S-MD 53 Z 5.5×L galvanized carbon steel screw

Product data

General information

Material specification:

Carbon steel: case-hardened
Zinc coating: ≧ 8 µm galvanized
with fitted EPDM sealing washer, ∅ 16 mm.
Self-drilling screws with coloured head and sealing washer; other special colours available on request.

Fastening tools

Screwdriver:	Hilti ST 2500, Hilti ST 1800
Drive using depth gauge set:	Item no. 304611
Nut set driver S-NSD 8:	Item no. 308901

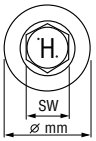
Approvals

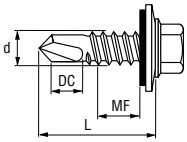
CE

Dimensions

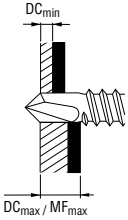
Uses:

Fastening sheet metal to steel framing, with or without intermediate insulation layers.

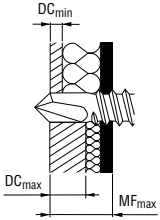




without insulation

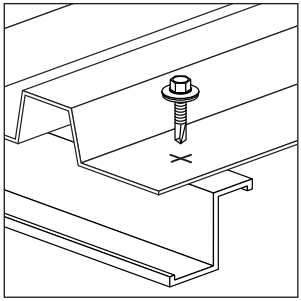


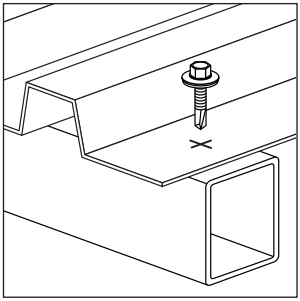
with insulation

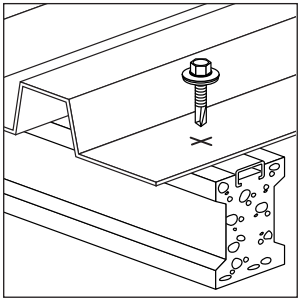


Applications

Examples







Load data

Design data

Drilling capacity Σt

max. 6.0 mm

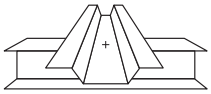
Tightening torque (recommendation)

Screw in end-stop oriented

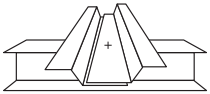
Tightening torque:	7 Nm

	Component II steel with t_{II} [mm] S235, S275 or S355 according to DIN EN 10025-2 S280GD, S320GD or S350GD (DIN EN 10326)				
	2.00	**2.50**	**3.00**	**4.00**	**5.00**
Component I steel with t_I [mm] S280GD, S320GD or S350GD (DIN EN 10326)	**Shear force $V_{R,k}$** [kN]				
0.63	3.10 ac	3.10 ac	3.10 ac	3.10 abcd	3.10 abcd
0.75	3.80 ac	3.80 ac	3.80 ac	3.80 ac	3.80 ac
0.88	4.60	4.60	4.60 ac	4.60 ac	4.60 ac
1.00	5.30	5.30	5.40	5.40 a	5.40 a
1.13	5.30	5.30	6.20	6.20	–
1.25	5.30	5.30	7.60	9.50	–
1.50	6.10	6.10	9.10	9.50	–
1.75	6.10	6.10	9.10	9.50	–
2.00	7.80	7.80	9.50	9.50	–
	Tension force $N_{R,k}$ [kN]				
0.50	1.73 ac	1.73 ac	1.73 ac	1.73 abcd	1.73 abcd
0.55	2.18 ac	2.18 ac	2.18 ac	2.18 abcd	2.18 abcd
0.63	3.09 ac	3.20 ac	3.20 ac	3.20abcd	3.20 abcd
0.75	3.09 ac	3.90 ac	3.90 ac	3.90 ac	3.90 ac
0.88	3.09	4.35	4.80 ac	4.80 a	4.80 a
1.00	3.09	4.35	5.60	5.60 a	5.60 a
1.13	3.09	4.35	5.61	6.50	–
1.25	3.09	4.35	5.61	7.20	–
1.50	3.09	4.35	5.61	7.20	–

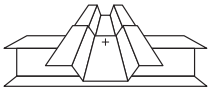
1.75	3.09	4.35	5.61	7.20	–
2.00	3.09	4.35	5.61	7.20	–



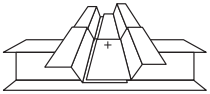
(a) single



(b) side lap



(c) end overlap



(d) side lap and end overlap

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

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

Screw selection

Screw program

Drilling thickness **DC** mm	Fastening thickness **MF** max. mm	Dimensions (dxL) mm	Sealing washer ∅ mm	Head size AF	RAL colour	Package contents	Ordering designation	Item no.
2.6–6.0	4	5.5x19	16	8		500	S-MD53Z 5.5x19	**413440**
2.6–6.0	10	5.5x25	16	8		500	S-MD53Z 5.5x25	**413441**
2.6–6.0	17	5.5x32	16	8		500	S-MD53Z 5.5x32	**413442**
2.6–6.0	23	5.5x38	16	8		250	S-MD53Z 5.5x38	**413443**
2.6–6.0	35	5.5x50	16	8		250	S-MD53Z 5.5x50	**413444**
RAL colours available immediately from stock								
2.6–6.0	10	5.5x25	16	8	1015 light ivory	500	S-MD53Z 5.5x25 PB15	**224639**
2.6–6.0	10	5.5x25	16	8	9010 pure white	500	S-MD53Z 5.5x25 RAL9010	**413319**
2.6–6.0	10	5.5x25	16	8	7022 amber	500	S-MD53Z 5.5x25 PH22	**224640**
2.6–6.0	10	5.5x25	16	8	5008 grey blue	500	S-MD53Z 5.5x25 PF08	**231398**
2.6–6.0	10	5.5x25	16	8	9002 grey white	500	S-MD53Z 5.5x25 PL02	**224638**
2.6–6.0	10	5.5x25	16	8	9006 white aluminium	500	S-MD53Z 5.5x25 RAL9006	**413320**
2.6–6.0	10	5.5x25	16	8	8012 red brown	500	S-MD53Z 5.5x25 PK12	**235228**