-MP63S 6,5x175 *	30 mm	164 mm	6.5 mm	175 mm	19 mm	9.5 mm	Hexagon 3/8	100 PC	00285228

* max thickness of steel framing 3 mm

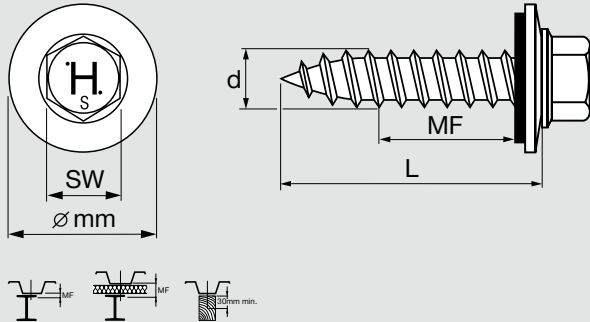
Stainless self-tapping screws (Ø 22mm)



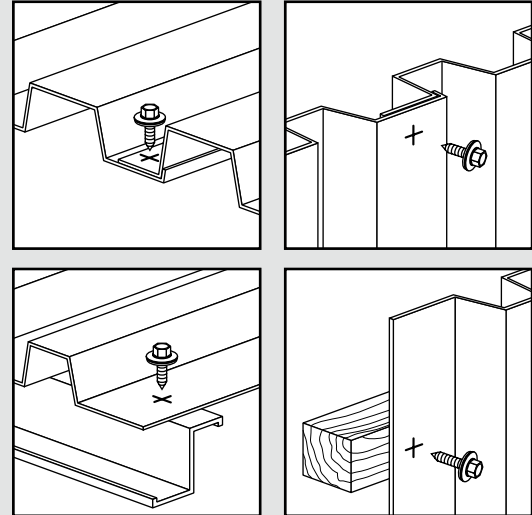
S-MP 73 S

The universal self tapping screw for thin materials and wood

Fields of application



Application examples



Ordering

Order designation	Min. thickness of base material	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-tapping screw S-MP73S 6,5x19 *	30 mm	8 mm	6.5 mm	19 mm	22 mm	9.5 mm	Hexagon 3/8	500 PC	00285205
Self-tapping screw S-MP73S 6,5x25 *	30 mm	14 mm	6.5 mm	25 mm	22 mm	9.5 mm	Hexagon 3/8	500 PC	00285206
Self-tapping screw S-MP73S 6,5x32 *	30 mm	21 mm	6.5 mm	32 mm	22 mm	9.5 mm	Hexagon 3/8	250 PC	00285207
Self-tapping screw S-MP73S 6,5x38 *	30 mm	27 mm	6.5 mm	38 mm	22 mm	9.5 mm	Hexagon 3/8	250 PC	00285208
Self-tapping screw S-MP73S 6,5x50 *	30 mm	39 mm	6.5 mm	50 mm	22 mm	9.5 mm	Hexagon 3/8	250 PC	00285209
Self-tapping screw S-MP73S 6,5x63 *	30 mm	52 mm	6.5 mm	63 mm	22 mm	9.5 mm	Hexagon 3/8	100 PC	00285210
Self-tapping screw S-MP73S 6,5x75 *	30 mm	64 mm	6.5 mm	75 mm	22 mm	9.5 mm	Hexagon 3/8	100 PC	00285211
Self-tapping screw S-MP73S 6,5x88 *	30 mm	77 mm	6.5 mm	88 mm	22 mm	9.5 mm	Hexagon 3/8	100 PC	00285212
Self-tapping screw S-MP73S 6,5x100 *	30 mm	89 mm	6.5 mm	100 mm	22 mm	9.5 mm	Hexagon 3/8	100 PC	00285213
Self-tapping screw S-MP73S 6,5x125 *	30 mm	114 mm	6.5 mm	125 mm	22 mm	9.5 mm	Hexagon 3/8	100 PC	00285214
Self-tapping screw S-MP73S 6,5x150 *	30 mm	139 mm	6.5 mm	150 mm	22 mm	9.5 mm	Hexagon 3/8	100 PC	00285215
Self-tapping screw S-MP73S 6,5x175 *	30 mm	164 mm	6.5 mm	175 mm	22 mm	9.5 mm	Hexagon 3/8	100 PC	00285216

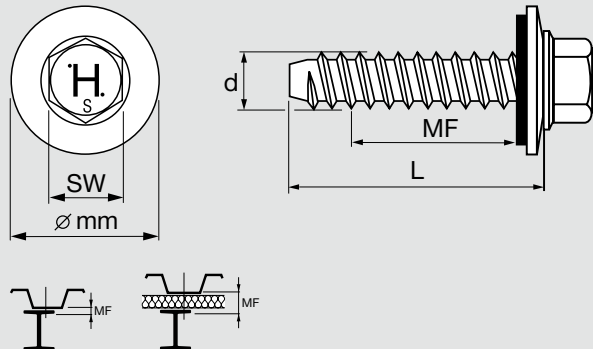
* max thickness of steel framing 3 mm

Stainless self-tapping screws (Ø 16 mm) S-MP 54 S

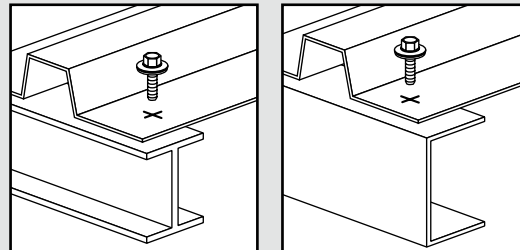


The most robust self-tapping screw for thick base materials

Fields of application



Application examples



Ordering

Order designation	Min. thickness of base material	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-tapping screw S-MP54S 6,3x22	1.25 mm	10 mm	6.3 mm	22 mm	16 mm	8 mm	Hexagon 8	500 PC	00244214
Self-tapping screw S-MP54S 6,3x25	1.25 mm	16 mm	6.3 mm	25 mm	16 mm	8 mm	Hexagon 8	500 PC	00283199
Self-tapping screw S-MP54S 6,3x32	1.25 mm	23 mm	6.3 mm	32 mm	16 mm	8 mm	Hexagon 8	250 PC	00283200
Self-tapping screw S-MP54S 6,3x38	1.25 mm	29 mm	6.3 mm	38 mm	16 mm	8 mm	Hexagon 8	250 PC	00283201
Self-tapping screw S-MP54S 6,3x50	1.25 mm	41 mm	6.3 mm	50 mm	16 mm	8 mm	Hexagon 8	250 PC	00283202
Self-tapping screw S-MP54S 6,3x63	1.25 mm	54 mm	6.3 mm	63 mm	16 mm	8 mm	Hexagon 8	100 PC	00283203
Self-tapping screw S-MP54S 6,3x75	1.25 mm	66 mm	6.3 mm	75 mm	16 mm	8 mm	Hexagon 8	100 PC	00283204
Self-tapping screw S-MP54S 6,3x88	1.25 mm	79 mm	6.3 mm	88 mm	16 mm	8 mm	Hexagon 8	100 PC	00283205
Self-tapping screw S-MP54S 6,3x100	1.25 mm	91 mm	6.3 mm	100 mm	16 mm	8 mm	Hexagon 8	100 PC	00283206
Self-tapping screw S-MP54S 6,3x125	1.25 mm	116 mm	6.3 mm	125 mm	16 mm	8 mm	Hexagon 8	100 PC	00283341
Self-tapping screw S-MP54S 6,3x150	1.25 mm	131 mm	6.3 mm	150 mm	16 mm	8 mm	Hexagon 8	100 PC	00283536
Self-tapping screw S-MP54S 6,3x175	1.25 mm	155 mm	6.3 mm	175 mm	16 mm	8 mm	Hexagon 8	100 PC	00283537
Self-tapping screw S-MP54S 6,3x200	1.25 mm	180 mm	6.3 mm	200 mm	16 mm	8 mm	Hexagon 8	100 PC	00403179
Self-tapping screw S-MP54S 6,3x225	1.25 mm	205 mm	6.3 mm	225 mm	16 mm	8 mm	Hexagon 8	100 PC	00403180
Self-tapping screw S-MP54S 6,3x250	1.25 mm	230 mm	6.3 mm	250 mm	16 mm	8 mm	Hexagon 8	100 PC	00403181
Self-tapping screw S-MP54S 6,3x275	1.25 mm	255 mm	6.3 mm	275 mm	16 mm	8 mm	Hexagon 8	100 PC	00403182

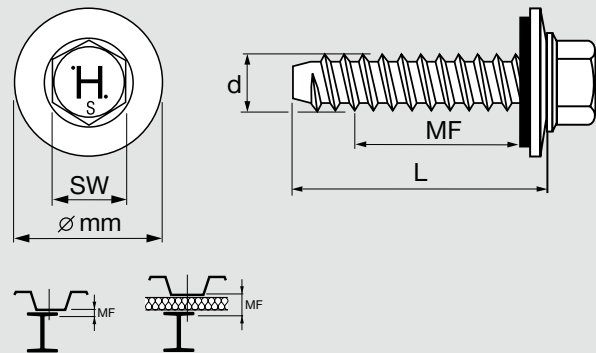
Stainless self-tapping screws (Ø 19 mm)



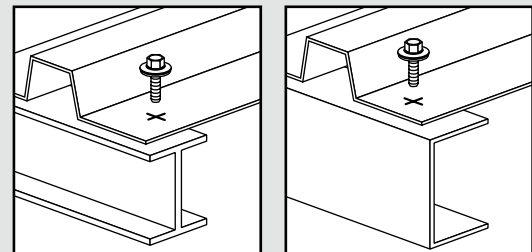
S-MP 64 S

The most robust self-tapping screw for thick base materials

Fields of application



Application examples



Ordering

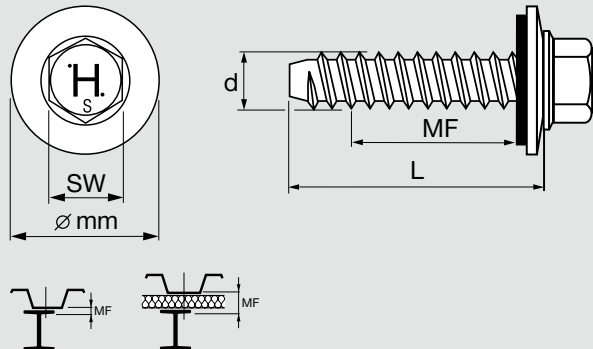
Order designation	Min. thickness of base material	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-tapping screw S-MP64S 6,3x22	1.25 mm	10 mm	6.3 mm	22 mm	19 mm	8 mm	Hexagon 8	500 PC	00283538
Self-tapping screw S-MP64S 6,3x25	1.25 mm	16 mm	6.3 mm	25 mm	19 mm	8 mm	Hexagon 8	500 PC	00283540
Self-tapping screw S-MP64S 6,3x32	1.25 mm	23 mm	6.3 mm	32 mm	19 mm	8 mm	Hexagon 8	250 PC	00283541
Self-tapping screw S-MP64S 6,3x38	1.25 mm	29 mm	6.3 mm	38 mm	19 mm	8 mm	Hexagon 8	250 PC	00283542
Self-tapping screw S-MP64S 6,3x50	1.25 mm	41 mm	6.3 mm	50 mm	19 mm	8 mm	Hexagon 8	250 PC	00283544
Self-tapping screw S-MP64S 6,3x63	1.25 mm	54 mm	6.3 mm	63 mm	19 mm	8 mm	Hexagon 8	100 PC	00283545
Self-tapping screw S-MP64S 6,3x75	1.25 mm	66 mm	6.3 mm	75 mm	19 mm	8 mm	Hexagon 8	100 PC	00283546
Self-tapping screw S-MP64S 6,3x88	1.25 mm	79 mm	6.3 mm	88 mm	19 mm	8 mm	Hexagon 8	100 PC	00283547
Self-tapping screw S-MP64S 6,3x100	1.25 mm	91 mm	6.3 mm	100 mm	19 mm	8 mm	Hexagon 8	100 PC	00283552
Self-tapping screw S-MP64S 6,3x125	1.25 mm	116 mm	6.3 mm	125 mm	19 mm	8 mm	Hexagon 8	100 PC	00283553
Self-tapping screw S-MP64S 6,3x150	1.25 mm	131 mm	6.3 mm	150 mm	19 mm	8 mm	Hexagon 8	100 PC	00283554
Self-tapping screw S-MP64S 6,3x175	1.25 mm	155 mm	6.3 mm	175 mm	19 mm	8 mm	Hexagon 8	100 PC	00283555
Self-tapping screw S-MP64S 6,3x200	1.25 mm	180 mm	6.3 mm	200 mm	19 mm	8 mm	Hexagon 8	100 PC	00403183
Self-tapping screw S-MP64S 6,3x225	1.25 mm	205 mm	6.3 mm	225 mm	19 mm	8 mm	Hexagon 8	100 PC	00403184
Self-tapping screw S-MP64S 6,3x250	1.25 mm	230 mm	6.3 mm	250 mm	19 mm	8 mm	Hexagon 8	100 PC	00403185
Self-tapping screw S-MP64S 6,3x275	1.25 mm	255 mm	6.3 mm	275 mm	19 mm	8 mm	Hexagon 8	100 PC	00403186

Stainless self-tapping screws (Ø 22 mm) S-MP 74 S

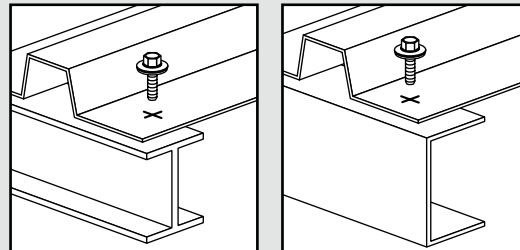


The most robust self-tapping screw for thick base materials

Fields of application



Application examples



Ordering

Order designation	Min. thickness of base material	Thickness fastened - max	Screw diameter	Length	Washer size	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Self-tapping screw S-MP74S 6,3x22	1.25 mm	10 mm	6.3 mm	22 mm	22 mm	8 mm	Hexagon 8	500 PC	00283556
Self-tapping screw S-MP74S 6,3x25	1.25 mm	16 mm	6.3 mm	25 mm	22 mm	8 mm	Hexagon 8	100 PC	00283557
Self-tapping screw S-MP74S 6,3x32	1.25 mm	23 mm	6.3 mm	32 mm	22 mm	8 mm	Hexagon 8	250 PC	00283558
Self-tapping screw S-MP74S 6,3x38	1.25 mm	29 mm	6.3 mm	38 mm	22 mm	8 mm	Hexagon 8	250 PC	00283559
Self-tapping screw S-MP74S 6,3x50	1.25 mm	41 mm	6.3 mm	50 mm	22 mm	8 mm	Hexagon 8	250 PC	00283560
Self-tapping screw S-MP74S 6,3x63	1.25 mm	54 mm	6.3 mm	63 mm	22 mm	8 mm	Hexagon 8	100 PC	00283561
Self-tapping screw S-MP74S 6,3x75	1.25 mm	66 mm	6.3 mm	75 mm	22 mm	8 mm	Hexagon 8	100 PC	00283562
Self-tapping screw S-MP74S 6,3x88	1.25 mm	79 mm	6.3 mm	88 mm	22 mm	8 mm	Hexagon 8	100 PC	00283563
Self-tapping screw S-MP74S 6,3x100	1.25 mm	91 mm	6.3 mm	100 mm	22 mm	8 mm	Hexagon 8	100 PC	00283564
Self-tapping screw S-MP74S 6,3x125	1.25 mm	116 mm	6.3 mm	125 mm	22 mm	8 mm	Hexagon 8	100 PC	00283565
Self-tapping screw S-MP74S 6,3x150	1.25 mm	131 mm	6.3 mm	150 mm	22 mm	8 mm	Hexagon 8	100 PC	00283623
Self-tapping screw S-MP74S 6,3x175	1.25 mm	155 mm	6.3 mm	175 mm	22 mm	8 mm	Hexagon 8	100 PC	00283624
Self-tapping screw S-MP74S 6,3x200	1.25 mm	180 mm	6.3 mm	200 mm	22 mm	8 mm	Hexagon 8	100 PC	00403187
Self-tapping screw S-MP74S 6,3x225	1.25 mm	205 mm	6.3 mm	225 mm	22 mm	8 mm	Hexagon 8	100 PC	00403188
Self-tapping screw S-MP74S 6,3x250	1.25 mm	230 mm	6.3 mm	250 mm	22 mm	8 mm	Hexagon 8	100 PC	00403189
Self-tapping screw S-MP74S 6,3x275	1.25 mm	255 mm	6.3 mm	275 mm	22 mm	8 mm	Hexagon 8	100 PC	00403190

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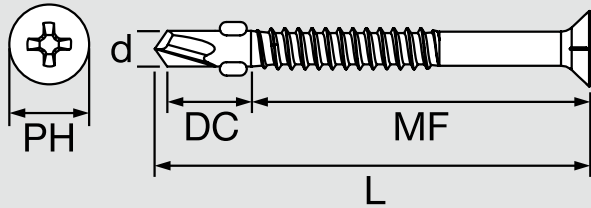
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Carbon steel self-drilling screw

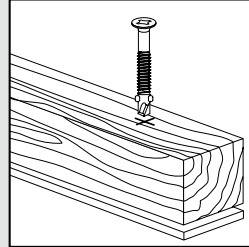
S-WD 11C

The carbon steel self-drilling screw for fastening wood to light-gauge steel structures

Fields of application



Application examples



Ordering

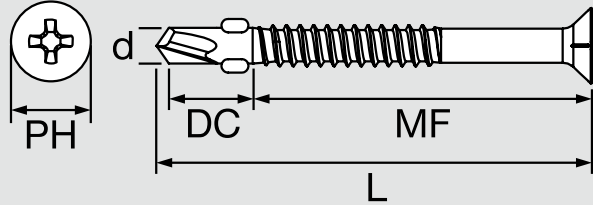
Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Wing screw S-WD11C 3,8x30	1 mm - 1.5 mm	15 mm	3.8 mm	30 mm	8 mm	PH#2	200 PC	00416231
Wing screw S-WD11C 3,8x41	1 mm - 1.5 mm	26 mm	3.8 mm	41 mm	8 mm	PH#2	200 PC	00416233
Wing screw S-WD11C 3,8x57	1 mm - 1.5 mm	42 mm	3.8 mm	57 mm	8 mm	PH#2	100 PC	00416234
Wing screw S-WD11C 4,2x25	2.1 mm - 3.5 mm	10 mm	4.2 mm	25 mm	8 mm	PH#2	200 PC	00283635



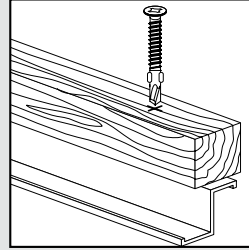
Carbon steel self-drilling screw S-WD 13C

The carbon steel self-drilling screw for fastening wood to medium-gauge steel structures

Fields of application



Application examples



Ordering

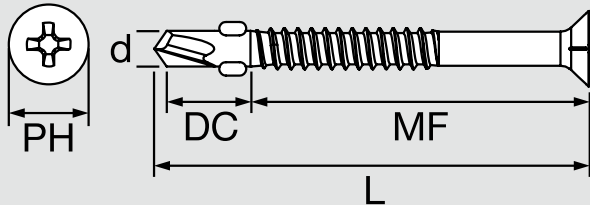
Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Wing screw S-WD13C 4,8x38	2.1 mm - 4.5 mm	20 mm	4.8 mm	38 mm	9.1 mm	PH#2	200 PC	00283636
Wing screw S-WD13C 5,5x50	2.1 mm - 5.5 mm	27 mm	5.5 mm	50 mm	10.1 mm	PH#3	100 PC	00283637
Wing screw S-WD13C 5,5x65	2.1 mm - 4.5 mm	40 mm	5.5 mm	65 mm	10.1 mm	PH#3	100 PC	00283638
Wing screw S-WD13C 5,5x85	2.1 mm - 4.5 mm	53 mm	5.5 mm	85 mm	10.1 mm	PH#3	100 PC	00283639
Wing screw S-WD13C 5,5x100	2.1 mm - 4.5 mm	80 mm	5.5 mm	100 mm	10.1 mm	PH#3	100 PC	00287078
Wing screw S-WD13C 6,3x70	2.6 mm - 6 mm	50 mm	6.3 mm	65 mm	10.1 mm	PH#3	100 PC	00416235
Wing screw S-WD13C 6,3x87	2.6 mm - 6 mm	63 mm	6.3 mm	87 mm	10.1 mm	PH#3	100 PC	00416236

Carbon steel self-drilling screw

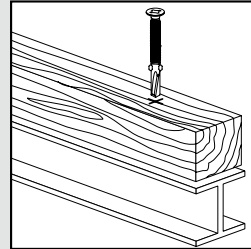
S-WD 15C

The carbon steel self-drilling screw for fastening wood to heavy-gauge steel structures

Fields of application



Application examples



Ordering

Order designation	Drilling capacity range	Thickness fastened - max	Screw diameter	Length	Screw-head diameter	Screw drive/recess type	Sales Quantity	Item Number
Wing screw S-WD15C 5,5x65	4.6 mm - 12 mm	30 mm	5.5 mm	65 mm	10.1 mm	PH#3	100 PC	00287079
Wing screw S-WD15C 5,5x85	4.6 mm - 12 mm	55 mm	5.5 mm	85 mm	10.1 mm	PH#3	100 PC	00287573
Wing screw S-WD15C 5,5x119	4.6 mm - 12 mm	85 mm	5.5 mm	119 mm	10.1 mm	PH#3	100 PC	00289145



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 - 5.2 Carbon steel self-drilling screws with pressed-on flange
 - 5.3 Carbon steel self-drilling screws collated
 - 5.4 Carbon steel self-drilling screws with sealing washer
 - 5.5 Carbon steel self-drilling screws with waferhead
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 - 6.3 Stainless steel self-drilling screws with panhead and without washer
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- 8 Stainless steel sandwich panel screws**
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- 10 Stainless steel self-tapping screws**
- 11 Carbon steel self-drilling wing screws**
- 12 Flat roof insulation screws and load plates**
 - 12.1 Flat roof insulation screws, 4.8 mm diameter
 - 12.2 Flat roof insulation screws, 6.7 mm diameter
- 13 Special items, e.g. washers**
- 14 Direct fastening nails for siding and decking**
- 15 Screw fastening basics**
- 16 Direct fastening basics**
- 17 Overview of tools and accessories**
- 18 Technical data, e.g. ETA approval, DiBT approval, technical data sheets**

Flat roof insulation screw and load plates

Xy

Fields of application

Application examples



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S-AW sealing washers

Product data

General information

Material specification

e.g.: S-AW04 S16

S for screw fastening

A for accessories

W for washer

04 04 – screw Ø 4.8 mm

05 – screw Ø 5.5 mm

06 – screw Ø 6.5 mm

S stainless steel 1.4301 (S for stainless steel)

16 16 – sealing washer outside dia. 16 mm

19 – sealing washer outside dia. 19 mm

22 – sealing washer outside dia. 22 mm

Fastening tools

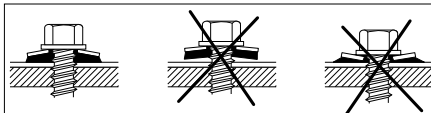
ST1800 screwdriver with depth gauge

Nut set drivers to fit the screws used

S-NSD 8: Item no. 308901

S-NSD 10: Item no. 308902

S-NSD 3/8": Item no. 308905

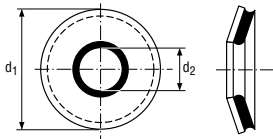


It is essential that the screw is driven correctly in order to ensure that the sealing washer will fulfill its function for many years.

Dimensions

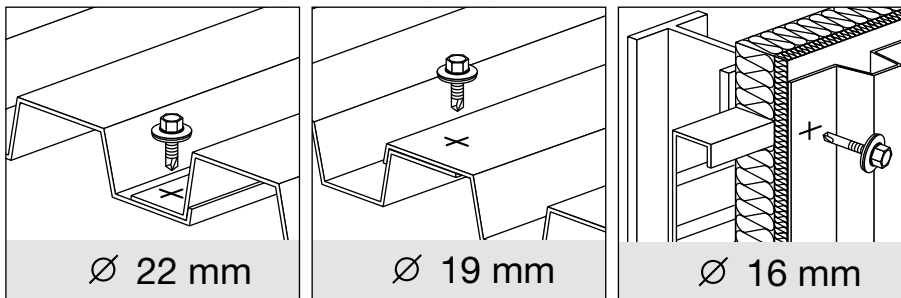
Uses

For all outdoor applications where the fastening is exposed to the weather.



Applications

Examples



Sealing washer selection

Sealing washer program

Outside Ø d ₁ mm	Inside Ø d ₂ mm = screw Ø	Package contents	Ordering designation	Item no.
16	4.8	200	S-AW04 S 16	284880
16	5.5	200	S-AW05 S 16	284883
16	6.5	200	S-AW06 S 16	284886
19	4.8	200	S-AW04 S 19	284881
19	5.5	200	S-AW05 S 19	284884
19	6.5	200	S-AW06 S 19	284887
22	4.8	200	S-AW04 S 22	284882
22	5.5	200	S-AW05 S 22	284885
22	6.5	200	S-AW06 S 22	284888

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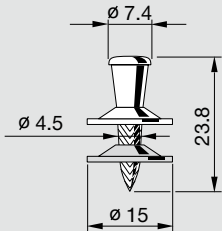
- 1 Overview of siding and decking applications**
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Siding and decking nail

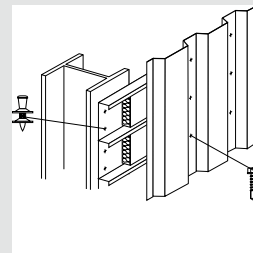
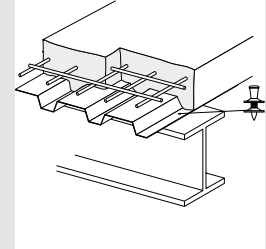
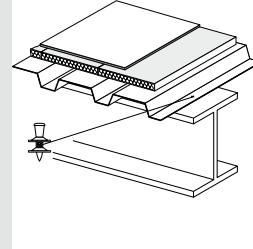
X-ENP

The high performance nail for fastening metal sheets to thick substructures

Fields of application



Application examples



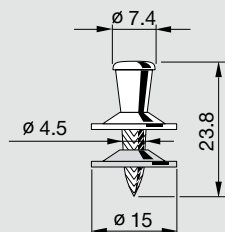
Ordering

Order designation	Min. thickness of base material	Shank diameter	Shank length	Washer size	Washer type	Sales Quantity	Item Number
Sheet metal nail X-ENP-19 L15	6 mm	4.5 mm	23.8 mm	15 mm	15 mm steel dome double washer	100 PC	00283506

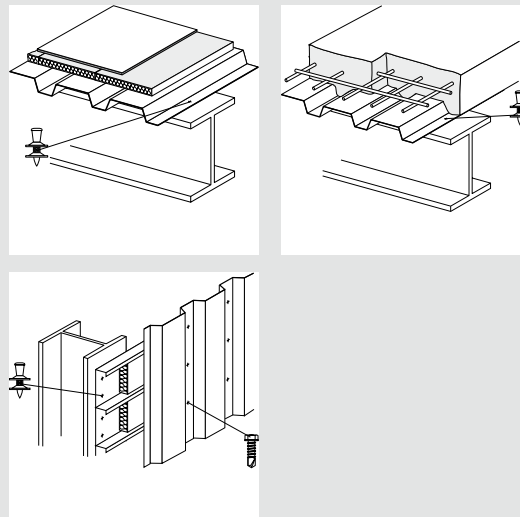
Siding and decking nail X-ENP

The high performance nail for fastening metal sheets to thick substructures

Fields of application



Application examples



Ordering

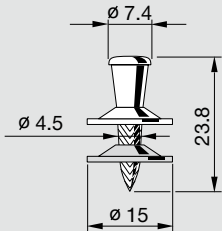
Order designation	Min. thickness of base material	Shank diameter	Shank length	Washer size	Washer type	Sales Quantity	Item Number
Sheet metal nail X-ENP-19 L15MX	6 mm	4.5 mm	23.8 mm	15 mm	15 mm steel dome double washer collated	1000 PC	00283507

Siding and decking nail

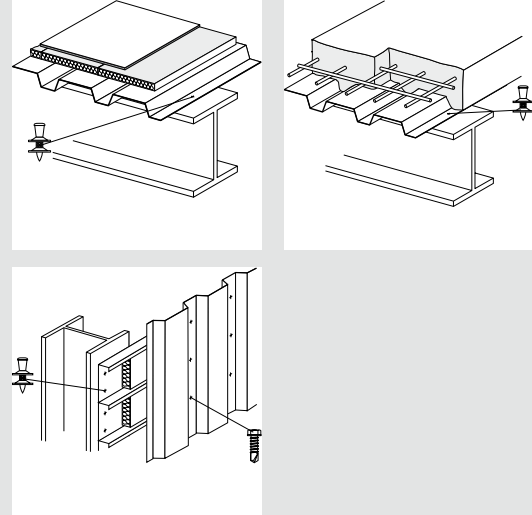
X-ENP

The high performance nail for fastening metal sheets to thick substructures

Fields of application



Application examples



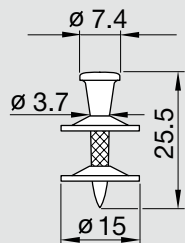
Ordering

Order designation	Min. thickness of base material	Shank diameter	Shank length	Washer size	Washer type	Sales Quantity	Item Number
Sheet metal nail X-ENP-19 L15MXR	6 mm	4.5 mm	23.8 mm	15 mm	15 mm steel dome double washer collated	1000 PC	00283508

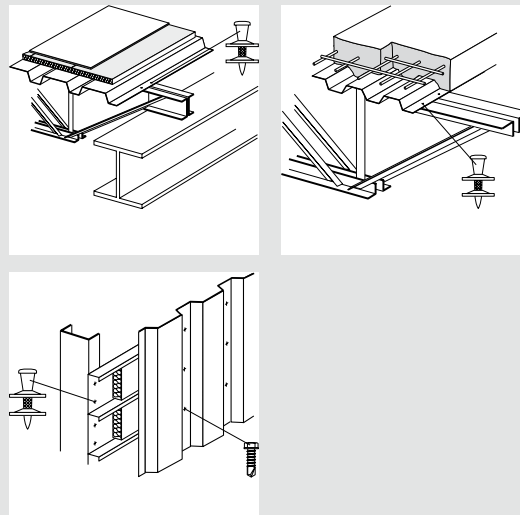
Siding and decking nail X-ENP2K

The high performance nail for fastening metal sheets to thin substructures

Fields of application



Application examples



Ordering

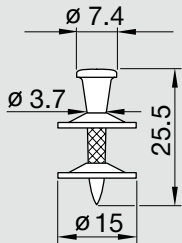
Order designation	Min. thickness of base material	Shank diameter	Shank length	Washer size	Washer type	Sales Quantity	Item Number
Sheet metal nail X-ENP2K-20 L15	3 mm	3.7 mm	22.5 mm	15 mm	15 mm steel dome double washer	100 PC	00385133

Siding and decking nail

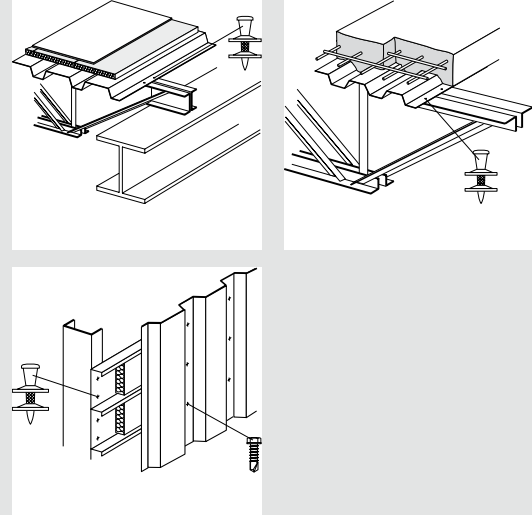
X-ENP2K

The high performance nail for fastening metal sheets to thin substructures

Fields of application



Application examples

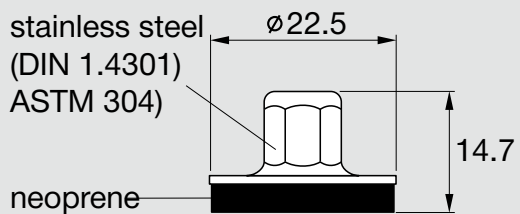


Ordering

Order designation	Min. thickness of base material	Shank diameter	Shank length	Washer size	Washer type	Sales Quantity	Item Number
Sheet metal nail X-ENP2K-20 L15 MX	3 mm	3.7 mm	25.5 mm	15 mm	15 mm steel dome double washer collated	1000 PC	00385134

Sealing cap for ENP SDK2/PDK2

Fields of application



Ordering

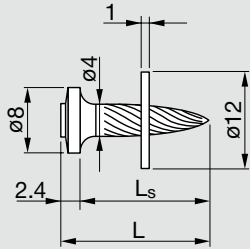
Order designation	Washer size	Sales Quantity	Item Number
Sealing cap PDK2	16 mm	500 PC	00052709
Sealing cap SDK2	22.5 mm	100 PC	00052708

Siding and decking nail

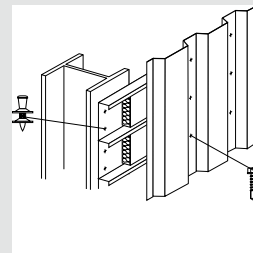
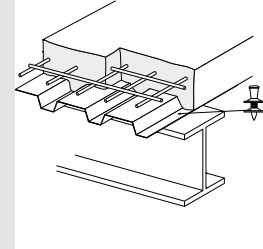
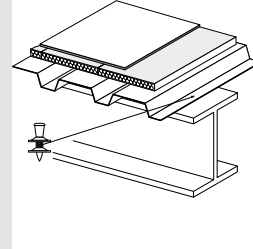
X-U 16 S12

The universal nail for fastening metal sheets to steel substructures

Fields of application



Application examples



Ordering

Order designation	Min. thickness of base material	Shank diameter	Shank length	Washer size	Washer type	Sales Quantity	Item Number
Universal nail X-U 16 S12	8 mm	4 mm	16 mm	12 mm	12 mm flat steel washer	100 PC	00237357

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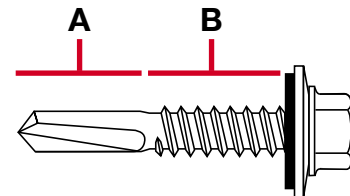
Hilti self-drilling screws

Applications

- Stainless steel (A2) or galvanized screws without sealing washer for fastenings in the substructure or where no sealing function is required.
- Stainless steel (A2) or galvanized screws with sealing washer for fastening steel or aluminium profile metal sheets to steel profile sheets or steel substructures.

Description

The screw is made of two different materials: case-hardened carbon steel (part A) and stainless steel or galvanized carbon steel (part B). Both screw types are suitable for use on S355 high-strength construction steel. The surface of the screw is galvanized, which lubricates the drilling and thread-cutting operation.



- The screw first drills the necessary hole through the part to be fastened and then drills into the substructure (A).
- After penetrating the substructure the screw begins to cut its own thread (B).

The screw has an 8 mm AF (hex) head. Details of the dimensions and head size can be found in sections 5 and 6. All of these screws can be ordered with a colored head and sealing washer in colors according to the RAL color chart.

Some of the screw programs have ETA approval. Please look for the approval mark on the pages for each screw program.



Screw designation

e.g.: S-MD 51 S 5.5x25

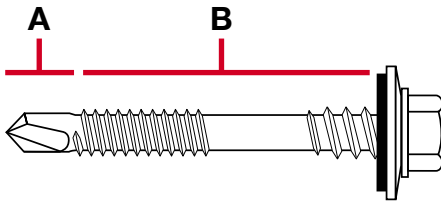
S	-	M	D	5	1	S	5.5x25
---	---	---	---	---	---	---	--------

- S** screw fastening
- M** metal
- D** self-drilling screw
- 5** sealing washer, 16 mm dia.
- 1** drill point # 1 = 1.25 to 4 mm
- S** stainless steel 1.4301
- 5.5x25** screw dimensions (diameter x length)

Hilti sandwich panel screws

Applications

- Stainless steel (A2) or duplex-coated screw with sealing washer for fastening sandwich panels to steel or timber substructures



Description

The screw is made of two different materials: case-hardened carbon steel (part A) and stainless steel or duplex-coated carbon steel (part B). Both screw types are suitable for use on S355 high-strength construction steel. The surface of the screw is galvanized, which lubricates the drilling and thread-cutting operation.

- The screw first drills the necessary hole through the panel to be fastened and then drills into the substructure (A).
- After penetrating the substructure the screw begins to cut its own thread.
- The secondary thread and the threadless zone (B) ensure that the top sheet of the sandwich panel is clamped optimally between the sealing washer and the secondary thread.

The screw has an 8 mm AF (hex) head. Details of the dimensions and head size can be found in sections 7 and 8. All of these screws can be ordered with a colored head and sealing washer in the colors according to the RAL color chart.



Some of the screw programs have ETA approval. Please look for the approval mark on the pages for each screw program.

Screw designation

e.g.: S-CD 63 S 5.5x135

S	-	C	D	6	3	S	5.5x135
----------	----------	----------	----------	----------	----------	----------	----------------

S	screw fastening
C	sandwich panel
D	self-drilling screw
6	sealing washer, 19 mm dia.
3	drill point # 3 = 2.1 to 6 mm
S	stainless steel 1.4301
5.5x135	screw dimensions (diameter x length)

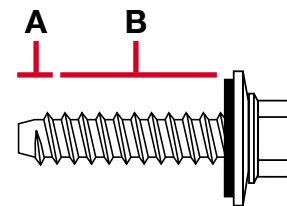
Hilti self-tapping screws

Applications

- Blunt-tip stainless steel (A2) or galvanized screws with sealing washers for fastening steel or aluminium profile metal sheets to steel profile sheets or steel substructures.
- Pointed-tip stainless steel (A2) or galvanized screws with sealing washers for fastening steel or aluminium profile metal sheets to steel profile sheets or timber substructures.

Description

- The blunt-tip screw is made of two different materials: case-hardened carbon steel (part A) and stainless steel (part B) and is suitable for use on S355 high-strength construction steel.
- The pointed screw is made of stainless steel (A2) or galvanized carbon steel. The surface of the screw is galvanized, which lubricates the drilling and thread-cutting operation.
- The screw forms its own thread in the pre-drilled hole.
- Specific drilling diameters can be found in sections 9 and 10.



The screws have an 8 mm AF (hex) head. Details of dimensions and head size can be found in sections 5 and 6. All of these screws can be ordered with a colored head and sealing washer in colors according to the RAL color chart.

Some of the screw programs have ETA approval. Please look for the approval mark on the pages for each screw program.



Screw designation

e.g.: S-MP 54 S 5.5x35

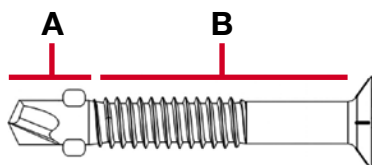
S	-	M	P	5	4	S	5.5x35
---	---	---	---	---	---	---	--------

- S** screw fastening
- M** metal
- P** self-tapping screw
- 5** sealing washer, 16 mm dia.
- 4** blunt tip, hardened thread run-out
- S** stainless steel 1.4301
- 5.5x35** screw dimensions (diameter x length)

Hilti wing-tip self-drilling screws

Applications

- Duplex-coated screws with drilling wings for fastening wood panels to steel substructures.



Description

The screw is made from duplex-coated carbon steel which ensures high corrosion resistance. The point of the screw is case-hardened.

- The wings (A) positioned at the thread run-in form a hole of a diameter larger than that of the threaded section as the screw drills through the wood panel.
- The wings draw the screw through the wood and thus avoid possible damage to the drill point.
- The wings snap off when they contact the steel substructure and the screw then forms its own thread as it progresses (B).

The screw has a Philips drive. Details of the dimensions and drive (bit) size can be found in section 11.

Screw designation

e.g.: S-WD13C 5.5x65

S	-	W	D	1	3	C	5.5x65
---	---	---	---	---	---	---	--------

S	screw fastening
W	wood
D	self-drilling screw
1	countersunk head
3	drill point # 3 = 2.1 to 6 mm
C	duplex-coated carbon steel
5.5x65	screw dimensions (diameter x length)

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 - 12.1 Flat roof insulation screws, 4.8 mm diameter
 - 12.2 Flat roof insulation screws, 6.7 mm diameter
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Direct fastening to steel

Anchoring mechanisms

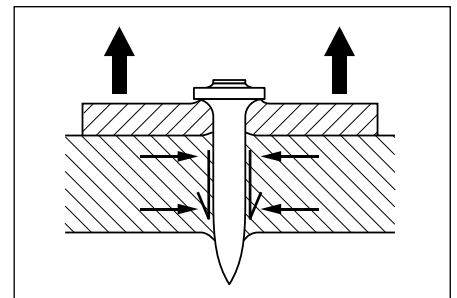
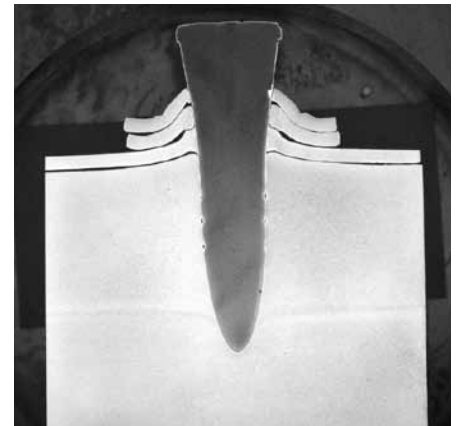
The following four mechanisms cause a DX fastener to hold when driven into steel.

- clamping effect
- keying effect
- fusion (welding effect)
- brazing or soldering effect

These mechanisms have been identified and studied by analyzing pull-out test data and by microscopic examination of cross-sections at fastenings.

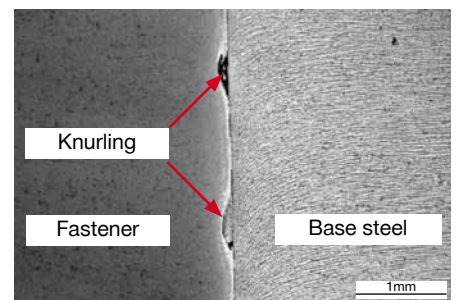
Clamping

Steel is displaced radially and towards both the entry surface and the opposite surface as a fastener is driven. This results in residual pressure on the surface of the nail which leads to friction or clamping. Clamping is the primary anchoring mechanism for fasteners that penetrate all the way through. This is indicated by the fact that the pull-out load decreases slowly over several millimeters of displacement when through-penetrating fasteners are extracted.



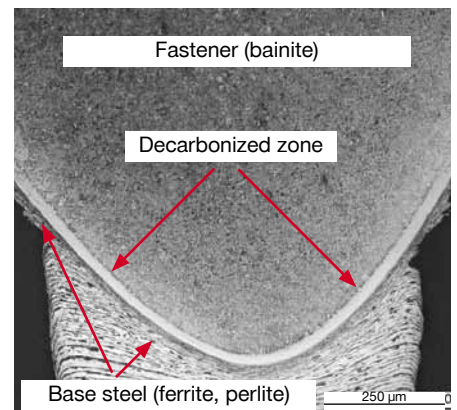
Keying

A keying mechanism is possible when the fastener is knurled, i.e. it has grooves along the shank in which zinc and particles of base steel accumulate during the driving process. Microscopic examination of cross sections has shown that the grooves are not completely filled. Keying is an especially important anchoring mechanism for fasteners that do not penetrate all the way through the base material.



Fusion (welding effect)

Complete fusion of the fastener with the base steel is indicated by the decarbonized zone and by the fact that portions of base material cling to the extracted fastener. Most fusing or welding is observed at the pointed tip of a fastener where the temperature during driving can be expected to be highest. This is an important anchoring mechanism for fasteners that do not penetrate right through the base material. It can be relied upon only if the fastener tip is manufactured without cracks and with an appropriate geometry. A forging process is ideal for achieving the proper geometry. Control of all steps in the manufacturing process is necessary in order to avoid cracks in the tip.



Brazing or soldering effect

In the zone that lies further from the tip of the fastener there is a prominent zinc layer separating the fastener from the base steel. This zinc that adheres to the base steel through a brazing or soldering effect also contributes to the fastener's pull-out resistance.

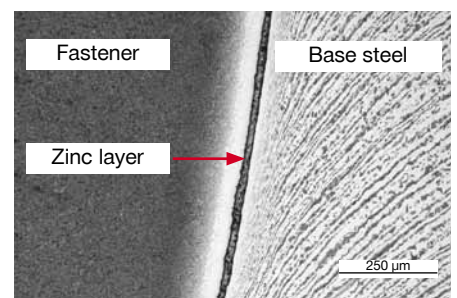


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Metal construction screwdrivers and accessories

Metal construction screwdrivers

Ordering designation	Item no.
ST 1800-A22 metal construction screwdriver in Hilti toolbox, with S-NSD 8 socket, depth gauge, protective cap and operating instructions – without battery / charger	000000 (437867)
ST 1800-A22 metal construction screwdriver in cardboard box, with S-NSD 8 socket, depth gauge, protective cap and operating instructions – without battery / charger	000000 (437866)
ST 1800-A22 metal construction screwdriver in Hilti toolbox, with S-NSD 8 socket, depth gauge, protective cap and operating instructions – with two B22 batteries and a charger	000000
ST 1800 230V metal construction screwdriver in cardboard box, with depth gauge, protective cap and operating instructions and 4 m supply cord	00378548
ST 1800 230V metal construction screwdriver in Hilti toolbox, with depth gauge, protective cap and operating instructions and 4 m supply cord	00378557



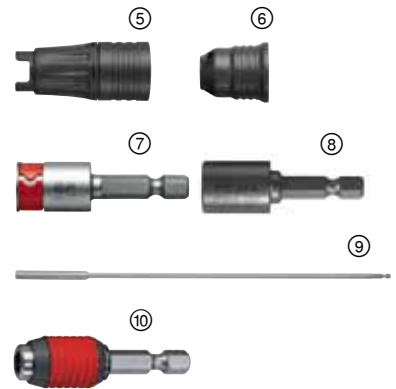
Accessories

C 4/36 ACS Li-ion charger for Hilti Li-ion batteries, with operating instructions, in a cardboard box	①	000000
B22 / 2.6 Ah Li-ion battery for Hilti Li-ion tools, in a cardboard box	②	360383
B22 / 3.3 Ah Li-ion battery for Hilti Li-ion tools, in a Hilti toolbox	②	2007431
SDT 30 stand-up tool , with S-NSD SDT long screwdriving bit	③	387596
SDT 25-15 stand-up tool , with S-NSD long screwdriving bit		284484
ST-SG 5.5 screw guide with operating instructions , in a cardboard box	④	407521
ST-SG 6.5 screw guide with operating instructions , in a cardboard box		425538
ST-DG 19 depth gauge for self-drilling screws with sealing washer up to 19 mm	⑤	2005053
ST-DG 22 depth gauge for self-drilling screws with sealing washer up to 22 mm		2005054
ST-DC protective cap to protect the chuck	⑥	2005055



Screwdriving bits / sockets

S-NSD 8 socket non-magnetic 8 mm socket with retention function	⑦	308901
S-NSD 10 socket non-magnetic 10 mm socket with retention function		308902
S-NSD 3/8 socket non-magnetic 3/8" socket with retention function		308905
S-NSD 8 M socket magnetic, 8 mm		236360
S-NSD 10 M socket magnetic, 10 mm		236361
S-NSD 3/8 M socket magnetic, 3/8" mm	⑧	374642
S-NSD SDT socket for the SDT 30	⑨	423706
Quick-change bit holder for maximum convenience	⑩	408553



Powder-actuated fastening tools and accessories

Powder-actuated fastening tools

Ordering designation		Item no.
DX 76 MX powder-actuated fastening tool with nail magazine	①	0000000
DX 76 PTR powder-actuated fastening tool for single nails	②	0000000
DX 860-ENP powder-actuated stand-up fastening tool	⑦	0000000



①

Special cartridges for the DX 76

6.8/18 M10 blue Clean-Tec special cartridge (medium)	③	0000000
6.8/18 M10 red Clean-Tec special cartridge (heavy)	④	0000000
6.8/18 M10 black Clean-Tec special cartridge (very heavy)	⑤	0000000
6.8/18 M10 green Clean-Tec special cartridge (light) only if X-ENP2K is used	⑥	0000000



②



③



④



⑤



⑥

Special cartridges for the DX 860

6.8/18 M40 blue special cartridge (medium)	⑧	0000000
6.8/18 M40 red special cartridge (heavy)	⑨	0000000
6.8/18 M40 black special cartridge (very heavy)	⑩	0000000



⑦



⑧



⑨



⑩

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S-MD 21Z 5.5xL

carbon steel self-drilling screw

Load data

Design data

Drilling capacity Σt

max. 3.0 mm

Tightening torque (recommendation)

Screw in end-stop oriented

Total thickness Σt :	up to 1.25 mm	up to 3.00 mm
Tightening torque:	4 Nm	8 Nm
Component II steel with t_{II} [mm]		
S280GD or S320GD (DIN EN 10326)		
	1.50	2.00

Component I

steel with t_I [mm]

S280GD or S320GD

(DIN EN 10326)

Shear force $V_{R,k}$ [kN]

0.63	2.20	2.20
0.75	2.20	3.80
0.88	2.20	4.20
1.00	2.20	4.20
1.13	2.20	4.20
1.25	2.20	4.20

Tensile force $N_{R,k}$ [kN]

0.63	1.50	1.50
0.75	1.50	2.20
0.88	1.50	2.80
1.00	1.50	3.60
1.13	1.50	3.60
1.25	1.50	3.60

Safety factors according to EN 1993-1-3 and CUAP 06.02/07

	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	- / -
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

S-MD 25Z 5.5xL carbon steel self-drilling screw

Load data

Design data

Drilling capacity Σt

max. 15.0 mm

Tightening torque (recommendation)

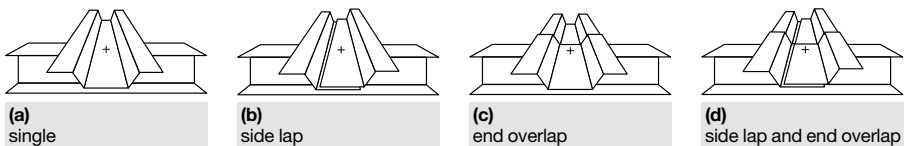
Screw in end-stop oriented

Tightening torque:	5 Nm			
	Component II steel with t_{II} [mm] S235J according to DIN EN 10025-2 S280GD or S320GD (DIN EN 10326)			
	4.00	5.00	6.00	> 6.00

Component I

steel with t_I [mm]
S280GD or S320GD
(DIN EN 10326)

	Shear force $V_{R,k}$ [kN]			
0.63	2.70 abcd	2.70 abcd	2.70 abcd	2.70 abcd
0.75	3.40 abcd	3.40 abcd	3.40 abcd	3.4 abcd0
0.88	4.20 ac	4.20 ac	4.20 ac	4.20 ac
1.00	4.90 ac	4.90 ac	4.90 ac	4.90 ac
1.13	5.70 ac	5.70 ac	5.70 ac	5.70 ac
1.25	6.50	6.50	6.50	6.50
1.50	7.60	7.60	7.60	7.60
1.75	7.60	7.60	7.60	7.60
2.00	7.60	7.60	7.60	7.60
	Tensile force $N_{R,k}$ [kN]			
0.63	1.50 abcd	1.50 abcd	1.50 abcd	1.50 abcd
0.75	1.80 abcd	1.80 abcd	1.80 abcd	1.80 abcd
0.88	2.10 ac	2.10 ac	2.10 ac	2.10 ac
1.00	2.40 ac	2.40 ac	2.40 ac	2.40 ac
1.13	2.70 ac	2.70 ac	2.70 ac	2.70 ac
1.25	3.00	3.00	3.00	3.00
1.50	3.60	3.60	3.60	3.60
1.75	3.60	3.60	3.60	3.60
2.00	4.80	4.80	4.80	4.80



Safety factors according to EN 1993-1-3 and CUAP 06.02/07

	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	- / -
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

S-MD 51LZ 4.8xL carbon steel self-drilling screw

Load data

Design data

Drilling capacity Σt
max. 2.75 mm

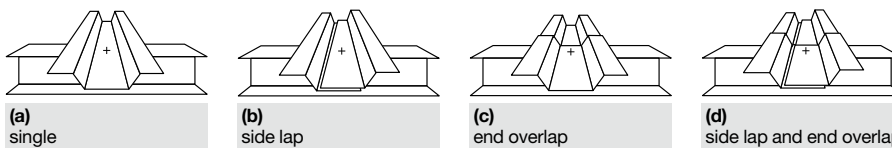
Tightening torque (recommendation)

Screw in end-stop oriented

Total thickness Σt :	up to 1.25 mm	up to 3.00 mm
Tightening torque:	4 Nm	8 Nm

Component II steel with t_{II} [mm] S280GD or S320GD (DIN EN 10326)							
0.63	0.75	0.88	1.00	1.13	1.25	1.50	

Component I steel with t_I [mm] S280GD or S320GD (DIN EN 10326)								
	Shear force $V_{R,k}$ [kN]							
0.63	1.40	1.40	1.90	2.40	2.70	3.00	3.00	
0.75	1.40	1.70	1.90	2.40	2.70	3.30	3.30	
0.88	1.40	1.70	1.90	2.40	2.70	3.30	3.30	
1.00	1.40	1.70	1.90	2.40	2.70	3.30	3.30	
1.13	1.40	1.70	1.90	2.40	2.70	3.30	3.30	
1.25	1.40	1.70	1.90	2.40	2.70	3.30	3.30	
1.50	1.40	1.70	1.90	2.40	2.70	3.30	–	
	Tensile force $N_{R,k}$ [kN]							
0.63	0.60	0.90	1.10	1.30	1.60	1.80	2.50	
0.75	0.60	0.90	1.10	1.30	1.60	1.80	2.50	
0.88	0.60	0.90	1.10	1.30	1.60	1.80	2.50	
1.00	0.60	0.90	1.10	1.30	1.60	1.80	2.50	
1.13	0.60	0.90	1.10	1.30	1.60	1.80	2.50	
1.25	0.60	0.90	1.10	1.30	1.60	1.80	2.50	
1.50	0.60	0.90	1.10	1.30	1.60	1.80	–	



Safety factors according to EN 1993-1-3 and CUAP 06.02/07

	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	– / –
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

S-MD 01ZW 5.5xL carbon steel self-drilling screw

Load data

Design data

Drilling capacity Σt

max. 3.0 mm

Component II steel with t_{II} [mm]								
S280GD								
S320GD or S350GD (DIN EN 10326)								
0.63	0.75	0.88	1.00	1.13	1.25	1.50	2.00	

Component I steel with t_I [mm]								
S280GD								
S320GD or S350GD								
(DIN EN 10326)								
	Shear force $V_{R,k}$ [kN]							
0.63	1.50	1.80	2.00	2.10	2.30	2.40	2.60	2.60
0.75	1.60	2.00	2.50	2.90	3.40	3.80	3.80	3.80
0.88	1.70	2.10	2.60	3.00	3.50	4.00	4.50	5.10
1.00	1.90	2.30	2.80	3.20	3.70	4.20	5.20	5.20
1.13	2.70	3.10	3.60	3.90	4.40	5.10	5.90	–
1.25	3.50	3.90	4.30	4.60	5.00	6.00	6.60	–
1.50	3.50	3.90	4.30	4.60	5.60	6.00	6.60	–
2.00	3.50	3.90	4.30	4.60	–	–	–	–
	Tensile force $N_{R,k}$ [kN]							
0.63	0.90	1.20	1.50	1.70	1.70	1.70	1.70	1.70
0.75	0.90	1.20	1.50	1.80	2.10	2.30	2.30	2.30
0.88	0.90	1.20	1.50	1.80	2.10	2.40	2.90	2.90
1.00	0.90	1.20	1.50	1.80	2.10	2.40	3.10	3.50
1.13	0.90	1.20	1.50	1.80	2.10	2.40	3.10	–
1.25	0.90	1.20	1.50	1.80	2.10	2.40	3.10	–
1.50	0.90	1.20	1.50	1.80	2.10	2.40	3.10	–
2.00	0.90	1.20	1.50	1.80	–	–	–	–

Important: It must be ensured that the screws are not overtightened.

Safety factors according to EN 1993-1-3 and CUAP 06.02/07

	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	– / –
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

S-MD 03ZW 5.5xL

carbon steel self-drilling screw

Load data

Design data

Drilling capacity Σt

max. 6.0 mm

Component II steel with t_{II} [mm]				
S280GD				
S320GD or S350GD (DIN EN 10326)				
2.00	2.50	3.00	3.00	4.00

Component I steel with t_I [mm]				
S280GD				
S320GD or S350GD				
(DIN EN 10326)				
	Shear force $V_{R,k}$ [kN]			
0.63	2.60	2.60	2.60	2.60
0.75	3.70	3.70	3.70	3.70
0.88	4.50	4.50	5.00	5.00
1.00	4.50	4.50	6.50	6.50
1.13	5.30	5.30	6.20	6.20
1.25	5.30	5.30	7.40	8.10
1.50	6.20	6.20	8.10	8.10
1.75	6.20	6.20	8.10	8.10
2.00	7.80	7.80	8.10	8.10
	Tensile force $N_{R,k}$ [kN]			
0.63	1.70	1.70	1.70	1.70
0.75	2.20	2.20	2.20	2.20
0.88	2.80	2.80	2.90	2.90
1.00	2.80	2.80	3.50	3.50
1.25	2.80	2.80	4.90	5.10
1.50	2.80	2.80	4.90	6.90
1.75	2.80	2.80	4.90	6.90
2.00	2.80	2.80	4.90	6.90

Important: It must be ensured that the screws are not overtightened.

Safety factors according to EN 1993-1-3 and CUAP 06.02/07

	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	- / -
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

S-MD 05ZW 5.5xL

carbon steel self-drilling screw

Load data

Design data

Drilling capacity Σt

max. 12.0 mm

Component II steel with t_{II} [mm]				
S280GD				
S320GD or S350GD (DIN EN 10326)				
4.00	5.00	6.00	>6.00	

Component I steel with t_I [mm]				
S280GD				
S320GD or S350GD				
(DIN EN 10326)				
	Shear force $V_{R,k}$ [kN]			
0.63	2.70	2.70	2.70	2.70
0.75	3.40	3.40	3.40	3.40
0.88	4.20	4.20	4.20	4.20
1.00	4.90	4.90	4.90	4.90
1.25	6.50	6.50	6.50	6.50
1.50	7.60	7.60	7.60	7.60
1.75	7.60	7.60	7.60	7.60
2.00	7.60	7.60	7.60	7.60
	Tensile force $N_{R,k}$ [kN]			
0.63	1.50	1.50	1.70	1.70
0.75	1.80	1.80	1.80	1.80
0.88	2.10	2.10	2.10	2.10
1.00	2.40	2.40	2.40	2.40
1.25	3.00	3.00	3.00	3.00
1.50	3.60	3.60	3.60	3.60
1.75	3.60	3.60	3.60	3.60
2.00	3.60	3.60	3.60	3.60

Important: It must be ensured that the screws are not overtightened.

Safety factors according to EN 1993-1-3 and CUAP 06.02/07		
	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	- / -
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

S-MD 01S 4.8xL

stainless steel self-drilling screw

Load data

Design data

Drilling capacity Σt

max. 2.0 mm

Component II steel with t_{II} [mm] S280GD or S320GD (DIN EN 10326)						
	0.63	0.75	0.88	1.00	1.13	1.25

Component I steel with t_I [mm] S280GD or S320GD (DIN EN 10326)						
	Shear force $V_{R,k}$ [kN]					
0.63	0.90	0.90	0.90	0.90	0.90	0.90
0.75	0.90	1.60	1.60	1.60	–	–
0.88	0.90	1.60	2.20	2.20	–	–
1.00	0.90	1.60	2.20	2.80	–	–
1.13	0.90	1.60	2.20	2.80	–	–
1.25	0.90	1.60	–	–	–	–
	Tensile force $N_{R,k}$ [kN]					
0.63	0.80	0.80	0.80	0.80	0.80	0.80
0.75	1.00	1.00	1.00	1.00	1.00	1.00
0.88	1.00	1.00	1.00	1.00	1.00	1.00
1.00	1.10	1.40	1.40	1.40	1.40	1.40
1.13	1.10	1.40	1.40	1.40	1.40	1.40
1.25	1.10	1.80	1.80	2.00	2.00	2.00

Safety factors according to EN 1993-1-3 and CUAP 06.02/07

	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	– / –
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

S-MD 01LS 5.5xL

stainless steel self-drilling screw

Load data

Design data

Drilling capacity Σt

max. 4.0 mm

Component II steel with t_{II} [mm]
S280GD or S320GD (DIN EN 10326)

2x0.63 2x0.75 2x0.88 2x1.00 2x1.13 2x1.25 2x1.50

Component I steel with t_I [mm]

S280GD or S320GD
(DIN EN 10326)

Shear force $V_{R,k}$ [kN]

	0.63	0.75	0.88	1.00	1.13	1.25	1.50
0.63	2.10	2.10	2.10	2.10	–	–	–
0.75	2.10	3.00	3.00	3.00	–	–	–
0.88	2.10	3.00	3.10	3.10	–	–	–
1.00	2.10	3.00	3.10	3.20	–	–	–
1.13	2.10	3.00	3.10	–	–	–	–
1.25	2.10	3.00	–	–	–	–	–
1.50	2.10	–	–	–	–	–	–

Tensile force $N_{R,k}$ [kN]

	0.63	0.75	0.88	1.00	1.13	1.25	1.50
0.63	1.60	1.60	1.60	1.60	1.60	1.60	1.60
0.75	2.00	2.00	2.00	2.00	2.00	2.00	2.00
0.88	2.00	2.00	2.00	2.00	2.00	2.00	2.00
1.00	2.00	2.20	2.20	3.10	3.10	3.10	3.10
1.13	2.00	2.20	2.20	3.10	3.10	3.10	3.10
1.25	2.00	2.20	2.20	3.10	3.10	4.30	4.30
1.50	2.00	2.20	2.20	3.10	3.10	4.30	4.80

Safety factors according to EN 1993-1-3 and CUAP 06.02/07

	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	– / –
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

S-MD 03S 5.5xL

stainless steel self-drilling screw

Load data

Design data

Drilling capacity Σt

max. 6.0 mm

Component II steel with t_{II} [mm] S280GD or S320GD (DIN EN 10326)			
	1.50	2.00	3.00

Component I steel with t_I [mm] S280GD or S320GD (DIN EN 10326)			
	Shear force $V_{R,k}$ [kN]		
0.63	–	2.30	2.30
0.75	–	2.30	3.00
0.88	–	2.30	3.00
1.00	–	4.80	–
	Tensile force $N_{R,k}$ [kN]		
0.63	1.50	1.50	1.50
0.75	1.70	2.00	2.00
0.88	1.70	2.00	2.00
1.00	1.70	2.60	3.20
1.13	1.70	2.60	3.20
1.25	1.70	2.60	4.60
1.50	1.70	2.60	4.60
2.00	1.70	2.60	4.60

Safety factors according to EN 1993-1-3 and CUAP 06.02/07

	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	– / –
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

S-MD 03S 6.3xL

stainless steel self-drilling screw

Load data

Design data

Drilling capacity Σt

max. 6.0 mm

Component II steel with t_{II} [mm] S280GD or S320GD (DIN EN 10326)		
1.50	2.00	3.00

Component I steel with t_I [mm] S280GD or S320GD (DIN EN 10326)			
	Shear force $V_{R,k}$ [kN]		
0.63	–	2.40	2.40
0.75	–	2.40	3.50
0.88	–	2.40	3.50
1.00	–	3.90	–
	Tensile force $N_{R,k}$ [kN]		
0.63	1.40	1.70	1.70
0.75	1.40	2.20	2.20
0.88	1.40	2.20	2.20
1.00	1.40	2.70	3.70
1.13	1.40	2.70	3.70
1.25	1.40	2.70	5.40
1.50	1.40	2.70	5.40
2.00	1.40	2.70	5.40

Safety factors according to EN 1993-1-3 and CUAP 06.02/07

	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	– / –
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

S-MD 05S 5.5xL

stainless steel self-drilling screw

Load data

Design data

Drilling capacity Σt

max. 12.0 mm

Component II steel with t_{II} [mm]
S280GD or S320GD (DIN EN 10326)

4.00	6.00	8.00
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Component I steel with t_I [mm]

S280GD or S320GD
(DIN EN 10326)

Shear force $V_{R,k}$ [kN]

0.75	4.10	4.10	4.10
0.88	4.80	4.80	4.80
1.00	5.40	5.40	5.40
1.13	5.40	5.40	5.40
1.25	6.70	6.70	6.70

Tensile force $N_{R,k}$ [kN]

0.63	1.40	1.40	1.40
0.75	1.60	1.60	1.60
0.88	1.60	1.60	1.60
1.00	2.20	2.20	2.20
1.13	2.20	2.20	2.20
1.25	2.70	2.70	2.70
1.50	3.30	3.30	3.30
2.00	4.30	4.30	4.30

Safety factors according to EN 1993-1-3 and CUAP 06.02/07

	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	- / -
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

S-CDW 61C 6.5xL carbon steel self-drilling screw

Load data

Design data

Screw-in depth l_{ef}

≥ 50.0 mm

Component II									
solid timber C24 (S10 according to DIN 4074-1)									
30	40	50	69	70	80	100	120	≥ 140	

Component I									
sheeting with t_{N1} or t_{N2} [mm] S280GD or S320GD (DIN EN 10326)									
	Shear force $V_{R,k}$ [kN]								
0.50	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
0.55	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
0.63	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60
0.75	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10
0.88	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10
1.00	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10
	Tensile force $N_{R,k}$ [kN]								
0.50	2.50 ^{a)}	2.50 ^{a)}	2.50 ^{a)}	2.50 ^{a)}	2.50 ^{a)}	2.50 ^{a)}	2.50 ^{a)}	2.50 ^{a)}	2.50 ^{a)}
0.55	2.90 ^{a)}	2.90 ^{a)}	2.90 ^{a)}	2.90 ^{a)}	2.90 ^{a)}	2.90 ^{a)}	2.90 ^{a)}	2.90 ^{a)}	2.90 ^{a)}
0.63	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
0.75	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
0.88	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
1.00	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50

For t_{N2} made of S320GD all $V_{R,k}$ values can be increased by 8.3 %.

For t_{N1} made of S320GD all $N_{R,k}$ values, marked with ^{a)}, can be increased by 8.3 %.

Screw resistance in timber (Component II) calculated according to timber standards.

Safety factors according to EN 1993-1-3 and CUAP 06.02/07		
	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	- / -
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

S-CD 63C 5.5xL

carbon steel self-drilling screw

Load data

Design data

Drilling capacity Σ

max. 5.5 mm

Component II steel with t_{II} [mm]
S280GD or S320GD (DIN EN 10326)

2.00	3.00	4.00
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Component I

steel with t_I [mm]
S280GD or S320GD
(DIN EN 10326)

Shear force $V_{R,k}$ [kN]

0.50	1.30	1.30	1.30
0.63	1.70	1.70	1.70
0.75	2.00	2.00	2.00
1.00	2.60	2.60	2.60

Tensile force $N_{R,k}$ [kN]

0.50	2.60	2.60	2.60
0.63	2.72	3.40	3.40
0.75	2.72	4.20	4.20
1.00	2.72	5.07	6.95

Max. screw head deflection u

depending on the
sandwich panel thickness
[mm]

40	4.0	3.5	3.0
50	6.0	4.5	3.5
60	8.0	6.0	4.0
70	9.0	7.0	5.0
80	10.0	8.0	6.0
100	10.0	8.0	6.0
120	10.0	8.0	6.0
≥140	10.0	8.0	6.0

Safety factors according to EN 1993-1-3 and CUAP 06.02/07

	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	- / -
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

S-CD 65C 5.5xL

carbon steel self-drilling screw

Load data

Design data

Drilling capacity Σ

max. 12.0 mm

Component II steel with t_{II} [mm] S280GD or S320GD (DIN EN 10326)		
3.00	4.00	> 6.00

Component I steel with t_I [mm] S280GD or S320GD (DIN EN 10326)			
	Shear force $V_{R,k}$ [kN]		
0.50	1.30	1.30	1.30
0.63	1.80	1.80	1.80
0.75	2.30	2.30	2.30
1.00	3.50	3.50	3.50
	Tensile force $N_{R,k}$ [kN]		
0.50	2.50	2.50	2.50
0.63	3.30	3.30	3.30
0.75	4.10	4.10	4.10
1.00	5.10	5.10	5.10

Safety factors according to EN 1993-1-3 and CUAP 06.02/07		
	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	- / -
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

S-MP 53Z 6.5xL

carbon steel self-tapping screw

Load data

Design data

Component II steel with t_{II} [mm] S280GD or S320GD (DIN EN 10326)				
	1.00	1.50	2.00	3.00

Component I

steel with t_I [mm]
S280GD or S320GD
(DIN EN 10326)

	Shear force $V_{R,k}$ [kN]			
0.63	2.20	2.70	2.70	–
0.75	2.30	3.20	3.20	–
0.88	2.30	3.20	3.20	–
1.00	2.40	3.40	3.60	–
	Tensile force $N_{R,k}$ [kN]			
0.63	1.40	2.20	3.20	3.20
0.75	1.40	2.20	3.50	3.80
0.88	1.40	2.20	3.50	3.80
1.00	1.40	2.20	3.50	5.00

Safety factors according to EN 1993-1-3 and CUAP 06.02/07

	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	– / –
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

S-MP 52Z 6.3xL

carbon steel self-tapping screw

Load data

Design data

Component II steel with t_{II} [mm] S280GD or S320GD (DIN EN 10326)		
3.00	4.00	6.00

Component I

steel with t_I [mm]
S280GD or S320GD
(DIN EN 10326)

	Shear force $V_{R,k}$ [kN]		
0.63	2.80	2.80	2.80
0.75	2.80	3.60	3.60
0.88	2.80	3.60	4.60
1.00	2.80	3.60	4.60
	Tensile force $N_{R,k}$ [kN]		
0.63	3.20	3.20	3.20
0.75	3.80	3.80	3.80
0.88	3.80	3.80	3.80
1.00	4.80	4.80	4.80

Safety factors according to EN 1993-1-3 and CUAP 06.02/07

	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	- / -
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

S-WD 11C 3.8xL; 4.2xL carbon steel self-drilling wing screw

Load data

Drilling capacity Σt S-WD 11C 3.8xL max. 1.5 mm

Component II steel with t_{II} [mm] S280GD S320GD or S350GD (DIN EN 10326)				
	1.25	1.50	2.00	2.50

Component I solid timber S10/C24 t_I [mm]

Shear force $V_{R,k}$ [kN]				
10	0.80	0.80	0.80	0.80
15	0.80	0.80	0.80	0.80
20	0.80	0.80	0.80	0.80
(25)	0.80	0.80	0.80	0.80
Tensile force $N_{R,k}$ [kN]				
10	0.79	0.79	0.79	0.79
15	0.79	0.79	0.79	0.79
20	0.79	0.79	0.79	0.79
(25)	0.79	0.79	0.79	0.79

Drilling capacity Σt S-WD 11C 4.2xL max. 3.5 mm

Component II steel with t_{II} [mm] S280GD S320GD or S350GD (DIN EN 10326)				
	1.25	1.50	2.00	2.50

Component I solid timber S10/C24 t_I [mm]

Shear force $V_{R,k}$ [kN]				
10	0.85	0.85	0.85	0.85
15	0.85	0.85	0.85	0.85
20	0.85	0.85	0.85	0.85
(25)	0.85	0.85	0.85	0.85
Tensile force $N_{R,k}$ [kN]				
10	0.79	0.79	0.79	0.79
15	0.79	0.79	0.79	0.79
20	0.79	0.79	0.79	0.79
(25)	0.79	0.79	0.79	0.79

Safety factors according to EN 1993-1-3 and CUAP 06.02/07

	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	- / -
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

S-WD 13C 4.8xL; 5.5xL carbon steel self-drilling wing screw

Load data

Drilling capacity Σt S-WD 13C 4.8xL max. 4.5mm

	Component II steel with t_{II} [mm]		
	S280GD S320GD or S350GD (DIN EN 10326)		
	2.00	3.00	4.00

Component I solid timber S10/C24 t_I [mm]

	Shear force $V_{R,k}$ [kN]		
	20	0.84	0.84
30	0.84	0.84	0.84
40	0.84	0.84	0.84
50	0.84	0.84	0.84
60	0.84	0.84	0.84
	Tensile force $N_{R,k}$ [kN]		
	20	0.81	0.81
30	0.81	0.81	0.81
40	0.81	0.81	0.81
50	0.81	0.81	0.81
60	0.81	0.81	0.81

Drilling capacity Σt S-WD 13C 5.5xL max. 5.5mm

	Shear force $V_{R,k}$ [kN]		
	20	1.40	1.40
30	1.40	1.40	1.40
40	1.40	1.40	1.40
50	1.40	1.40	1.40
60	1.40	1.40	1.40
	Tensile force $N_{R,k}$ [kN]		
	20	1.00	1.00
30	1.00	1.00	1.00
40	1.00	1.00	1.00
50	1.00	1.00	1.00
60	1.00	1.00	1.00

Safety factors according to EN 1993-1-3 and CUAP 06.02/07

	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	- / -
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

S-WD 13C 6.3xL

carbon steel self-drilling wing screw

Load data

Drilling capacity Σt S-WD 13C 6.3xL max. 6.5mm

Component II steel with t_{II} [mm]			
S280GD			
S320GD or S350GD (DIN EN 10326)			
2.00	3.00	4.00	

Component I solid timber S10/C24 t_I [mm]			
Shear force $V_{R,k}$ [kN]			
20	1.36	1.36	1.36
30	1.36	1.36	1.36
40	1.36	1.36	1.36
50	1.36	1.36	1.36
60	1.36	1.36	1.36
Tensile force $N_{R,k}$ [kN]			
20	1.21	1.21	1.21
30	1.21	1.21	1.21
40	1.21	1.21	1.21
50	1.21	1.21	1.21
60	1.21	1.21	1.21

Safety factors according to EN 1993-1-3 and CUAP 06.02/07

	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	- / -
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

S-WD 15C 5.5xL carbon steel self-drilling wing screw

Load data

Drilling capacity Σt S-WD 15C 5.5xL max. 12mm

Component II steel with t_{II} [mm]				
S280GD				
S320GD or S350GD (DIN EN 10326)				
4.00	5.00	6.00	>6.00	

Component I solid timber S10/C24 t_I [mm]

Shear force $V_{R,k}$ [kN]				
20	1.85	1.85	1.85	1.85
30	1.85	1.85	1.85	1.85
40	1.85	1.85	1.85	1.85
50	1.85	1.85	1.85	1.85
60	1.85	1.85	1.85	1.85
Tensile force $N_{R,k}$ [kN]				
20	1.00	1.00	1.00	1.00
30	1.00	1.00	1.00	1.00
40	1.00	1.00	1.00	1.00
50	1.00	1.00	1.00	1.00
60	1.00	1.00	1.00	1.00

Safety factors according to EN 1993-1-3 and CUAP 06.02/07

	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	- / -
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{GLOB} = 2.0$	$\gamma_{GLOB} = 2.0$
Recommended load	$N_{rec} = 1.0 \cdot N_{Rk} / 2.0$	$V_{rec} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

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