

S-MD 55 Z 5.5×L / S-MD 65 Z 5.5×L carbon steel self-drilling screw

Product data

General information

Material specification:

Carbon steel: case-hardened

Zinc coating: $\geq 8 \mu\text{m}$ galvanized

with fitted EPDM sealing washer $\varnothing 16, 19$ mm.

Self-drilling screws with coloured head and sealing washer; other special colours available on request.

Fastening tools:

Screwdriver:

Hilti ST 1800

Drive using depth

gauge set:

Item no. 304611

Nut set driver

S-NSD 8:

Item no. 308901

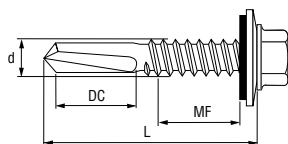
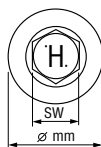
Approvals:



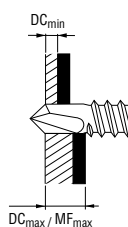
Dimensions

Uses:

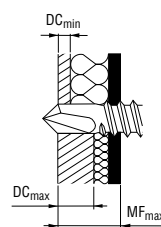
Fastening sheet metal to steel framing, with or without intermediate insulation layers.



without insulation

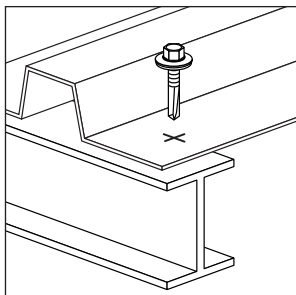
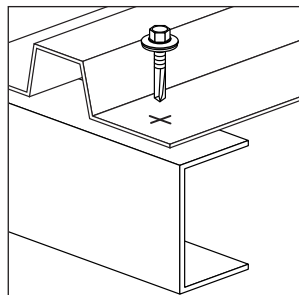


with insulation



Applications

Examples



Load data

Design data

Drilling capacity Σt

max. 15.0 mm

Tightening torque (recommendation)

Screw in end-stop oriented

Tightening torque: 5 Nm

Component II steel with t_{II} [mm]

S235J according to DIN EN 10025-2
S280GD or S320GD (DIN EN 10326)

4.00 5.00 6.00 > 6.00

Component I

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

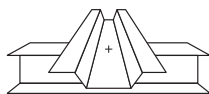
Shear force $V_{R,k}$ [kN]

0.63	3.30 abcd	3.30 abcd	3.30 abcd	3.30 abcd
0.75	3.90 ac	3.90 ac	3.90 abcd	3.90 abcd
0.88	4.40 ac	4.40 ac	4.40 abcd	4.40 abcd
1.00	4.90 ac	4.90 ac	4.90 ac	4.90 ac
1.13	5.40	5.40 ac	5.40 ac	5.40 ac
1.25	7.30	7.30 ac	7.30 ac	7.30 ac
1.50	7.90	7.90	7.90	7.90
1.75	7.90	7.90	7.90	7.90
2.00	9.10	9.10	9.10	9.10

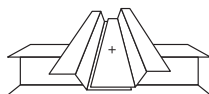
Tension force $N_{R,k}$ [kN]

0.50	1.57 abcd	1.57 abcd	1.57 abcd	1.57 abcd
0.55	1.98 abcd	1.98 abcd	1.98 abcd	1.98 abcd
0.63	2.90 abcd	2.90 abcd	2.90 abcd	2.90 abcd
0.75	3.20 ac	3.20 ac	3.20 abcd	3.20 abcd
0.88	3.40 ac	3.40 ac	3.40 abcd	3.40 abcd
1.00	3.60 ac	3.60 ac	3.60 ac	3.60 ac
1.13	3.80	3.80 ac	3.80 ac	3.80 ac
1.25	4.00	4.00 ac	4.00 ac	4.00 ac
1.50	4.30	4.30	4.30	4.30

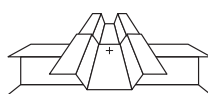
1.75	4.30	4.30	4.30	4.30
2.00	4.90	4.90	4.90	4.90



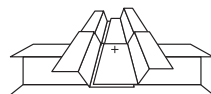
(a)
single



(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	$\alpha_{\text{cyclic}} = 1.0$	- / -
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{\text{GLOB}} = 2.0$	$\gamma_{\text{GLOB}} = 2.0$
Recommended load	$N_{\text{rec}} = 1.0 \cdot N_{Rk} / 2.0$	$V_{\text{rec}} = V_{Rk} / 2.0$

* 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 \varnothing mm	Head size AF	RAL colour	Package contents	Ordering designation	Item no.
4.6-15	15	5.5x38	16	8		250	S-MD55Z 5.5x38	227504
4.6-15	27	5.5x50	16	8		250	S-MD55Z 5.5x50	219046
4.6-15	40	5.5x63	16	8		100	S-MD55Z 5.5x63	219048
4.6-15	15	5.5x38	19	8		250	S-MD65Z 5.5x38	227508

RAL colours available immediately from stock

4.6-15	15	5.5x38	16	8	1015 light ivory	250	S-MD55Z 5.5x38 PB 15	224376
4.6-15	15	5.5x38	16	8	9010 pure white	250	S-MD55Z 5.5x38 PL 10	224373
4.6-15	15	5.5x38	16	8	7022 amber	250	S-MD55Z 5.5x38 PH 22	224377
4.6-15	15	5.5x38	16	8	5008 grey blue	250	S-MD55Z 5.5x38 PF 08	374758
4.6-15	15	5.5x38	16	8	9002 grey white	250	S-MD55Z 5.5x38 PL 02	224375
4.6-15	15	5.5x38	16	8	9006 white aluminium	250	S-MD55Z 5.5x38 PL 06	224374
4.6-15	15	5.5x38	16	8	8012 red brown	250	S-MD55Z 5.5x38 PK 12	374759