



TECHNICAL MANUAL METAL CONSTRUCTION SCREWS

Decking & Roofing
Solar
Siding
Sandwich
Ventilated Façade

05/2024



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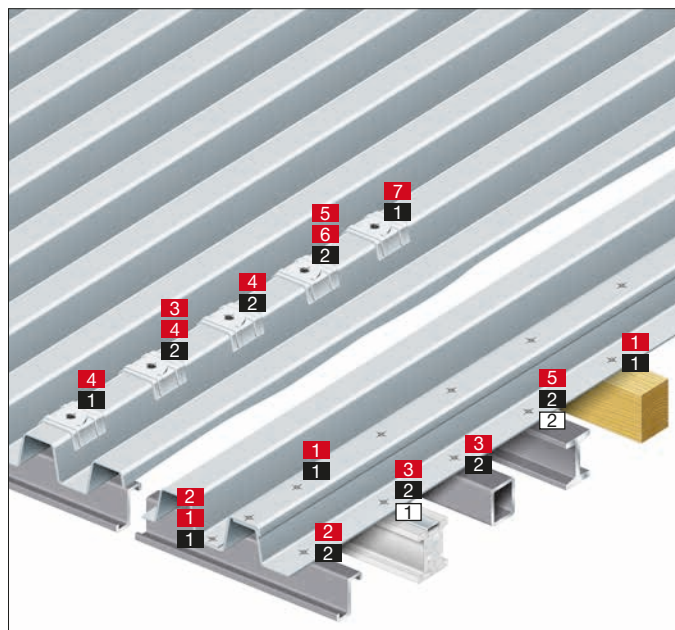
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1.1 Uninsulated roof with steel or aluminium sheet



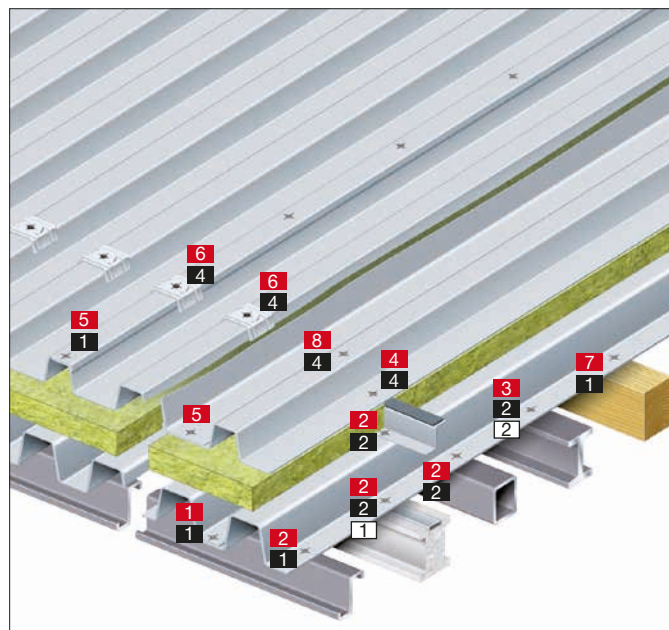
Self-drilling screws

1 S-MS 51Z	p. 33	S-CD 65GS	p. 63
S-MD 51Z	p. 35	S-CD 75GS	p. 63
S-MS 51S	p. 33	Saddle washer	p. 91
S-MD 51S	p. 35	7 S-CDW 61C	p. 70
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S-MDW 61S	p. 52	S-CDW 71S	p. 68
S-MDW 71S	p. 52	Saddle washer	p. 91

2 S-MD 51LZ	p. 38	Self-tapping screws	
S-MD 53Z	p. 42	1 S-MP 53Z	p. 78
S-MD 51LS	p. 38	S-MP 53S	p. 76
3 S-MD 53Z	p. 42	S-MP 63S	p. 77
S-MD 53S	p. 42	S-MP 73S	p. 77
S-MD 63S	p. 42	Saddle washer	p. 91
S-MD 73S	p. 42	2 S-MP 52Z	p. 75

4 S-CD 53C	p. 61	S-MP 52S	p. 71
S-CD 63C	p. 61	S-MP 62S	p. 71
S-CD 53S	p. 59	S-MP 54S	p. 73
S-CD 63S	p. 59	S-MP 64S	p. 73
S-CD 73S	p. 59	S-MP 72S	p. 71
Saddle washer	p. 91	S-MP 74S	p. 73
5 S-MD 55Z	p. 48	Saddle washer	p. 91
S-MD 65Z	p. 48	DX-application	
S-MD 55S	p. 48	1 X-ENP2K	p. 83
S-MD 65S	p. 48	SDK2/PDK2	p. 82
S-MD 75S	p. 48	2 X-ENP	p. 81
6 S-CD 55C	p. 67	SDK2/PDK2	p. 82
S-CD 65C	p. 67		
S-CD 55GS	p. 63		

1.2 Insulated roof with steel or aluminium sheet



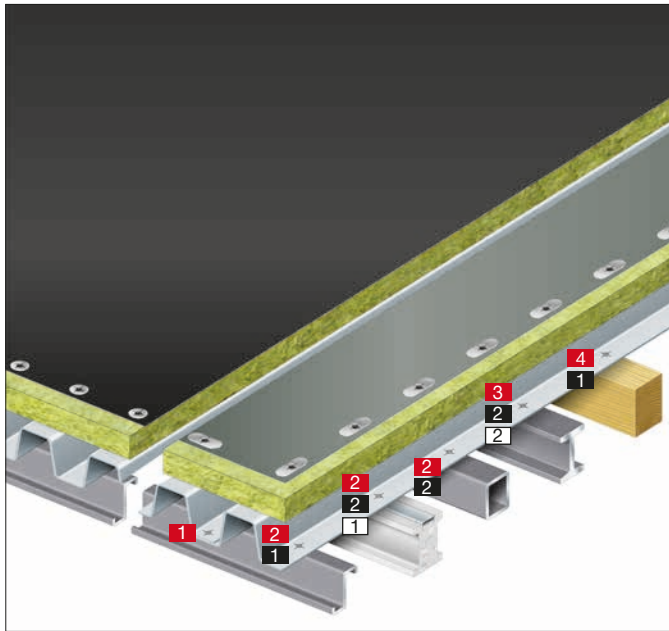
Self-drilling screws

1 S-MS 01Z	p. 33	7 S-MD 01S	p. 35
S-MD 01Z	p. 35	S-MD 51S	p. 35
S-MD 01LPS	p. 38	S-MDW	p. 51
S-MDU 21Z	p. 37	8 S-CD 73S	p. 60
S-MD/MS M9	p. 30		

2 S-MD 21Z	p. 37	Self-tapping screws	
S-MD 23Z	p. 41	1 S-MP 53Z	p. 78
3 S-MD 25Z	p. 31	S-MP 53S	p. 77
S-MD 05Z	p. 46	2 S-MP 52Z	p. 75
4 S-MD 51LZ	p. 38	S-MP 52S	p. 71
S-MD 53Z	p. 42	S-MP 54S	p. 73
S-MD 51LS	p. 39	S-MP 53Z	p. 78
S-MD 61LS	p. 39	4 S-MP 52S	p. 71
S-MD 71LS	p. 39	S-MP 62S	p. 71

5 S-MS 51Z	p. 33	S-MP 72S	p. 71
S-MD 51Z	p. 35	S-MP 54S	p. 73
S-MS 51S	p. 34	S-MP 64S	p. 73
S-MD 51S	p. 35	S-MP 74S	p. 73
S-MD 61S	p. 35	Saddle washer	p. 91
6 S-CD 53C	p. 61	DX-application	
S-CD 63C	p. 61	1 X-ENP2K	p. 83
S-CD 53S	p. 60	2 X-ENP	p. 81
S-CD 63S	p. 60		
S-CD 73S	p. 60		
Saddle washer	p. 91		

1.3 Insulated flatroof



Self-drilling screws

1	S-MS 01Z	p. 33
	S-MD 01Z	p. 35
	S-MDU 21Z	p. 37
	S-MD/MS M9	p. 30
2	S-MD 21Z	p. 37
	S-MD 23Z	p. 41
3	S-MD 25Z	p. 31
	S-MD 05Z	p. 46
4	S-MD 01S	p. 35
	S-MD 01LPS	p. 38
	S-MD 51S	p. 35
	S-MDW	p. 51

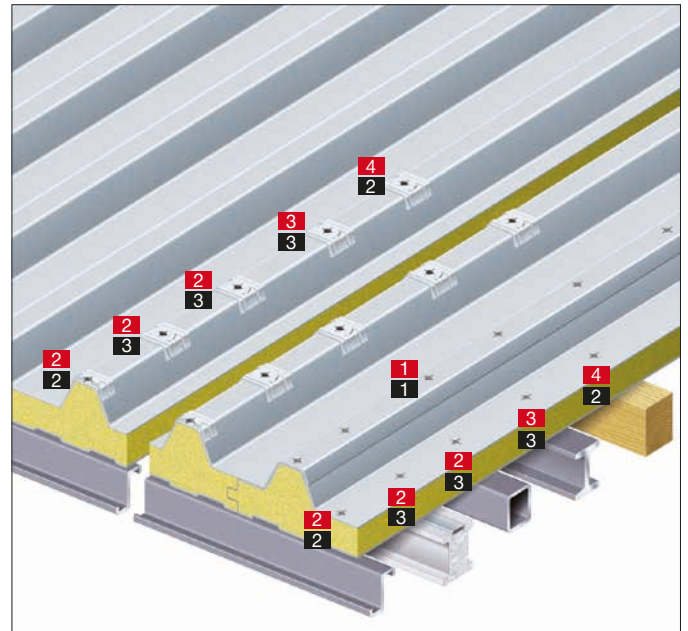
Self-tapping screws

1	S-MP 53Z	p. 78
	S-MP 53S	p. 77
2	S-MP 52Z	p. 75
	S-MP 52S	p. 71
	S-MP 54S	p. 73

DX-application

1	X-ENP2K	p. 83
2	X-ENP	p. 81

1.4 Sandwich panel roof



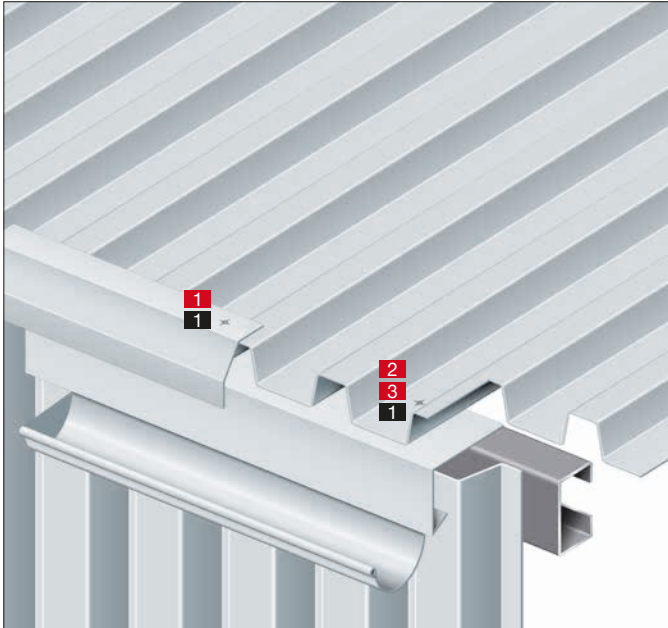
Self-drilling screws

1	S-MS 51Z	p. 33
	S-MD 51Z	p. 35
	S-MS 51S	p. 33
	S-MD 51S	p. 35
	S-MD 61S	p. 35
2	S-CD 53C	p. 61
	S-CD 63C	p. 61
	S-CD 53S	p. 59
	S-CD 63S	p. 59
	S-CD 73S	p. 59
	Saddle washer	p. 91
3	S-CD 55C	p. 67
	S-CD 65C	p. 67
	S-CD 55GS	p. 63
	S-CD 65GS	p. 63
	S-CD 75GS	p. 63
	Saddle washer	p. 91
4	S-CDW 61C	p. 70
	S-CDW 51S	p. 69
	S-CDW 61S	p. 69
	S-CDW 71S	p. 69
	Saddle washer	p. 91

Self-tapping screws

1	S-MP 53Z	p. 78
	S-MP 53S	p. 77
2	S-MP 53Z	p. 78
	S-MP 53S	p. 77
	S-MP 63S	p. 77
	S-MP 73S	p. 77
	Saddle washer	p. 91
3	S-MP 52Z	p. 75
	S-MP 52S	p. 71
	S-MP 62S	p. 71
	S-MP 54S	p. 73
	S-MP 64S	p. 73
	S-MP 72S	p. 71
	S-MP 74S	p. 73
	Saddle washer	p. 91

1.5 Eaves



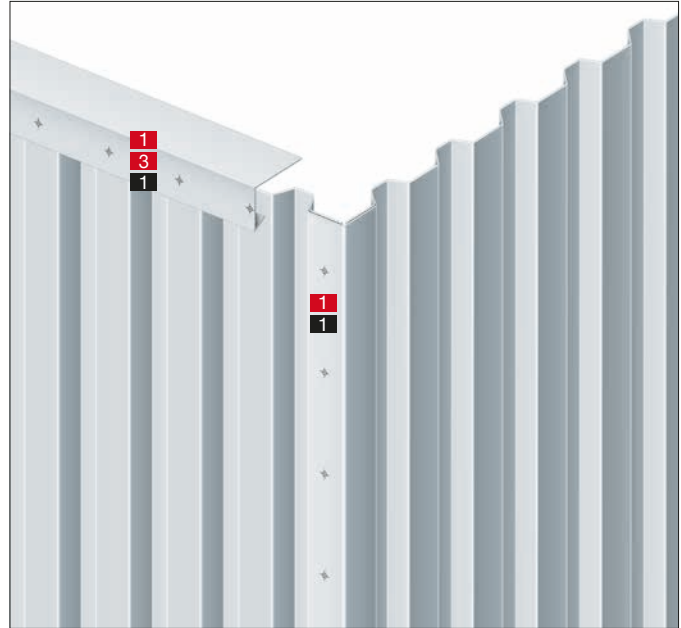
Self-drilling screws

1	S-MS 41Z	p. 33
	S-MS 51Z	p. 33
	S-MD 51Z	p. 35
	S-MS 41S	p. 33
	S-MS 51S	p. 34
	S-MD 51S	p. 35
2	S-MD 51LZ	p. 38
	S-MD 53Z	p. 42
	S-MD 51LS	p. 38
3	S-MD 53Z	p. 42
	S-MD 43S	p. 42
	S-MD 53S	p. 42

Self-tapping screws

1	S-MP 53Z	p. 78
	S-MP 53S	p. 77

1.6 Finishing at corners and edges



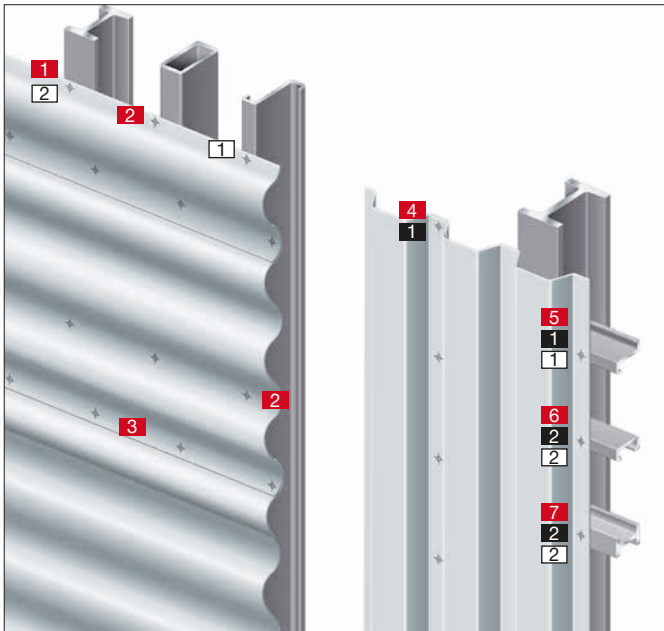
Self-drilling screws

1	S-MS 41Z	p. 33
	S-MS 51Z	p. 33
	S-MD 51Z	p. 35
	S-MS 41S	p. 33
	S-MS 51S	p. 33
	S-MD 51S	p. 35
3	S-MD 53Z	p. 42
	S-MD 43S	p. 42
	S-MD 53S	p. 42

Self-tapping screws

1	S-MP 53Z	p. 78
	S-MP 53S	p. 77

1.7 Uninsulated siding with steel or aluminium sheet



Self-drilling screws

1	S-MD 35PS	p. 50
2	S-MS 31PS	p. 33
	S-MD 43S	p. 42
3	S-MS 31PS	p. 33
	S-MS 41Z	p. 33
4	S-MS 41Z	p. 33
	S-MS 51Z	p. 33
	S-MD 51Z	p. 35
	S-MS 41S	p. 33
	S-MS 51S	p. 34
5	S-MD 51LZ	p. 38
	S-MD 53Z	p. 43
	S-MD 51LS	p. 38
6	S-MD 53Z	p. 42
	S-MD 53S	p. 42
	S-MD 63S	p. 42
	S-MD 73S	p. 42
7	S-MD 55Z	p. 48
	S-MD 65Z	p. 48
	S-MD 55S	p. 48

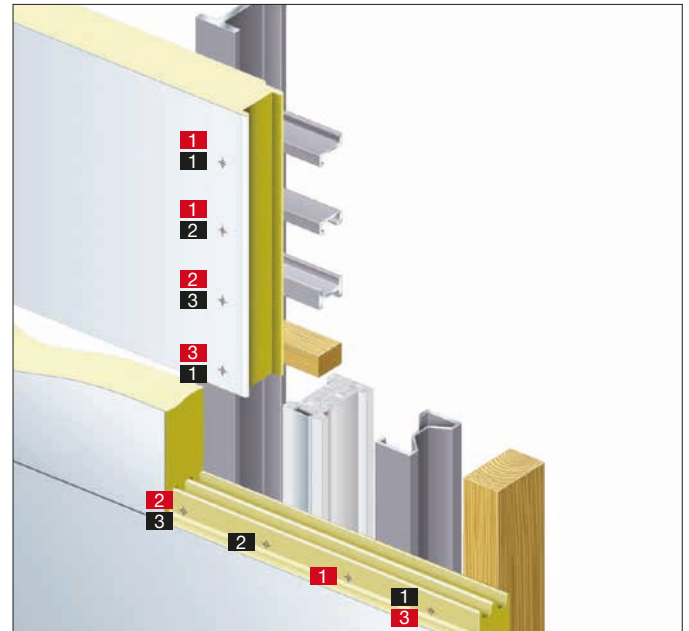
Self-tapping screws

1	S-MP 53Z	p. 78
	S-MP 53S	p. 77
2	S-MP 52Z	p. 75
	S-MP 52S	p. 71
	S-MP 54S	p. 73

DX-application

1	X-ENP2K	p. 83
	SDK2/PDK2	p. 82
2	X-ENP	p. 81
	SDK2/PDK2	p. 82

1.8 Sandwich panel siding



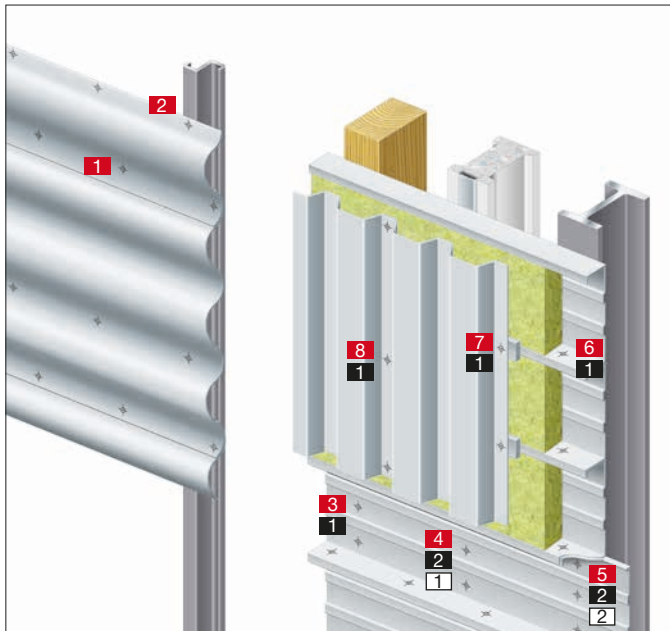
Self-drilling screws

1	S-CD 53C	p. 61
	S-CD 63C	p. 61
	S-CD 53S	p. 59
	S-CD 63S	p. 59
2	S-CD 55C	p. 67
	S-CD 65C	p. 67
	S-CD 55GS	p. 63
	S-CD 65GS	p. 63
3	S-CDW 61C	p. 70
	S-CDW 51S	p. 69
	S-CDW 61S	p. 69

Self-tapping screws

1	S-MP 53Z	p. 78
	S-MP 53S	p. 77
	S-MP 63S	p. 77
2	S-MP 52Z	p. 75
	S-MP 52S	p. 71
	S-MP 62S	p. 71
3	S-MP 52Z	p. 75
	S-MP 54S	p. 73
	S-MP 64S	p. 73

1.9 Insulated siding with steel or aluminium sheet, vertical



Self-drilling screws

1	S-MS 41Z	p. 33
	S-MS 31PS	p. 33
2	S-MS 31PS	p. 33
	S-MD 33PS	p. 44
	S-MD 43S	p. 42
3	S-MD 01LPS	p. 38
	S-MS 31PS	p. 33
	S-MD 01S	p. 35
	S-MD 51S	p. 35
	S-MDW 01S	p. 51
4	S-MD 21Z	p. 37
	S-MD 23Z	p. 41
5	S-MD 25Z	p. 31
	S-MD 05Z	p. 46
6	S-MS 01Z	p. 33
	S-MD 01Z	p. 35
	S-MDU 21Z	p. 37
7	S-MD 51LZ	p. 38
	S-MD 53Z	p. 42
	S-MD 51LS	p. 38
	S-MD 53S	p. 42

8	S-MS 41Z	p. 33
	S-MS 51Z	p. 33
	S-MD 51Z	p. 35
	S-MS 41S	p. 33
	S-MS 51S	p. 34
	S-MD 51S	p. 35
	S-MD 51LS	p. 38

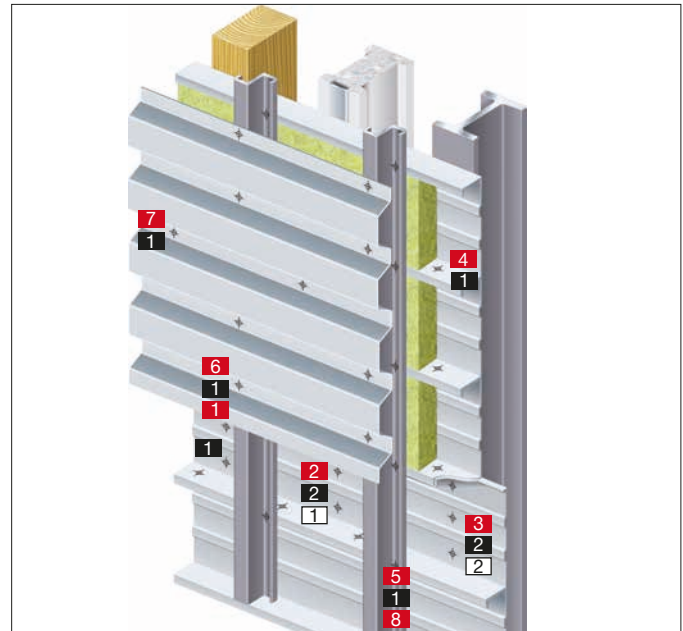
Self-tapping screws

1	S-MP 53Z	p. 78
	S-MP 53S	p. 77
2	S-MP 52Z	p. 75
	S-MP 52S	p. 71
	S-MP 54S	p. 73

DX-application

1	X-ENP2K	p. 83
2	X-ENP	p. 81

1.10 Insulated siding with steel or aluminium sheet, horizontal



Self-drilling screws

1	S-MD 01LPS	p. 38
	S-MS 31PS	p. 33
	S-MD 01S	p. 35
	S-MD 51S	p. 35
2	S-MD 21Z	p. 37
	S-MD 23Z	p. 41
3	S-MD 25Z	p. 31
	S-MD 05Z	p. 46
4	S-MS 01Z	p. 33
	S-MD 01Z	p. 35
	S-MDU 21Z	p. 37
5	S-MD 01Z	p. 35
	S-MD 03Z	p. 31
	S-MD 51Z	p. 35
	S-MD 51LZ	p. 38
	S-MD 53Z	p. 42
6	S-MD 51LZ	p. 38
	S-MD 53Z	p. 42
	S-MD 51LS	p. 38
	S-MD 53S	p. 42
7	S-MS 41Z	p. 33
	S-MS 51Z	p. 33
	S-MD 51Z	p. 35
	S-MS 41S	p. 33
	S-MS 51S	p. 34
	S-MD 51S	p. 35
	S-MD 51LS	p. 38

8	S-MDW 51Z	p. 52
	S-MDW 61Z	p. 52
	S-MDW 71Z	p. 52

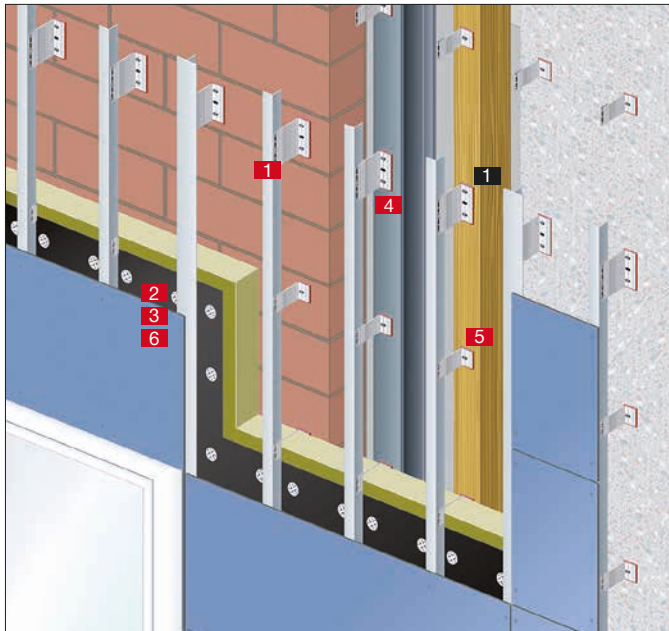
Self-tapping screws

1	S-MP 53Z	p. 78
	S-MP 53S	p. 77
2	S-MP 52Z	p. 75
	S-MP 52S	p. 71
	S-MP 54S	p. 73

DX-application

1	X-ENP2K	p. 83
2	X-ENP	p. 81

1.11 Ventilated Facade 1 Layer



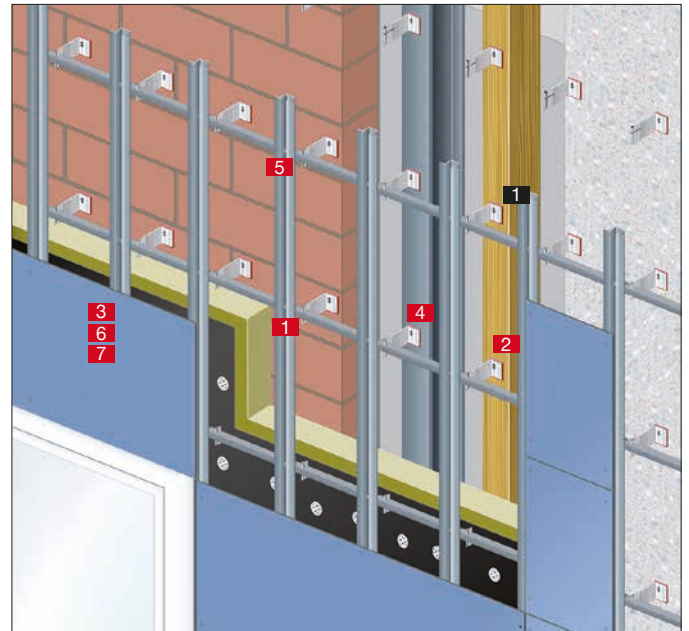
Self-drilling screws

1	S-AD 01S	p. 56
	S-AD 01SS	p. 56
	S-AD 01LSS	p. 56
	S-AD 01LPSS	p. 56
	S-AD 01LHSS	p. 56
2	S-MS 31PS	p. 33
3	S-MD 33PS	p. 44
4	S-MD 55S	p. 48
5	S-MDW 51S	p. 52
	S-MDW 61S	p. 52
	S-MDW 71S	p. 52
6	S-MD 01LPS	p. 38

Self-tapping screws

1	S-MP 53S	p. 77
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1.12 Ventilated Facade 2 Layer



Self-drilling screws

1	S-AD 01S	p. 56
	S-AD 01SS	p. 56
	S-AD 01LSS	p. 56
	S-AD 01LPSS	p. 56
	S-AD 01LHSS	p. 56
2	S-MDW 51S	p. 52
	S-MDW 61S	p. 52
	S-MDW 71S	p. 52
3	S-MD 33PS	p. 44
4	S-MD 55S	p. 48
5	S-MD 51LS	p. 38
6	S-HP 02SS	p. 58
7	S-MD 01LPS	p. 38

Self-tapping screws

1	S-MP 53S	p. 77
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2.1 Finding the right screw

2.1.1 Selection process

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 quick and reliable help with screw selection.



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: S always stand for Hilti screw fastening

S-

2. Which material is to be fastened?

M: Metal
C: Sandwich panel
W: Wood
I: Insulation
A: Aluminium

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-stitching (Speedy function)
D: Self-drilling
DU: Self-drilling undercut
DW: Self-drilling wood
P: Pre-drilling (self-tapping)
FP: Self-drilling Fixing Pin
HP: Self-tapping for high pressure laminate Fixing Pin

Example: Self-drilling

S-MD

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

0: No sealing washer
1: Countersunk head
2: Pressed-on flange
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

Example: 19 mm sealing washer

S-MD 6

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

S-MS self-stitching screw

1: Drilling capacity 2 x 0.4 mm up to 2 x 1.25 mm

Self-drilling screw

1: Drilling capacity 1.0 up to approx. 3.0 mm

1L: Drilling capacity 1.0 up to approx. 4.0 mm

3: Drilling capacity 2.1 up to approx. 6.0 mm

5: Drilling capacity 4.6 up 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 S420GD/ST52
high strength steel > 1.25 mm steel substructure

Example: Drilling capacity 5 mm

S-MD 63

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

Head and thread geometry:

P: Pan head

W: Wafer head

G: Coarse thread

Material:

Z: Galvanized carbon steel

C: Duplex coated carbon steel

S: A2 grade stainless steel

SS: A4 grade stainless steel

Example: Stainless steel

S-MD 63 S

7. Diameter and screw length

Screw diameter:

4.2 mm / 4.8 mm / 5.5 mm / 6.0 mm / 6.3 mm / 6.5 mm / 7.2 mm

Screw length:

13 mm – 102 mm S-MD screws

75 mm – 300 mm S-CD screws

19 mm – 275 mm S-MP screws

Example: 5.5 mm diameter
length 55 mm

S-MD 63 S 5.5x40

Screw type

S-MD x1/3/5* S-MDW x1* S-CD x3/5* S-CDW x1* S-AD x1*	S-MS x1*	S-MP x2* S-MP x4*	S-MP x3*

* x represents washer size

Screw head & recess

Hexagon head	Hexagon head with pressed-on flange	Hexagon head with sealing washer	Hexagon head with sealing washer and supporting thread
Pan head	Pan head with sealing washer	Wafer head	Countersunk head

2.1.2 Determining key screw dimensions (length, drill capacity, thickness fastened range)

All values from this manual need to be verified with the actual jobsite situation and adapted if additional distances e.g. gaps occur on site.

2

Definition of the screw length (L)

The screw length is measured from the start of the screw (drill point) to below the screw head. However, the screw length alone says nothing about the screw's clamping area.

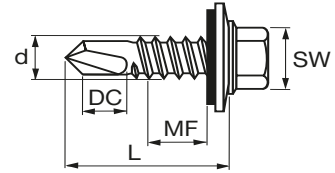
The screw length is selected depending on:

- the thickness of the base material,
- the thickness of the building component to be fastened,
- the thickness of possible intermediate layers such as thermal separation,
- additional building components such as calottes.

It must also be noted that when determining the screw length, the drill point, thread cut and (if necessary, in the case of bi-metal screws) the welding zone must be taken into account.

The technical length of the screws may vary by ± 1 mm according to ISO 2768 tolerance class v.

The width across flats (german Schlüsselweite, SW) is the distance between two parallel surfaces on the head of a screw, mostly for torque transmission.



Definition of the drilling performance (DC)

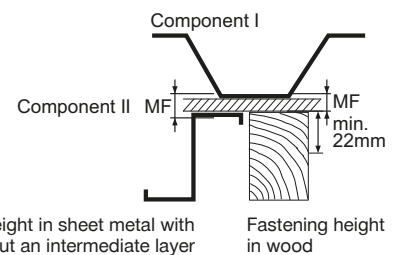
The length of the drill point must always be selected in such a way that the total material thickness (including the intermediate material) is completely drilled through before the thread starts to mold.

Calculating the fastening height (MF)

The fastening height MF (clamping area) is understood to mean the total height, consisting of:

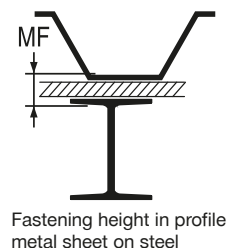
- + the thickness of building component I
- + the thickness of possible intermediate layers, such as thermal separation
- + the thickness of additional building components, such as calottes
- + the embedment depth in building component II (steel)

Note: in wood embedment is not part of MF



The embedment depth in building component II depends on the base material thickness and the base material itself. It is calculated as follows:

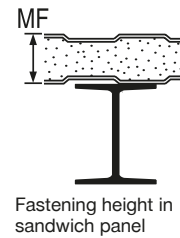
- Sheet metal or steel < 6 mm ➔ embedment depth = existing material thickness
- Steel ≥ 6 mm
 - ➔ Self-tapping screws: embedment depth = 6 mm
 - ➔ Self-drilling screws: embedment depth = existing material thickness
- Wood ➔ embedment depth ≥ 22 mm



Special features:

- Sandwich elements fastened with S-CD screws: The fastening height (MF) or clamping length is only specified with the maximum sandwich element thickness that is relevant to the fastening.
- Calottes: If using calottes, an additional 3 mm must be taken into account when calculating the fastening height (MF).

The fastening height (MF) is not included in the screw approvals. For this, please refer to the Hilti technical manual for metal construction screws for use in roofs/walls.



2.1.3 Hilti Screw Nomenclature

The easy way to find the right screw

2

S	-	M	D	5	3	Z	5.5 x 25	M
Screw Fastening							Dimensions Thread Diameter x Length	Further Information M: Collated M9: Collated for the SDT 9 RAL: Color Code
Application M: Metal C: Composite/Sandwich W: Wood I: Insulation A: Aluminium						Head geometry P: Pan head W: Wafer head G: Coarse thread		
Function S: Speedy function D: Self-drilling DU: Self-drilling undercut DW: Self-drilling wood P: Pre-drilling FP: Self-drilling Fixing Pin HP: Self-tapping for high pressure laminate						Material Z: Galvanized carbon steel C: Duplex coated carbon steel S: A2 grade stainless steel SS: A4 grade stainless steel		
Information about washers 0: No washer 1: Countersunk head 2: Pressed on flange 3: Washer 12 mm 4: Washer 14 mm 5: Washer 16 mm 6: Washer 19 mm 7: Washer 22 mm						Information about the screw point Self-piercing (S-MS) 1: Drilling capacity 2x0.4mm – 2x1.25 mm Self-drilling screw (S-MD / S-CD) 1: Drilling capacity 1.0 up to approx. 3.0 mm 1L: Drilling capacity 1.0 up to approx. 4.0 mm 3: Drilling capacity 2.1 up to approx. 6.0 mm 5: Drilling capacity 4.6 up to approx. 15.0 mm Self-tapping screw (S-MP) 2: >1.25 mm steel base material 3: <3.00 mm steel base material and wood base material 4: >1.25 mm steel base material, in high strength		

2.1.4 Colored screws

Screws with colored heads and washers

All screws can be supplied with powder-coated heads and washers.

Delivery period:

Standard RAL: 1 to 2 weeks

Other RAL: 3 to 4 weeks

2

The following RAL colors fall under the “Standard” category:								
1015	Light ivory		6011	Reseda green		8004	Copper brown	
3000	Flame red		6020	Chrome green		8011	Nut brown	
3005	Wine red		6021	Pale green		8012	Red brown	
3009	Oxide red		7005	Mouse grey		8014	Sepia brown	
3011	Brown red		7012	Basalt grey		8016	Mahogany brown	
5008	Grey blue		7015	Slate grey		8017	Chocolate brown	
5009	Azure blue		7016	Anthracite grey		8019	Grey brown	
5010	Gentian blue		7022	Umbra grey		9001	Cream	
5014	Sky blue		7024	Graphite grey		9002	Grey white	
5017	Traffic blue		7031	Blue grey		9005	Jet black	
6003	Olive green		7032	Pebble grey		9006	White aluminium	
6005	Moos green		7035	Light grey		9007	Gray aluminium	
6006	Gray olive		7038	Agate grey		9010	Pure white	
6007	Battle green		7042	Traffic grey A		9011	Graphite black	

2.2 Steel/Metal screw technologies

2.2.1 Screw technologies (Speedy, Perfect Sealing, Racing Tip)

2

At Hilti, we believe that both productivity and safety features must go hand in hand to ensure high-quality fastening points on steel. In close collaboration with our building envelope & façade customers we have driven the following unique screw innovations over the past decades.



Hilti chip-less speedy S-MS screw with superior performance in overlap applications. Available in zinc-plated & A2 Bi-metal with pan head & hex head.

Unmatched speed with maximum reliability

Compared to standard self-drilling screws with drill tips, speedy screws can be fastened much faster. The special “ballistic” shape of the screw tip prevents the screw from slipping and offers maximum reliability even if the surface is wet or the screw is driven at an angle.

Chip-less material displacement

During the setting process, the metal around the screw is displaced instead of being drilled through. As no metal chips are formed, there is also no need for subsequent cleaning and the risk of discoloration due to corrosion of metal chips can be ruled out.

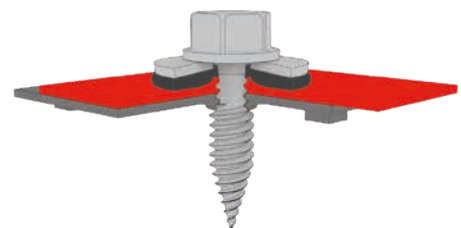
Additionally, the chip-less formation has hygiene advantages, which are required in clean environments such as HVAC applications.

Improved load values

Since the metal is displaced as the screw penetrates, the screw hole remains surrounded by a greater volume of metal. This results in a higher permissible loading capacity compared to conventional screw fastenings.

S-MS perfect sealing function for thin applications

For speedy screws with EPDM washers, the integrated undercut below the screw head assures a perfect fit without over-/or under-pressed washers.





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

Remedial work and the waste of screws through burned tips or screw breakage is both time-consuming and costly. Racing tip “RT” technology increases the setting speed and minimizes burned screw tips in medium to thick applications. All screws featuring the new technology carry the “RT” logo on the package.

Rapid removal of metal chips

Through the wave-shaped drill tip, metal chips can be removed more quickly as the screw penetrates the base material and thus minimizes the risk of burned drill tips.

Reduced forming torque

A special heat treatment, coating and ductility leads to better corrosion protection and reduces forming torque. This prevents the screw from torsional fracture during the setting process.



“PS” sealing through customized below-head geometry

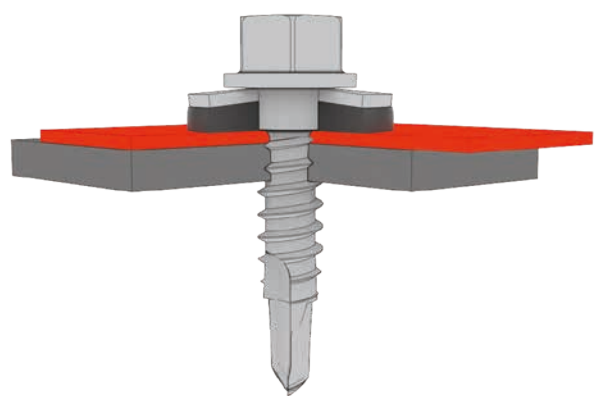
EPDM washers ensure water-resistant fastening points on steel. If washers are either over-pressed or under-pressed, water leakage through the outer skin of the building is inevitable.

The innovative and patented perfect sealing “PS” feature incorporated in 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.

The shank below the screw head changes the setting from a soft to a hard screw joint. This function prevents the user from over-pressing the EPDM washer by putting too high torque on the screw joint.



2



2.2.2 Steel Metal Tapper ST 2000-22

Structural metal screw fastenings done right – faster, safer and more consistent. Ideal usage in structural steel decking and liner trays, fastening sandwich panels or light-ventilated facades as well as for repetitive screw applications in Solar, HVAC, Steel Framing or Pre-fab.

Faster Speed

With 2000 RPM and a permanent run mode, the ST 2000-22 offers increased productivity for structural self-drilling screws. In addition, the tool can be upgraded with various productivity accessories such as the stand-up system SDT 9, the depth gauge ST-DG, or the sandwich guide ST-SG.

Less Fatigue

The ST 2000-22 helps to minimize fatigue in various ways. The in-line grip reduces the strain on the wrist by driving screws in line with your hand. With the compact and light-weight tool design, you can work all day with less exhaustion. And for vertical fastenings, the stand-up system SDT 9 allows you to work fast in an upright position without bending over.

Less Rework & Screw Waste

The adjustable torque clutch can reduce number of damaged screws on your jobsite and thus the need for rework.

These damages include both visible failures (broken tips, bits, inserts and snapped-off screw heads) and hidden screw damages such as hair cracks and broken screw threads.



2.2.3 Stand-up decking tool SDT 9

The SDT 9 Stand-up decking tool delivers utmost productivity in repetitive steel decking applications. The decking tool works with collated screws and the steel-metal tappers ST 1800/ST 2000-22.

Higher productivity

With the new rigid collation strip for faster feeding without bending and the slim nose piece, the SDT 9 can do the job up to three times faster than traditional methods, such as fastening metal decking with single screws.

Versatility

The SDT 9, with two nose-pieces (red for red strips, black for black strips), offers a complete screw portfolio for side-lap fastenings of trapezoidal sheets and fastening of trapezoidal metal sheets to steel substructures with up to 15 mm drilling capacity.

Safer and healthier working conditions

The ergonomically designed SDT 9 stand-up tool for use with collated screws lets the operator work in an upright and thus low fatigue standing position. The upright working position in combination with the angled and height adjustable handles does not impair the operators health, even when working for longer periods.

Modularity

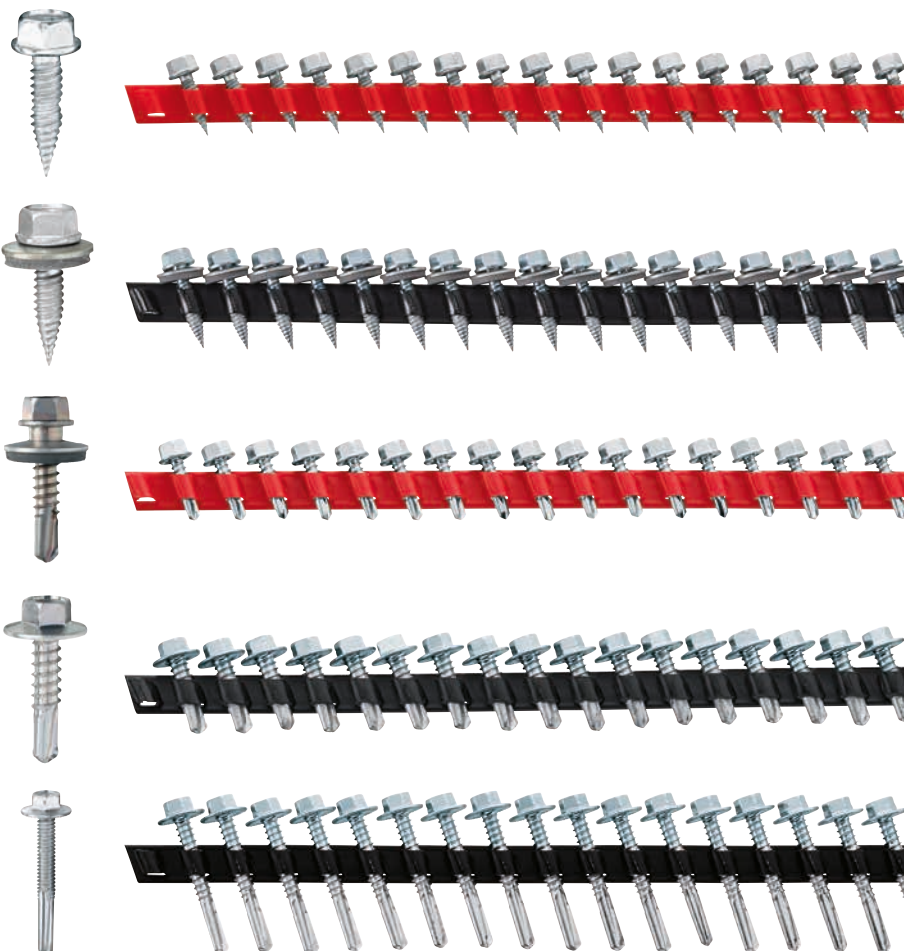
Additionally, the stand-up tool is built in a modular way, so it can be disassembled into its individual components and single parts can be exchanged when worn out.

Usage of ST 1800/ST 2000-22

The permanent mode and torque clutch of the ST 1800/ST 2000-22 offer both productivity and high-quality fastening points in this repetitive application.



2



2.3 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.

2

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
- 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.

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 on page 23 is based on examples. These examples also take contact with the material to be fastened into account.

In accordance with DIN EN ISO 9223, the ambient conditions can be divided into six categories:

Corrosivity category C	Corrosion level	Typical environments	
		Indoor	Outdoor
C1	Very low	Heated spaces with low relative humidity and insignificant pollution, e.g. offices, schools, museums.	Dry or cold zone, atmospheric environment with very low pollution and time of wetness, e.g. certain deserts, Central Arctic / Antarctica.
C2	Low	Unheated spaces with varying temperature and humidity. Low frequency of condensation and low pollution, e.g. storage, sports halls.	Temperate zone, atmospheric environment with low pollution ($\text{SO}_2 < 5 \mu\text{g}/\text{m}^3$), e.g. rural areas, small towns. Dry or cold zone, atmospheric environment with short time of wetness, e.g. deserts, subarctic area.
C3	Medium	Spaces with moderate frequency of condensation and moderate pollution from production processes, e.g. food-processing plants, laundries, breweries, dairies.	Temperate zone, atmospheric environment with medium pollution ($\text{SO}_2: 5 \mu\text{g}/\text{m}^3$ to $30 \mu\text{g}/\text{m}^3$) or some effect of chlorides, e.g. urban areas, coastal areas with low deposition of chlorides. Subtropical and tropical zone, atmosphere with low pollution.
C4	High	Spaces with high frequency of condensation and high pollution from production processes, e.g. industrial processing plants, swimming pools.	Temperate zone, atmospheric environment with high pollution ($\text{SO}_2: 30 \mu\text{g}/\text{m}^3$ to $90 \mu\text{g}/\text{m}^3$) or substantial effect of chlorides, e.g. polluted urban areas, industrial areas, coastal areas without salt water spray, or exposure to strong effect of de-icing salts. Subtropical and tropical zone, atmosphere with medium pollution.
C5	Very high	Spaces with very high frequency of condensation and/or with high pollution from production processes, e.g. mines, caverns for industrial purposes, unventilated sheds in subtropical and tropical zones.	Temperate and subtropical zone, atmospheric environment with very high pollution ($\text{SO}_2: 90 \mu\text{g}/\text{m}^3$ to $250 \mu\text{g}/\text{m}^3$) and/or significant effect of chlorides, e.g. industrial areas, coastal areas, sheltered positions on coastline.
CX	Extreme	Spaces with almost permanent condensation or extensive periods of exposure to extreme humidity effects and/or with high pollution from production processes, e.g. unventilated sheds in humid tropical zones with penetration of outdoor pollution including airborne chlorides and corrosion-stimulating particulate matter.	Subtropical and tropical zone (very high time of wetness), atmospheric environment with very high SO_2 pollution (higher than $250 \mu\text{g}/\text{m}^3$) including accompanying and production factors and/or strong effect of chlorides, e.g. extreme industrial areas, coastal and offshore areas, occasional contact with salt spray.

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 load-bearing 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 field test locations 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.

2

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 1'000 hours. Coatings with a high corrosion resistance require a longer test duration.

Hilti screws have the following life expectancies results (in hours) in the salt spray test:

Z – Zinc plated (galvanized carbon steel)	≥ 48 hours
C – Duplex coated carbon steel	≥ 1'000 hours
S – A2 grade stainless steel	≥ 1'440 hours

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 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.

Hilti screws have the following Kesternich cycles:

C – Duplex coated carbon steel	≥ 15 cycles
S – A2 grade stainless steel	≥ 20 cycles

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 and A4 stainless steel

International (Eurocode 3, EN 1993-1-4) and national standards and guidelines (such as the German technical approval DIBt Z.30.3-6) usually work with a special scoring system when evaluating the suitability of certain stainless steel grades.

The system takes the risks presented by the main influencing factors into account, from which a corrosion resistance factor (CRF) is calculated. Each risk factor (chlorides, sulfur dioxide, washing effect) is linked to a certain number of points, which leads to the corrosion resistance class. The higher this key figure, the more durable is the product.

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.

The properties of A4 steel are very similar to those of A2 steel. But, A4 has a higher resistance classification which makes it much more durable than A2 stainless steel.

Selecting the right corrosion protection for anchors, powder-actuated fasteners and screws

If a fastening is to be perfectly satisfactory and reliable for its entire service life, all surrounding conditions must be ascertained before a suitable fastener can be selected.

The following table provides a general guideline for commonly accepted applications for fastening elements with various corrosion protection in typical atmospheric environments and depending on the fastened material (see notes).

2

		Screws	S-MS Z S-MD Z S-MP Z S-MDW Z	S-CD C S-MDW C	S-AD S S-MS S S-MD S S-MP S S-CD S S-MDW S	S-AD SS S-MD SS S-HP SS S-FP SS
		Coating/material	C-Steel galvanic zinc plated	C-Steel duplex coated	Stainless steel A2	Stainless steel A4
Environmental conditions	Fastened part					
Dry indoor	Steel (zinc-coated, painted), aluminium, stainless steel	■	■	■	■	■
Indoor with temporary condensation	Steel (zinc-coated, painted), aluminium	-	■	■	■	■
	Stainless steel	-	-	-	-	-
Outdoor with low pollution	Steel (zinc-coated, painted), aluminium	-	□	■	■	■
	Stainless steel	-	-	-	-	-
Outdoor with moderate concentration of pollutants 1-10km	Steel (zinc-coated, painted), aluminium	-	□	■	■	■
	Stainless steel	-	-	-	-	-
Coastal areas 0-1km	Steel (zinc-coated, painted), aluminium, stainless steel	-	-	-	-	■
Outdoor, areas with heavy industrial pollution	Steel (zinc-coated, painted), aluminium, stainless steel	-	-	-	-	■
Close proximity to roads	Steel (zinc-coated, painted), aluminium, stainless steel	-	-	-	-	■
Special applications	Steel (zinc-coated, painted), aluminium, stainless steel	-	-	-	-	-

■ = expected lifetime of fasteners made from this material is typically satisfactory in the specified environment based on the typically expected lifetime of a building. The assumed service life in ETA approvals for screw fasteners is 25 years.

□ = a decrease in the expected lifetime of non-stainless fasteners in these atmospheres must be taken into account (≤ 25 years). Higher expected lifetime needs a specific assessment.

- = fasteners made from this material are not suitable in the specified environment. Exceptions need a specific assessment.

Environment categories

Applications can be classified into various environmental categories, by taking the following main factors into account:

2

Indoor applications



Dry indoor environments
(heated or air-conditioned areas) without condensation, e.g. office buildings, schools



Indoor environments with temporary condensation
(unheated areas without pollutants), e.g. storage sheds

Outdoor applications



Outdoor, rural or urban environment with low pollution
Large distance (> 10 km) from the sea



Outdoor, rural or urban environment with moderate concentration of pollutants and/or salt from sea water
Distance from the sea 1-10 km



Coastal areas
Distance from the sea < 1 km



Outdoor, areas with heavy industrial pollution
Close to plants < 1km (e.g. petrochemical, coal industry)



Close proximity to roadways treated with de-icing salts
Distance from roadways < 10 m

Special applications



Special applications
Areas with special corrosive conditions, e.g. road tunnels with de-icing salt, indoor swimming pools, special applications in the chemical industry (exceptions possible)



Important notes:

The ultimate decision on the required corrosion protection must be made by the customer. Hilti accepts no responsibility regarding the suitability of a product for a specific application, even if informed of the application conditions.

The tables are based on an average service life for typical applications.

For metallic coatings, e.g. zinc layer systems, the end of lifetime is the point at which red rust is visible over a large fraction of the product and widespread structural deterioration can occur – the initial onset of rust may occur sooner.

National or international codes, standards or regulations, customer and/or industry specific guidelines must be independently considered and evaluated.

These guidelines apply to atmospheric corrosion only. Special types of corrosion, such as crevice corrosion or hydrogen assisted cracking must be independently evaluated.
















2.4 Approvals and assessments for Steel-Metal screws

Metal building structures are subject to the building code. So, proof of stability, including proof of fasteners, must be provided.






All construction products for which no European standards are available may only be used if a certificate of usability is available. Such proof can be provided in the form of a European Technical Assessment (ETA). It is based on tests and a positive technical assessment of usability of the construction product for the intended use.

At national level, e.g. in Germany, the construction product may be regulated based on a national technical approval (abZ). The marking of construction products with the CE mark or the Ü mark certifies the existence of a usability certificate (e.g. ETA or abZ) and thus the suitability of the product for the intended use. The abZ and ETA for screws contain all the necessary information for dimensioning and installation. The European Technical Assessments (ETA) and the national technical approvals (abZ) for Hilti fastening screws are listed below.

ETA assessments for siding and decking applications

- 


ETA-18/0880 Bi-metal screws
Product family: Fastening screws for metal members and sheeting
Trade name: Hilti S-MD, Hilti S-MDW, Hilti S-MP, Hilti S-MS
- 


ETA-10/0182 Carbon steel screws
Product family: Fastening screws for metal members and sheeting
Trade name: Hilti S-MD, Hilti S-MS
- 


ETA-20/0858 Carbon steel screws
Product family: Fastening screws for metal members and sheeting
Trade name: Hilti S-MDWC
- 


ETA-17/0346 Carbon steel screws and stainless screws
Product family: Fastening flexible roof waterproofing membranes
Trade name: Hilti S-IT, S-ID, S-IW
- 


ETA-13/0179 Carbon steel screws and Bi-metal screws
Product family: Fastening screws for sandwich panel applications
Trade name: Hilti S-CD, S-MP, S-CDW

Approvals and assessments for ventilated Façade applications

- 

National technical approval abZ Z-14.4-769
 S-MD, S-AD, S-MP
- 


ETA-21/0567 Stainless steel screw
Product family: Fastening elements for the rear fastening of Façade panels made of decorative high-pressure laminates
Trade name: Hilti S-HP02SS 7.2x9

FAQs (frequently asked questions) about the approvals

Interpreting the load value tables – the connector's characteristic shear load-carrying capacity and transverse tensile strength $V_{R,k}$ and $N_{R,k}$

2

$t_{N,II}$ [mm]	1,50	2,00	3,00	4,00	5,00	6,00		
$M_{t,nom}$	—	$\Sigma t \leq 3,00$ mm: 7 Nm $\Sigma t > 3,00$ mm: 8 Nm						
Failure of base material (Building component II) 	$t_{N,I}$ [mm]							
	$V_{R,k}$ [kN]							
	0,50	—	—	—	—	—	—	
	0,55	—	—	—	—	—	—	
	0,63	—	2,60	2,60	2,60	2,60	2,60	
	0,75	—	3,70	3,70	3,70	3,70	3,70	
	0,88	—	4,50	4,50	5,00	5,00	5,00	
	1,00	—	4,50	4,50	6,50	6,50	6,50	
	1,13	—	4,90	4,90	7,00	7,90	—	
	1,25	—	5,30	5,30	7,40	9,30	—	
1,50	—	6,20	6,20	8,30	9,50	—		
1,75	—	6,20	6,20	8,30	9,50	—		
2,00	—	7,80	7,80	9,40	9,50	—		
Failure of profile metal sheet (Building component I) 	$t_{N,I}$ [mm]							
	$N_{R,k}$ [kN]							
	0,50	—	—	—	—	—	—	
	0,55	—	—	—	—	—	—	
	0,63	—	1,70	1,70	1,70	1,70	1,70	
	0,75	—	2,20	2,20	2,20	2,20	2,20	
	0,88	—	2,90	2,90	2,90	2,90	2,90	
	1,00	—	3,09	3,50	3,50	3,50	3,50	
	1,13	—	3,09	4,30	4,30	4,30	—	
	1,25	—	3,09	4,35	5,10	5,10	—	
1,50	—	3,09	4,35	5,61	6,90	—		
1,75	—	3,09	4,35	5,61	6,90	—		
2,00	—	3,09	4,35	5,61	6,90	—		
Sheet metal covering 	$t_{N,I}$ [mm]							
	$N_{R,k}$ [kN]							
	0,50	—	—	—	—	—	—	
	0,55	—	—	—	—	—	—	
	0,63	—	1,70	1,70	1,70	1,70	1,70	
	0,75	—	2,20	2,20	2,20	2,20	2,20	
	0,88	—	2,90	2,90	2,90	2,90	2,90	
	1,00	—	3,09	3,50	3,50	3,50	3,50	
	1,13	—	3,09	4,30	4,30	4,30	—	
	1,25	—	3,09	4,35	5,10	5,10	—	
1,50	—	3,09	4,35	5,61	6,90	—		
1,75	—	3,09	4,35	5,61	6,90	—		
2,00	—	3,09	4,35	5,61	6,90	—		

Note: It isn't possible to clearly conclude the failure mode of the screw from only – the load values in the tables of the annex in the approval. Especially in the case of shear loads, the failure of the screw connection can occur in different modes. The load value in the load table corresponds to the minimum value of the different possible failure modes and is therefore the decisive load value.

Wooden sub-constructions

Two pieces of evidence must be provided for screws that are also suitable for fastening profile metal sheets to wooden base materials.

1. The load-carrying capacity in wood must be calculated with the determined M_y, R_k and $f_{ax,k}$ values in accordance with EN 1995-1-1.
2. The load-carrying capacity in wood calculated in accordance with EN 1995-1-1 must then be compared with the sheet metal load-carrying capacities $V_{I,R,k}$ and $N_{I,R,k}$. The lower value must then be used as the connector's load-carrying capacity.

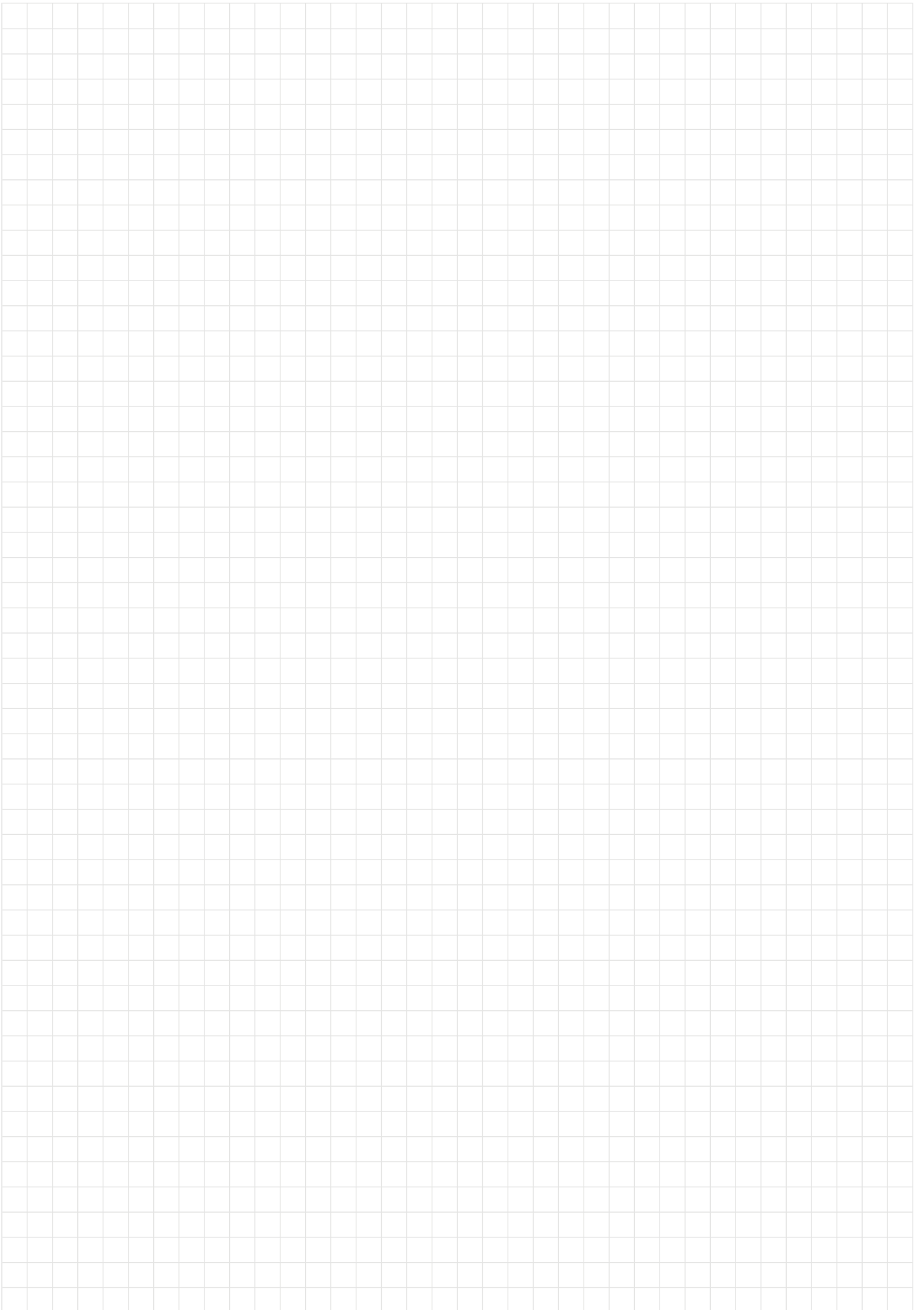
The procedure and further details are also described in section 4.2.2 of the ETA (European Technical Approval).

Appendix sheets for different steel grades

For some screw types, load values were calculated separately for two sheet metal steel grades. In these instances, the appendix sheets with the data for the higher-strength sheet metals were marked with the corresponding sheet metal tensile strength, e.g. 390 for sheet metals of S320GD grade or better.

Load information if the base material building component thickness $t_{II} \geq 6$ mm

In the case of screws that are screwed at least 6 mm into the steel sub-construction, it can be assumed that the screw breakage failure mode is decisive for the failure of the connector. The load values at $t_{II} = 6$ mm therefore also represent all base material thicknesses greater than 6 mm; also see section 4.3 of the corresponding ETA.



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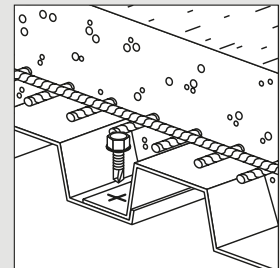
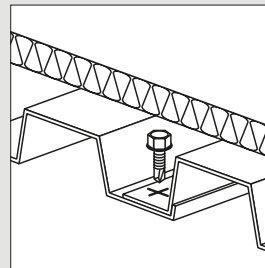
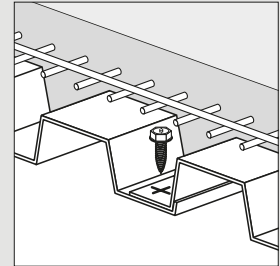
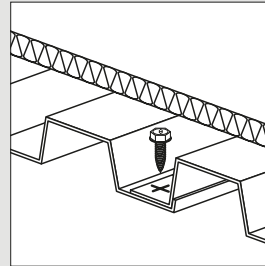
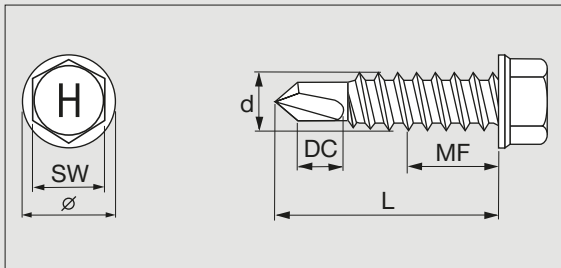
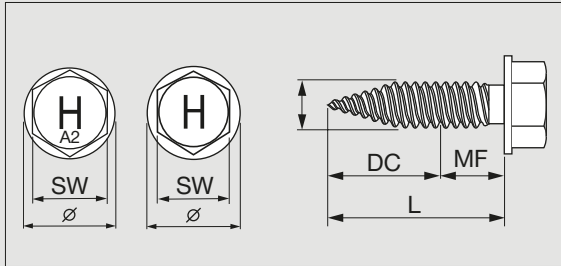
3.1.1 Collated side-lap fastening screws

S-MS 01S M9 / S-MS 01Z M9 / S-MD 01Z M9 / S-MD 03Z M9 /
S-MDU 21Z M9 / S-MS 41S M9



Collated self-drilling screws for use with the SDT 9 stand-up handle for side-lap fastenings

3



S-MS 01S 4.8x20 M9



S-MS 01Z 4.8x20 M9



S-MS 41S 4.8x25 M9



S-MD 01Z 4.8x19 M9



S-MD 03Z 4.8x19 M9



S-MDU 21Z 6.3x22 M9



• One strip contains 25 screws

Ordering description	Technology	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
Collated side-lap fastening screws									
S-MS 01Z 4.8x20 M9	Speedy, zinc-plated	1.2 – 2.5	1.2 – 2.5	4.8	20	None	Hexagon 8	250	2204301
S-MS 01S 4.8x20 M9	Speedy, A2 Bi-metal	1 – 2	1 – 4	4.8	20	None	Hexagon 8	250	2229872
S-MS 41S 4.8x25 M9	Speedy, A2 Bi-metal	1 – 2	1 – 4	4.8	25	14	Hexagon 8	250	2422178
S-MD 01Z 4.8x19 M9		1.2 – 2.75	1.2 – 10	4.8	19	None	Hexagon 8	250	2204302
S-MD 03Z 4.8x19 M9		2.1 – 4.5	2.1 – 10	4.8	19	None	Hexagon 8	250	2229873
S-MDU 21Z 6.3x22 M9		1.2 – 3	1.2 – 15	6.3	22	None	Hexagon 8	250	2204308

Reference:

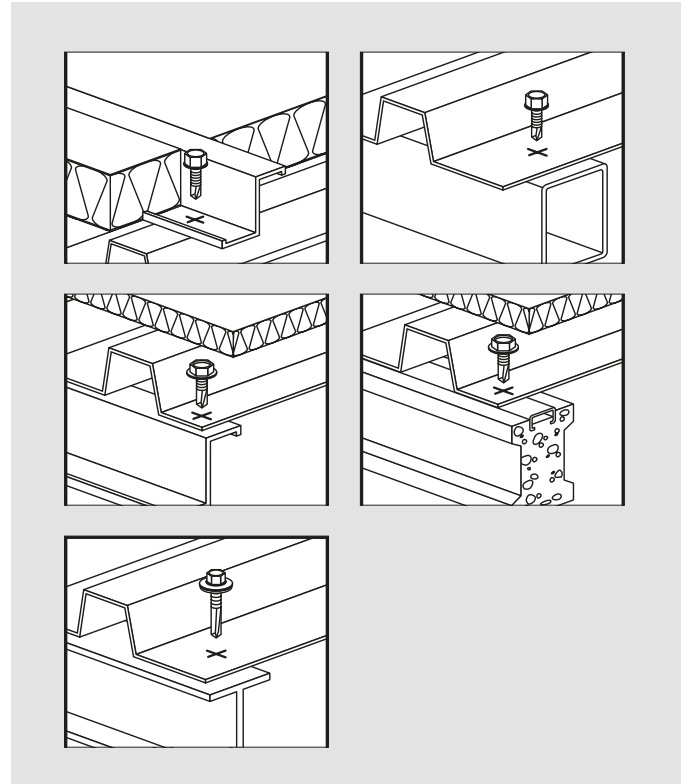
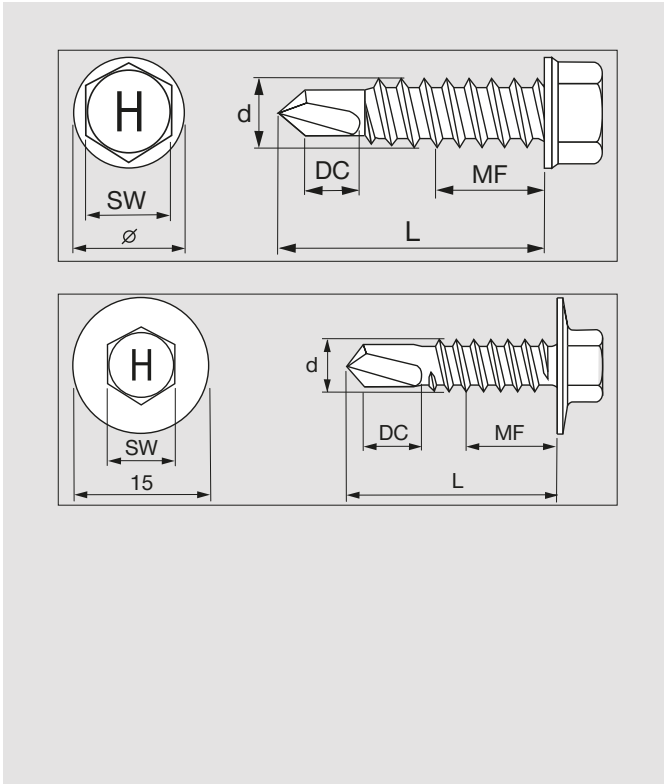
- More Information see approval ETA-10/0182 (Zinc-plated Carbon Steel) and ETA-18/0880 (A2 Bi-metal)
- For stand-up decking tool SDT 9 see chapter 4.3

3.1.2 Collated self-drilling screws for metal sheet to frame fastening

S-MD 03Z M9 / S-MD 23Z M9 / S-MD 25Z M9



Collated self-drilling screws for use with the SDT 9 stand-up handle for fastening metal sheet to frame



3

S-MD 03Z 5.5x25 M9



S-MD 25Z 5.5x40 M9



S-MD 23Z 5.5x22 M9



S-MD 23Z 6.3x22 M9



• One strip contains 25 screws

Ordering description	Technology	Substructure	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
Collated self-drilling screws for metal sheet to frame fastening										
S-MD 03Z 5.5x25 M9	Racing Tip	Steel	2.6 – 6	2.6 – 13	5.5	25	None	Hexagon 8	250	2204304
S-MD 23Z 5.5x22 M9	Racing Tip	Steel, HTU channel	2.6 – 6	2.6 – 10	5.5	22	Pressed-on flange	Hexagon 8	250	2204306
S-MD 23Z 6.3x22 M9	Racing Tip	Steel, HTU channel	2.6 – 6	2.6 – 10	6.3	22	Pressed-on flange	Hexagon 8	250	2204307
S-MD 25Z 5.5x40 M9	Racing Tip	Steel	4.6 – 15	4.6 – 18	5.5	40	Pressed-on flange	Hexagon 8	250	2229874

Reference:

- More Information see approval ETA-10/0182.
- For stand-up decking tool SDT 9 see chapter 4.3

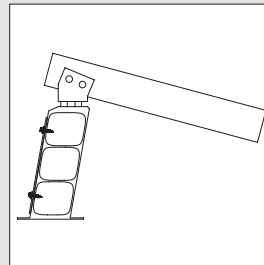
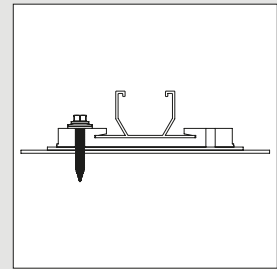
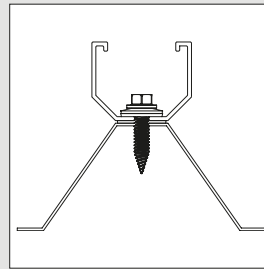
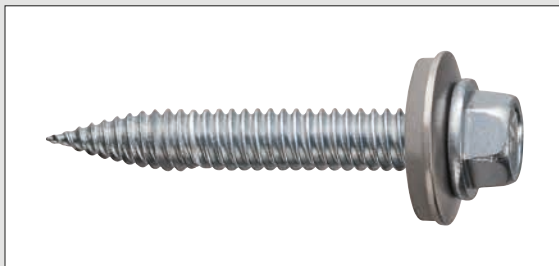
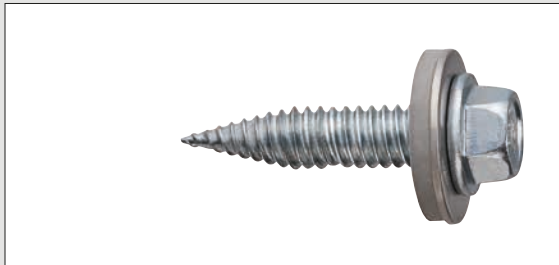
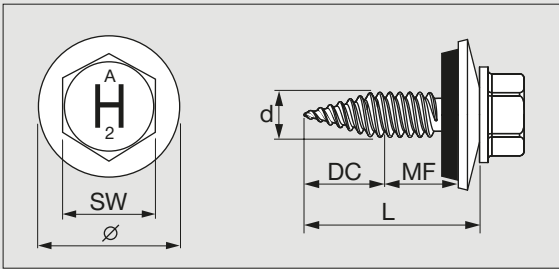
3.2 Solar Applications

3.2.1 Hex-head self-drilling screw, chip-less, 6.0mm diameter

S-MS 51S 6.0

Fast, chip-less and high-load self-stitching screws for solar applications

3



Ordering description	Screw Technology	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
S-MS 51S 6.0x25	Speedy, A2 Bi-Metal	0.8 - 2.5	1 - 7	6.0	25	16	2	Hexagon 8	250	2414921
S-MS 51S 6.0x38	Speedy, A2 Bi-Metal	0.8 - 2.5	1 - 20	6.0	38	16	2	Hexagon 8	250	2414922

3.3.1 Tip #1 screws for light applications

3.3.1.1 HEX/Pan head self-drilling screws, chip-less



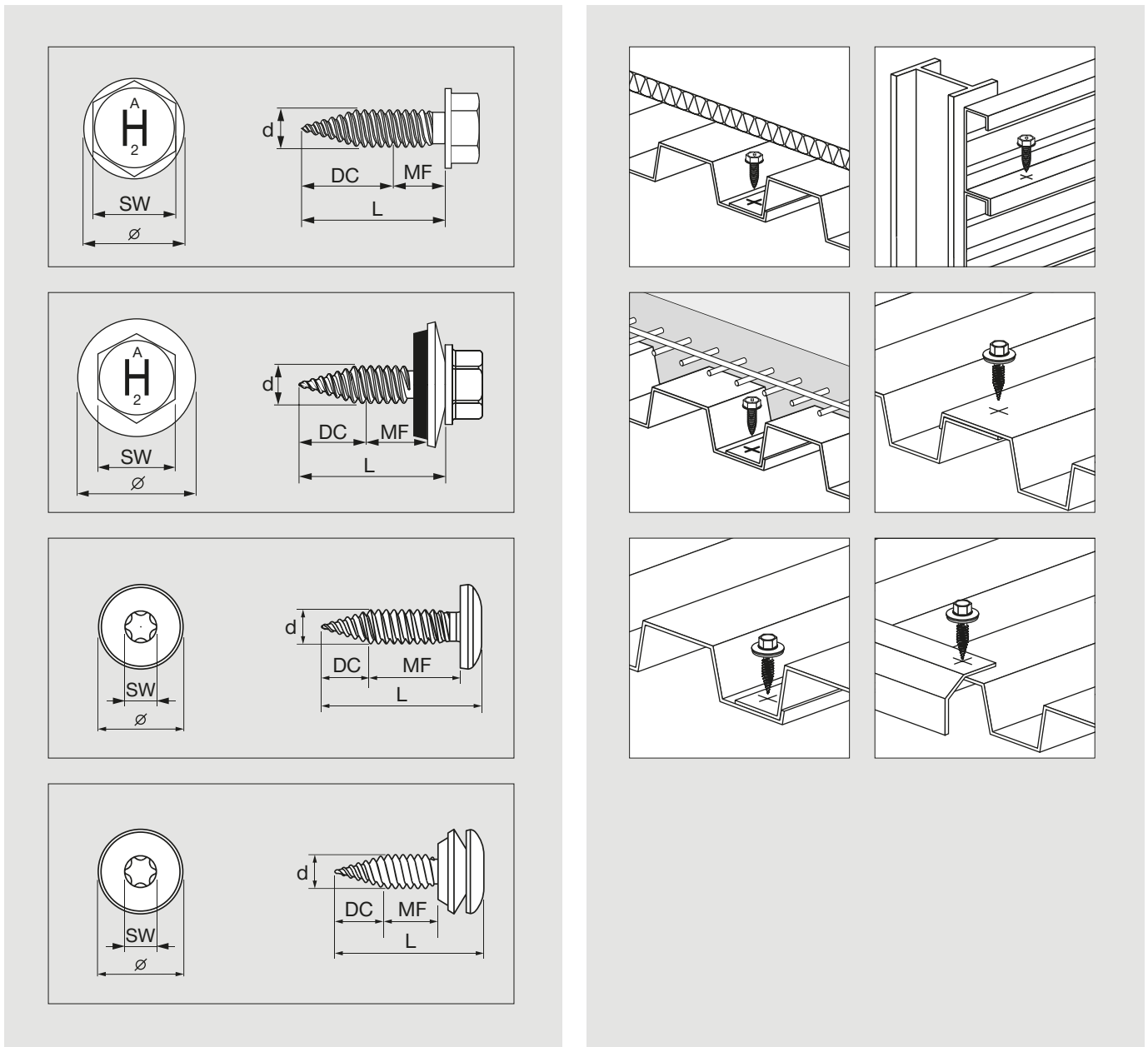
S-MS 01S / S-MS 41S / S-MS 51S

S-MS 01PS / S-MS 31PS

S-MS 01Z / S-MS 41Z / S-MS 51Z

Fast, chip-less and high-load self-stitching screws for light applications

3



Reference:

- More Information see approval ETA-18/0880 and ETA-10/0182
- The screws cannot be over-compressed because of undercut design below screw head.

3.3.1.1 Self-drilling screws for light applications, chip-less

S-MS 01S / S-MS 41S / S-MS 51S
S-MS 01PS / S-MS 31PS
S-MS 01Z / S-MS 41Z / S-MS 51Z



The fastest stainless steel chipless overlapping screw

3

Ordering description	Screw Technology	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
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Zinc-plated carbon steel self-drilling HEX head screws

S-MS 01Z 4.8x20	Speedy	1.2 – 2.5	1.2 – 2.5	4.8	20	None	None	Hexagon 8	1'000	385448
S-MS 51Z 4.8x20	Speedy Perfect Sealing	1 – 2	1 – 4	4.8	20	16	2	Hexagon 8	500	2083695

Colored zinc-plated carbon steel self-drilling HEX head screws

S-MS 41Z 4.8x20 RAL 9006	Speedy Perfect Sealing	1 – 2	1 – 4	4.8	20	14	2	Hexagon 8	500	2089264
S-MS 51Z 4.8x20 RAL 9010	Speedy Perfect Sealing	1 – 2	1 – 4	4.8	20	16	2	Hexagon 8	500	2089267
S-MS 41Z 4.8x20 RAL 9010	Speedy Perfect Sealing	1 – 2	1 – 4	4.8	20	14	2	Hexagon 8	500	2089265
S-MS 51Z 4.8x20 RAL 9006	Speedy Perfect Sealing	1 – 2	1 – 4	4.8	20	16	2	Hexagon 8	500	2089266

Stainless steel self-drilling HEX head screws

S-MS 01S 4.8x20	Speedy	1 – 2	1 – 4	4.8	20	None	None	Hexagon 8	1'000	2083693
S-MS 41S 4.8x20	Speedy Perfect Sealing	1 – 2	1 – 4	4.8	20	14	2	Hexagon 8	500	2083699
S-MS 51S 4.8x20	Speedy Perfect Sealing	1 – 2	1 – 4	4.8	20	16	2	Hexagon 8	500	2083980

Stainless steel self-drilling pan head screws

S-MS 01PS 4.8x20	Speedy	0.8 – 2	0.8 – 4	4.8	20	None	None	TX 25	1'000	2229868
S-MS 31PS 4.8x20	Speedy Perfect Sealing	0.8 – 2	0.8 – 4	4.8	20	12	2	TX 25	500	2229869

Reference:

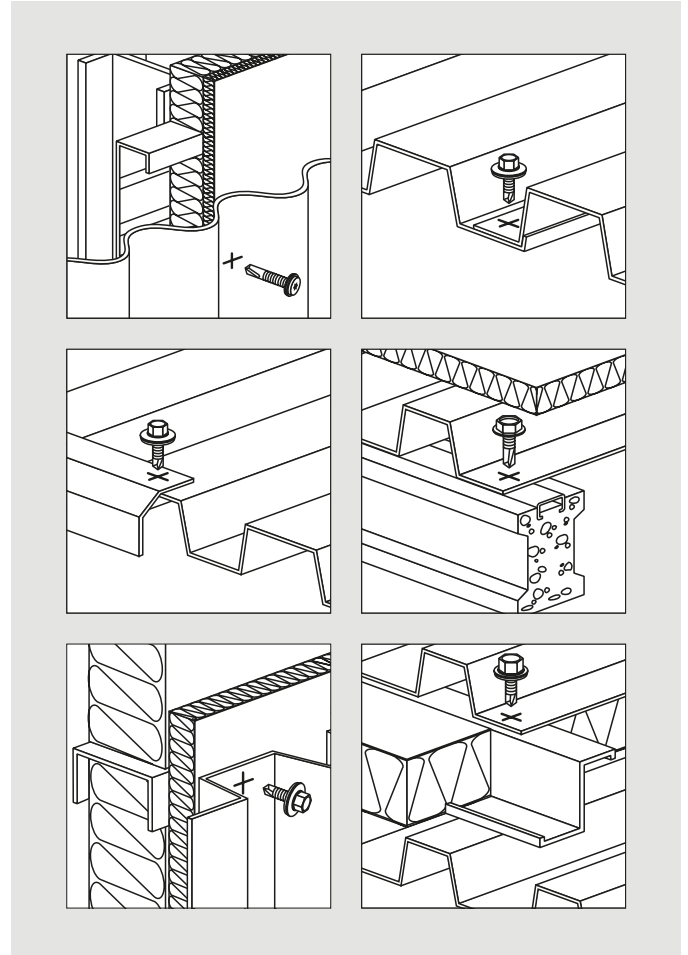
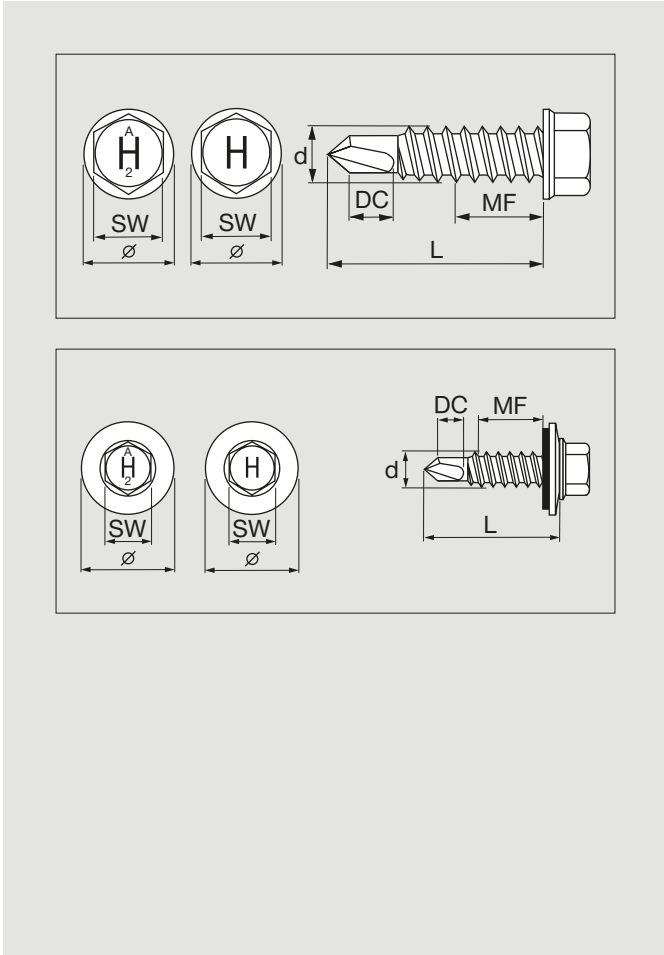
- More Information see approval ETA-18/0880 and ETA-10/0182
- The screws cannot be over-compressed because of undercut design below screw head.

3.3.1.2 HEX head self-drilling screws

S-MD 01S / S-MD 51S / S-MD 61S / S-MD 51SS
S-MD 01Z / S-MD 51Z



Universal self-drilling screw for light applications



3

Ordering description	Screw Technology	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
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Zinc plated carbon steel self-drilling HEX head screws

S-MD 01Z 4.2x13		1.2 - 2.5	1.2 - 4.5	4.2	13	None	None	Hexagon 7	1'000	224500
S-MD 01Z 4.2x16		1.2 - 2.5	1.2 - 7.5	4.2	16	None	None	Hexagon 7	1'000	10405
S-MD 01Z 4.8x13		1.2 - 2.75	1.2 - 4	4.8	13	None	None	Hexagon 8	1'000	224501
S-MD 01Z 4.8x16		1.2 - 2.75	0.5 - 7	4.8	16	None	None	Hexagon 8	1'000	2222543
S-MD 01Z 4.8x19		1.2 - 2.75	1.2 - 10	4.8	19	None	None	Hexagon 8	500	219557
S-MD 01Z 5.5x19		1.2 - 3	1.2 - 9	5.5	19	None	None	Hexagon 8	500	219558
S-MD 01Z 6.3x19		1.2 - 3	1.2 - 8.5	6.3	19	None	None	Hexagon 8	500	219559
S-MD 51Z 4.8x19	Racing Tip	1.2 - 2.75	1.2 - 8	4.8	19	16	3	Hexagon 8	500	219032
S-MD 51Z 6.3x19	Racing Tip	1.2 - 3	1.2 - 6	6.3	19	16	3	Hexagon 3/8	500	219034

Colored Zinc plated carbon steel self-drilling HEX head screws

S-MD 51Z 4.8x19 RAL9006	Racing Tip	1.2 - 2.75	1.2 - 8	4.8	19	16	3	Hexagon 8	500	224614
S-MD 51Z 4.8x19 RAL9010	Racing Tip	1.2 - 2.75	1.2 - 8	4.8	19	16	3	Hexagon 8	500	224613

Reference:

- More Information see approval ETA-18/0880 and ETA-10/0182

HEX head self-drilling screws

S-MD 01S / S-MD 51S / S-MD 61S / S-MD 51SS
S-MD 01Z / S-MD 51Z



Universal self-drilling screw for light applications

3

Ordering description	Screw Technology	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
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Stainless steel self-drilling HEX head screws

S-MD 01S 4.8x22	A2 Bi-Metal	1.2 – 2	1.2 – 8	4.8	23	None	None	Hexagon 8	500	285608
S-MD 51S 4.8x22	A2 Bi-Metal	1.2 – 2	1.2 – 6	4.8	23	16	3	Hexagon 8	250	375228
S-MD 51S 4.8x25	A2 Bi-Metal	1.2 – 2	1.2 – 9	4.8	26	16	3	Hexagon 8	500	375229
S-MD 51S 5.5x25	A2 Bi-Metal	1.2 – 3	1.2 – 8	5.5	26	16	3	Hexagon 8	500	378257
S-MD 51S 5.5x32	A2 Bi-Metal	1.2 – 3	1.2 – 15	5.5	33	16	3	Hexagon 8	250	375230
S-MD 51S 5.5x38	A2 Bi-Metal	1.2 – 3	1.2 – 21	5.5	39	16	3	Hexagon 8	250	375231
S-MD 51S 5.5x50	A2 Bi-Metal	1.2 – 3	1.2 – 33	5.5	51	16	3	Hexagon 8	250	375232
S-MD 61S 4.8x22	A2 Bi-Metal	1.2 – 2	1.2 – 6	4.8	23	19	3	Hexagon 8	500	283052
S-MD 51SS 5.5x50	A4 Bi-Metal	1 – 3	1.2 – 37	5.5	50	16	3	Hexagon 8	500	2114549

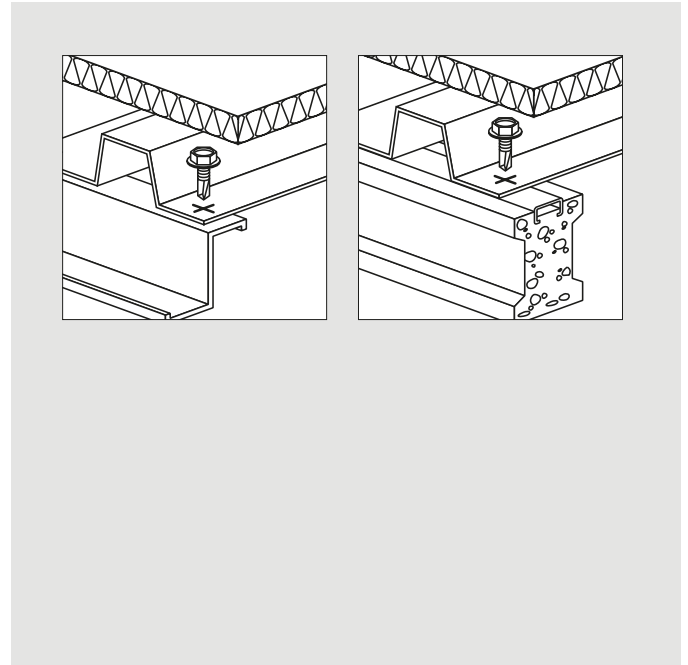
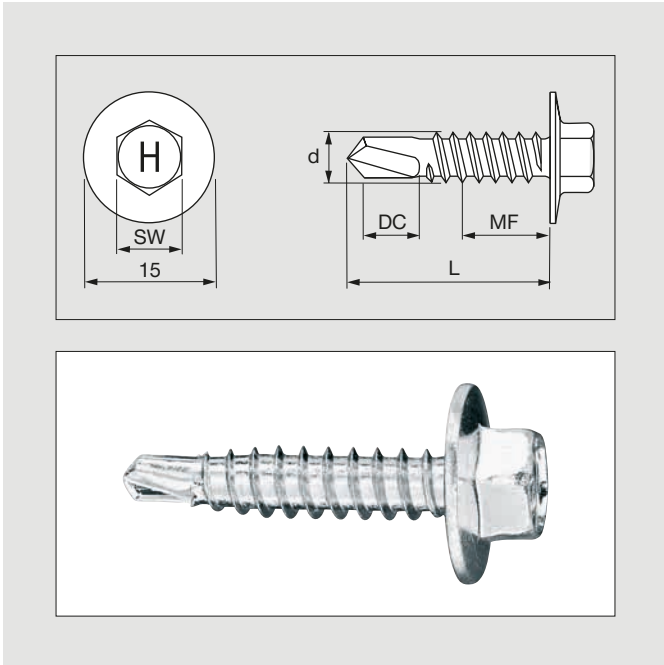
Reference:

- More Information see approval ETA-18/0880 and ETA-10/0182

3.3.1.3 HEX head carbon steel self-drilling screws with pressed-on flange

S-MD 21Z / S-MDU 21Z

The universal and robust self-drilling screws for light applications



3

Ordering description	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
HEX head carbon steel self-drilling screws with pressed-on flange								
S-MD 21Z 5.5x25	1.2 - 3	1.2 - 15	5.5	25	15 pressed-on flange	Hexagon 8	500	234588
S-MDU 21Z 6.3x22*	1.2 - 3	1.2 - 9	6.3	22	15 pressed-on flange	Hexagon 8	500	2363704

Reference:

* S-MDU 21Z 6.3x22 covered by approval ETA- 20/0858

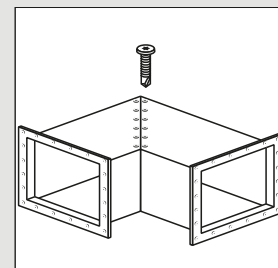
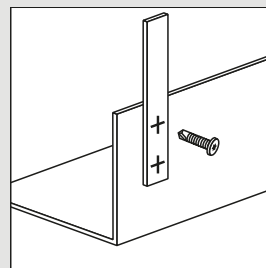
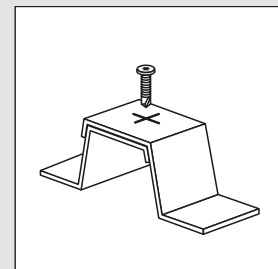
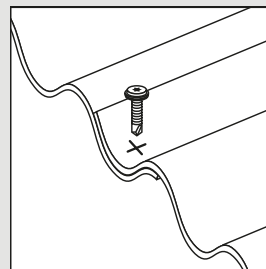
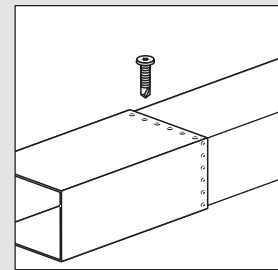
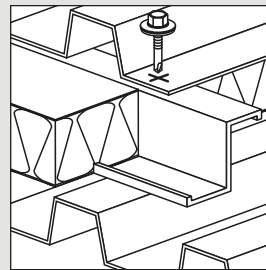
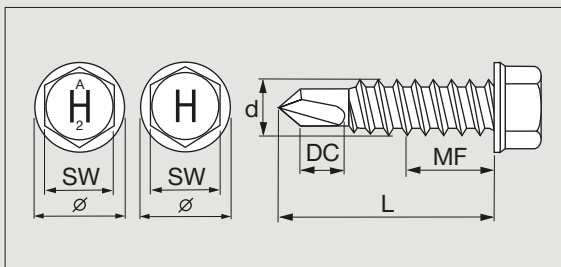
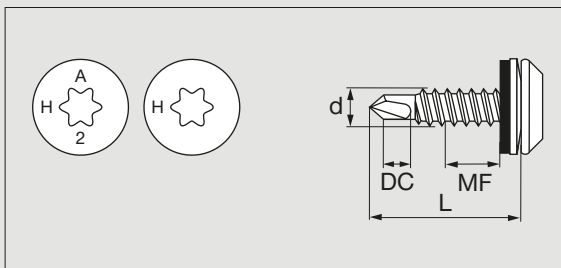
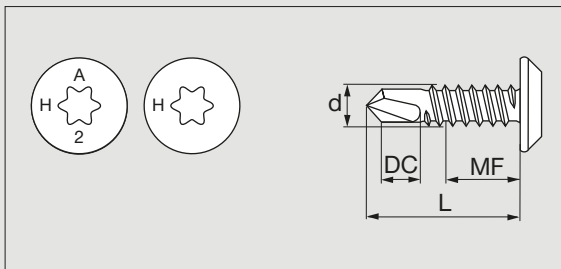
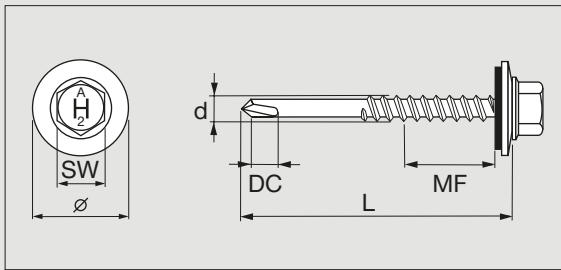
3.3.1.4 Self-drilling screws for light applications with extended drill capacity



- S-MD 01LPS
- S-MD 01LSS
- S-MD 31LPS / S-MD 31LPSS
- S-MD 01LS / S-MD 41LS / S-MD 51LS / S-MD 61LS / S-MD 71LS
- S-MD 51LZ
- S-MD 51LSS

3

The universal and robust self-drilling screws for a wide range of light applications



Reference:

- More Information see approval ETA-18/0880

Self-drilling screws for light applications with extended drill capacity



S-MD 01LPS

S-MD 01LSS

S-MD 31LPS / S-MD 31LPSS

S-MD 01LS / S-MD 41LS / S-MD 51LS / S-MD 61LS / S-MD 71LS

S-MD 51LZ

S-MD 51LSS

The universal and robust self-drilling screws for a wide range of light applications

3

Ordering description	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	Screw drive / recess type	EPDM thickness [mm]	Sales quantity [pc]	Item number
Zinc-plated carbon steel self-drilling HEX head screws									
S-MD 51LZ 4.8x38	1.2 - 2.75	1.2 - 13	4.8	38	16	Hexagon 8	3	250	252801
Colored zinc-plated carbon steel self-drilling HEX head screws									
S-MD 51LZ 4.8x38 RAL9006	1.2 - 2.75	1.2 - 13	4.8	38	16	Hexagon 8	3	250	258791
S-MD 51LZ 4.8x38 RAL9010	1.2 - 2.75	1.2 - 13	4.8	38	16	Hexagon 8	3	250	258790
Stainless steel (A2) self-drilling pan head screws									
S-MD 01LPS 5.5x25	1.2 - 4	1.2 - 8	5.5	26	None	TX 25	None	500	2229856
S-MD 01LPS 5.5x32	1.2 - 4	1.2 - 15	5.5	33	None	TX 25	None	250	2229857
S-MD 01LPS 5.5x38	1.2 - 4	1.2 - 21	5.5	39	None	TX 25	None	250	2229858
S-MD 31LPS 5.5x25	1.2 - 3.75	1.2 - 8	5.5	25	12	TX 25	3	500	2229848
S-MD 31LPS 5.5x32	1.2 - 3.75	1.2 - 15	5.5	32	12	TX 25	3	250	2229849
S-MD 31LPS 5.5x38	1.2 - 3.75	1.2 - 21	5.5	38	12	TX 25	3	250	2229850
Stainless steel (A2) self-drilling HEX head screws									
S-MD 01LS 5.5x25	1.2 - 3.75	1.2 - 8	5.5	25	None	Hexagon 8	None	500	285609
S-MD 41LS 5.5x25	1.2 - 3.75	1.2 - 5	5.5	25	14	Hexagon 8	3	500	2118297
S-MD 51LS 5.5x25	1.2 - 3.75	1.2 - 5	5.5	25	16	Hexagon 8	3	500	378258
S-MD 51LS 5.5x50	1.2 - 3.75	1.2 - 30	5.5	51	16	Hexagon 8	3	500	2166430
S-MD 61LS 5.5x25	1.2 - 3.75	1.2 - 5	5.5	25	19	Hexagon 8	3	500	283058
S-MD 71LS 5.5x25	1.2 - 3.75	1.2 - 5	5.5	25	22	Hexagon 8	3	500	285596
Colored stainless steel (A2) self-drilling HEX head screws									
S-MD 51LS 5.5x25 RAL 9006	1.2 - 3.75	1.2 - 5	5.5	25	16	Hexagon 8	3	500	3415133
S-MD 51LS 5.5x25 RAL 7016	1.2 - 3.75	1.2 - 5	5.5	25	16	Hexagon 8	3	500	3457209
S-MD 51LS 5.5x25 RAL 9007	1.2 - 3.75	1.2 - 5	5.5	25	16	Hexagon 8	3	500	3471826
Stainless steel (A4) self-drilling HEX head screws									
S-MD 01LSS 5.5x25	1.2 - 3.75	1.2 - 5	5.5	26	None	Hexagon 8	None	250	2114545
S-MD 01LSS 5.5x32	1.2 - 3.75	1.2 - 15	5.5	33	None	Hexagon 8	None	250	2114544
S-MD 51LSS 5.5x25	1.2 - 3.75	1.2 - 5	5.5	26	16	Hexagon 8	3	500	2096593
S-MD 51LSS 5.5x32	1.2 - 3.75	1.2 - 13	5.5	33	16	Hexagon 8	3	250	2114547
S-MD 51LSS 5.5x50	1.2 - 3.75	1.2 - 31	5.5	51	16	Hexagon 8	3	250	2166435
Stainless steel (A4) self-drilling pan head screws									
S-MD 31LPSS 5.5x25	1.2 - 4	1.2 - 8	5.5	25	12	TX 25	3	500	2229870
S-MD 31LPSS 5.5x32	1.2 - 4	1.2 - 15	5.5	32	12	TX 25	3	250	2229819
S-MD 31LPSS 5.5x38	1.2 - 4	1.2 - 21	5.5	38	12	TX 25	3	250	2229843

Reference:

- More Information see approval ETA-18/0880

3.3.2 Tip #3 screws for light and medium applications

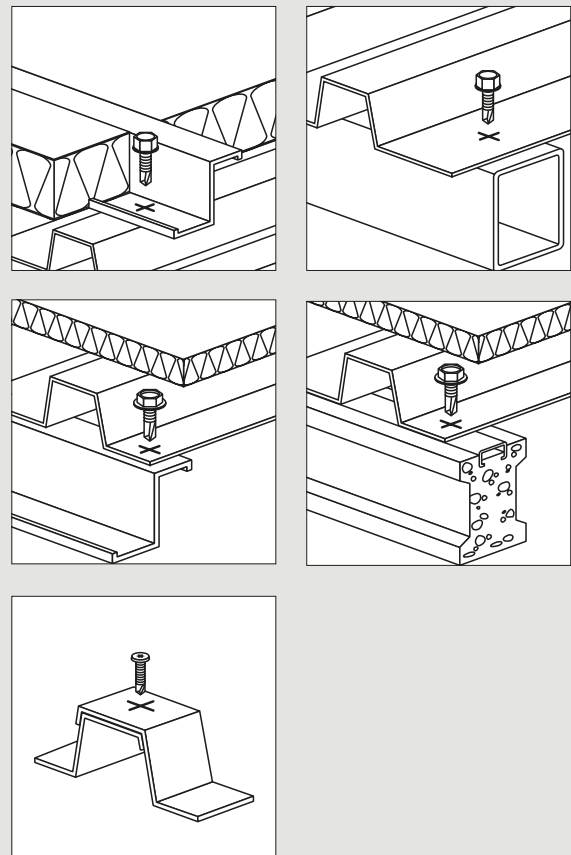
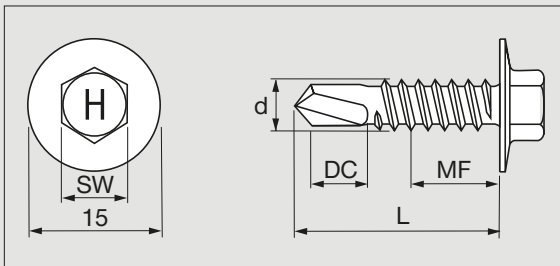
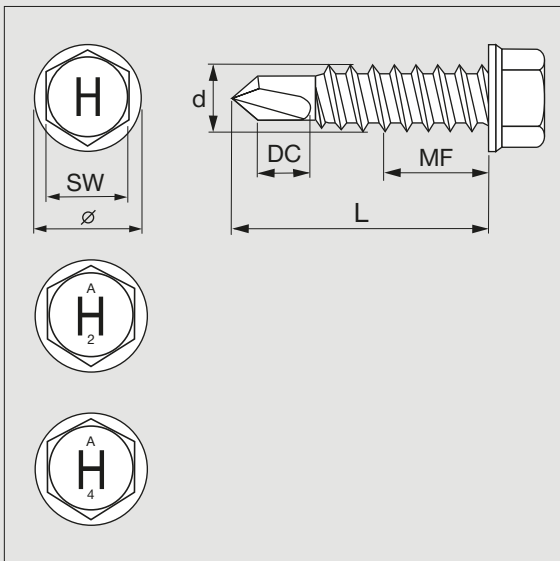


3.3.2.1 HEX head self-drilling screws without sealing washer

S-MD 03Z / S-MD 23Z
S-MD 03C / S-MD 03S / S-MD 03SS

The universal self-drilling screws for medium applications without sealing function

3



Reference:

- More Information see approval ETA-18/0182 and ETA-18/0880.
- S-MD 03Z 4.2x16 screws are not covered by any certificate of usability (e.g. ETA or abZ). They are intended to be used for non-structural application, such as HVAC.

HEX head self-drilling screws without sealing washer

S-MD 03Z / S-MD 23Z
S-MD 03C / S-MD 03S / S-MD 03SS



The universal self-drilling screws for medium applications without sealing function

Ordering description	Screw Technology	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	Screw drive/recess type	Sales quantity [pc]	Item number
Zinc-plated carbon steel self-drilling HEX head screws									
S-MD 03Z 4.2x16	Racing Tip	2.1 – 3.5	2.1 – 6	4.2	16	None	Hexagon 7	1'000	219013
S-MD 03Z 4.8x16	Racing Tip	2.1 – 4.5	2.1 – 5	4.8	16	None	Hexagon 8	500	219015
S-MD 03Z 4.8x19	Racing Tip	2.1 – 4.5	2.1 – 10	4.8	20	None	Hexagon 8	500	219016
S-MD 03Z 5.5x19	Racing Tip	2.6 – 6	2.6 – 7	5.5	20	None	Hexagon 8	500	413415
S-MD 03Z 5.5x22	Racing Tip	2.6 – 6	2.6 – 10	5.5	23	None	Hexagon 8	500	413416
S-MD 03Z 5.5x25	Racing Tip	2.6 – 6	2.6 – 13	5.5	26	None	Hexagon 8	500	413417
S-MD 03Z 5.5x32	Racing Tip	2.6 – 6	2.6 – 20	5.5	33	None	Hexagon 8	500	413419
S-MD 03Z 5.5x38	Racing Tip	2.6 – 6	2.6 – 26	5.5	39	None	Hexagon 8	500	413420
S-MD 03Z 5.5x50	Racing Tip	2.6 – 6	2.6 – 38	5.5	51	None	Hexagon 8	500	414293
S-MD 03Z 6.3x19	Racing Tip	2.6 – 6	2.6 – 7	6.3	20	None	Hexagon 8	500	413421
S-MD 03Z 6.3x22	Racing Tip	2.6 – 6	2.6 – 10	6.3	23	None	Hexagon 8	500	413422
S-MD 03Z 6.3x25	Racing Tip	2.6 – 6	2.6 – 13	6.3	26	None	Hexagon 8	500	413423
S-MD 03Z 6.3x32	Racing Tip	2.6 – 6	2.6 – 20	6.3	33	None	Hexagon 8	500	413424
S-MD 03Z 6.3x38	Racing Tip	2.6 – 6	2.6 – 26	6.3	39	None	Hexagon 8	500	414295
S-MD 03Z 6.3x50	Racing Tip	2.6 – 6	2.6 – 38	6.3	51	None	Hexagon 8	250	413425
S-MD 03Z 6.3x70	Racing Tip	2.6 – 6	2.6 – 58	6.3	71	None	Hexagon 8	250	413426
S-MD 23Z 5.5x22	Racing Tip	2.6 – 6	2.6 – 10	5.5	23	15 pressed-on	Hexagon 8	500	413427
S-MD 23Z 6.3x19	Racing Tip	2.6 – 6	2.6 – 7	6.3	20	15 pressed-on	Hexagon 8	500	413429
S-MD 23Z 6.3x22	Racing Tip	2.6 – 6	2.6 – 10	6.3	23	15 pressed-on	Hexagon 8	500	413430
S-MD 23Z 6.3x25	Racing Tip	2.6 – 6	2.6 – 13	6.3	26	15 pressed-on	Hexagon 8	500	413432
S-MD 23Z 6.3x50	Racing Tip	2.6 – 6	2.6 – 38	6.3	51	15 pressed-on	Hexagon 8	250	413433
Duplex-coated carbon steel self-drilling HEX head screws									
S-MD 03C 5.5x22	Racing Tip	2.6 – 6	2.6 – 10	5.5	23	None	Hexagon 8	500	2229841
S-MD 03C 6.3x70	Racing Tip	2.6 – 6	2.6 – 58	6.3	71	None	Hexagon 8	250	2229842
Stainless steel (A2) self-drilling HEX head screws									
S-MD 03S 5.5x25	Racing Tip	2.6 – 6	0.5 – 10	5.5	27	None	Hexagon 8	500	413408
S-MD 03S 5.5x32	Racing Tip	2.6 – 6	0.5 – 17	5.5	34	None	Hexagon 8	250	413409
S-MD 03S 5.5x38	Racing Tip	2.6 – 6	0.5 – 23	5.5	40	None	Hexagon 8	250	413410
S-MD 03S 5.5x50	Racing Tip	2.6 – 6	0.5 – 35	5.5	52	None	Hexagon 8	250	413411
S-MD 03S 5.5x63	Racing Tip	2.6 – 6	0.5 – 48	5.5	65	None	Hexagon 8	100	413412
S-MD 03S 6.3x25	Racing Tip	2.6 – 6	0.5 – 10	6.3	27	None	Hexagon 8	500	413413
S-MD 03S 6.3x32	Racing Tip	2.6 – 6	0.5 – 17	6.3	34	None	Hexagon 8	500	413414
Stainless steel (A4) self-drilling HEX head screws									
S-MD 03SS 5.5x25	Racing Tip	2.6 – 6	2.6 – 10	5.5	27	None	Hexagon 8	500	2114790
S-MD 03SS 5.5x32	Racing Tip	2.6 – 6	2.6 – 17	5.5	34	None	Hexagon 8	250	2114791

Reference:

- More Information see approval ETA-18/0182 and ETA-18/0880.
- S-MD 03Z 4.2x16 screws are not covered by any certificate of usability (e.g. ETA or abZ). They are intended to be used for non-structural application, such as HVAC.

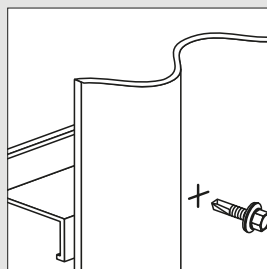
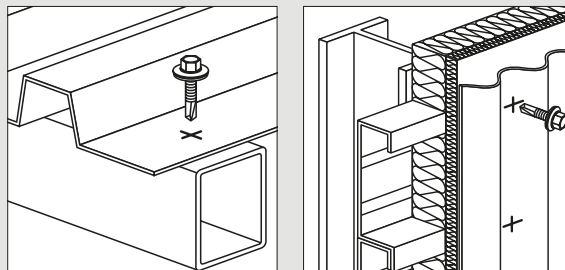
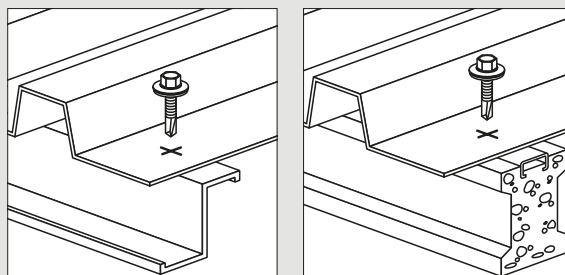
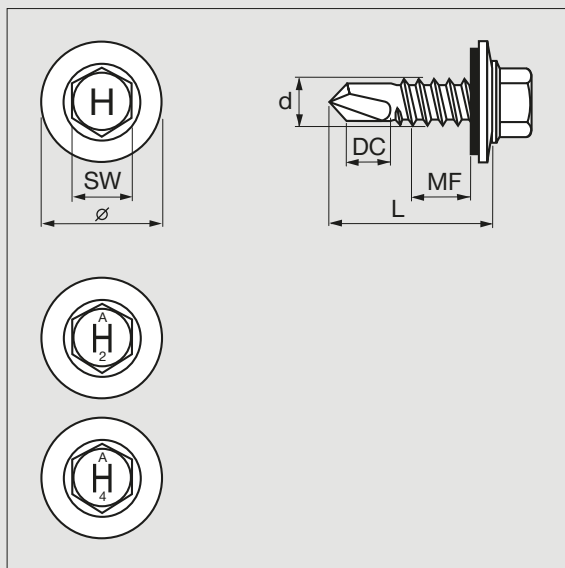
3.3.2.2 HEX head self-drilling screws with sealing washer

S-MD 53Z
S-MD 43S / S-MD 53S / S-MD 63S / S-MD 73S
S-MD 53SS



The universal self-drilling screws for medium applications with sealing function

3



Ordering description	Screw Technology	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	Screw drive/recess type	EPDM thickness [mm]	Sales quantity [pc]	Item number
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Zinc-plated carbon steel self-drilling HEX head screws

S-MD 53Z 4.8x19	Racing Tip/Perfect Sealing	2.1 – 4.5	2.1 – 6	4.8	19	16	Hexagon 8	3	500	219035
S-MD 53Z 4.8x32	Racing Tip/Perfect Sealing	2.1 – 4.5	2.1 – 20	4.8	32	16	Hexagon 8	3	500	224612
S-MD 53Z 5.5x19	Racing Tip/Perfect Sealing	2.6 – 6	2.6 – 4	5.5	19	16	Hexagon 8	3	500	413440
S-MD 53Z 5.5x25	Racing Tip/Perfect Sealing	2.6 – 6	2.6 – 10	5.5	25	16	Hexagon 8	3	500	413441
S-MD 53Z 5.5x32	Racing Tip/Perfect Sealing	2.6 – 6	2.6 – 17	5.5	32	16	Hexagon 8	3	500	413442
S-MD 53Z 5.5x38	Racing Tip/Perfect Sealing	2.6 – 6	2.6 – 23	5.5	38	16	Hexagon 8	3	250	413443
S-MD 53Z 5.5x50	Racing Tip/Perfect Sealing	2.6 – 6	2.6 – 35	5.5	50	16	Hexagon 8	3	250	413444
S-MD 53Z 6.3x19	Racing Tip/Perfect Sealing	2.6 – 6	2.6 – 4	6.3	19	16	Hexagon 8	3	500	413445
S-MD 53Z 6.3x25	Racing Tip/Perfect Sealing	2.6 – 6	2.6 – 10	6.3	25	16	Hexagon 8	3	500	413446
S-MD 53Z 6.3x32	Racing Tip/Perfect Sealing	2.6 – 6	2.6 – 17	6.3	32	16	Hexagon 8	3	500	413447
S-MD 53Z 6.3x38	Racing Tip/Perfect Sealing	2.6 – 6	2.6 – 23	6.3	38	16	Hexagon 8	3	250	413448
S-MD 53Z 6.3x50	Racing Tip/Perfect Sealing	2.6 – 6	2.6 – 35	6.3	50	16	Hexagon 8	3	250	413449

Reference:

• More Information see approval ETA-18/0182 and ETA-18/0880.

HEX head self-drilling screws with sealing washer

S-MD 53Z

S-MD 43S / S-MD 53S / S-MD 63S / S-MD 73S

S-MD 53SS



The universal self-drilling screws for medium applications with sealing function

Ordering description	Screw Technology	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	Screw drive / recess type	EPDM thickness [mm]	Sales quantity [pc]	Item number
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Stainless steel (A2) self-drilling HEX head screws

S-MD 43S 5.5x25	Racing Tip/Perfect Sealing	2.6 – 6	1.2 – 7	5.5	25	14	Hexagon 8	3	500	414297
S-MD 43S 5.5x32	Racing Tip/Perfect Sealing	2.6 – 6	1.2 – 14	5.5	32	14	Hexagon 8	3	250	414300
S-MD 43S 5.5x38	Racing Tip/Perfect Sealing	2.6 – 6	1.2 – 20	5.5	38	14	Hexagon 8	3	250	414302
S-MD 43S 5.5x50	Racing Tip/Perfect Sealing	2.6 – 6	1.2 – 32	5.5	50	14	Hexagon 8	3	250	414304
S-MD 43S 5.5x63	Racing Tip/Perfect Sealing	2.6 – 6	1.2 – 45	5.5	63	14	Hexagon 8	3	100	414307
S-MD 53S 5.5x25	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 7	5.5	25	16	Hexagon 8	3	500	413434
S-MD 53S 5.5x32	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 14	5.5	32	16	Hexagon 8	3	250	413435
S-MD 53S 5.5x38	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 20	5.5	38	16	Hexagon 8	3	250	413436
S-MD 53S 5.5x50	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 32	5.5	50	16	Hexagon 8	3	250	413437
S-MD 53S 5.5x63	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 45	5.5	63	16	Hexagon 8	3	100	413438
S-MD 63S 6.3x25	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 7	6.3	25	16	Hexagon 8	3	500	413439
S-MD 63S 5.5x25	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 7	5.5	25	19	Hexagon 8	3	500	413450
S-MD 63S 5.5x32	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 14	5.5	32	19	Hexagon 8	3	250	413451
S-MD 63S 5.5x38	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 20	5.5	38	19	Hexagon 8	3	250	413452
S-MD 63S 5.5x50	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 32	5.5	50	19	Hexagon 8	3	250	413453
S-MD 63S 5.5x63	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 45	5.5	63	19	Hexagon 8	3	100	413454
S-MD 63S 6.3x25	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 7	5.5	25	19	Hexagon 8	3	500	413455
S-MD 63S 5.5x25	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 7	5.5	25	19	Hexagon 8	3	500	413456
S-MD 63S 5.5x32	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 14	5.5	32	19	Hexagon 8	3	250	413457
S-MD 63S 5.5x38	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 20	5.5	38	19	Hexagon 8	3	250	413458
S-MD 63S 5.5x50	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 32	5.5	50	19	Hexagon 8	3	250	413459
S-MD 63S 5.5x63	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 45	5.5	63	19	Hexagon 8	3	100	413460
S-MD 63S 6.3x25	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 7	5.5	25	19	Hexagon 8	3	500	413461
S-MD 73S 5.5x25	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 7	5.5	25	22	Hexagon 8	3	500	413456
S-MD 73S 6.3x25	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 7	6.3	25	22	Hexagon 8	3	500	413461
S-MD 73S 5.5x32	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 14	5.5	32	22	Hexagon 8	3	250	413457
S-MD 73S 5.5x38	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 20	5.5	38	22	Hexagon 8	3	250	413458
S-MD 73S 5.5x50	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 32	5.5	50	22	Hexagon 8	3	250	413459
S-MD 73S 5.5x63	Racing Tip/Perfect Sealing	2.6 – 6	2.1 – 45	5.5	63	22	Hexagon 8	3	100	413460

Stainless steel (A4) self-drilling HEX head screws

S-MD 53SS 5.5x25	Racing Tip/Perfect Sealing	2.6 – 6	2.6 – 7	5.5	25	16	Hexagon 8	3	500	2114792
S-MD 53SS 5.5x32	Racing Tip/Perfect Sealing	2.6 – 6	2.6 – 14	5.5	32	16	Hexagon 8	3	250	2114793

Reference:

- More Information see approval ETA-18/0182 and ETA-18/0880.

3.3.2.3 Pan head self-drilling screws with and without sealing washer



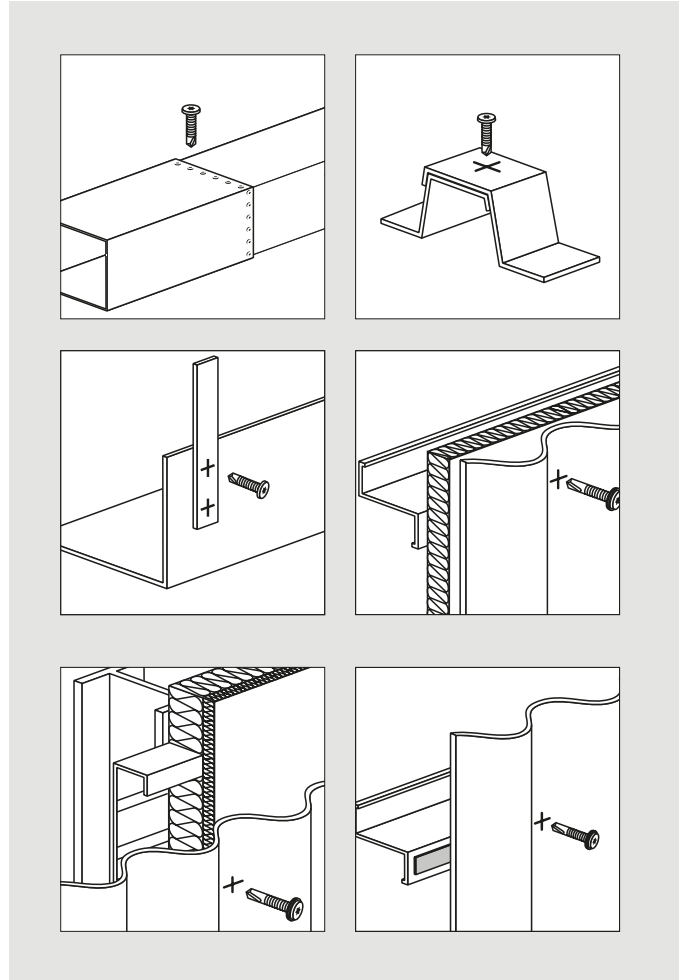
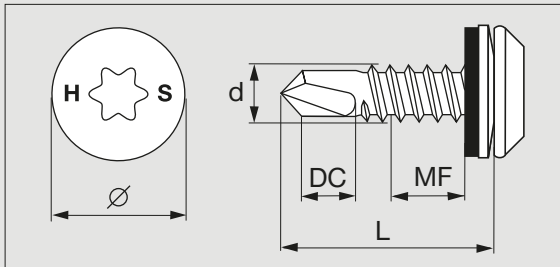
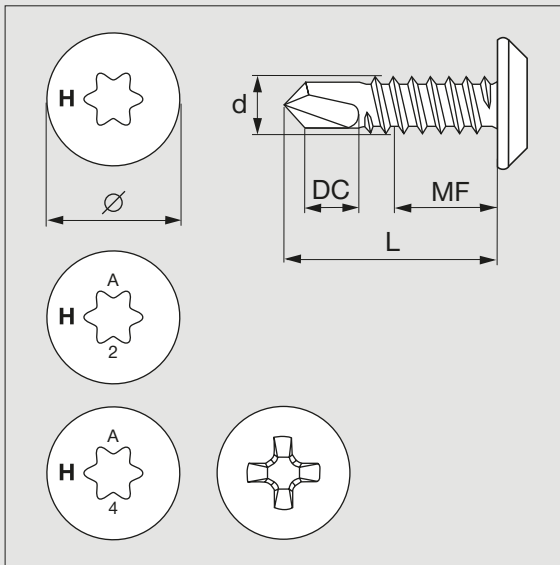
S-MD 03PZ

S-MD 03PS / S-MD 33PS

S-MD 03PSS / S-MD 33PSS

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

3



Reference:

- More Information see approval ETA-18/0182 and ETA-18/0880.
- S-MD 03PZ 4.8x16 screws are not covered by any certificate of usability (e.g. ETA or abZ). They are intended to be used for non-structural application, such as HVAC.

Pan head self-drilling screws with and without sealing washer



S-MD 03PZ

S-MD 03PS / S-MD 33PS

S-MD 03PSS / S-MD 33PSS

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

3

Ordering description	Screw Technology	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	Screw drive / recess type	EPDM thickness [mm]	Sales quantity [pc]	Item number
Zinc-plated carbon steel self-drilling pan head screws										
S-MD 03PZ 4.8x16		2.1 – 4.5	2.1 – 4	4.8	16	None	PH 2	None	500	388931
Stainless steel (A2) self-drilling pan head head screws										
S-MD 03PS 5.5x25	Racing Tip	2.6 – 6	2.6 – 10	5.5	27	None	TX 25	None	500	2229859
S-MD 03PS 5.5x32	Racing Tip	2.6 – 6	2.6 – 17	5.5	34	None	TX 25	None	250	2229860
S-MD 03PS 5.5x38	Racing Tip	2.6 – 6	2.6 – 23	5.5	40	None	TX 25	None	250	2229861
S-MD 03PS 5.5x50	Racing Tip	2.6 – 6	2.6 – 35	5.5	52	None	TX 25	None	250	2229862
S-MD 33PS 5.5x25	Racing Tip/Perfect Sealing	2.1 – 6	2.1 – 7	5.5	27	12	TX 25	3	500	2229851
S-MD 33PS 5.5x32	Racing Tip/Perfect Sealing	2.1 – 6	2.1 – 14	5.5	34	12	TX 25	3	250	2229852
S-MD 33PS 5.5x38	Racing Tip/Perfect Sealing	2.1 – 6	2.1 – 20	5.5	40	12	TX 25	3	250	2229853
S-MD 33PS 5.5x50	Racing Tip/Perfect Sealing	2.1 – 6	2.1 – 32	5.5	52	12	TX 25	3	250	2229854
Stainless steel (A4) self-drilling pan head screws										
S-MD 03PSS 5.5x25	Racing Tip/Perfect Sealing	2.6 – 6	2.6 – 10	5.5	27	None	TX 25	3	500	2278706
S-MD 33PSS 5.5x25	Racing Tip/Perfect Sealing	1.5 – 5.5	2.1 – 10	5.5	27	12	TX 25	3	500	2229864
S-MD 33PSS 5.5x32	Racing Tip/Perfect Sealing	1.5 – 5.5	2.1 – 17	5.5	34	12	TX 25	3	250	2229865
S-MD 33PSS 5.5x38	Racing Tip/Perfect Sealing	1.5 – 5.5	2.1 – 23	5.5	40	12	TX 25	3	250	2229866
S-MD 33PSS 5.5x50	Racing Tip/Perfect Sealing	1.5 – 5.5	2.1 – 35	5.5	52	12	TX 25	3	250	2229867

Reference:

- More Information see approval ETA-18/0182 and ETA-18/0880.
- S-MD 03PZ 4.8x16 screws are not covered by any certificate of usability (e.g. ETA or abZ). They are intended to be used for non-structural application, such as HVAC.

3.3.3 Tip #5 screws for medium to heavy applications



3.3.3.1 HEX head self-drilling screws without sealing washer

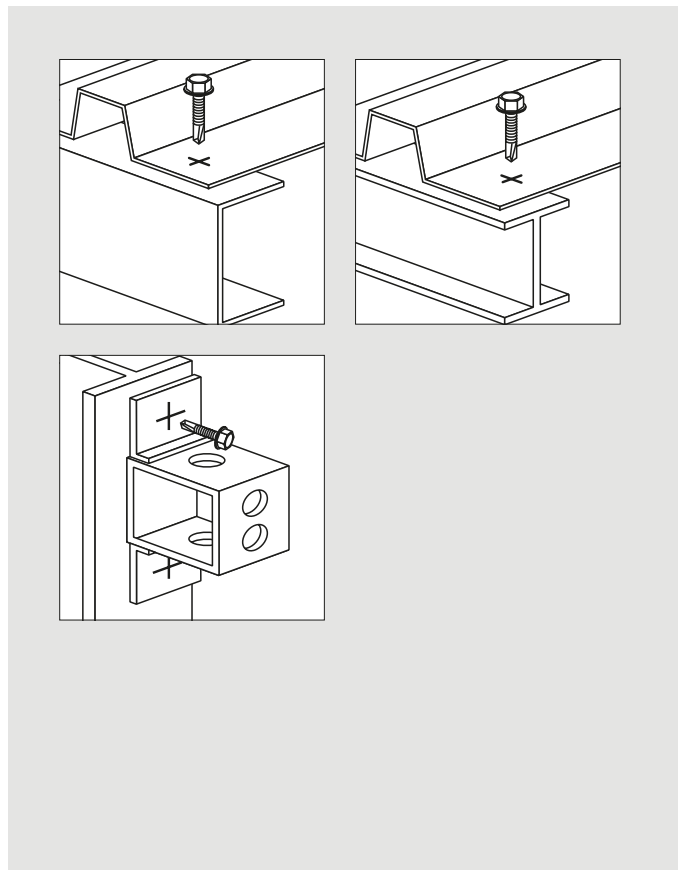
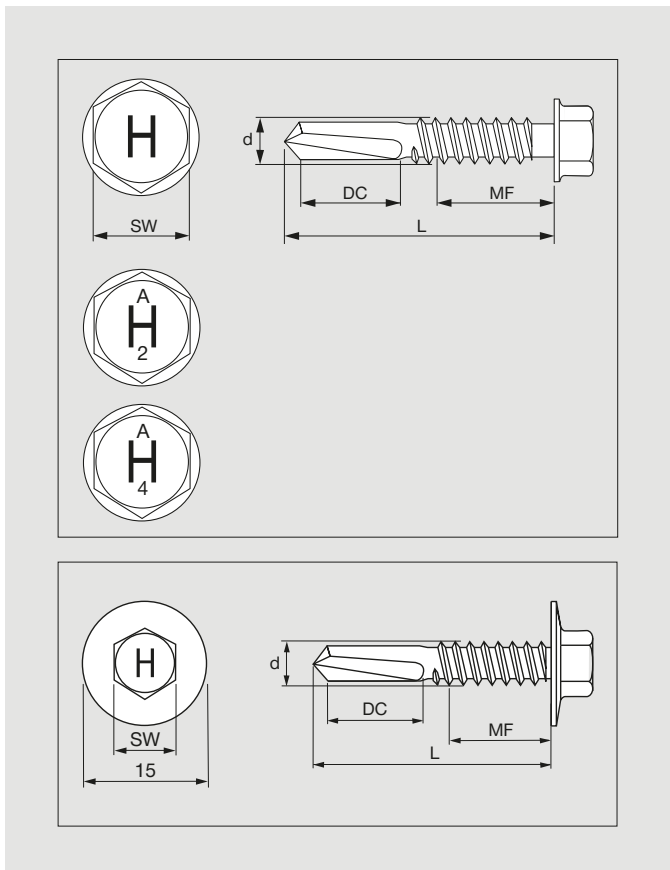
S-MD 05Z / S-MD 25Z

S-MD 05S

S-MD 05SS

3

Universal self-drilling screws for thick metal applications



Ordering description	Screw Technology	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	Screw drive / recess type	EPDM thickness [mm]	Sales quantity [pc]	Item number
Zinc-plated carbon steel self-drilling HEX head screws										
S-MD 05GZ 5.5x40 S-MD 05Z 5.5x40	Racing Tip	4.6 - 15	4.6 - 18	5.5	40	None	Hexagon 8	None	250	2054483
S-MD 05GZ 5.5x52 S-MD 05Z 5.5x52	Racing Tip	4.6 - 15	4.6 - 30	5.5	52	None	Hexagon 8	None	250	2054484
S-MD 05GZ 5.5x65 S-MD 05Z 5.5x65	Racing Tip	4.6 - 15	4.6 - 43	5.5	65	None	Hexagon 8	None	100	2054485
S-MD 05GZ 5.5x82 S-MD 05Z 5.5x82	Racing Tip	4.6 - 15	4.6 - 60	5.5	82	None	Hexagon 8	None	100	2054486
S-MD 05GZ 5.5x102 S-MD 05Z 5.5x102	Racing Tip	4.6 - 15	4.6 - 80	5.5	102	None	Hexagon 8	None	100	2054487
S-MD 25GZ 5.5x40 S-MD 25Z 5.5x40	Racing Tip	4.6 - 15	4.6 - 18	5.5	40	15 pressed-on	Hexagon 8	None	250	2054488

Reference:

• More Information see approval ETA-18/0182 and ETA-18/0880.

HEX head self-drilling screws for thick metal applications without sealing washer



S-MD 05Z / S-MD 25Z

S-MD 05S

S-MD 05SS

Universal self-drilling screws for thick metal applications

3

Ordering description	Screw Technology	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	Screw drive / recess type	EPDM thickness [mm]	Sales quantity [pc]	Item number
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Stainless steel (A2) self-drilling HEX head screws

S-MD 05S 5.5x40	Racing Tip	4.6 – 15	4.6 – 14	5.5	41	None	Hexagon 8	None	250	2209615
S-MD 05S 5.5x52	Racing Tip	4.6 – 15	4.6 – 26	5.5	53	None	Hexagon 8	None	250	2209616
S-MD 05S 5.5x65	Racing Tip	4.6 – 15	4.6 – 39	5.5	66	None	Hexagon 8	None	100	2209617
S-MD 05S 5.5x82	Racing Tip	4.6 – 15	4.6 – 56	5.5	83	None	Hexagon 8	None	100	2209618
S-MD 05S 5.5x102	Racing Tip	4.6 – 15	4.6 – 76	5.5	103	None	Hexagon 8	None	100	2209619

Stainless steel (A4) self-drilling HEX head screws

S-MD 05SS 5.5x40	Racing Tip	4.6 – 15	4.6 – 14	5.5	41	None	Hexagon 8	None	250	2211432
S-MD 05SS 5.5x52	Racing Tip	4.6 – 15	4.6 – 26	5.5	53	None	Hexagon 8	None	250	2211433
S-MD 05SS 5.5x65	Racing Tip	4.6 – 15	4.6 – 39	5.5	66	None	Hexagon 8	None	100	2211434
S-MD 05SS 5.5x82	Racing Tip	4.6 – 15	4.6 – 56	5.5	83	None	Hexagon 8	None	100	2211018
S-MD 05SS 5.5x102	Racing Tip	4.6 – 15	4.6 – 76	5.5	103	None	Hexagon 8	None	100	2211019

Reference:

- More Information see approval ETA-18/0182 and ETA-18/0880.

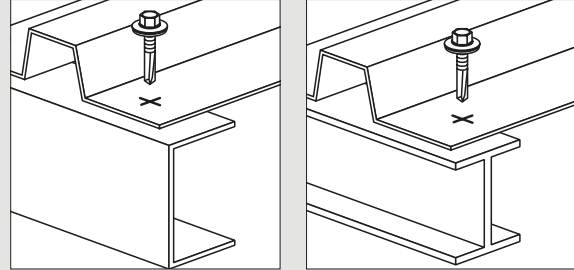
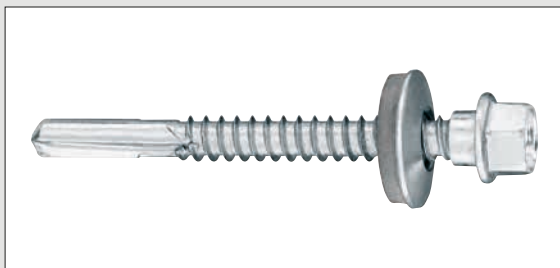
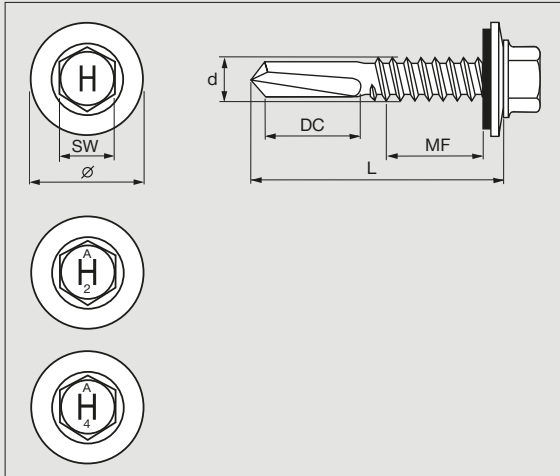
3.3.3.2 HEX head self-drilling screws with sealing washer

S-MD 55Z / S-MD 65Z
S-MD 55S / S-MD 65S / S-MD 75S
S-MD 55SS



Universal self-drilling screws for thick metal applications

3



Ordering description	Screw Technology	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	Screw drive / recess type	EPDM thickness [mm]	Sales quantity [pc]	Item number
Zinc-plated carbon steel self-drilling HEX head screws										
S-MD 55GZ 5.5x40 S-MD 55Z 5.5x40	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 15	5.5	40	16	Hexagon 8	3	250	2054489
S-MD 55GZ 5.5x52 S-MD 55Z 5.5x52	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 27	5.5	52	16	Hexagon 8	3	250	2054830
S-MD 55GZ 5.5x65 S-MD 55Z 5.5x65	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 40	5.5	65	16	Hexagon 8	3	100	2054831
S-MD 55GZ 5.5x82 S-MD 55Z 5.5x82	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 57	5.5	82	16	Hexagon 8	3	100	2054832
S-MD 55GZ 5.5x102 S-MD 55Z 5.5x102	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 77	5.5	102	16	Hexagon 8	3	100	2054833
S-MD 65GZ 5.5x40 S-MD 65Z 5.5x40	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 15	5.5	40	19	Hexagon 8	3	250	2090661
Colored zinc-plated carbon steel self-drilling HEX head screws										
S-MD 55GZ 5.5x40 RAL9010	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 15	5.5	40	16	Hexagon 8	3	250	2054834
S-MD 55GZ 5.5x40 RAL9006	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 15	5.5	40	16	Hexagon 8	3	250	2054835

Reference:

• More Information see approval ETA-18/0182 and ETA-18/0880

HEX head self-drilling screws with sealing washer

S-MD 55Z / S-MD 65Z
S-MD 55S / S-MD 65S / S-MD 75S
S-MD 55SS



Universal self-drilling screws for thick metal applications

3

Ordering description	Screw Technology	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	Screw drive / recess type	EPDM thickness [mm]	Sales quantity [pc]	Item number
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Stainless steel (A2) self-drilling HEX head screws

S-MD 55S 5.5x40	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 11	5.5	40	16	Hexagon 8	3	250	2209960
S-MD 55S 5.5x52	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 23	5.5	52	16	Hexagon 8	3	250	2209961
S-MD 55S 5.5x65	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 36	5.5	65	16	Hexagon 8	3	100	2209962
S-MD 55S 5.5x82	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 53	5.5	82	16	Hexagon 8	3	100	2209963
S-MD 55S 5.5x102	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 73	5.5	102	16	Hexagon 8	3	100	2209964
S-MD 65S 5.5x40	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 11	5.5	40	19	Hexagon 8	3	250	2209965
S-MD 65S 5.5x52	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 23	5.5	52	19	Hexagon 8	3	250	2209966
S-MD 65S 5.5x65	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 36	5.5	65	19	Hexagon 8	3	100	2209967
S-MD 65S 5.5x82	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 53	5.5	82	19	Hexagon 8	3	100	2209968
S-MD 65S 5.5x102	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 73	5.5	102	19	Hexagon 8	3	100	2209969
S-MD 75S 5.5x40	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 11	5.5	40	22	Hexagon 8	3	250	2209970
S-MD 75S 5.5x52	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 23	5.5	52	22	Hexagon 8	3	250	2209971
S-MD 75S 5.5x65	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 36	5.5	65	22	Hexagon 8	3	100	2209972
S-MD 75S 5.5x82	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 53	5.5	82	22	Hexagon 8	3	100	2209613
S-MD 75S 5.5x102	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 73	5.5	102	22	Hexagon 8	3	100	2209614

Stainless steel (A4) self-drilling HEX head screws

S-MD 55SS 5.5x40	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 11	5.5	40	16	Hexagon 8	3	250	2211435
S-MD 55SS 5.5x52	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 23	5.5	52	16	Hexagon 8	3	250	2209974
S-MD 55SS 5.5x65	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 36	5.5	65	16	Hexagon 8	3	100	2211017
S-MD 55SS 5.5x82	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 53	5.5	82	16	Hexagon 8	3	100	2211430
S-MD 55SS 5.5x102	Racing Tip Perfect Sealing	4.6 – 15	4.6 – 73	5.5	102	16	Hexagon 8	3	100	2211431

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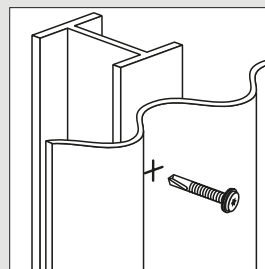
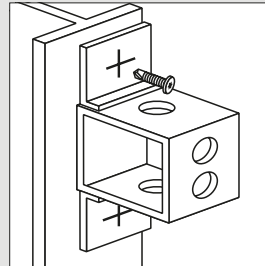
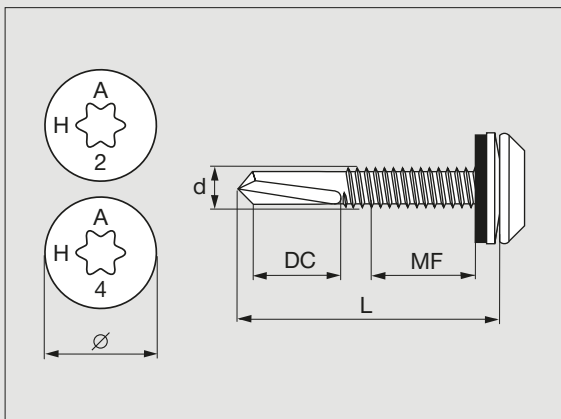
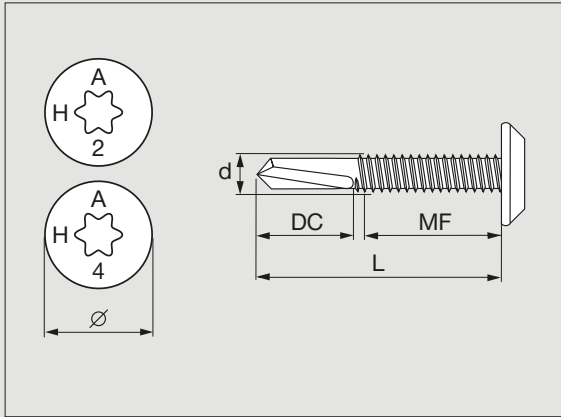
- More Information see approval ETA-18/0182 and ETA-18/0880

3.3.3.3 Pan head self-drilling screws with and without sealing washer

S-MD 05PS/ S-MD 35PS S-MD 35PSS

Universal self-drilling screw for light applications

3



Ordering description	Screw Technology	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	Screw drive / recess type	EPDM thickness [mm]	Sales quantity [pc]	Item number
Stainless steel (A2) self-drilling pan head screws										
S-MD 05PS 5.5x40	Racing Tip	4.6 - 15	4.6 - 14	5.5	41	None	TX 25	None	250	2229863
S-MD 05PS 5.5x52	Racing Tip	4.6 - 15	4.6 - 26	5.5	53	None	TX 25	None	250	2229846
S-MD 35PS 5.5x40	Racing Tip Perfect Sealing	4.6 - 15	4.6 - 11	5.5	41	12	TX 25	3	250	2229855
S-MD 35PS 5.5x52	Racing Tip Perfect Sealing	4.6 - 15	4.6 - 23	5.5	53	12	TX 25	3	250	2229845
Stainless steel (A4) self-drilling pan head screws										
S-MD 35PSS 5.5x40	Racing Tip Perfect Sealing	4.6 - 12	4.6 - 12	5.5	41	12	TX 25	3	250	2229844
S-MD 35PSS 5.5x52	Racing Tip Perfect Sealing	4.6 - 12	4.6 - 26	5.5	53	12	TX 25	3	250	2229847

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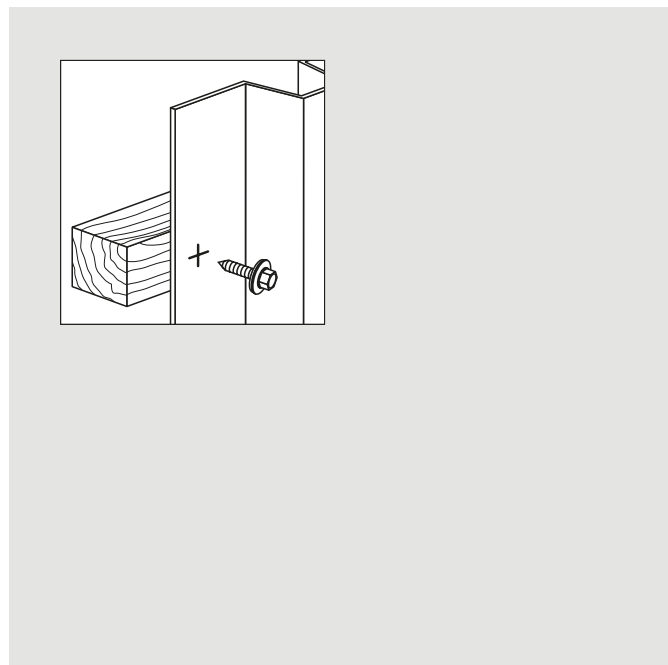
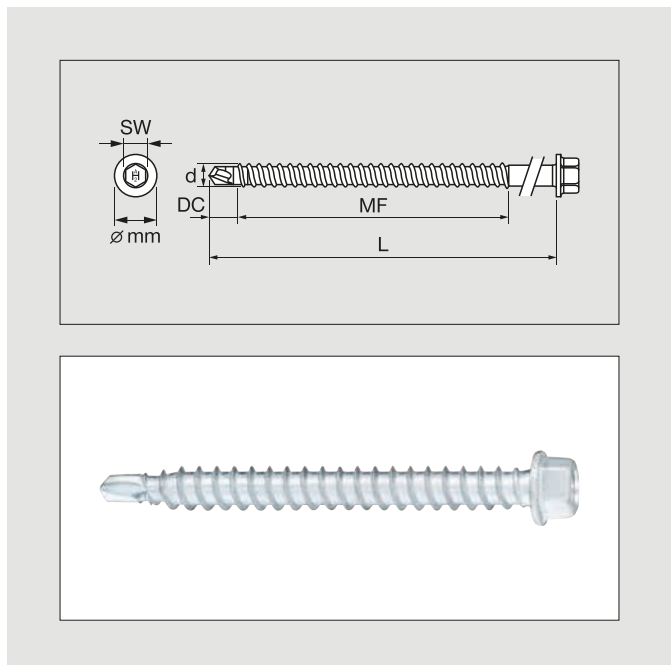
- More Information see approval ETA-18/0182 and ETA-18/0880

3.3.4 Screws for wood/metal and metal/wood applications

3.3.4.1 HEX head self-drilling screws without sealing washer

S-MDW 01Z / S-MDW 01C / S-MDW 01S

Self-drilling screws for fastening steel and aluminum to wood



3

Ordering description	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Effective range screw-in length (left) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
Zinc-plated carbon steel self-drilling HEX head screws								
S-MDW 01Z 6.5x40	0.4 – 2	0.4 – 4	30 – 55	6.5	41	Hexagon 8	250	2291237
S-MDW 01Z 6.5x60	0.4 – 2	0.4 – 24	30 – 55	6.5	61	Hexagon 8	150	2291238
S-MDW 01Z 6.5x80	0.4 – 2	0.4 – 44	30 – 55	6.5	81	Hexagon 8	100	2291239
S-MDW 01Z 6.5x100	0.4 – 2	0.4 – 64	30 – 64	6.5	101	Hexagon 8	100	2291260
Duplex-coated carbon steel self-drilling HEX head screws								
S-MDW 01C 6.5x40	0.4 – 2	0.4 – 4	30 – 55	6.5	41	Hexagon 8	250	2291273
S-MDW 01C 6.5x60	0.4 – 2	0.4 – 24	30 – 55	6.5	61	Hexagon 8	150	2291274
S-MDW 01C 6.5x80	0.4 – 2	0.4 – 44	30 – 55	6.5	81	Hexagon 8	100	2291275
S-MDW 01C 6.5x100	0.4 – 2	0.4 – 64	30 – 64	6.5	101	Hexagon 8	100	2291276
Stainless steel (A2) self-drilling HEX head screws								
S-MDW 01S 6.5x40	0.4 – 2	0.4 – 4	30 – 55	6.5	41	Hexagon 8	250	2284378
S-MDW 01S 6.5x60	0.4 – 2	0.4 – 24	30 – 55	6.5	61	Hexagon 8	150	2284379
S-MDW 01S 6.5x80	0.4 – 2	0.4 – 44	30 – 55	6.5	81	Hexagon 8	100	2284771
S-MDW 01S 6.5x100	0.4 – 2	0.4 – 64	30 – 64	6.5	101	Hexagon 8	100	2284772

Reference:

- More Information see approval ETA-18/0880 (Stainless steel) and ETA-20/0858 (Carbon steel)

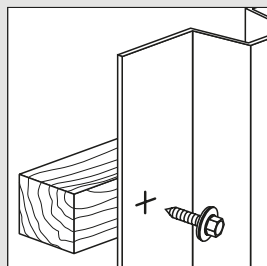
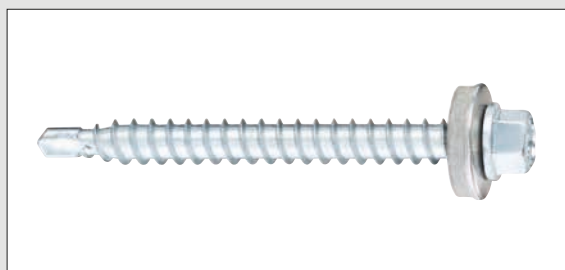
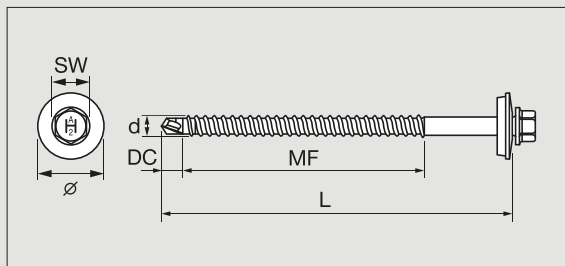
3.3.4.2 HEX head self-drilling screws with sealing washer



S-MDW 51Z / S-MDW 61Z / S-MDW 71Z
S-MDW 51C / S-MDW 61C / S-MDW 71C
S-MDW 51S / S-MDW 61S / S-MDW 71S

Self-drilling screws for fastening steel and aluminum to wood

3



Ordering description	Drilling capacity range (DC)	Thickness fastened range (MF)	Effective range screw-in length (leff)	Screw diameter (d)	Screw length (L)	Washer size	Screw drive / recess type	EPDM thickness	Sales quantity	Item number
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[mm]	[pc]	

Zinc-plated carbon steel self-drilling HEX head screws

S-MDW 51Z 6.5x40	0.4 - 2	0.4 - 2	30 - 52	6.5	41	16	Hexagon 8	3	100	2291261
S-MDW 51Z 6.5x60	0.4 - 2	0.4 - 21	30 - 52	6.5	61	16	Hexagon 8	3	100	2291262
S-MDW 51Z 6.5x80	0.4 - 2	0.4 - 41	30 - 52	6.5	81	16	Hexagon 8	3	100	2291263
S-MDW 51Z 6.5x100	0.4 - 2	0.4 - 61	30 - 61	6.5	101	16	Hexagon 8	3	100	2291264
S-MDW 61Z 6.5x40	0.4 - 2	0.4 - 2	30 - 52	6.5	41	19	Hexagon 8	3	100	2291265
S-MDW 61Z 6.5x60	0.4 - 2	0.4 - 21	30 - 52	6.5	61	19	Hexagon 8	3	100	2291266
S-MDW 61Z 6.5x80	0.4 - 2	0.4 - 41	30 - 52	6.5	81	19	Hexagon 8	3	100	2291267
S-MDW 61Z 6.5x100	0.4 - 2	0.4 - 61	30 - 61	6.5	101	19	Hexagon 8	3	100	2291268
S-MDW 71Z 6.5x40	0.4 - 2	0.4 - 2	30 - 52	6.5	41	22	Hexagon 8	3	100	2291269
S-MDW 71Z 6.5x60	0.4 - 2	0.4 - 21	30 - 52	6.5	61	22	Hexagon 8	3	100	2291270
S-MDW 71Z 6.5x80	0.4 - 2	0.4 - 41	30 - 52	6.5	81	22	Hexagon 8	3	100	2291271
S-MDW 71Z 6.5x100	0.4 - 2	0.4 - 61	30 - 61	6.5	101	22	Hexagon 8	3	100	2291272

Reference:

- More Information see approval ETA-18/0880 (Stainless steel) and ETA-20/0858 (Carbon steel)

HEX head self-drilling screws with sealing washer



S-MDW 51Z / S-MDW 61Z / S-MDW 71Z
S-MDW 51C / S-MDW 61C / S-MDW 71C
S-MDW 51S / S-MDW 61S / S-MDW 71S

Self-drilling screws for fastening steel and aluminum to wood

Ordering description	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Effective range screw-in length (leff) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	Screw drive / recess type	EPDM thickness [mm]	Sales quantity [pc]	Item number
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3

Duplex-coated carbon steel self-drilling HEX head screws

S-MDW 51C 6.5x40	0.4 – 2	0.4 – 2	30 – 52	6.5	41	16	Hexagon 8	3	100	2291277
S-MDW 51C 6.5x60	0.4 – 2	0.4 – 21	30 – 52	6.5	61	16	Hexagon 8	3	100	2291278
S-MDW 51C 6.5x80	0.4 – 2	0.4 – 41	30 – 52	6.5	81	16	Hexagon 8	3	100	2291279
S-MDW 51C 6.5x100	0.4 – 2	0.4 – 61	30 – 61	6.5	101	16	Hexagon 8	3	100	2291280
S-MDW 61C 6.5x40	0.4 – 2	0.4 – 2	30 – 52	6.5	41	19	Hexagon 8	3	100	2291281
S-MDW 61C 6.5x60	0.4 – 2	0.4 – 21	30 – 52	6.5	61	19	Hexagon 8	3	100	2291282
S-MDW 61C 6.5x80	0.4 – 2	0.4 – 41	30 – 52	6.5	81	19	Hexagon 8	3	100	2291283
S-MDW 61C 6.5x100	0.4 – 2	0.4 – 61	30 – 61	6.5	101	19	Hexagon 8	3	100	2291284
S-MDW 71C 6.5x40	0.4 – 2	0.4 – 2	30 – 52	6.5	41	22	Hexagon 8	3	100	2291285
S-MDW 71C 6.5x60	0.4 – 2	0.4 – 21	30 – 52	6.5	61	22	Hexagon 8	3	100	2291286
S-MDW 71C 6.5x80	0.4 – 2	0.4 – 41	30 – 52	6.5	81	22	Hexagon 8	3	100	2291287
S-MDW 71C 6.5x100	0.4 – 2	0.4 – 61	30 – 61	6.5	101	22	Hexagon 8	3	100	2291288

Stainless steel (A2) self-drilling HEX head screws

S-MDW 51S 6.5x40	0.4 – 2	0.4 – 2	30 – 52	6.5	41	16	Hexagon 8	3	100	2284773
S-MDW 51S 6.5x60	0.4 – 2	0.4 – 21	30 – 52	6.5	61	16	Hexagon 8	3	100	2284774
S-MDW 51S 6.5x80	0.4 – 2	0.4 – 41	30 – 52	6.5	81	16	Hexagon 8	3	100	2284775
S-MDW 51S 6.5x100	0.4 – 2	0.4 – 61	30 – 61	6.5	101	16	Hexagon 8	3	100	2284776
S-MDW 61S 6.5x40	0.4 – 2	0.4 – 2	30 – 52	6.5	41	19	Hexagon 8	3	100	2284777
S-MDW 61S 6.5x60	0.4 – 2	0.4 – 21	30 – 52	6.5	61	19	Hexagon 8	3	100	2284778
S-MDW 61S 6.5x80	0.4 – 2	0.4 – 41	30 – 52	6.5	81	19	Hexagon 8	3	100	2284779
S-MDW 61S 6.5x100	0.4 – 2	0.4 – 61	30 – 61	6.5	101	19	Hexagon 8	3	100	2284780
S-MDW 71S 6.5x40	0.4 – 2	0.4 – 2	30 – 52	6.5	41	22	Hexagon 8	3	100	2284781
S-MDW 71S 6.5x60	0.4 – 2	0.4 – 21	30 – 52	6.5	61	22	Hexagon 8	3	100	2284782
S-MDW 71S 6.5x80	0.4 – 2	0.4 – 41	30 – 52	6.5	81	22	Hexagon 8	3	100	2284783
S-MDW 71S 6.5x100	0.4 – 2	0.4 – 61	30 – 61	6.5	101	22	Hexagon 8	3	100	2284770

Reference:

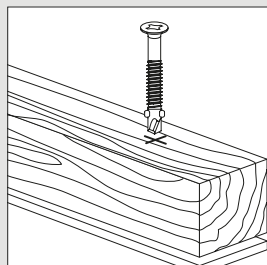
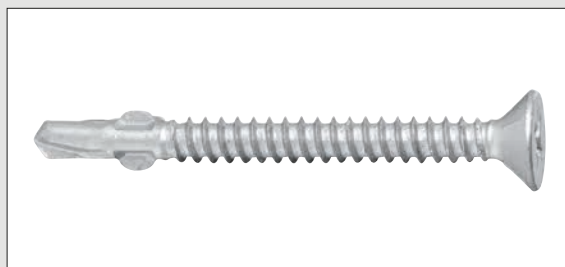
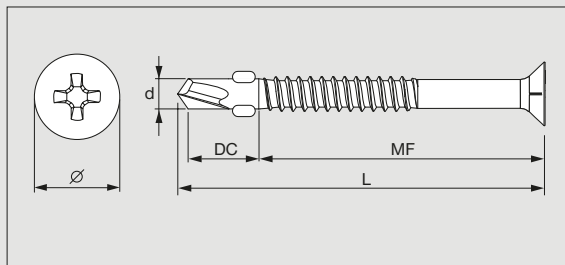
- More Information see approval ETA-18/0880 (Stainless steel) and ETA-20/0858 (Carbon steel)

3.3.4.3 Countersunk head self-drilling wing tip screws

S-WD 11Z S-WD 11C / S-WD 13C / S-WD 15C

Self-drilling screws for fastening wood to metal

3



Single screws

Ordering description	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
Zinc-plated carbon steel self-drilling Phillips head screws							
S-WD 11Z 3.8x30	0.75 – 2.5	10 – 15	3.8	30	PH 2	1'000	413325
S-WD 11Z 3.8x41	0.75 – 2.5	10 – 26	3.8	41	PH 2	500	413326
S-WD 11Z 3.8x57	0.75 – 2.5	10 – 42	3.8	57	PH 2	100	413804
Duplex-coated carbon steel self-drilling Phillips head screws							
S-WD 11C 3.8x30	0.75 – 2.5	10 – 15	3.8	30	PH 2	200	416231
S-WD 11C 3.8x41	0.75 – 2.5	10 – 26	3.8	41	PH 2	200	416233
S-WD 11C 3.8x57	0.75 – 2.5	10 – 42	3.8	57	PH 2	100	416234
S-WD 11C 4.2x25	0.75 – 2.5	10	4.2	25	PH 2	200	283635
S-WD 13C 4.8x38	2.4 – 3.8	10 – 20	4.8	38	PH 3	200	283636
S-WD 13C 5.5x50	2.1 – 5.5	10 – 27	5.5	50	PH 3	100	283637
S-WD 13C 5.5x65	2.1 – 5.5	10 – 40	5.5	65	PH 3	100	283638
S-WD 13C 5.5x85	2.1 – 5.5	10 – 53	5.5	85	PH 3	100	283639
S-WD 13C 5.5x100	2.1 – 5.5	10 – 80	5.5	100	PH 3	100	287078
S-WD 13C 6.3x70	2.1 – 6	10 – 50	6.3	70	PH 3	100	416235
S-WD 13C 6.3x87	2.1 – 6	10 – 63	6.3	87	PH 3	100	416236
S-WD 15C 5.5x65	4 – 12	10 – 30	5.5	65	PH 3	100	287079
S-WD 15C 5.5x85	4 – 12	10 – 55	5.5	85	PH 3	100	287573
S-WD 15C 5.5x119	4 – 12	10 – 85	5.5	119	PH 3	100	289145
Collated screws*							
Zinc-plated carbon steel self-drilling Phillips head screws							
S-WD 11Z 3.8x30 M	0.75 – 2.5	10 – 15	3.8	30	PH 2	1'000	413805
S-WD 11Z 3.8x41 M	0.63 – 2.5	10 – 26	3.8	41	PH 2	1'000	413806

Reference:

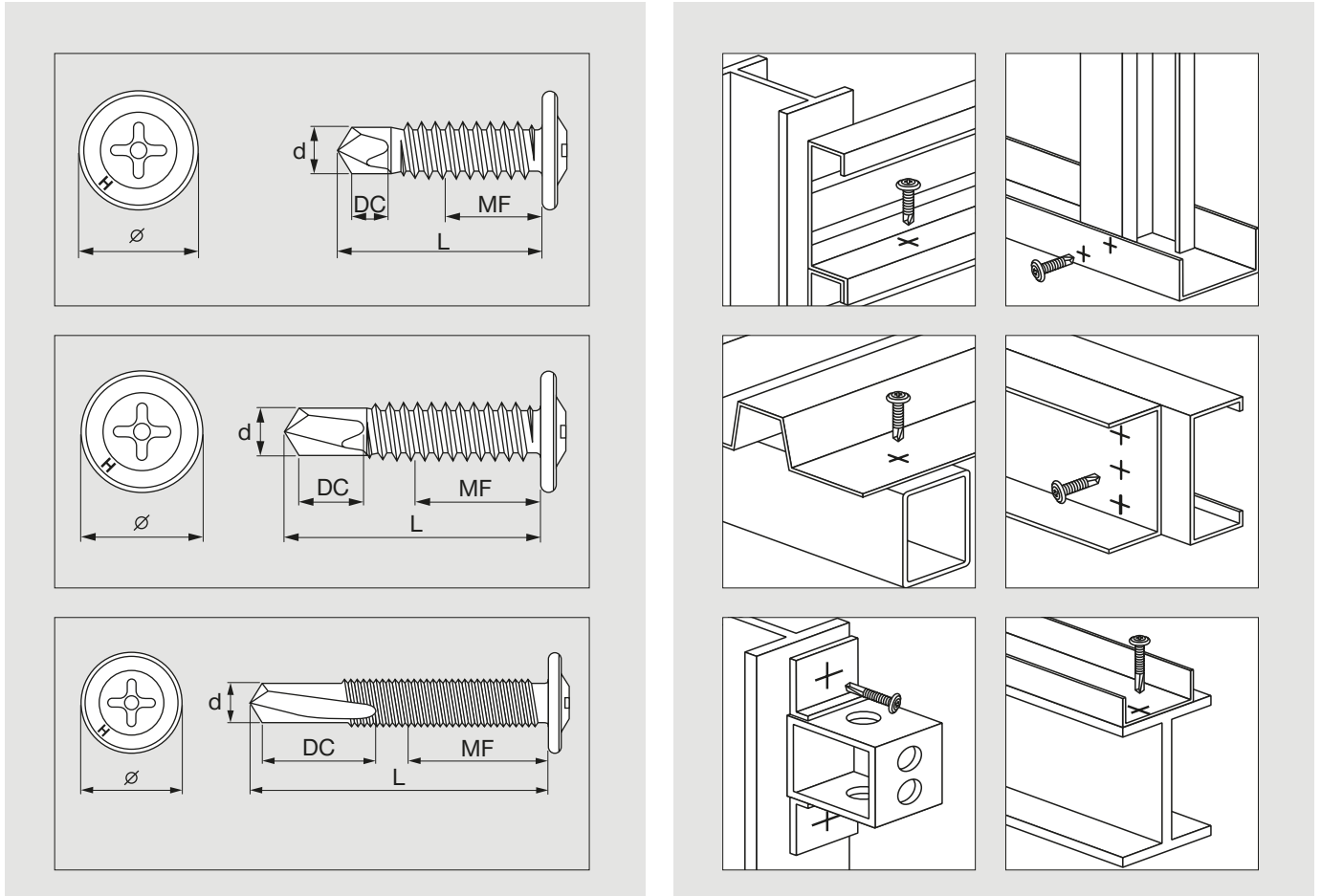
- For use with SD screwdriver and SMD 57
- *For use with SD screwdriver and SMD 57 (e.g., for Alucobond systems)

3.3.5 Wafer head carbon steel self-drilling screws without sealing washer

S-MD 01ZW / S-MD 03ZW / S-MD 05ZW



Carbon steel wafer head screws as fastening points in metal framing applications



3

Ordering description	Screw Technology	Thread type	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
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Wafer head carbon steel self-drilling screws without sealing washer

S-MD 01ZW 5.5x19		Coarse single thread	1.25 - 3	1.2 - 7.5	5.5	20	PH 2	1'000	408761
S-MD 03ZW 5.5x25	Racing Tip	Coarse single thread	1.25 - 6	2.6 - 12	5.5	26	PH 2	1'000	2264946
S-MD 05ZW 5.5x40	Racing Tip	Fine single thread	4.6 - 12	4.6 - 18	5.5	41	PH 3	500	408763

3.4 Screws for light ventilated façade applications

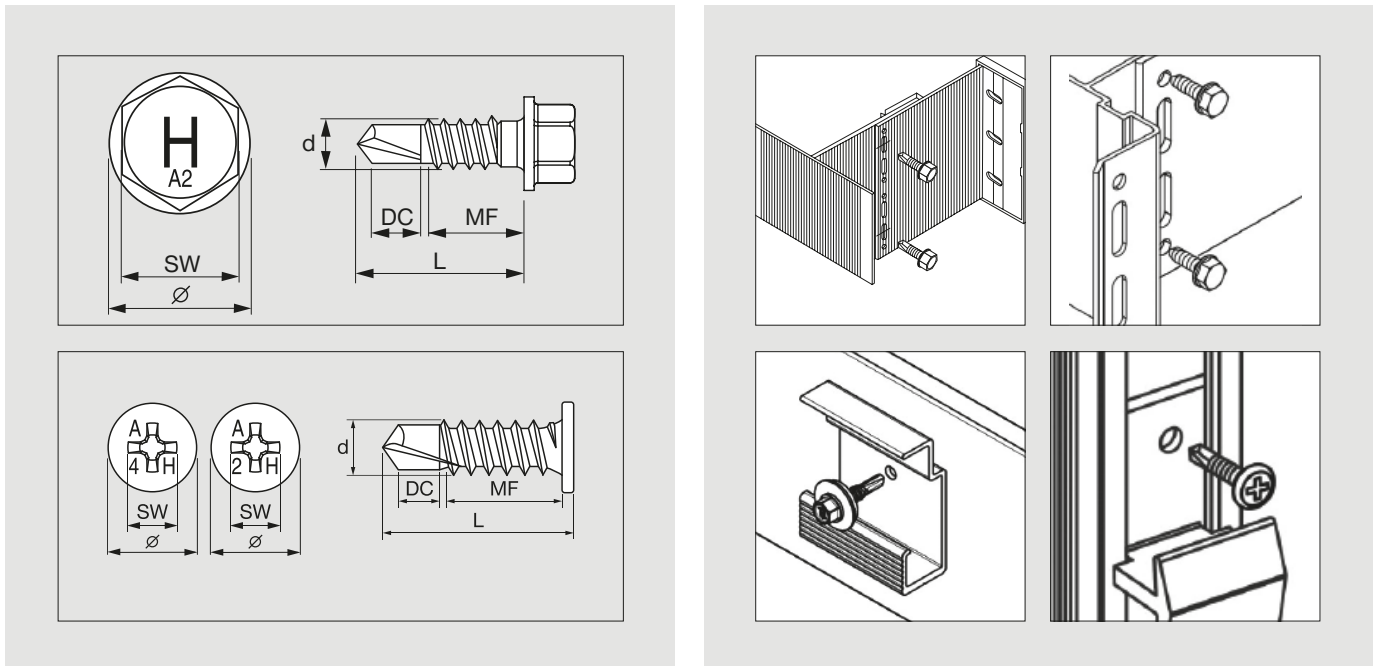


3.4.1 Stainless steel self-drilling screws for fastening Aluminum brackets and profiles

S-AD 01S / S-AD 01SS
S-AD 01LSS / S-AD 01LHSS / S-AD 01LPSS

Stainless steel self-drilling screws without washer for aluminum façade fastenings

3



Single Screws

Ordering description	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
Stainless steel (A2) self-drilling HEX head screws							
S-AD 01S 5.5x19	1.5 – 4	1.5 – 10	5.5	19	Hexagon 8	500	2039265
Stainless steel (A4) self-drilling HEX head screws							
S-AD 01SS 5.5x19	1.5 – 4	1.5 – 10	5.5	19	Hexagon 8	500	2039266
S-AD 01LSS 5.5x25	1.5 – 6	3.2 – 12	5.5	25	Hexagon 8	500	2200902
Stainless steel (A4) self-drilling Phillips head screw							
S-AD 01LHSS 4.8x17	1 – 4	0.75 – 8	4.8	17	PH 2	500	2127477
Stainless steel (A4) self-drilling pan head screw							
S-AD 01LPSS 5.5x25	1.5 – 6	3.2 – 12	5.5	25	TX 25	500	2200903
Collated screws*							
Stainless steel (A2) self-drilling Phillips head screw							
S-AD 01LHS 4.8x17 M	0.75 – 4	0.75 – 8	4.8	17	PH 2	1'000	2127476
Colored stainless steel (A2) self-drilling Phillips head screws							
S-AD 01LHS 4.8x17 M, RAL9006	0.75 – 4	0.75 – 8	4.8	17	PH 2	1'000	2147763
S-AD 01LHS 4.8x17 M, RAL9010	0.75 – 4	0.75 – 8	4.8	17	PH 2	1'000	2147762
S-AD 01LHS 4.8x17 M, RAL9016	0.75 – 4	0.75 – 8	4.8	17	PH 2	1'000	2147764

Reference:

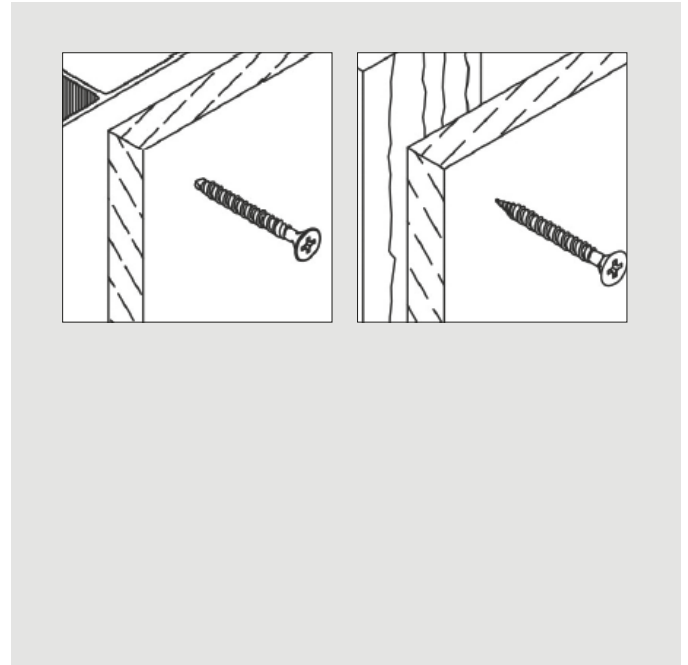
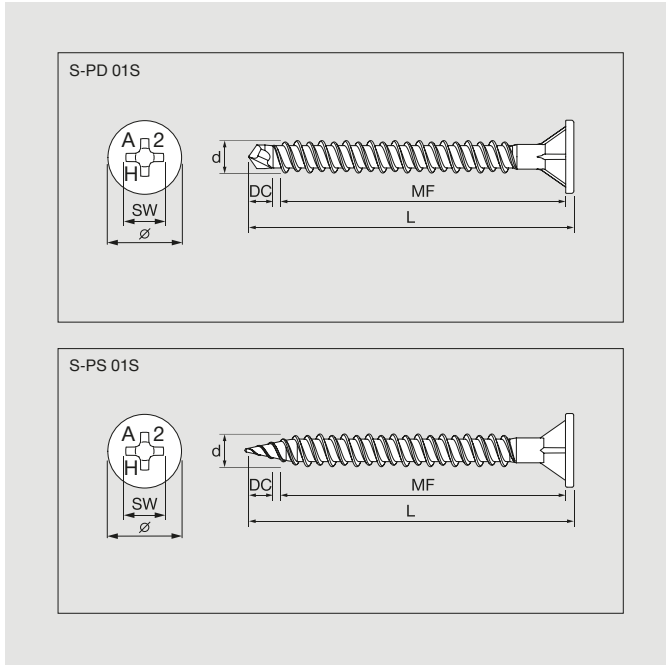
- More information see National technical approval/General construction technique permission Z-14.4-769
- *For use with SD screwdriver and SMD 57 (e.g., for Alucobond systems)

3.4.2 Stainless steel self-drilling screws for fastening cladding panels

S-PS 01S / S-PD 01S



Stainless steel self-drilling screws without washer for fastening (OSB) panels to substructure



3

Ordering description	Base material	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
Stainless steel self-drilling screws for fastening cladding panels								
S-PD 01S 4.0x40	Metal / Aluminium	0.5 - 2.5	0.5 - 12.5	4	40	PH 2	1'000	2136390
S-PS 01S 4.0x40	Wood	0.5 - 2.5	0.5 - 12.5	4	40	PH 2	1'000	2136329

Reference:

- More information see National technical approval/General construction technique permission Z-14.4-769

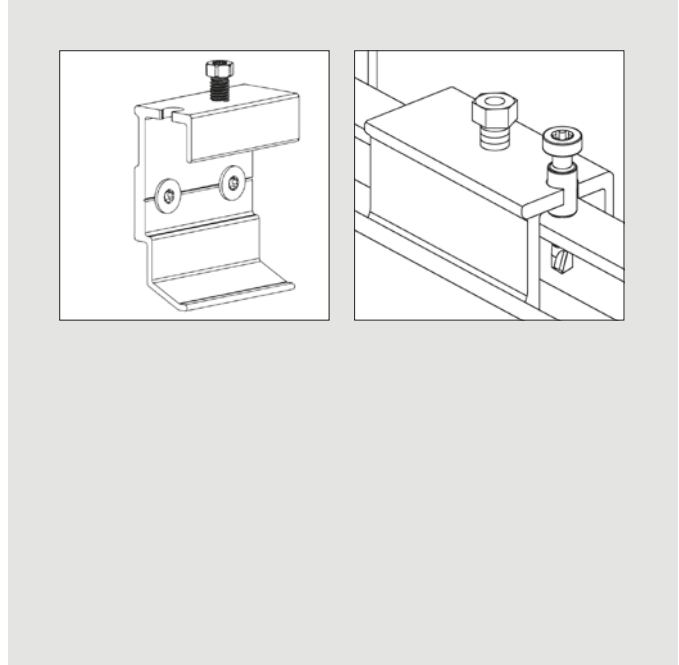
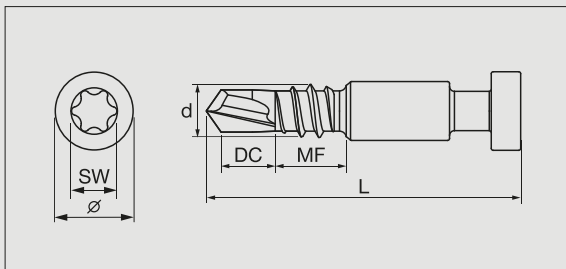
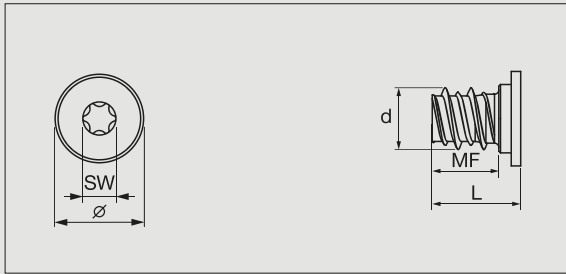
3.4.3 Stainless steel screws for hidden fastenings of HPL panels

S-HP 02SS / S-FP 01SS

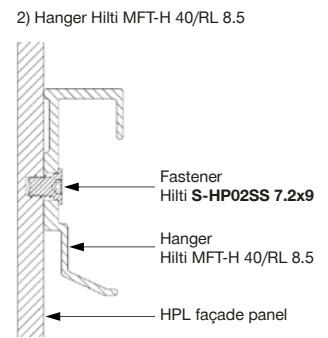
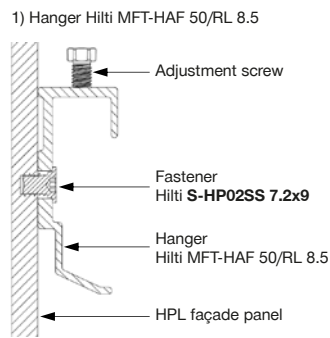
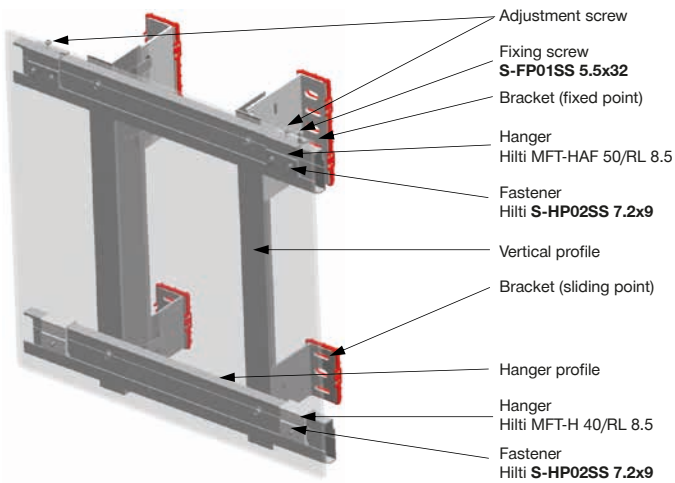


Stainless steel screws for hidden HPL panel fastenings

3



HPF System



Ordering description	Drilling capacity range (DC) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Screw drive/recess type	Sales quantity [pc]	Item number
S-HP 02SS 7.2x9	Self-tapping	7.2	9	TX 25 HF	500	2301049
S-FP 01SS 5.5x32	1.5 - 4	5.5	32	TX 25 HF	100	2301102

Reference:

- Each sales package of S-HP 02SS 7.2x9 includes a torque-limiting bit holder (S-BH QC 64/2.5" TL) which must be used when fastening hangers to HPL façade panels
- If HPL panels are not pre-drilled, stepped drill bit TS-HP 5,9-90 HPL (#2301100) must be used. (See accessories for Hidden panel fastenings, chapter 4.3)
- More information, see approval ETA-21/0567

3.5 Screws for sandwich applications

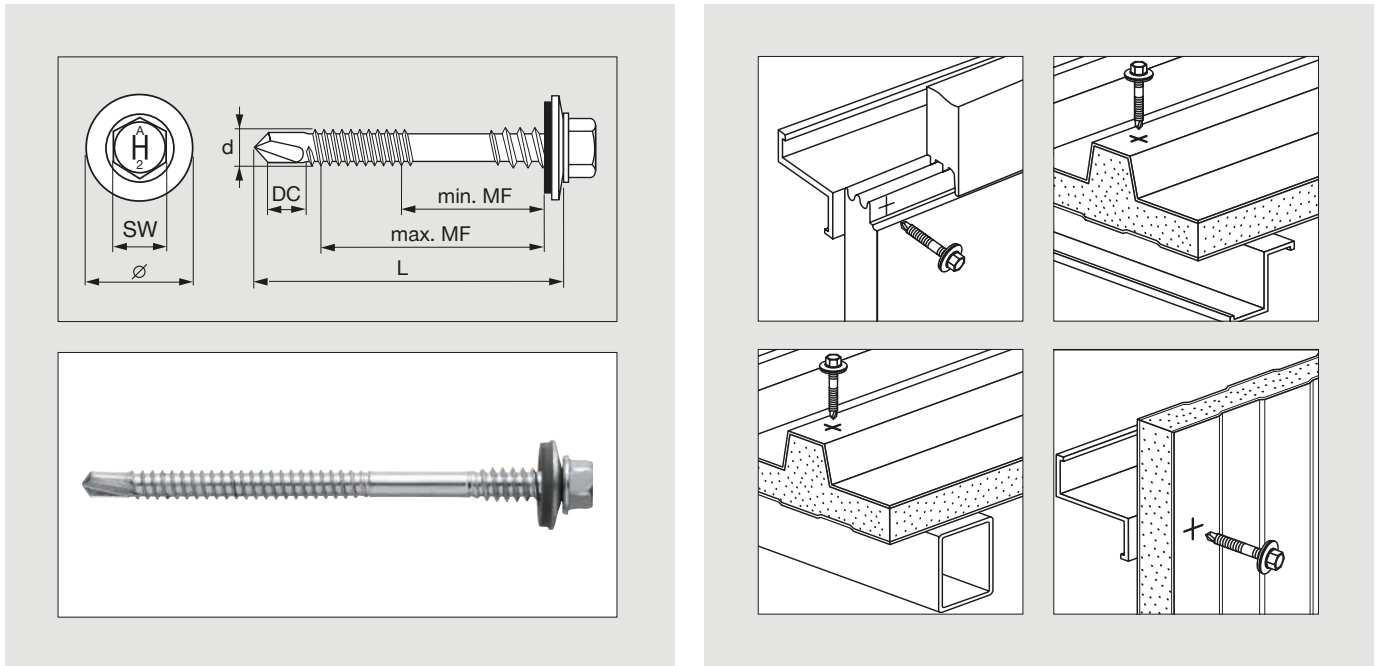


3.5.1 HEX head stainless steel self-drilling screws for light and medium steel substructure

S-CD 53S / S-CD 63S / S-CD 73S (Ø 16/Ø 19/Ø 22)

The self-drilling sandwich panel screws for fastening on light and medium base materials

3



Ordering description	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM-thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
Stainless steel (A2) sandwich panel screw S-CD 53S									
S-CD 53S 5.5x76	2 - 6	38 - 48	5.5	76	16	3	Hexagon 8	100	413394
S-CD 53S 5.5x86	2 - 6	48 - 58	5.5	86	16	3	Hexagon 8	100	413395
S-CD 53S 5.5x96	2 - 6	58 - 68	5.5	96	16	3	Hexagon 8	100	413396
S-CD 53S 5.5x116	2 - 6	68 - 88	5.5	116	16	3	Hexagon 8	100	413389
S-CD 53S 5.5x136	2 - 6	78 - 108	5.5	136	16	3	Hexagon 8	100	413390
S-CD 53S 5.5x156	2 - 6	98 - 128	5.5	156	16	3	Hexagon 8	100	413391
S-CD 53S 5.5x172	2 - 6	114 - 144	5.5	172	16	3	Hexagon 8	100	2132343
S-CD 53S 5.5x186	2 - 6	128 - 158	5.5	186	16	3	Hexagon 8	100	413392
S-CD 53S 5.5x216	2 - 6	138 - 188	5.5	216	16	3	Hexagon 8	100	413393
S-CD 53S 5.5x234	2 - 6	156 - 206	5.5	234	16	3	Hexagon 8	100	2132344
S-CD 53S 5.5x256	2 - 6	178 - 228	5.5	256	16	3	Hexagon 8	100	413397
S-CD 53S 5.5x286	2 - 6	208 - 258	5.5	286	16	3	Hexagon 8	100	413398

Reference:

- More Information see approval ETA-13/0179

HEX head stainless steel self-drilling screws for light and medium steel substructure

S-CD 53S / S-CD 63S / S-CD 73S (Ø 16/Ø 19/Ø 22)

The self-drilling sandwich panel screws for fastening on light and medium base materials

3

Ordering description	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM-thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
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Stainless steel (A2) sandwich panel screw S-CD 63S

S-CD 63S 5.5x76	2 - 6	38 - 48	5.5	76	19	3	Hexagon 8	100	413354
S-CD 63S 5.5x86	2 - 6	48 - 58	5.5	86	19	3	Hexagon 8	100	413355
S-CD 63S 5.5x96	2 - 6	58 - 68	5.5	96	19	3	Hexagon 8	100	413356
S-CD 63S 5.5x116	2 - 6	68 - 88	5.5	116	19	3	Hexagon 8	100	413349
S-CD 63S 5.5x136	2 - 6	78 - 108	5.5	136	19	3	Hexagon 8	100	413350
S-CD 63S 5.5x156	2 - 6	98 - 128	5.5	156	19	3	Hexagon 8	100	413351
S-CD 63S 5.5x172	2 - 6	114 - 144	5.5	172	19	3	Hexagon 8	100	2132345
S-CD 63S 5.5x186	2 - 6	128 - 158	5.5	186	19	3	Hexagon 8	100	413352
S-CD 63S 5.5x216	2 - 6	138 - 188	5.5	216	19	3	Hexagon 8	100	413353
S-CD 63S 5.5x234	2 - 6	156 - 206	5.5	234	19	3	Hexagon 8	100	2132346
S-CD 63S 5.5x256	2 - 6	178 - 228	5.5	256	19	3	Hexagon 8	100	413357
S-CD 63S 5.5x286	2 - 6	208 - 258	5.5	286	19	3	Hexagon 8	100	413358

Stainless steel (A2) sandwich panel screw S-CD 73S

S-CD 73S 5.5x76	2 - 6	38 - 48	5.5	76	22	3	Hexagon 8	100	413374
S-CD 73S 5.5x86	2 - 6	48 - 58	5.5	86	22	3	Hexagon 8	100	413375
S-CD 73S 5.5x96	2 - 6	58 - 68	5.5	96	22	3	Hexagon 8	100	413376
S-CD 73S 5.5x116	2 - 6	68 - 88	5.5	116	22	3	Hexagon 8	100	413369
S-CD 73S 5.5x136	2 - 6	78 - 108	5.5	136	22	3	Hexagon 8	100	413370
S-CD 73S 5.5x156	2 - 6	98 - 128	5.5	156	22	3	Hexagon 8	100	413371
S-CD 73S 5.5x172	2 - 6	114 - 144	5.5	172	22	3	Hexagon 8	100	2132347
S-CD 73S 5.5x186	2 - 6	128 - 158	5.5	186	22	3	Hexagon 8	100	413372
S-CD 73S 5.5x216	2 - 6	138 - 188	5.5	216	22	3	Hexagon 8	100	413373
S-CD 73S 5.5x234	2 - 6	156 - 206	5.5	234	22	3	Hexagon 8	100	2132348
S-CD 73S 5.5x256	2 - 6	178 - 228	5.5	256	22	3	Hexagon 8	100	413377
S-CD 73S 5.5x286	2 - 6	208 - 258	5.5	286	22	3	Hexagon 8	100	413378

Reference:

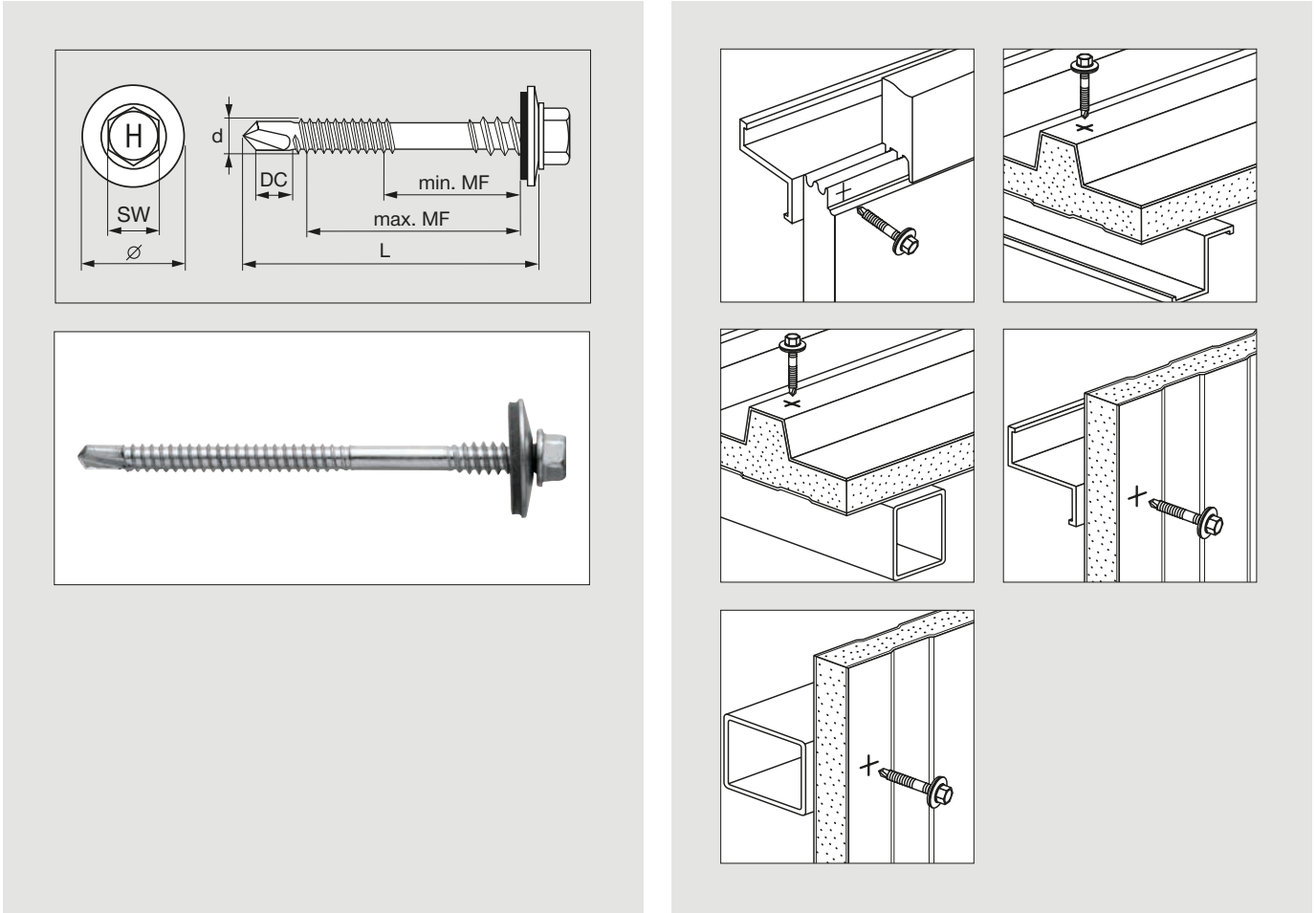
- More Information see approval ETA-13/0179

3.5.2 HEX head carbon steel self-drilling screws for light and medium steel substructure



S-CD 53C/S-CD 63C (Ø 16/Ø 19)

The self-drilling panel screws for fastening on light and medium base materials



3

Ordering description	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM-thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
Duplex coated carbon steel sandwich panel screw S-CD 53C									
S-CD 53C 5.5x76	2 - 6	38 - 48	5.5	76	16	3	Hexagon 8	100	2025960
S-CD 53C 5.5x86	2 - 6	48 - 58	5.5	86	16	3	Hexagon 8	100	2025961
S-CD 53C 5.5x96	2 - 6	58 - 68	5.5	96	16	3	Hexagon 8	100	2025962
S-CD 53C 5.5x116	2 - 6	68 - 88	5.5	116	16	3	Hexagon 8	100	2025963
S-CD 53C 5.5x136	2 - 6	78 - 108	5.5	136	16	3	Hexagon 8	100	2025964
S-CD 53C 5.5x156	2 - 6	98 - 128	5.5	156	16	3	Hexagon 8	100	2025965
S-CD 53C 5.5x186	2 - 6	128 - 158	5.5	186	16	3	Hexagon 8	100	2025966
S-CD 53C 5.5x216	2 - 6	138 - 188	5.5	216	16	3	Hexagon 8	100	2025967
S-CD 53C 5.5x256	2 - 6	178 - 228	5.5	256	16	3	Hexagon 8	100	2025968
S-CD 53C 5.5x286	2 - 6	208 - 258	5.5	286	16	3	Hexagon 8	100	2025969

Reference:
• More information see approval ETA-13/0179

HEX head carbon steel self-drilling screws for light and medium steel substructure

S-CD 53C/S-CD 63C (Ø 16/Ø 19)

The self-drilling panel screws for fastening on light and medium base materials

3

Ordering description	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM-thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
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Duplex coated carbon steel sandwich panel screw S-CD 63C

S-CD 63C 5.5x76	2 - 6	38 - 48	5.5	76	19	3	Hexagon 8	100	413344
S-CD 63C 5.5x86	2 - 6	48 - 58	5.5	86	19	3	Hexagon 8	100	413345
S-CD 63C 5.5x96	2 - 6	58 - 68	5.5	96	19	3	Hexagon 8	100	413346
S-CD 63C 5.5x116	2 - 6	68 - 88	5.5	116	19	3	Hexagon 8	100	413339
S-CD 63C 5.5x136	2 - 6	78 - 108	5.5	136	19	3	Hexagon 8	100	413340
S-CD 63C 5.5x156	2 - 6	98 - 128	5.5	156	19	3	Hexagon 8	100	413341
S-CD 63C 5.5x186	2 - 6	128 - 158	5.5	186	19	3	Hexagon 8	100	413342
S-CD 63C 5.5x216	2 - 6	138 - 188	5.5	216	19	3	Hexagon 8	100	413343
S-CD 63C 5.5x256	2 - 6	178 - 228	5.5	256	19	3	Hexagon 8	100	413347
S-CD 63C 5.5x286	2 - 6	208 - 258	5.5	286	19	3	Hexagon 8	100	413348

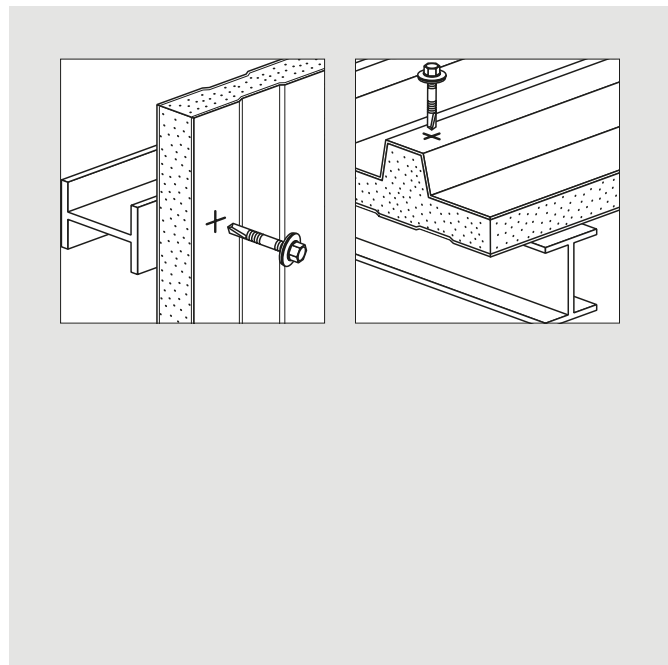
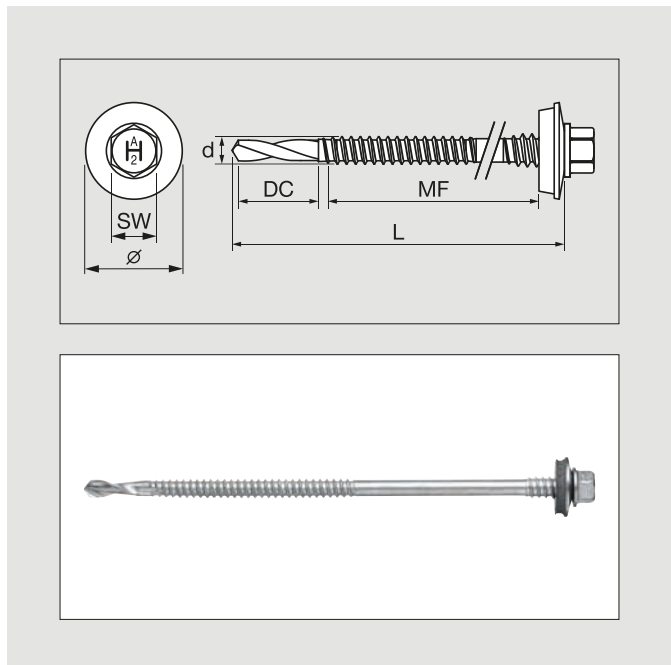
Reference:

- More information see approval ETA-13/0179

3.5.3 HEX head stainless steel self-drilling screws for thick steel substructure with twisted drill tip

S-CD 55GS / S-CD 65GS / S-CD 75GS

The self-drilling sandwich panel screws for thick base materials



3

Ordering description	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM-thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
Stainless steel (A2) sandwich panel screw S-CD 55GS									
S-CD 55GS 5.5x88	4 - 15	25 - 46	5.5	88	16	3	Hexagon 8	100	2109048
S-CD 55GS 5.5x108	4 - 15	35 - 66	5.5	108	16	3	Hexagon 8	100	2109049
S-CD 55GS 5.5x128	4 - 15	55 - 86	5.5	128	16	3	Hexagon 8	100	2109050
S-CD 55GS 5.5x148	4 - 15	75 - 106	5.5	148	16	3	Hexagon 8	100	2109051
S-CD 55GS 5.5x168	4 - 15	95 - 126	5.5	168	16	3	Hexagon 8	100	2109052
S-CD 55GS 5.5x183	4 - 15	115 - 141	5.5	183	16	3	Hexagon 8	100	2109053
S-CD 55GS 5.5x198	4 - 15	130 - 156	5.5	198	16	3	Hexagon 8	100	2109054
S-CD 55GS 5.5x223	4 - 15	145 - 181	5.5	223	16	3	Hexagon 8	100	2109055
S-CD 55GS 5.5x248	4 - 15	170 - 206	5.5	248	16	3	Hexagon 8	100	2109056
Stainless steel (A2) sandwich panel screw S-CD 65GS									
S-CD 65GS 5.5x88	4 - 15	25 - 46	5.5	88	19	3	Hexagon 8	100	2108776
S-CD 65GS 5.5x108	4 - 15	35 - 66	5.5	108	19	3	Hexagon 8	100	2108777
S-CD 65GS 5.5x128	4 - 15	55 - 86	5.5	128	19	3	Hexagon 8	100	2108778
S-CD 65GS 5.5x148	4 - 15	75 - 106	5.5	148	19	3	Hexagon 8	100	2108779
S-CD 65GS 5.5x168	4 - 15	95 - 126	5.5	168	19	3	Hexagon 8	100	2109040
S-CD 65GS 5.5x183	4 - 15	115 - 141	5.5	183	19	3	Hexagon 8	100	2109041
S-CD 65GS 5.5x198	4 - 15	130 - 156	5.5	198	19	3	Hexagon 8	100	2109042
S-CD 65GS 5.5x223	4 - 15	145 - 181	5.5	223	19	3	Hexagon 8	100	2109043
S-CD 65GS 5.5x248	4 - 15	170 - 206	5.5	248	19	3	Hexagon 8	100	2109044

Reference:

• More Information see approval ETA-13/0179

HEX head stainless steel self-drilling screws for thick steel substructure with twisted drill tip

S-CD 55GS / S-CD 65GS / S-CD 75GS

The self-drilling sandwich panel screws for thick base materials

3

Ordering description	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM-thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
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Stainless steel (A2) sandwich panel screw S-CD 75GS

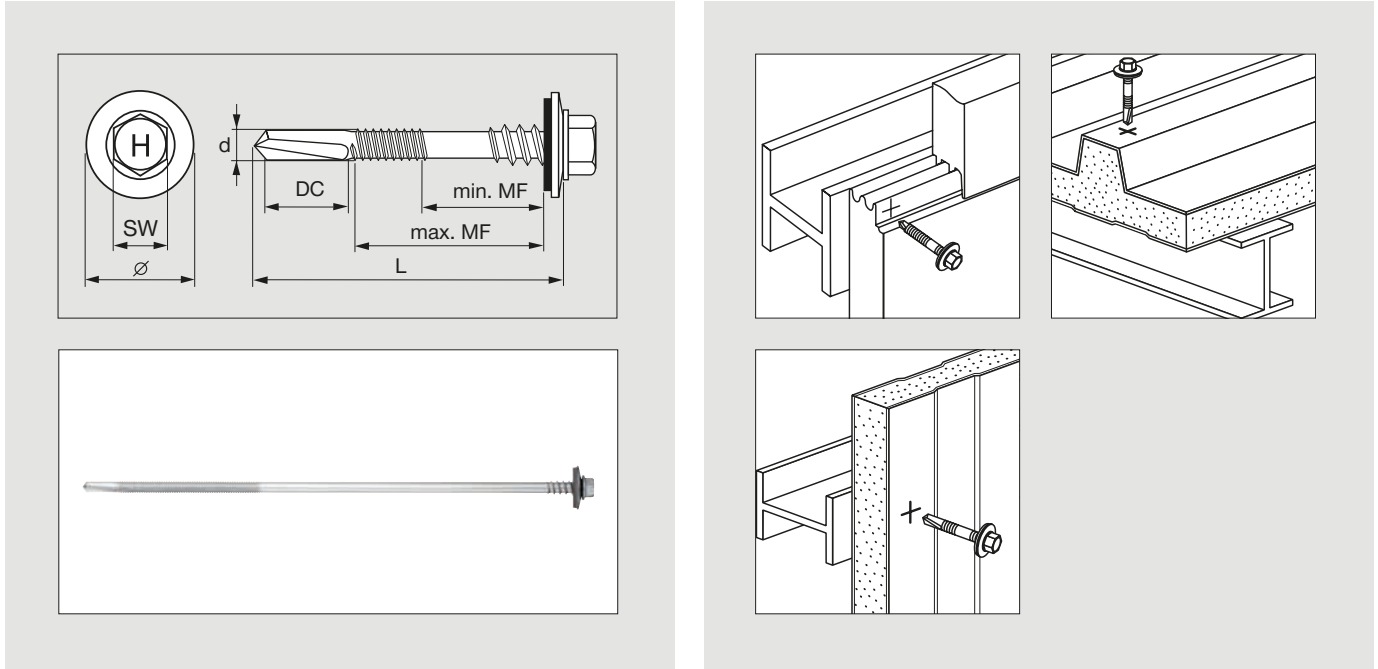
S-CD 75GS 5.5x88	4 - 15	25 - 46	5.5	88	22	3	Hexagon 8	100	2109060
S-CD 75GS 5.5x108	4 - 15	35 - 66	5.5	108	22	3	Hexagon 8	100	2109061
S-CD 75GS 5.5x128	4 - 15	55 - 86	5.5	128	22	3	Hexagon 8	100	2109062
S-CD 75GS 5.5x148	4 - 15	75 - 106	5.5	148	22	3	Hexagon 8	100	2109063
S-CD 75GS 5.5x168	4 - 15	95 - 126	5.5	168	22	3	Hexagon 8	100	2109064
S-CD 75GS 5.5x183	4 - 15	115 - 141	5.5	183	22	3	Hexagon 8	100	2109065
S-CD 75GS 5.5x198	4 - 15	130 - 156	5.5	198	22	3	Hexagon 8	100	2109066
S-CD 75GS 5.5x223	4 - 15	145 - 181	5.5	223	22	3	Hexagon 8	100	2109067
S-CD 75GS 5.5x248	4 - 15	170 - 206	5.5	248	22	3	Hexagon 8	100	2109068

3.5.4 HEX head carbon steel self-drilling screws for thick steel substructure



S-CD 55C/S-CD 65C (Ø 16/Ø 19)

The self-drilling sandwich panel screws for thick base materials



3

Ordering description	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM-thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
Duplex-coated carbon steel sandwich panel screw S-CD 55C									
S-CD 55C 5.5x108	3.5 - 15	58 - 68	5.5	108	16	3	Hexagon 8	100	2025476
S-CD 55C 5.5x128	3.5 - 15	68 - 88	5.5	128	16	3	Hexagon 8	100	2025477
S-CD 55C 5.5x148	3.5 - 15	78 - 108	5.5	148	16	3	Hexagon 8	100	2025478
S-CD 55C 5.5x168	3.5 - 15	98 - 128	5.5	168	16	3	Hexagon 8	100	2025479
S-CD 55C 5.5x198	3.5 - 15	128 - 158	5.5	198	16	3	Hexagon 8	100	2025950
S-CD 55C 5.5x228	3.5 - 15	138 - 188	5.5	228	16	3	Hexagon 8	100	2025951
S-CD 55C 5.5x268	3.5 - 15	178 - 228	5.5	268	16	3	Hexagon 8	100	2025952
S-CD 55C 5.5x298	3.5 - 15	208 - 258	5.5	298	16	3	Hexagon 8	100	2025953
Duplex-coated carbon steel sandwich panel screw S-CD 65C									
S-CD 65C 5.5x108	3.5 - 15	58 - 68	5.5	108	19	3	Hexagon 8	100	414185
S-CD 65C 5.5x128	3.5 - 15	68 - 88	5.5	128	19	3	Hexagon 8	100	414186
S-CD 65C 5.5x148	3.5 - 15	78 - 108	5.5	148	19	3	Hexagon 8	100	414187
S-CD 65C 5.5x168	3.5 - 15	98 - 128	5.5	168	19	3	Hexagon 8	100	290389
S-CD 65C 5.5x198	3.5 - 15	128 - 158	5.5	198	19	3	Hexagon 8	100	290390
S-CD 65C 5.5x228	3.5 - 15	138 - 188	5.5	228	19	3	Hexagon 8	100	290391
S-CD 65C 5.5x268	3.5 - 15	178 - 228	5.5	268	19	3	Hexagon 8	100	290392
S-CD 65C 5.5x298	3.5 - 15	208 - 258	5.5	298	19	3	Hexagon 8	100	414289

Reference:
• More information see approval ETA-13/0179

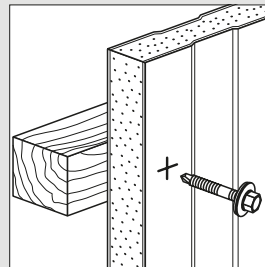
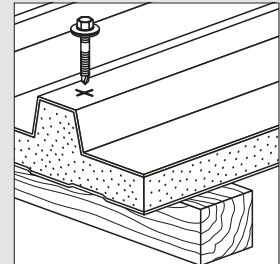
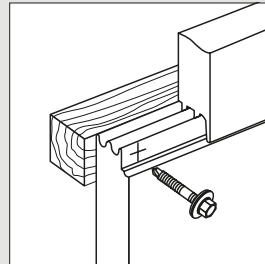
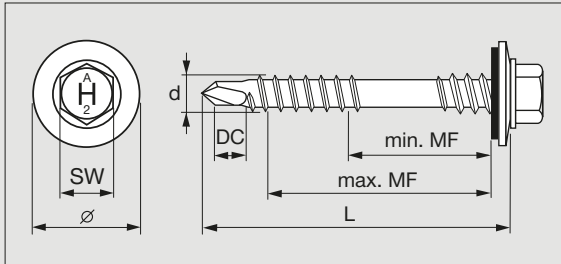
3.5.5 HEX head stainless steel self-drilling screws for wood base materials



S-CDW 51S / S-CDW 61S / S-CDW 71S (Ø 16 / Ø 19 / Ø 22)

The self-drilling sandwich panel screw for fastening on wood base materials

3



Ordering description	Minimum thickness of base material [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM-thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
Stainless steel (A2) sandwich panel screw S-CDW 51S									
S-CDW 51S 6.5x100	0.50 (Wood)	27 – 47	6.5	100	16	3	Hexagon 8	100	272531
S-CDW 51S 6.5x110	0.50 (Wood)	37 – 57	6.5	110	16	3	Hexagon 8	100	272532
S-CDW 51S 6.5x120	0.50 (Wood)	47 – 67	6.5	120	16	3	Hexagon 8	100	272533
S-CDW 51S 6.5x140	0.50 (Wood)	67 – 87	6.5	140	16	3	Hexagon 8	100	272534
S-CDW 51S 6.5x160	0.50 (Wood)	87 – 107	6.5	160	16	3	Hexagon 8	100	272535
S-CDW 51S 6.5x180	0.50 (Wood)	107 – 127	6.5	180	16	3	Hexagon 8	100	272536
S-CDW 51S 6.5x200	0.50 (Wood)	127 – 147	6.5	200	16	3	Hexagon 8	100	272537
S-CDW 51S 6.5x220	0.50 (Wood)	147 – 167	6.5	220	16	3	Hexagon 8	100	272538
S-CDW 51S 6.5x230	0.50 (Wood)	157 – 177	6.5	230	16	3	Hexagon 8	100	272539

Reference:

- More Information see approval ETA-13/0179

HEX head stainless steel self-drilling screws for wood base materials



S-CDW 51S / S-CDW 61S / S-CDW 71S (Ø 16 / Ø 19 / Ø 22)

The self-drilling sandwich panel screw for fastening on wood base materials

Ordering description	Minimum thickness of base material [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM-thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
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Stainless steel (A2) sandwich panel screw S-CDW 61S

S-CDW 61S 6.5x100	0.50 (Wood)	27 – 47	6.5	100	19	3	Hexagon 8	100	375256
S-CDW 61S 6.5x110	0.50 (Wood)	37 – 57	6.5	110	19	3	Hexagon 8	100	375257
S-CDW 61S 6.5x120	0.50 (Wood)	47 – 67	6.5	120	19	3	Hexagon 8	100	375258
S-CDW 61S 6.5x140	0.50 (Wood)	67 – 87	6.5	140	19	3	Hexagon 8	100	375259
S-CDW 61S 6.5x160	0.50 (Wood)	87 – 107	6.5	160	19	3	Hexagon 8	100	375260
S-CDW 61S 6.5x180	0.50 (Wood)	107 – 127	6.5	180	19	3	Hexagon 8	100	375261
S-CDW 61S 6.5x200	0.50 (Wood)	127 – 147	6.5	200	19	3	Hexagon 8	100	284540
S-CDW 61S 6.5x220	0.50 (Wood)	147 – 167	6.5	220	19	3	Hexagon 8	100	284541
S-CDW 61S 6.5x230	0.50 (Wood)	157 – 177	6.5	230	19	3	Hexagon 8	100	284597

Stainless steel (A2) sandwich panel screw S-CDW 71S

S-CDW 71S 6.5x100	0.50 (Wood)	27 – 47	6.5	100	22	3	Hexagon 8	100	285658
S-CDW 71S 6.5x110	0.50 (Wood)	37 – 57	6.5	110	22	3	Hexagon 8	100	285659
S-CDW 71S 6.5x120	0.50 (Wood)	47 – 67	6.5	120	22	3	Hexagon 8	100	285660
S-CDW 71S 6.5x140	0.50 (Wood)	67 – 87	6.5	140	22	3	Hexagon 8	100	285661
S-CDW 71S 6.5x160	0.50 (Wood)	87 – 107	6.5	160	22	3	Hexagon 8	100	285662
S-CDW 71S 6.5x180	0.50 (Wood)	107 – 127	6.5	180	22	3	Hexagon 8	100	285663
S-CDW 71S 6.5x200	0.50 (Wood)	127 – 147	6.5	200	22	3	Hexagon 8	100	285664
S-CDW 71S 6.5x220	0.50 (Wood)	147 – 167	6.5	220	22	3	Hexagon 8	100	285665
S-CDW 71S 6.5x230	0.50 (Wood)	157 – 177	6.5	230	22	3	Hexagon 8	100	285666

Reference:

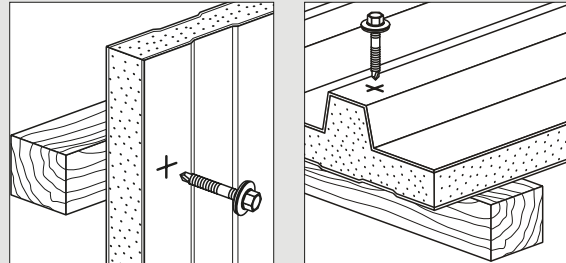
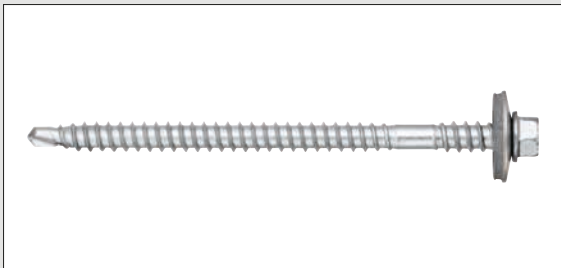
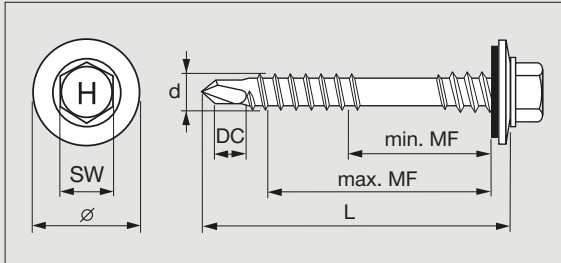
- More Information see approval ETA-13/0179

3.5.6 HEX head carbon steel self-drilling screws for wood base materials

S-CDW 61C

The sandwich panel screw for fastening on wood base materials

3



Ordering description	Minimum thickness of base material [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM-thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
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Duplex coated sandwich panel screw S-CDW 61C

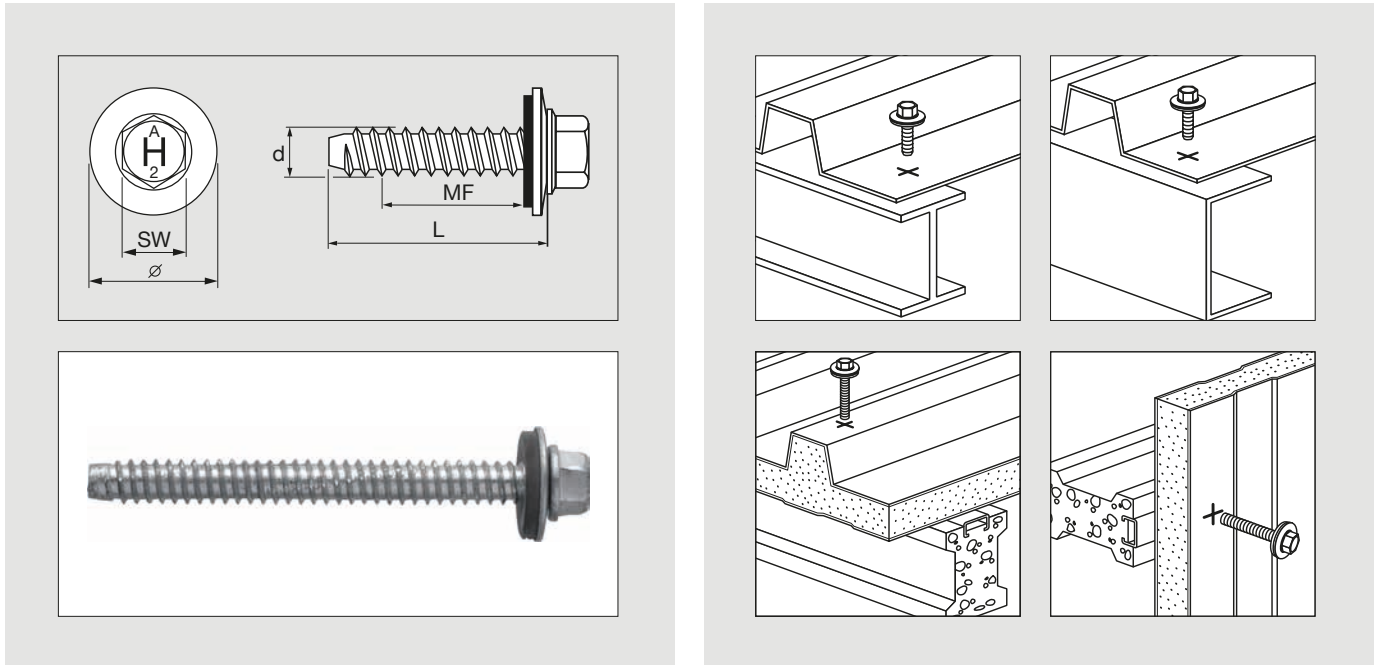
S-CDW 61C 6.5x100	0.4 - 2	27 - 47	6.5	100	19	3	Hexagon 8	100	206981
S-CDW 61C 6.5x120	0.4 - 2	47 - 67	6.5	120	19	3	Hexagon 8	100	206983
S-CDW 61C 6.5x140	0.4 - 2	67 - 87	6.5	140	19	3	Hexagon 8	100	206984
S-CDW 61C 6.5x160	0.4 - 2	87 - 107	6.5	160	19	3	Hexagon 8	100	206985
S-CDW 61C 6.5x180	0.4 - 2	107 - 127	6.5	180	19	3	Hexagon 8	100	206986
S-CDW 61C 6.5x200	0.4 - 2	127 - 147	6.5	200	19	3	Hexagon 8	100	206987
S-CDW 61C 6.5x220	0.4 - 2	147 - 167	6.5	220	19	3	Hexagon 8	100	206988
S-CDW 61C 6.5x230	0.4 - 2	157 - 177	6.5	230	19	3	Hexagon 8	100	206989

3.6 Structural self-tapping screws

3.6.1 Stainless steel self-tapping screws for thick base materials

S-MP 52S / S-MP 62S / S-MP 72S

The universal monobloc self-tapping screw for thick base materials



Ordering description	Minimum thickness of base material [mm]	Thickness fastened range (MF) steel [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM-thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
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Stainless steel (A2) self-tapping screw S-MP 52S

S-MP 52S 6.3x50	1.25 (Steel)	26 – 37	6.3	50	16	3	Hexagon 8	200	2125104
S-MP 52S 6.3x64	1.25 (Steel)	40 – 51	6.3	64	16	3	Hexagon 8	100	2125105
S-MP 52S 6.3x75	1.25 (Steel)	51 – 62	6.3	75	16	3	Hexagon 8	100	2125106
S-MP 52S 6.3x82	1.25 (Steel)	58 – 69	6.3	82	16	3	Hexagon 8	100	2125107
S-MP 52S 6.3x92	1.25 (Steel)	68 – 79	6.3	92	16	3	Hexagon 8	100	2125108
S-MP 52S 6.3x102	1.25 (Steel)	78 – 89	6.3	102	16	3	Hexagon 8	100	2125109
S-MP 52S 6.3x115	1.25 (Steel)	91 – 102	6.3	115	16	3	Hexagon 8	100	2125150
S-MP 52S 6.3x125	1.25 (Steel)	101 – 112	6.3	125	16	3	Hexagon 8	100	2125151
S-MP 52S 6.3x135	1.25 (Steel)	111 – 122	6.3	135	16	3	Hexagon 8	100	2125152
S-MP 52S 6.3x142	1.25 (Steel)	118 – 129	6.3	142	16	3	Hexagon 8	100	2125153
S-MP 52S 6.3x152	1.25 (Steel)	128 – 139	6.3	152	16	3	Hexagon 8	100	2125154
S-MP 52S 6.3x162	1.25 (Steel)	138 – 149	6.3	162	16	3	Hexagon 8	100	2125155
S-MP 52S 6.3x167	1.25 (Steel)	143 – 154	6.3	167	16	3	Hexagon 8	100	2126596
S-MP 52S 6.3x175	1.25 (Steel)	151 – 162	6.3	175	16	3	Hexagon 8	100	2125156
S-MP 52S 6.3x190	1.25 (Steel)	166 – 177	6.3	190	16	3	Hexagon 8	100	2125157
S-MP 52S 6.3x200	1.25 (Steel)	176 – 187	6.3	200	16	3	Hexagon 8	100	2125158

Stainless steel self-tapping screws for thick base materials

S-MP 52S / S-MP 62S / S-MP 72S

The universal monobloc self-tapping screw for thick base materials

Ordering description	Minimum thickness of base material [mm]	Thickness fastened range (MF) steel [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM-thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
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Stainless steel (A2) self-tapping screw S-MP 62S

S-MP 62S 6.3x50	1.25 (Steel)	26 - 37	6.3	50	19	3	Hexagon 8	200	2125159
S-MP 62S 6.3x64	1.25 (Steel)	40 - 51	6.3	64	19	3	Hexagon 8	100	2125160
S-MP 62S 6.3x75	1.25 (Steel)	51 - 62	6.3	75	19	3	Hexagon 8	100	2125161
S-MP 62S 6.3x82	1.25 (Steel)	58 - 69	6.3	82	19	3	Hexagon 8	100	2125162
S-MP 62S 6.3x92	1.25 (Steel)	68 - 79	6.3	92	19	3	Hexagon 8	100	2125163
S-MP 62S 6.3x102	1.25 (Steel)	78 - 89	6.3	102	19	3	Hexagon 8	100	2125164
S-MP 62S 6.3x115	1.25 (Steel)	91 - 102	6.3	115	19	3	Hexagon 8	100	2125165
S-MP 62S 6.3x125	1.25 (Steel)	101 - 112	6.3	125	19	3	Hexagon 8	100	2125166
S-MP 62S 6.3x135	1.25 (Steel)	111 - 122	6.3	135	19	3	Hexagon 8	100	2125167
S-MP 62S 6.3x142	1.25 (Steel)	118 - 129	6.3	142	19	3	Hexagon 8	100	2125168
S-MP 62S 6.3x152	1.25 (Steel)	128 - 139	6.3	152	19	3	Hexagon 8	100	2125169
S-MP 62S 6.3x162	1.25 (Steel)	138 - 149	6.3	162	19	3	Hexagon 8	100	2125170
S-MP 62S 6.3x167	1.25 (Steel)	143 - 154	6.3	167	19	3	Hexagon 8	100	2126597
S-MP 62S 6.3x175	1.25 (Steel)	151 - 162	6.3	175	19	3	Hexagon 8	100	2125171
S-MP 62S 6.3x190	1.25 (Steel)	166 - 177	6.3	190	19	3	Hexagon 8	100	2125172
S-MP 62S 6.3x200	1.25 (Steel)	176 - 187	6.3	200	19	3	Hexagon 8	100	2125173

Stainless steel (A2) self-tapping screw S-MP 72S

S-MP 72S 6.3x50	1.25 (Steel)	26 - 37	6.3	50	22	3	Hexagon 8	200	2125174
S-MP 72S 6.3x64	1.25 (Steel)	40 - 51	6.3	64	22	3	Hexagon 8	100	2125175
S-MP 72S 6.3x75	1.25 (Steel)	51 - 62	6.3	75	22	3	Hexagon 8	100	2125176
S-MP 72S 6.3x82	1.25 (Steel)	58 - 69	6.3	82	22	3	Hexagon 8	100	2125177
S-MP 72S 6.3x92	1.25 (Steel)	68 - 79	6.3	92	22	3	Hexagon 8	100	2125178
S-MP 72S 6.3x102	1.25 (Steel)	78 - 89	6.3	102	22	3	Hexagon 8	100	2125179
S-MP 72S 6.3x115	1.25 (Steel)	91 - 102	6.3	115	22	3	Hexagon 8	100	2125180
S-MP 72S 6.3x125	1.25 (Steel)	101 - 112	6.3	125	22	3	Hexagon 8	100	2125181
S-MP 72S 6.3x135	1.25 (Steel)	111 - 122	6.3	135	22	3	Hexagon 8	100	2125182
S-MP 72S 6.3x142	1.25 (Steel)	118 - 129	6.3	142	22	3	Hexagon 8	100	2125183
S-MP 72S 6.3x152	1.25 (Steel)	128 - 139	6.3	152	22	3	Hexagon 8	100	2125184
S-MP 72S 6.3x162	1.25 (Steel)	138 - 149	6.3	162	22	3	Hexagon 8	100	2125185
S-MP 72S 6.3x167	1.25 (Steel)	143 - 154	6.3	167	22	3	Hexagon 8	100	2126598
S-MP 72S 6.3x175	1.25 (Steel)	151 - 162	6.3	175	22	3	Hexagon 8	100	2125186
S-MP 72S 6.3x190	1.25 (Steel)	166 - 177	6.3	190	22	3	Hexagon 8	100	2125187
S-MP 72S 6.3x200	1.25 (Steel)	176 - 187	6.3	200	22	3	Hexagon 8	100	2125188

Recommended pre-drill diameter for t_b

t_b /mm (Steel)	Pre-drill-Ø [mm]
1.25 - 1.5	5.0
1.6 - 4.0	5.3
4.1 - 6.9	5.5
≥ 7.0	5.7

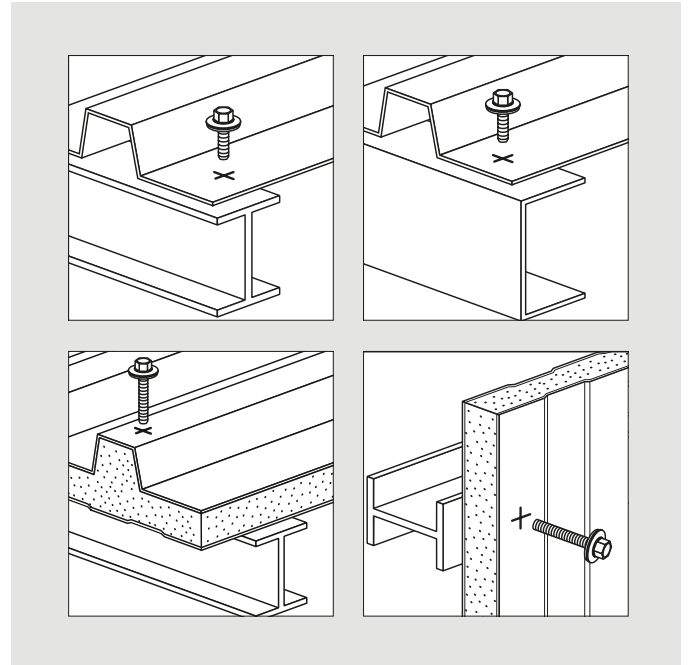
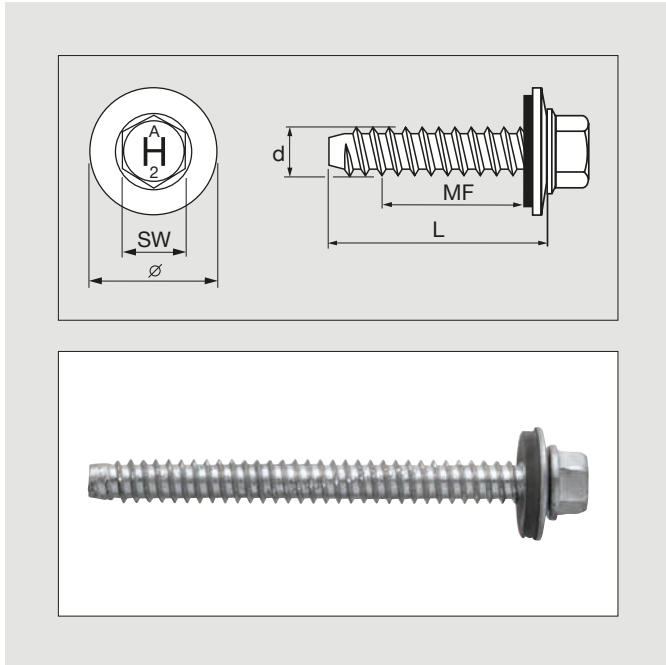
Reference:

- More information see approval ETA-13/0179 and ETA-18/0880

3.6.2 Stainless steel self-tapping screws for thick base materials

S-MP 54S / S-MP 64S / S-MP 74S

The universal bi-metal self-tapping screw for thick base materials



3

Ordering description	Minimum thickness of base material [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM-thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
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Stainless steel (A2) self-tapping screw S-MP 54S

S-MP 54S 6.3x22	1.25 (Steel)	1.9 - 9	6.3	22	16	3	Hexagon 8	500	244214
S-MP 54S 6.3x25	1.25 (Steel)	1.9 - 12	6.3	25	16	3	Hexagon 8	500	283199
S-MP 54S 6.3x32	1.25 (Steel)	1.9 - 19	6.3	32	16	3	Hexagon 8	250	283200
S-MP 54S 6.3x38	1.25 (Steel)	1.9 - 25	6.3	38	16	3	Hexagon 8	250	283201
S-MP 54S 6.3x50	1.25 (Steel)	1.9 - 37	6.3	50	16	3	Hexagon 8	250	283202
S-MP 54S 6.3x63	1.25 (Steel)	1.9 - 50	6.3	63	16	3	Hexagon 8	100	283203
S-MP 54S 6.3x75	1.25 (Steel)	1.9 - 62	6.3	75	16	3	Hexagon 8	100	283204
S-MP 54S 6.3x88	1.25 (Steel)	1.9 - 75	6.3	88	16	3	Hexagon 8	100	283205
S-MP 54S 6.3x100	1.25 (Steel)	1.9 - 87	6.3	100	16	3	Hexagon 8	100	283206
S-MP 54S 6.3x125	1.25 (Steel)	1.9 - 112	6.3	125	16	3	Hexagon 8	100	283341
S-MP 54S 6.3x150	1.25 (Steel)	1.9 - 138	6.3	150	16	3	Hexagon 8	100	283536
S-MP 54S 6.3x175	1.25 (Steel)	1.9 - 162	6.3	175	16	3	Hexagon 8	100	283537
S-MP 54S 6.3x200	1.25 (Steel)	1.9 - 187	6.3	200	16	3	Hexagon 8	100	403179
S-MP 54S 6.3x225	1.25 (Steel)	1.9 - 212	6.3	225	16	3	Hexagon 8	100	403180
S-MP 54S 6.3x250	1.25 (Steel)	1.9 - 237	6.3	250	16	3	Hexagon 8	100	403181
S-MP 54S 6.3x275	1.25 (Steel)	1.9 - 262	6.3	275	16	3	Hexagon 8	100	403182

Reference:

- More information see approval ETA-13/0179 and ETA-18/0880

Stainless steel self-tapping screws for thick base materials

S-MP 54S / S-MP 64S / S-MP 74S



The universal bi-metal self-tapping screw for thick base materials

Ordering description	Minimum thickness of base material [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM-thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
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Stainless steel (A2) self-tapping screw S-MP 64S

S-MP 64S 6.3x22	1.25 (Steel)	1.9 – 9	6.3	22	19	3	Hexagon 8	500	283538
S-MP 64S 6.3x25	1.25 (Steel)	1.9 – 12	6.3	25	19	3	Hexagon 8	500	283540
S-MP 64S 6.3x32	1.25 (Steel)	1.9 – 19	6.3	32	19	3	Hexagon 8	250	283541
S-MP 64S 6.3x38	1.25 (Steel)	1.9 – 25	6.3	38	19	3	Hexagon 8	250	283542
S-MP 64S 6.3x50	1.25 (Steel)	1.9 – 37	6.3	50	19	3	Hexagon 8	250	283544
S-MP 64S 6.3x63	1.25 (Steel)	1.9 – 50	6.3	63	19	3	Hexagon 8	100	283545
S-MP 64S 6.3x75	1.25 (Steel)	1.9 – 62	6.3	75	19	3	Hexagon 8	100	283546
S-MP 64S 6.3x88	1.25 (Steel)	1.9 – 75	6.3	88	19	3	Hexagon 8	100	283547
S-MP 64S 6.3x100	1.25 (Steel)	1.9 – 87	6.3	100	19	3	Hexagon 8	100	283552
S-MP 64S 6.3x125	1.25 (Steel)	1.9 – 112	6.3	125	19	3	Hexagon 8	100	283553
S-MP 64S 6.3x150	1.25 (Steel)	1.9 – 138	6.3	150	19	3	Hexagon 8	100	283554
S-MP 64S 6.3x175	1.25 (Steel)	1.9 – 162	6.3	175	19	3	Hexagon 8	100	283555
S-MP 64S 6.3x200	1.25 (Steel)	1.9 – 187	6.3	200	19	3	Hexagon 8	100	403183
S-MP 64S 6.3x225	1.25 (Steel)	1.9 – 212	6.3	225	19	3	Hexagon 8	100	403184
S-MP 64S 6.3x250	1.25 (Steel)	1.9 – 237	6.3	250	19	3	Hexagon 8	100	403185
S-MP 64S 6.3x275	1.25 (Steel)	1.9 – 262	6.3	275	19	3	Hexagon 8	100	403186

Stainless steel (A2) self-tapping screw S-MP 74S

S-MP 74S 6.3x22	1.25 (Steel)	1.9 – 9	6.3	22	22	3	Hexagon 8	500	283556
S-MP 74S 6.3x25	1.25 (Steel)	1.9 – 12	6.3	25	22	3	Hexagon 8	500	283557
S-MP 74S 6.3x32	1.25 (Steel)	1.9 – 19	6.3	32	22	3	Hexagon 8	250	283558
S-MP 74S 6.3x38	1.25 (Steel)	1.9 – 25	6.3	38	22	3	Hexagon 8	250	283559
S-MP 74S 6.3x50	1.25 (Steel)	1.9 – 37	6.3	50	22	3	Hexagon 8	250	283560
S-MP 74S 6.3x63	1.25 (Steel)	1.9 – 50	6.3	63	22	3	Hexagon 8	100	283561
S-MP 74S 6.3x75	1.25 (Steel)	1.9 – 62	6.3	75	22	3	Hexagon 8	100	283562
S-MP 74S 6.3x88	1.25 (Steel)	1.9 – 75	6.3	88	22	3	Hexagon 8	100	283563
S-MP 74S 6.3x100	1.25 (Steel)	1.9 – 87	6.3	100	22	3	Hexagon 8	100	283564
S-MP 74S 6.3x125	1.25 (Steel)	1.9 – 112	6.3	125	22	3	Hexagon 8	100	283565
S-MP 74S 6.3x150	1.25 (Steel)	1.9 – 138	6.3	150	22	3	Hexagon 8	100	283623
S-MP 74S 6.3x175	1.25 (Steel)	1.9 – 162	6.3	175	22	3	Hexagon 8	100	283624
S-MP 74S 6.3x200	1.25 (Steel)	1.9 – 187	6.3	200	22	3	Hexagon 8	100	403187
S-MP 74S 6.3x225	1.25 (Steel)	1.9 – 212	6.3	225	22	3	Hexagon 8	100	403188
S-MP 74S 6.3x250	1.25 (Steel)	1.9 – 237	6.3	250	22	3	Hexagon 8	100	403189
S-MP 74S 6.3x275	1.25 (Steel)	1.9 – 262	6.3	275	22	3	Hexagon 8	100	403190

Recommended pre-drill diameter for t_b

t_b /mm (Steel)	Pre-drill-Ø [mm]
≤ 1.5	5.0
1.5 – 4.0	5.3
4.1 – 7.0	5.5
≥ 7.0	5.7

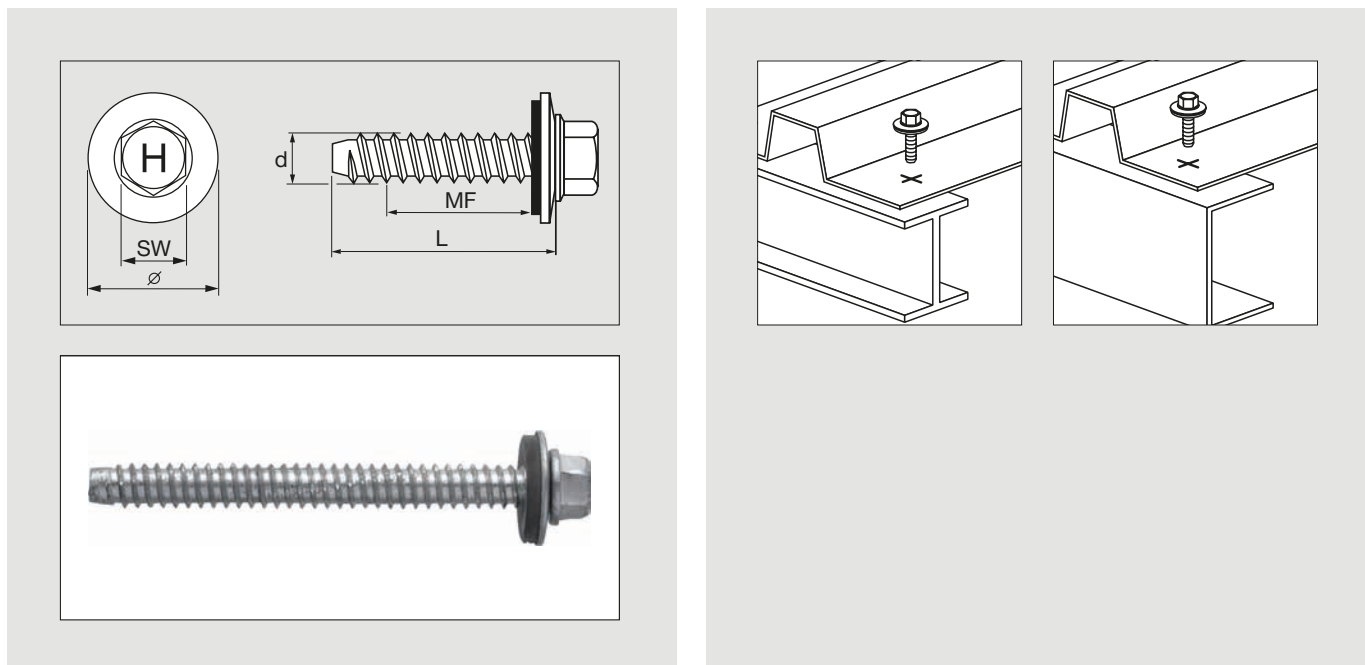
Reference:

- More information see approval ETA-13/0179 and ETA-18/0880

3.6.3 Zinc-plated carbon steel self-tapping screws for thick base materials

S-MP 52Z

The universal self-tapping screw for thick base materials



3

Ordering description	Minimum thickness of base material [mm]	Thickness fastened (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM-thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
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Zinc-plated carbon steel self-tapping screws for thick base materials

S-MP 52Z 6.3x19	1.25 (Steel)	1.9 – 10	6.3	19	16	3	Hexagon 3/8	500	375279
S-MP 52Z 6.3x25	1.25 (Steel)	1.9 – 16	6.3	25	16	3	Hexagon 3/8	500	375280
S-MP 52Z 6.3x32	1.25 (Steel)	1.9 – 23	6.3	32	16	3	Hexagon 3/8	250	375281
S-MP 52Z 6.3x38	1.25 (Steel)	1.9 – 29	6.3	38	16	3	Hexagon 3/8	250	375282
S-MP 52Z 6.3x50	1.25 (Steel)	1.9 – 41	6.3	50	16	3	Hexagon 3/8	250	375283
S-MP 52Z 6.3x63	1.25 (Steel)	1.9 – 54	6.3	63	16	3	Hexagon 3/8	100	375284
S-MP 52Z 6.3x75	1.25 (Steel)	1.9 – 66	6.3	75	16	3	Hexagon 3/8	100	375285
S-MP 52Z 6.3x88	1.25 (Steel)	1.9 – 79	6.3	88	16	3	Hexagon 3/8	100	375286
S-MP 52Z 6.3x100	1.25 (Steel)	1.9 – 91	6.3	100	16	3	Hexagon 3/8	100	375278

Reference: max steel thickness 12 mm

Recommended pre-drill diameter for t_b

t_b /mm (Steel)	Pre-drill- \emptyset [mm]
1.25 – 1.5	5.0
1.6 – 4.0	5.3
4.1 – 6.9	5.5
≥ 7.0	5.7

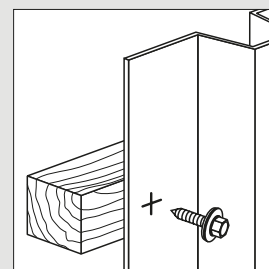
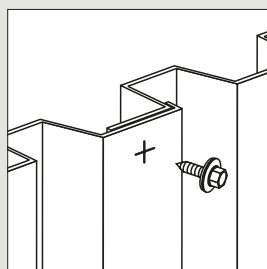
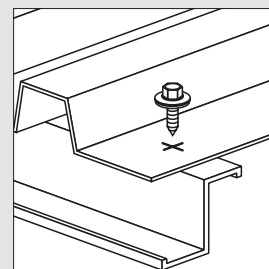
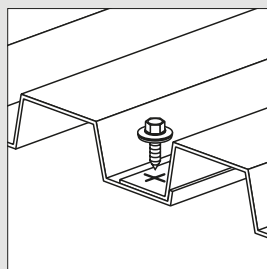
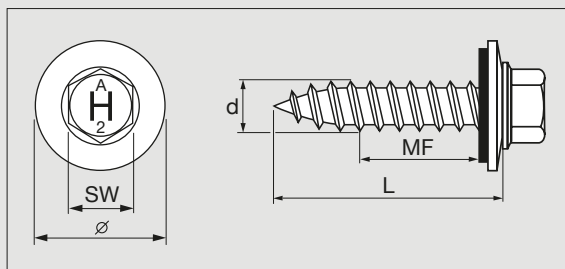
3.6.4 Stainless steel self-tapping screws for thin materials and wood

S-MP 53S / S-MP 63S / S-MP 73S



The universal self-tapping screw for thin materials and wood

3



Ordering description	Minimum thickness of base material [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM-thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
Stainless steel (A2) self-tapping screw S-MP 53S									
S-MP 53S 6.5x19	0.63 (Steel) 0.5 (Aluminum)	1.2 – 8	6.5	19	16	3	Hexagon 8	500	80448
S-MP 53S 6.5x25	0.63 (Steel) 0.5 (Aluminum)	1.2 – 14	6.5	25	16	3	Hexagon 8	500	80362
S-MP 53S 6.5x32	0.63 (Steel) 0.5 (Aluminum)	1.2 – 21	6.5	32	16	3	Hexagon 8	250	80450
S-MP 53S 6.5x38	26 (Wood)	1.2 – 27	6.5	38	16	3	Hexagon 8	250	80451
S-MP 53S 6.5x50	26 (Wood)	1.2 – 39	6.5	50	16	3	Hexagon 8	250	80337
S-MP 53S 6.5x63	26 (Wood)	1.2 – 52	6.5	63	16	3	Hexagon 8	100	85332
S-MP 53S 6.5x75	26 (Wood)	1.2 – 64	6.5	75	16	3	Hexagon 8	100	224558
S-MP 53S 6.5x88	26 (Wood)	1.2 – 77	6.5	88	16	3	Hexagon 8	100	85334
S-MP 53S 6.5x100	26 (Wood)	1.2 – 89	6.5	100	16	3	Hexagon 8	100	85335
S-MP 53S 6.5x125	26 (Wood)	1.2 – 114	6.5	125	16	3	Hexagon 8	100	219093
S-MP 53S 6.5x150	26 (Wood)	1.2 – 139	6.5	150	16	3	Hexagon 8	100	219094
S-MP 53S 6.5x175	26 (Wood)	1.2 – 164	6.5	175	16	3	Hexagon 8	100	224559

Reference:

• More information see approval ETA-18/0880

Stainless steel self-tapping screws for thin materials and wood



S-MP 53S / S-MP 63S / S-MP 73S

The universal self-tapping screw for thin materials and wood

Ordering description	Minimum thickness of base material [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM-thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
Stainless steel (A2) self-tapping screw S-MP 63S									
S-MP 63S 6.5x19	0.63 (Steel) 0.5 (Aluminum)	1.2 – 8	6.5	19	19	3	Hexagon 8	500	285217
S-MP 63S 6.5x25	0.63 (Steel) 0.5 (Aluminum)	1.2 – 14	6.5	25	19	3	Hexagon 8	500	285218
S-MP 63S 6.5x32	0.63 (Steel) 0.5 (Aluminum)	1.2 – 21	6.5	32	19	3	Hexagon 8	250	285219
S-MP 63S 6.5x38	26 (Wood)	1.2 – 27	6.5	38	19	3	Hexagon 8	250	285220
S-MP 63S 6.5x50	26 (Wood)	1.2 – 39	6.5	50	19	3	Hexagon 8	250	285221
S-MP 63S 6.5x63	26 (Wood)	1.2 – 52	6.5	63	19	3	Hexagon 8	250	285222
S-MP 63S 6.5x75	26 (Wood)	1.2 – 64	6.5	75	19	3	Hexagon 8	100	285223
S-MP 63S 6.5x88	26 (Wood)	1.2 – 77	6.5	88	19	3	Hexagon 8	100	285224
S-MP 63S 6.5x100	26 (Wood)	1.2 – 89	6.5	100	19	3	Hexagon 8	100	285225
S-MP 63S 6.5x125	26 (Wood)	1.2 – 114	6.5	125	19	3	Hexagon 8	100	285226
S-MP 63S 6.5x150	26 (Wood)	1.2 – 139	6.5	150	19	3	Hexagon 8	100	285227
S-MP 63S 6.5x175	26 (Wood)	1.2 – 164	6.5	175	19	3	Hexagon 8	100	285228
Stainless steel (A2) self-tapping screw S-MP 73S									
S-MP 73S 6.5x19	0.63 (Steel) 0.5 (Aluminum)	1.2 – 8	6.5	19	22	3	Hexagon 8	500	285205
S-MP 73S 6.5x25	0.63 (Steel) 0.5 (Aluminum)	1.2 – 14	6.5	25	22	3	Hexagon 8	500	285206
S-MP 73S 6.5x32	0.63 (Steel) 0.5 (Aluminum)	1.2 – 21	6.5	32	22	3	Hexagon 8	250	285207
S-MP 73S 6.5x38	26 (Wood)	1.2 – 27	6.5	38	22	3	Hexagon 8	250	285208
S-MP 73S 6.5x50	26 (Wood)	1.2 – 39	6.5	50	22	3	Hexagon 8	250	285209
S-MP 73S 6.5x63	26 (Wood)	1.2 – 52	6.5	63	22	3	Hexagon 8	100	285210
S-MP 73S 6.5x75	26 (Wood)	1.2 – 64	6.5	75	22	3	Hexagon 8	100	285211
S-MP 73S 6.5x88	26 (Wood)	1.2 – 77	6.5	88	22	3	Hexagon 8	100	285212
S-MP 73S 6.5x100	26 (Wood)	1.2 – 89	6.5	100	22	3	Hexagon 8	100	285213
S-MP 73S 6.5x125	26 (Wood)	1.2 – 114	6.5	125	22	3	Hexagon 8	100	285214
S-MP 73S 6.5x150	26 (Wood)	1.2 – 139	6.5	150	22	3	Hexagon 8	100	285215
S-MP 73S 6.5x175	26 (Wood)	1.2 – 164	6.5	175	22	3	Hexagon 8	100	285216

Reference: max steel thickness 3 mm

Recommended pre-drill diameter for t_f

t_f /mm (Steel)	Pre-drill-Ø [mm]	Pre-drill-Ø Wood [mm]:
≤ 0.75	4.0	4.5
0.75 – 1.50	4.5	4.5
≥ 1.50	5.0	4.5

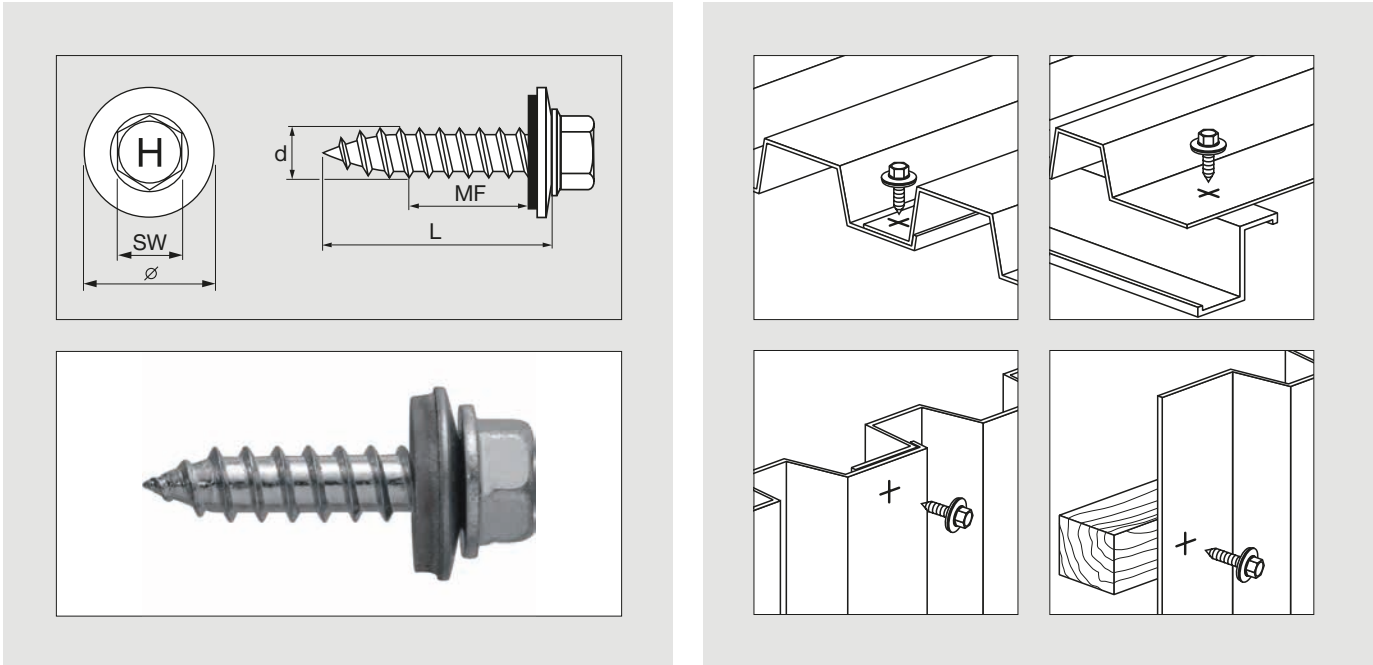
Reference:

- More information see approval ETA-18/0880

3.6.5 Zinc-plated carbon steel self-tapping screws for thin materials and wood

S-MP 53Z

The universal self-tapping screw for thin materials and wood



Ordering description	Minimum thickness of base material [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Washer size [mm]	EPDM-thickness [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
Zinc-plated carbon steel self-tapping screw S-MP 53Z									
S-MP 53Z 6.5x19		1.2 – 8	6.5	19	16	2	Hexagon 8	500	375288
S-MP 53Z 6.5x25		1.2 – 14	6.5	25	16	2	Hexagon 8	500	375289
S-MP 53Z 6.5x32		1.2 – 21	6.5	32	16	2	Hexagon 8	250	375290
S-MP 53Z 6.5x38	26 (Wood)	1.2 – 27	6.5	38	16	2	Hexagon 8	250	375291
S-MP 53Z 6.5x50	26 (Wood)	1.2 – 39	6.5	50	16	2	Hexagon 8	250	375292
S-MP 53Z 6.5x63	26 (Wood)	1.2 – 52	6.5	63	16	2	Hexagon 8	100	375293
S-MP 53Z 6.5x100	26 (Wood)	1.2 – 89	6.5	100	16	2	Hexagon 8	100	375287

Reference: max steel thickness 3 mm

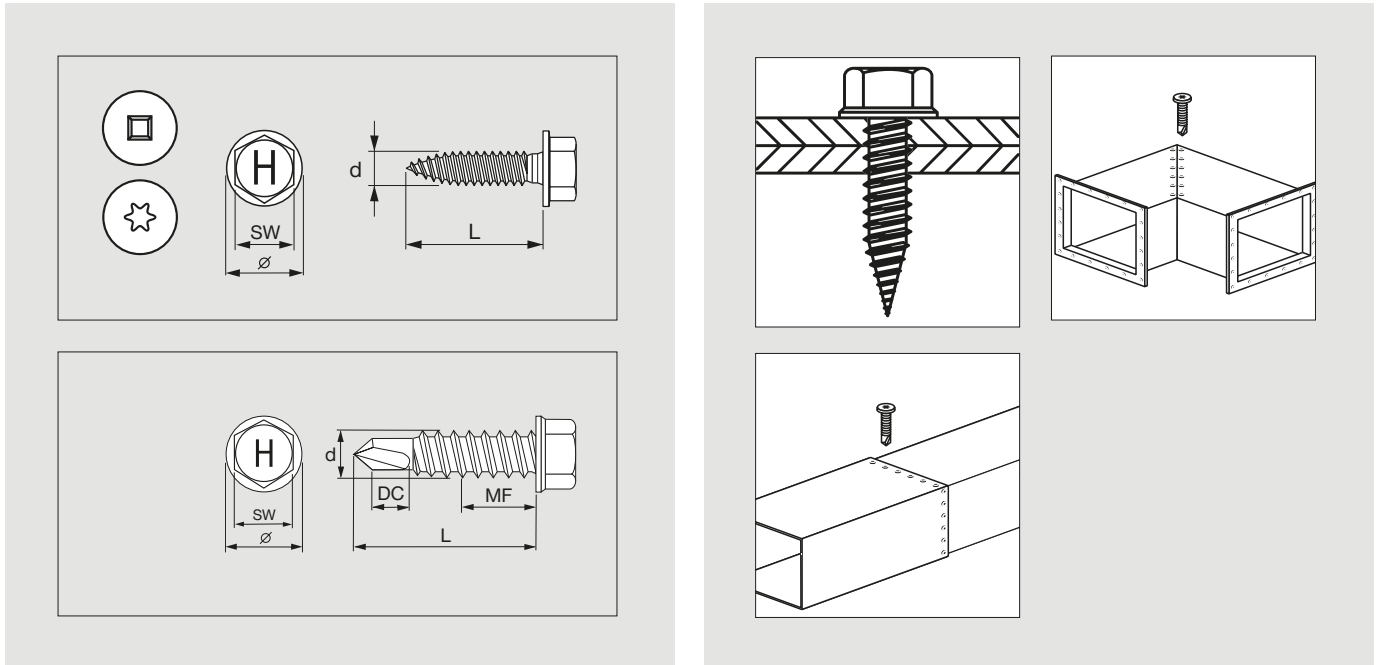
Recommended pre-drill diameter for t_1

t_1 /mm (Steel)	Pre-drill-Ø [mm]	Pre-drill-Ø wood [mm]
0.5 – 0.63	3.5	4.0
0.7 – 0.75	4.0	4.0
0.8 – 1.3	4.5	4.0
1.4 – 3.0	5.0	4.0

3.7 Non-structural Steel/Metal screws for HVAC applications

S-MD 01Z / S-MS 01Z

Self-drilling screws for HVAC sheet metal applications



3

Ordering description	Drilling capacity range (DC) [mm]	Thickness fastened range (MF) [mm]	Screw diameter (d) [mm]	Screw length (L) [mm]	Screw drive / recess type	Sales quantity [pc]	Item number
Zinc-plated carbon steel self-stitching screws							
S-MS 01Z 4.0x13 HEX	0.63 - 2	0.63 - 1	4	13	Hexagon 7	750	406471
S-MS 01Z 4.0x13 HEX	0.63 - 2	0.63 - 1	4	13	1/4"	1'000	434027
S-MS 01Z 4.0x13 HEX	0.63 - 2	0.63 - 1	4	13	Hexagon 7	2'500	416184
S-MS 01Z 4.0x13 TX	0.63 - 2	0.63 - 1	4	13	TX 20	1'000	406472
S-MS 01Z 4.0x13 SQ	0.63 - 2	0.63 - 1	4	13	SQ 2	1'000	406473
Zinc-plated carbon steel self-drilling HEX head screw							
S-MD 01Z 4.2x16	1.2 - 2.5	1.2 - 7.5	4.2	16	Hexagon 7	1'000	10405

Reference:

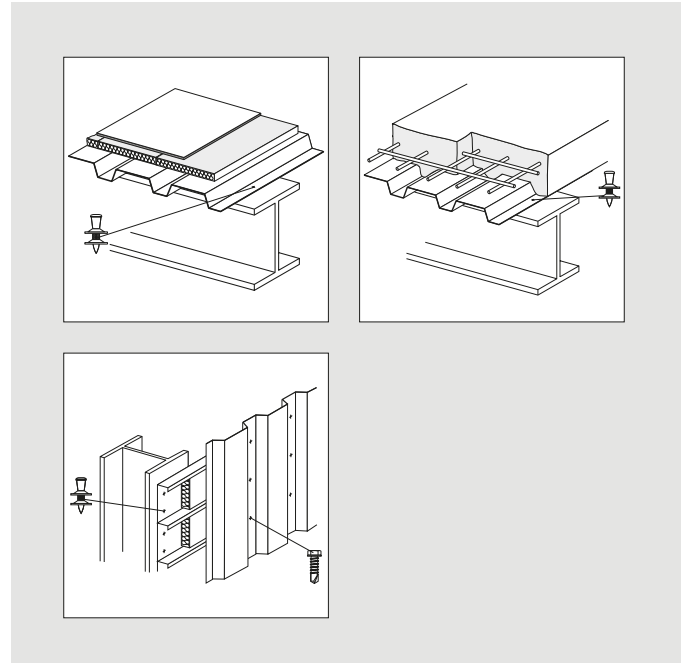
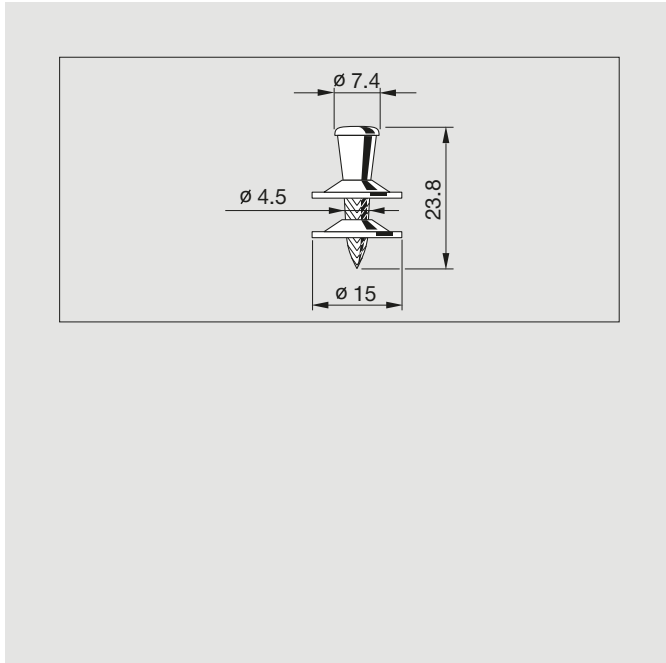
- S-MS 01Z 4.0x13 screws are not covered by any certificate of usability (e.g. ETA or abZ). They are intended to be used for non-structural application, such as HVAC.
- More information about the S-MD 01Z see approval ETA-10/0182

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4.1 Direct fastening accessories

4.1.1 Siding and decking nail X-ENP for fastening metal sheets to thick steel substructures

High performance nail for fastening metal sheets to thick steel substructures (≥ 6 mm to full steel)



4

X-ENP Nail for the DX 76 and DX 76 PTR

Ordering description	Minimum thickness of base material [mm]	Nail diameter (d) [mm]	Nail length (l) [mm]	Washer size [mm]	Washer type	Sales Quantity [pc]	Item Number
Sheet metal nail X-ENP-19 L15	6	4.5	24	15	15 (Steel dome double Washer)	100	283506

X-ENP Nail, collated for the DX 76 and DX 76 PTR

Ordering description	Minimum thickness of base material [mm]	Nail diameter (d) [mm]	Nail length (l) [mm]	Washer size [mm]	Washer type	Sales Quantity [pc]	Item Number
Sheet metal nail X-ENP-19 L15 MX	6	4.5	24	15	15 (Steel dome double Washer)	1'000	283507

X-ENP Nail, collated for the DX-860 and DX-9

Ordering description	Minimum thickness of base material [mm]	Nail diameter (d) [mm]	Nail length (l) [mm]	Washer size [mm]	Washer type	Sales Quantity [pc]	Item Number
Sheet metal nail X-ENP-19 L15 MXR	6	4.5	24	15	15 (Steel dome double Washer)	1'000	283508

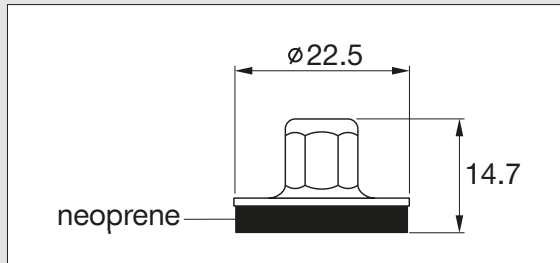
Reference:

- More informationen see approval ETA-04/0101

4.1.2 Sealing cap for X-ENP

SDK2 / PDK2

Perfect optics of fastening point, watertight sealing as well with elongated hole. Easy usage with setting tool and hammer. Fits for X-ENP-19 L15 (MX)



Ordering description	Material	Nail diameter (d) [mm]	Sales Quantity [pc]	Item Number
Sealing cap PDK2	Polyethylen	22.5	500	52709
Sealing cap SDK2	Stainless steel (DIN 1.4404 ASTM 316)	22.5	100	52708

Setting tool for sealing caps

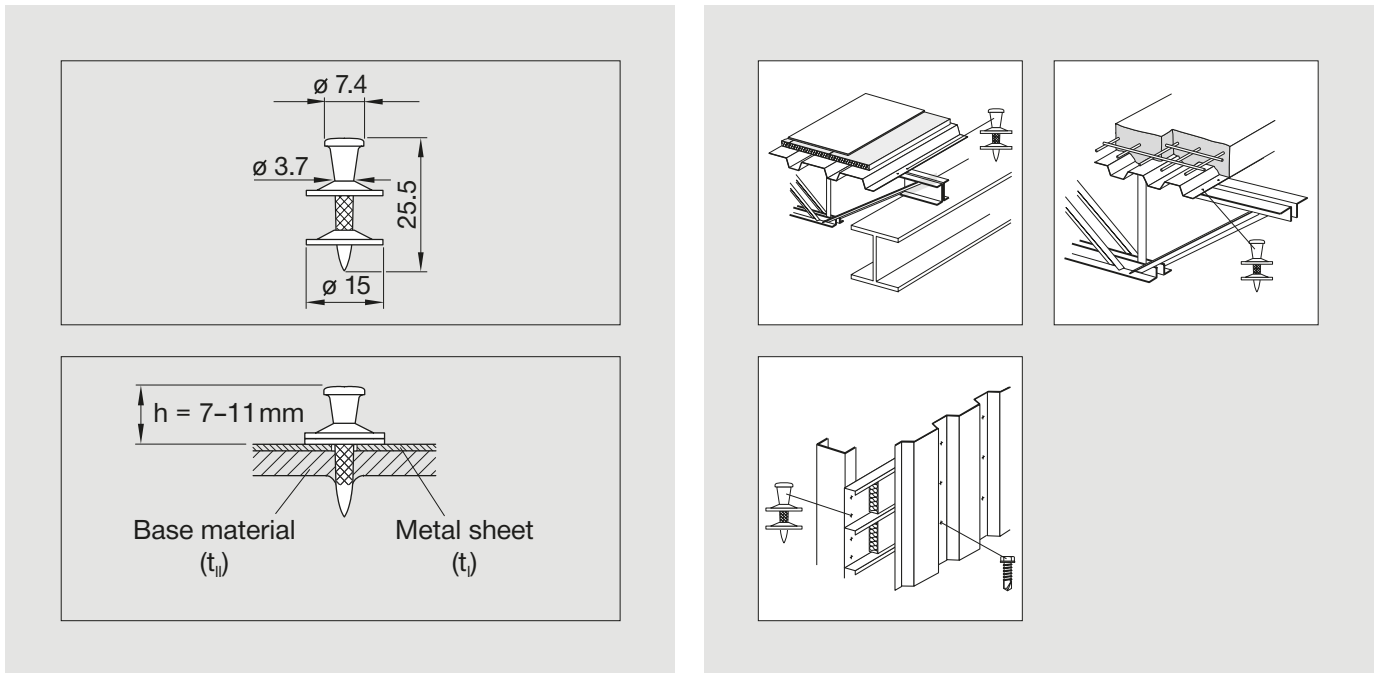
SDK2 / PDK2



Ordering description	Sales Quantity [pc]	Item Number
Setting tool PDK2	1	59301
Setting tool SDK2	1	59300

4.1.3 Sheet metal nail X-ENP2K for fastening sheet metal and thin purlins

Fastening sheet metal and thin purlins from 3 mm to 6 mm thickness



4

X-ENP2K Nail for the DX 76 PTR

Ordering description	Minimum thickness of base material [mm]	Nail diameter (d) [mm]	Nail length (l) [mm]	Washer size [mm]	Washer type	Sales quantity [pc]	Item number
Sheet metal nail X-ENP2K-20 L15	3	3.7	22.5	15	15 (Steel dome double Washer)	100	385133

X-ENP2K Nail, collated for the DX 76 PTR

Ordering description	Minimum thickness of base material [mm]	Nail diameter (d) [mm]	Nail length (l) [mm]	Washer size [mm]	Washer type	Sales quantity [pc]	Item number
Sheet metal nail X-ENP2K-20 L15 MX	3	3.7	25.5	15	15 (Steel dome double Washer)	1'000	385134

Reference:

• More informationen see approval ETA-13/0172

4.2 Powder-actuated fastening tools



Ordering description	Content	Sales Quantity [pc]	Item Number
Powder-actuated fastening tool DX 76 MX	1x Basic unit DX 76 1x Piston X-76-P-ENP 1x Nail magazine MX 76 assy 1x Cleaning kit DX 76/860 1x Tool case DX 76	1	286790
Powder-actuated fastening tool DX 76 PTR	1x Basic unit DX 76 PTR 1x Piston X-76-P-ENP 1x Nail magazine MX 76 assy 1x Cleaning kit DX 76/860, 1x Tool case DX 76	1	384004
Powder-actuated tool DX 9-ENP	1x Basic unit DX 9-ENP_01 EU 1x Nail magazine MX 9-ENP 01 1x Piston X-9-ENP 1x Cleaning kit DX 76/860 1x Tool case DX 9	1	282481




Special cartridges for the DX 76

Ordering description		Sales Quantity [pc]	Item Number
DX Special cartridge 6.8/18 M10 STD green light, only when X-ENP2K is used		100	416482
DX Special cartridge 6.8/18 M10 BULK green light, only when X-ENP2K is used		1'000	416487
DX Special cartridge 6.8/18 M10 STD yellow medium		100	416483
DX Special cartridge 6.8/18 M10 BULK yellow medium		1'000	416488
DX Special cartridge 6.8/18 M10 STD blue heavy		100	416485
DX Special cartridge 6.8/18 M10 BULK blue heavy		1'000	416490
DX Special cartridge 6.8/18 M10 STD red very heavy		100	416484
DX Special cartridge 6.8/18 M10 BULK red very heavy		1'000	416489
DX Special cartridge 6.8/18 M10 STD black very heavy		100	416486
DX Special cartridge 6.8/18 M10 BULK black very heavy		1'000	416491

Reference:

- For the order item number and further information please visit your local Hilti Internet website

Special cartridges for the DX 860 and DX 9

Ordering description	Sales Quantity [pc]	Item Number
DX Special cartridge 6.8/18 M40 blue heavy 	2'400	2128212
DX Special cartridge 6.8/18 M40 red very heavy 	2'400	2128211
DX Special cartridge 6.8/18 M40 black very heavy 	2'400	2128213

4.3 Steel/Metal accessories, nut setter, SDT 9, bits, HPF System, ST tools

ST 2000-22



4

Ordering description	Content	Sales Quantity [pc]
Cordless Metal construction screwdriver ST 2000-22 Hilti tool case	1x Cordless Metal construction screwdriver ST 2000-22 1x Nut setter S-NS 8 1x Depth Gauge 1x Hilti Tool case	1
Cordless Metal construction screwdriver ST 2000-22 box	1x Cordless Metal construction screwdriver ST 2000-22 1x Nut setter S-NS 8 1x Depth Gauge	1

Corded metal construction screwdriver

ST 1800 and ST 2500










Ordering description	Content	Sales Quantity [pc]
Metal construction screwdriver ST 1800 230V Hilti tool case	1x Metal construction screwdriver ST 1800 230 V 1x Cover cap 1x Hilti tool case	1
Metal construction screwdriver ST 1800 230V box	1x Metal construction screwdriver ST 1800 230 V 1x Cover cap	1
Metal construction screwdriver ST 1800 110V box	1x Metal construction screwdriver ST 1800 110 V 1x Cover cap	1
Metal construction screwdriver ST 2500 230V box Hilti tool case	1x Metal construction screwdriver ST 2500 230V 1x Cover cap 1x Hilti tool case	1
Metal construction screwdriver ST 2500 230V box	1x Metal construction screwdriver ST 2500 230V 1x Cover cap	1
Metal construction screwdriver ST 2500 110V box	1x Metal construction screwdriver ST 2500 110V 1x Cover cap	1

Reference:

- For the order item number and further information please visit your local Hilti Internet website

Accessories

Ordering description	Content		Sales Quantity [pc]	Item Number
Screw guide ST-SG 5.5 for use with long sandwich panel screw with diameter 5.5mm, min length 55 mm	1x Screw guide ST-SG 5.5, 1x Nut setter S-NS 8		1	407521
Screw guide ST-SG 5.5 for use with long sandwich panel screw with diameter 5.5 mm, min length 55 mm	1x Screw guide ST-SG 5.5 3x Nut setter S-NS 8		1	414440
Screw guide ST-SG 6.5 for use with long sandwich panel screw with diameter 6.5 mm, min length 55 mm	1x Screw guide ST-SG 6.5 1x Nut setter S-NS 8		1	425545
Screw guide ST-SG 6.5 for use with long sandwich panel screw with diameter 6.5 mm, min length 55 mm	1x Screw guide ST-SG 6.5 3x Nut setter S-NS 8		1	425539
Depth gauge ST-DG 19 for use with self-drilling screws with sealing washer up to dia. 19 mm			1	2005053
Depth gauge ST-DG 22 for use with self-drilling screws with sealing washer up to dia. 22 mm			1	2005054
Depth gauge S-TA Set for use with screws with sealing washer dia. 14 mm – 22 mm			1	304611

4

Nut setter

S-NS (C)

For use with hexagonal screw heads, non-magnetic



Ordering description	Connection end	Drive	Sales Quantity [pc]	Item Number
S-NS 3/8" C 50/2"	1/4" Hexagon	HEX3/8"	1	2039250
S-NS 7 C 50/2"	1/4" Hexagon	HEX7	1	2039243
S-NS 8 C 50/2"	1/4" Hexagon	HEX8	1	2039244
S-NS 10 C 50/2"	1/4" Hexagon	HEX10	1	2039245
S-NS 13 C 50/2"	1/4" Hexagon	HEX13	1	2039247
S-NS 13 C 90/3 1/2"	1/4" Hexagon	HEX13	1	2039251

Reference:

- For the order item number and further information please visit your local Hilti Internet website

Magnetic nut setter

S-NS (M)

For use with hexagonal screw heads, magnetic



Ordering description	Connection end	Drive	Sales Quantity [pc]	Item Number
S-NS 3/8" M 50/2"	1/4" Hexagon	HEX3/8"	1	2039232
S-NS 7 M 50/2"	1/4" Hexagon	HEX7	1	2039225
S-NS 8 M 50/2"	1/4" Hexagon	HEX8	1	2039226
S-NS 10 M 50/2"	1/4" Hexagon	HEX10	1	2039227
S-NS 13 M 50/2"	1/4" Hexagon	HEX13	1	2039229

Bit and bit holder

Ordering description		Sales Quantity [pc]	Item Number
Bit holder S-BH RC 50/2"		1	2039219
S-B TX 25 25/1" T-HF (10)		10	2039138
S-B TX 25 50/2" T-HF (5)		5	2039143
S-B SQ2 25/1" T-HF (10)		10	2268363
S-B PH2 25/1" T (10)		10	2038979
S-B PH3 25/1" T (10)		10	2039039



Stand-up decking tool

Ordering description	Content	Sales Quantity [pc]	Item Number
Stand-up handle SDT 9	1x Stand-up handle SDT 9, 1x Nut setter S-SY SDT	1	2217520
Stand-up handle SDT 9 magazine	1x Stand-up handle SDT 9 magazine	1	2217521
Strip guide SDT 9-SG	1x Strip guide SDT 9-SG	1	2326719
Strip catcher SDT 9-SC	1x Strip catcher SDT 9-SC	1	2326718
Nose piece SDT 9-NP R red	1 x Nose piece SDT 9-NP R red	1	2221453
Nose piece SDT 9-NP B black	1x Nose piece SDT 9-NP B black	1	2221454
Nut setter S-SY SDT	1x Nut setter S-SY SDT	1	2039260
Handles SDT 9-H	1x Handles SDT 9-H	1	2221456
Stand-up handle frame SDT 9-F	1x Stand-up handle frame SDT 9-F	1	2289587

Reference:

• For the order item number and further information please visit your local Hilti Internet website

Accessories for hidden panel fastening

Ordering description	Content	Sales Quantity [pc]	Item Number
Stepped drill bit TS-HP 5,9-90 HPL	1x Stepped drill bit TS-HP 5,9-90 HPL 	1	2301100
Bit holder S-BH QC 64/2.5" TL	1x Bit holder S-BH QC 64/2.5" TL 	1	2301101

Reference:

- For the order item number and further information please visit your local Hilti Internet website

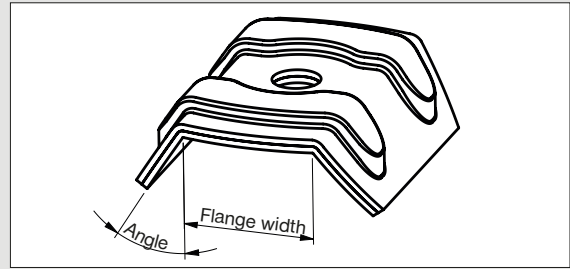
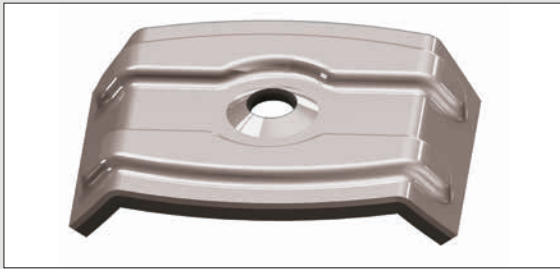
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4.4 Saddle washer and sealing washer

4.4.1 Saddle washer for trapezoidal profile

S-SWTR

For crown flange assembly of roof coverings made of steel, aluminum and plastic.
Stabilizes the profile panel and prevents pressing in of the crown flange.



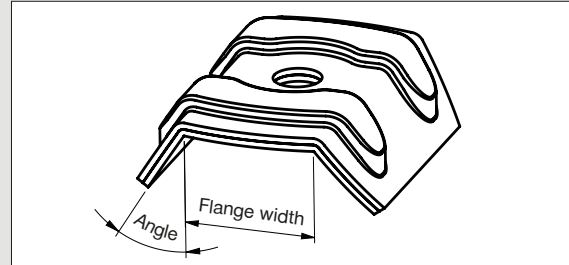
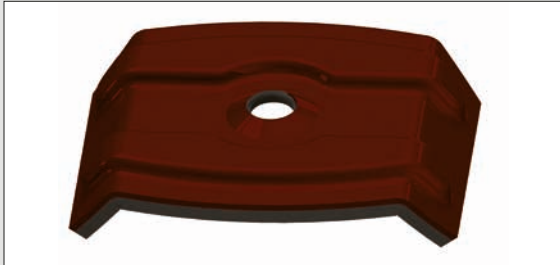
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Ordering description	Angle (°)	Flange width (B) [mm]	Paint	Hole [mm]	EPDM- thickness [mm]	Material	Material thickness [mm]	Saddle washer length [mm]	Sales quantity [pc]	Item number
S-SWTR 15/20	15°	20	plain	7.3	2	Aluminium	1	45	100	2106943
S-SWTR 35/20	35°	20	plain	7.3	2	Aluminium	1	45	100	2106944
S-SWTR 30/23	30°	23	plain	7.3	2	Aluminium	1	45	100	2106945
S-SWTR 15/25	15°	25	plain	7.3	2	Aluminium	1	45	100	2106946
S-SWTR 27/25	27°	25	plain	7.3	2	Aluminium	1	45	100	2106947
S-SWTR 40/26	40°	26	plain	7.3	2	Aluminium	1	45	100	2106948
S-SWTR 35/28	35°	28	plain	7.3	2	Aluminium	1	45	100	2106949
S-SWTR 24/30	24°	30	plain	7.3	2	Aluminium	1	45	100	2107120
S-SWTR 38/30	38°	30	plain	7.3	2	Aluminium	1	45	100	2107121
S-SWTR 23/34	23°	34	plain	7.3	2	Aluminium	1	45	100	2107122
S-SWTR 33/37	33°	37	plain	7.3	2	Aluminium	1	45	100	2107123
S-SWTR 17/40	17°	40	plain	7.3	2	Aluminium	1	45	100	2107124
S-SWTR 36/40	36°	40	plain	7.3	2	Aluminium	1	45	100	2107125
S-SWTR 32/54	32°	54	plain	7.3	2	Aluminium	1	45	100	2107126
S-SWTR 22/57	22°	57	plain	7.3	2	Aluminium	1	45	100	2107127
S-SWTR 45/33	48°	33	plain	7.3	2	Aluminium	1	45	100	2109680

4.4.2 Saddle washer for trapezoidal profile

S-SWTR RAL

For crown flange assembly of roof coverings made of steel, aluminum and plastic.
Stabilizes the profile panel and prevents pressing in of the crown flange.



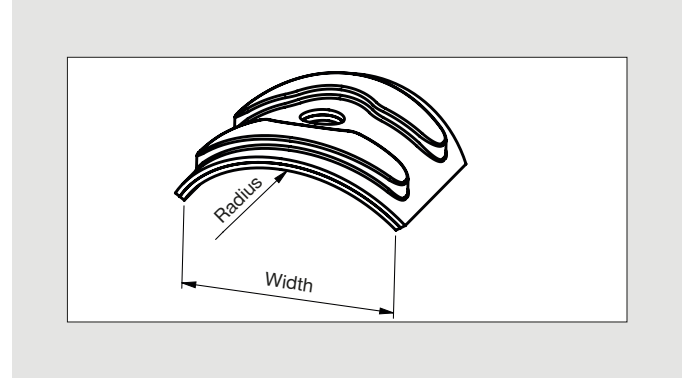
4

Ordering description	Angle (°)	Flange width (B)	Paint	Hole	EPDM-thickness	Material	Material thickness	Saddle washer length	Sales quantity	Item number
		[mm]								
S-SWTR 36/40 RAL 7016	36°	40	RAL 7016	7.3	2	Aluminium	1	45	100	2107131
S-SWTR 36/40 RAL 8012	36°	40	RAL 8012	7.3	2	Aluminium	1	45	100	2107132
S-SWTR 36/40 RAL 3009	36°	40	RAL 3009	7.3	2	Aluminium	1	45	100	2107133
S-SWTR 36/40 RAL 9006	36°	40	RAL 9006	7.3	2	Aluminium	1	45	100	2107134
S-SWTR 17/40 RAL 7016	17°	40	RAL 7016	7.3	2	Aluminium	1	45	100	2107135
S-SWTR 17/40 RAL 8012	17°	40	RAL 8012	7.3	2	Aluminium	1	45	100	2107136
S-SWTR 17/40 RAL 3009	17°	40	RAL 3009	7.3	2	Aluminium	1	45	100	2107137
S-SWTR 17/40 RAL 9006	17°	40	RAL 9006	7.3	2	Aluminium	1	45	100	2107138
S-SWTR 32/54 RAL 7016	32°	54	RAL 7016	7.3	2	Aluminium	1	45	100	2107139
S-SWTR 32/54 RAL 8012	32°	54	RAL 8012	7.3	2	Aluminium	1	45	100	2107140
S-SWTR 32/54 RAL 3009	32°	54	RAL 3009	7.3	2	Aluminium	1	45	100	2107141
S-SWTR 32/54 RAL 9006	32°	54	RAL 9006	7.3	2	Aluminium	1	45	100	2107142
S-SWTR 24/30 RAL 7016	24°	30	RAL 7016	7.3	2	Aluminium	1	45	100	2107143
S-SWTR 24/30 RAL 8012	24°	30	RAL 8012	7.3	2	Aluminium	1	45	100	2107144
S-SWTR 24/30 RAL 3009	24°	30	RAL 3009	7.3	2	Aluminium	1	45	100	2107145
S-SWTR 24/30 RAL 9006	24°	30	RAL 9006	7.3	2	Aluminium	1	45	100	2107146
S-SWTR 27/25 RAL 7016	27°	25	RAL 7016	7.3	2	Aluminium	1	45	100	2107147
S-SWTR 27/25 RAL 8012	27°	25	RAL 8012	7.3	2	Aluminium	1	45	100	2107148
S-SWTR 27/25 RAL 3009	27°	25	RAL 3009	7.3	2	Aluminium	1	45	100	2107149
S-SWTR 27/25 RAL 9006	27°	25	RAL 9006	7.3	2	Aluminium	1	45	100	2107150

4.4.3 Saddle washer for wave profile

S-SWWA

For crown flange assembly of roof coverings made of steel, aluminum and plastic.
Stabilizes the profile panel and prevents pressing in of the crown flange.



4

Ordering description	Radius [mm]	Flange width (B) [mm]	Paint	Hole [mm]	EPDM- thickness [mm]	Material	Material thickness [mm]	Saddle washer length [mm]	Sales quantity [pc]	Item number
S-SWWA 24/40	24	40	plain	7.3	2	Aluminium	1	45	100	2107128
S-SWWA 32/51	32	51	plain	7.3	2	Aluminium	1	45	100	2107129
S-SWWA 48/57	48	57	plain	7.3	2	Aluminium	1	45	100	2107130

4.4.4 Which saddle washer is suitable for which profile?

Saddle washer	Profile name	Manufacturer
W36/40	alubel 28	Alubel
W40/26	alubel 21	
W36/40	alubel 40	
W38/30	alubel 44	
W27/25	Alutech Dach	
W36/40	Aluform 20/125	Aluform
W35/20	Aluform 29/124	
W40/26	Aluform 30/153	
W23/34	Aluform 40/167	
W38/30	Aluform 42/250	
W27/25	Aluform 45/150	
W27/40	Aluform 45/200	
W27/25	Alutherm DT 900	
W38/30	Alutherm DT 1000	
R24/40	Welle 18/76	
R32/51	Welle 35/137	
R48/57	Welle 55/177	
W36/40	AL 34/207	
W48/33	A 35/207	
W17/40	B35/207	
W27/25	39/333 T	
W17/40	AL 40/183	
W17/40	A 40/183	
W24/30	AL 42/333 S	
W32/54	44/180	
W27/25	AL 45/150	
W36/40	85/280	
W17/40	100/275	
W17/40	105/345	
W17/40	106/250	
W27/25	Ondatherm 1001 TS	
W27/25	Ondafibre 3005 T	
W27/25	Agratherm 1001 TS	
R24/40	Welle 18/76	
W36/40	20/125	Bieber
W36/40	30/262K	
W36/40	35/207	
W17/40	40/183/183 S	
W36/40	50/250	
W32/54	58/315K	
W32/54	70/200	
W36/40	80/307	
W36/40	89/305	
W17/40	100/275	
W17/40	106/250	
W17/40	110/333	
W36/40	135/310	
W36/40	150/280	
W17/40	160/250	
W17/40	170/250	
W15/25	DP72/82/102/ 122/142/162	Brucha
W40/26	DP-F	
W33/37	DP 20/35	Dansk Profilttechnik
W40/26	DP 20/65	
W40/26	DP 20/100	
W36/40	DP 35/115	
R24/40	DP Sinus 18/76	
R32/51	DP Sinus 35/143	
R32/51	DP Sinus Variant 35/143	
W40/26	DS 20/115	DS Staalprofil
W36/40	DS 35/190	
W33/37	DS 35/206	
R32/51	DS Sinus 35/143	
W15/20	SISCOROOF 4G	
W15/20	SISCOTEC ROOF 4G	

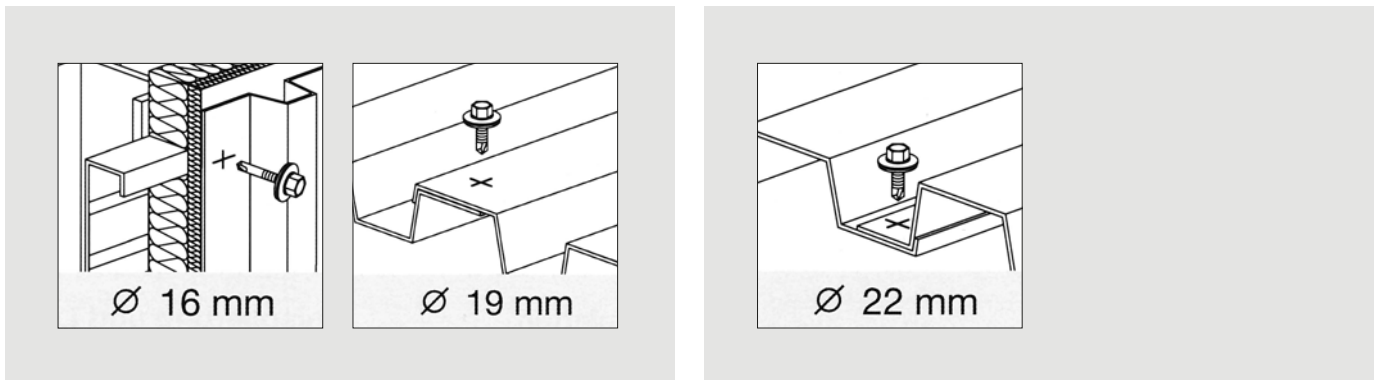
Saddle washer	Profile name	Manufacturer
R 48/57	Welle 5	Eternit
R 48/52	Welle 6	
R 32/51	Welle 8	
W33/37	EL 22/214	Feilmeier
W32/54	EL 30/220	
W36/40	EL 35/207	
W33/37	EL 39/333/S	
W17/40	EL 40/183	
W35/28	EL 45/333/S	
W32/54	EL 50/250	Finish Profiles
R24/40	Welle EL 18/76	
R24/40	Dakprofiel 18 - 76	Finish Profiles
R48/57	Dakprofiel 42 - 960	
W38/30	Dakprofiel 20 - 1090	
W17/40	Dakprofiel 35 - 1000	
W17/40	Dakprofiel 40 - 915	
W32/54	Dakprofiel 50 - 1000	
W32/54	Dakprofiel 58 - 945 KD	
W32/54	Dakprofiel 70R - 800	
W36/40	35/207	Fischer
W17/40	40/183	
W32/54	50/250	
W36/40	85/280	
W17/40	100/275	
W36/40	135/310	
W36/40	150/280	
W17/40	165/250	
R24/40	Sinus 18	
R32/51	Sinus 27	
R48/57	Sinus 42	
W36/40	DL 70; 80; 100; 120; 140; 160	
W36/40	20/220	
W40/26	W-20/990	Friedrich von Lien AG Weckman
W40/26	W-20/1100	
W17/40	W-45R/900	
W38/30	W-45ER/1000	
W17/40	W-155/840	
R24/40	W-1/1064	
W36/40	W-35/1035	
W27/25	Isocop	Isopan
W15/20	Penta 40	Italpannelli
W35/20	Jl 33.250.1000	Joriside
W30/23	Jl 45.333.1000	
W36/40	Jl 35.207.1035	
W17/40	Jl 40.183.915	
W32/54	Jl 50.250.1000	
W32/54	Jl 58.317.945	
W27/25	Jl Roof 1000	
W23/34	Jl Ecopaneel 1000	
W24/30	KS 1000 RW	Kingspan
W27/25	KS 1000 FF	
W36/40	35.207.1035	Klinger & Partner Profilvertrieb GmbH
W40/26	39.333.1000	

Saddle washer	Profile name	Manufacturer
W36/40	KAS AL-20/125 A	Klöckner
W27/25	KAS AL-30/153 A	
W36/40	KAS-35/207	
W23/34	KAS AL-40/167 A	
W17/40	KAS-40/183	
W17/40	KAS AL-45/200 A	
W32/54	KAS-50/250	
W17/40	KAS-85/280	
W17/40	KAS-89/305	
R24/40	KAS -18/76	
R48/57	KAS -42/160	
R48/57	KAS -55/177	
W33/37	KAS -D 65 - 115	
W15/20	KAS -D 68	
W36/40	KAS -D 80	
W17/25	KAS -D 62 - 142	
W35/20	Isocopre	
W15/20	Eurocinque	
W35/20	Eurocopre	
W36/40	35 - 207	Laukien
W36/40	22 - 214	
W40/26	20 - 75	
W27/25	45 - 333 S	
W38/30	40 - 100	
W36/40	50 - 250	
R24/40	18/76	
R32/51	27/111	
R48/57	42/160	
R48/57	55/177	
W27/25	LP 20	Lindab
W36/40	LP 35	
W40/26	LP 1100	
R24/40	Sinus 18	
W35/20	Eurocopre	
W27/25	LM40 250 1000	Luxmetall
W40/26	LM19 156 1094	
R32/51	LM 27-111-1000	
W27/25	35 - 207	Maas
W36/40	22 - 214	
W36/40	20 - 75	
W38/30	45 - 333 S	
W27/25	45-150	
W27/25	45-333 S	
R24/40	Welle 18-76	
R32/51	Welle 27-111	
R48/57	Welle 55-177	
W15/20	G4	Metecno
W15/20	Hipertec Dach	
W15/20	Hipertec Dach	
W35/20	Toproof DG	
W12/20	SISCO	
W40/26	SP 20	Montana
W17/40	SP 26	
W36/40	SP 30	
W36/40	SP 35	
W17/40	SP 40	
W27/40	SP 41	
W24/30	SP 44	
W36/40	SP 45	
W27/25	SP 59	
W17/40	SP 80	
W30/23	MTD TL 65	
W30/23	MTD TL 85	
W30/23	MTD TL 105	
W30/23	MTD TL 125	
W30/23	MTD TL 145	
R24/40	SP 18/1064	
R32/51	SP 27/1000	
R48/57	SP 42/960	

Saddle washer	Profile name	Manufacturer
W33/37	KP	M-Profil
W36/40	M 20/220	Münker
W48/33	M 35.1/207	
W36/40	M 35/207	
W36/40	M 40.1/183	
W17/40	M 40/183	
W27/25	M 40/333	
W27/25	M 40KD/333	
W32/54	M 50/250	
W36/40	M 85/280	
W17/40	M 100/275	
W17/40	M 150/280	
W17/40	M 160/250	
W40/26	M 40/333	
W36/40	20.125/8	O Metall
W38/30	20.136/8	
W17/40	25.280/3	
W40/26	25.268/4	
W23/34	30.207/5	
W40/26	30.153/7	
W36/40	35.207/5	
W17/40	40.183/5	
W27/25	40.250/4	
W27/25	45.150/6	
W27/25	45.333/3	
W32/54	50.250/4	
R24/40	Welle 18.76	
R48/57	Welle 55.177	
R32/51	Welle 27.111	
W40/26	Plannja 19	Plannja
W40/26	Plannja 20-102	
W30/40	Plannja 35	
R24/40	Sinus 18	
R48/57	Sinus 51	
W33/37	Plannja 20	
W17/40	Plannja 60	
W38/30	Plannja 30	
W36/40	Plannja 45	
W27/25	20/154	Proge
W36/40	26/143	
W48/33	30/207	
W36/40	30/220	
W36/40	30 KD	
W36/40	35/207	
W17/40	40/183	
W36/40	45/150	
W27/25	45/333	
W32/54	50/250	
W32/54	58 KD	
W23/34	59/225	
W32/54	70/200	
W17/40	80/277	
W36/40	85/280	
W36/40	90/305	
W17/40	100/275	
W17/40	105/345	
W17/40	106/250	
R24/40	Welle 18/76	
R32/51	Welle 27/111	
R48/57	Welle 42/160	
R48/57	Welle 55/177	
W15/25	D62; D82; D102; D122; D142	Romakowski
W36/40	SPCW; SPC2C PIR	Ruukki

Saddle washer	Profile name	Manufacturer
W27/25	19(KD)/1050	SAB
W36/40	35R/1035	
W17/40	40R/915	
W32/54	50R/1000	
W32/54	70R/800	
W36/40	85R/1120	
W36/40	89R/915	
W17/40	100R/825	
W36/40	30KD/1050	
W23/34	45KD/1000	
W32/54	58KD/945	
W33/37	D 65-75-95-115-135	
W33/37	D135.1000 TL	
R24/40	18/988	
R48/57	42/960	
R24/40	27/1000	
W36/40	PS 35/207	Salzgitter
W17/40	PS 40/183	
W32/54	PS 50/250	
W36/40	PS 85/280	
W17/40	PS 100/275	
W36/40	SIP D	
R24/40	CB 18/76	Siegmetall
W48/33	CB 35/207	
W17/40	40/183	
W27/25	40/333	
W32/54	50/250	
W36/40	CB 75/305	
W36/40	85/280	
W17/40	100/275	
W15/20	Siegfalz	Premium
W36/40	Hoesch Thermodach	ThyssenKrupp Steel Europe AG
W36/40	T 35.1	
W17/40	T 40.1	
W32/54	T 50.1	
W36/40	T 85.1	
W17/40	T 100.1	
W17/40	T 106.1	
R24/40	WP 18/76	
R48/57	WP 42/160	
R32/51	WP 27/100	
W27/25	SNV	Trimo
W36/40	WU 20/125	Wurzer Profiliertechnik GmbH
W35/20	WU 30/200	
W48/33	WU 30D/207	
W33/37	WU 30W/207	
W36/40	WU 35/207	
W17/40	WU 40/183	
W27/25	WU 45/333	
W32/54	WU 50/250	
W36/40	WU 80/307	
W17/40	WU 100/275	
R24/40	WU 18/76	
R32/51	WU 27/111	
R48/57	WU 55/177	
W36/40	plusdach DL	
W15/20	Ter	
R48/57	Welle 42-160	
W35/20	30.200/5	
W38/30	39.333/3	
W40/26	39/333	
W17/40	41/193,5	

4.4.5 S-AW Sealing washer application example



4.4.6 Product Data

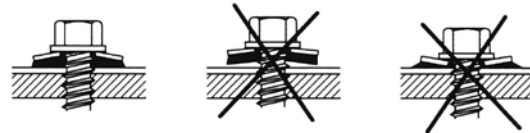
Material specification:

z.B.: 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)
A	Aluminium
	12 – Sealing washern outside-Ø 12 mm
	14 – Sealing washern outside-Ø 14 mm
16	16 – sealing washer outside-Ø 16 mm
	19 – sealing washer outside-Ø 19 mm
	22 – sealing washer outside-Ø 22 mm
PS	for perfect sealing screw
MS	for chipless screw
CD	for sandwich panel screw
CDW	for sandwich panel screw wood

Fastening tools:

Tool ST 1800 / ST 1800-A22
with depth gauge

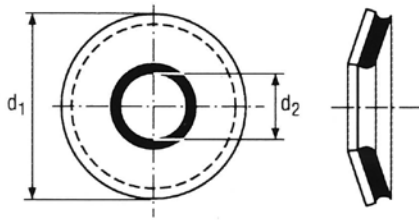


It is essential that the screw be driven correctly in order to ensure that the sealing washer will fulfill its function for many years.

4.4.7 Dimensions

Uses:

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



4

4.4.8 Sealing washern for screws with “PS” (S-MD)

Ordering description	Washer size [mm]	EPDM-thickness [mm]	Screw diameter (d) [mm]	Sales quantity [pc]	Item number
Sealing washer S-AW05S 16 PS	16	2	5.5	200	2045877
Sealing washer S-AW06S 16 PS	16	2	6.3	200	2045874
Sealing washer S-AW05S 19 PS	19	2	5.5	200	2045878
Sealing washer S-AW06S 19 PS	19	2	6.3	200	2045875
Sealing washer S-AW05S 22 PS	22	2	5.5	200	2045879
Sealing washer S-AW06S 22 PS	22	2	6.3	200	2045876

4.4.9 Sealing washer for screws without “PS” (S-MD, S-MP)

Ordering description	Washer size [mm]	EPDM-thickness [mm]	Screw diameter (d) [mm]	Sales quantity [pc]	Item number
Sealing washer S-AW04S 12	12	2	4.8	200	2109616
Sealing washer S-AW05S 12	12	2	5.5	200	2109617
Sealing washer S-AW04S 14	14	2	4.8	200	2109618
Sealing washer S-AW05S 14	14	2	5.5	200	2109619
Sealing washer S-AW04S 16	16	2	4.8	200	284880
Sealing washer S-AW05S 16	16	2	5.5	200	284883
Sealing washer S-AW06S 16	16	2	6.3/6.5	200	284886
Sealing washer S-AW04S 19	19	2	4.8	200	284881
Sealing washer S-AW05S 19	19	2	5.5	200	284884
Sealing washer S-AW06S 19	19	2	6.3/6.5	200	284887
Sealing washer S-AW04S 22	22	2	4.8	200	284882
Sealing washer S-AW05S 22	22	2	5.5	200	284885
Sealing washer S-AW06S 22	22	2	6.3/6.5	200	284888

4.4.10 Sealing washer for screws S-MS

Ordering description	Washer size [mm]	EPDM-thickness [mm]	Screw diameter (d) [mm]	Sales quantity [pc]	Item number
Sealing washer S-AW04S 14 MS	14	2	4.8	200	2109660
Sealing washer S-AW04A 14 MS	14	2	4.8	200	2109661
Sealing washer S-AW04S 16 MS	16	2	4.8	200	2109662
Sealing washer S-AW04A 16 MS	16	2	4.8	200	2109663

4.4.11 Sealing washer for screws panel

(S-CD / S-CDW)

Ordering description	Washer size [mm]	EPDM-thickness [mm]	Screw diameter (d) [mm]	Sales quantity [pc]	Item number
Sealing washer S-AW06S 16 CD	16	3	5.5	200	2109664
Sealing washer S-AW06S 19 CD	19	3	5.5	200	2109665
Sealing washer S-AW06S 22 CD	22	3	5.5	200	2109666
Sealing washer S-AW06S 29 CD	29	3	5.5	200	2109667
Sealing washer S-AW07S 16 CDW	16	2	6.5	200	2109668
Sealing washer S-AW07S 19 CDW	19	2	6.5	200	2109669
Sealing washer S-AW07S 22 CDW	22	2	6.5	200	2109670
Sealing washer S-AW07S 29 CDW	29	2	6.5	200	2109671



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