S-MS01Z carbon steel self-drilling screw for sheet overlaps

Product data

General information

Material specification:
Carbon steel: case-hardened
Zinc coating: ≧ 8 µm galvanized

Fastening tools:
Screwdriver: Hilti ST1800
Drive without depth gauge.
Cut-out controlled by torque clutch
Nut set driver S-NSD8: Item no. 308901

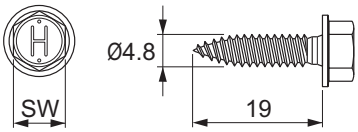
Stand-up tool with screwdriver: Hilti SDT30, ST1800
Drive without depth gauge.
Cut-out controlled by torque clutch
Bit holder S-BH 435DT: Item no. 304415
S-NSD8 DT nut set driver: Item no. 304413

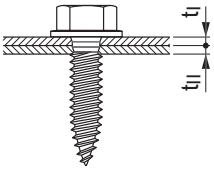
Approvals:

CE

Dimensions

Uses:
Side lap connector

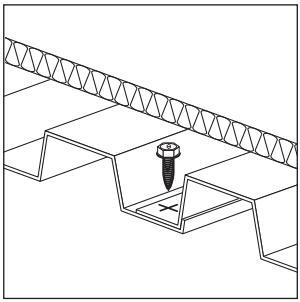


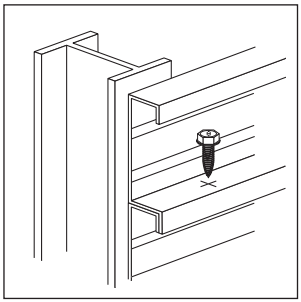


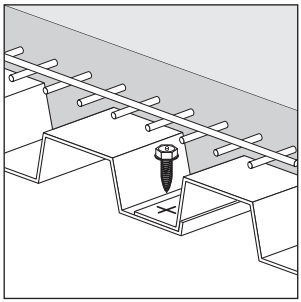
Applications

Examples

Examples of applications for the S-MS01Z:







Load data

Design data

Drilling capacity Σt

max. 2.5 mm (max. 2×1.25 mm)

Tightening torque (recommendation)

Screw in end-stop oriented

Total thickness Σt_I:	up to 2×0.75 mm	up to 2×1.25 mm
Tightening torque:	4 Nm	8 Nm

	Component II steel with t_{II} [mm] S280GD, S320GD or S350GD (DIN EN 10326)							
	0.50	**0.55**	**0.63**	**0.75**	**0.88**	**1.00**	**1.13**	**1.25**
Component I steel with t_I [mm] S280GD, S320GD or S350GD (DIN EN 10326)	**Shear force $V_{R,k}$** [kN]							
0.50	1.29	1.37	1.51	1.71	1.71	1.71	1.71	1.71
0.55	1.29	1.54	1.65	1.82	1.82	1.82	1.82	2.05
0.63	1.29	1.54	1.80	2.00	2.00	2.00	2.00	2.59
0.75	1.29	1.54	1.80	2.27	2.27	2.27	2.84	3.40
0.88	1.29	1.54	1.80	2.27	2.96	2.96	2.96	3.40
1.00	1.29	1.54	1.80	2.27	2.96	3.64	3.64	3.64
1.13	1.29	1.54	1.80	2.27	2.96	3.64	3.87	3.87
1.25	1.29	1.54	1.80	2.27	2.96	3.64	3.87	4.10
	Tension force $N_{R,k}$ [kN]							
0.50	0.76	0.87	1.04	1.29	1.56	1.82	1.93	1.93
0.55	0.76	0.87	1.04	1.29	1.56	1.82	2.09	2.25
0.63	0.76	0.87	1.04	1.29	1.56	1.82	2.09	2.34
0.75	0.76	0.87	1.04	1.29	1.56	1.82	2.09	2.34
0.88	0.76	0.87	1.04	1.29	1.56	1.82	2.09	2.34
1.00	0.76	0.87	1.04	1.29	1.56	1.82	2.09	2.34
1.13	0.76	0.87	1.04	1.29	1.56	1.82	2.09	2.34
1.25	0.76	0.87	1.04	1.29	1.56	1.82	2.09	2.34

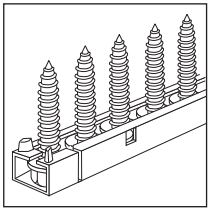
Safety factors according to EN 1993-1-3 and CUAP 06.02/07		
	Tension	**Shear**
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{cyclic} = 1.0$	– / –
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety 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	Head size AF	Package contents	Ordering designation	Item no.
2.5	2.5	4.8x20	8	250	S-MS01Z 4.8x20	**385448**



Collated self-drilling screws can be driven using the SDT30 stand-up tool and ST1800 metal construction screwdriver.

Screw program

Drilling thickness **DC** mm	Fastening thickness **MF** max. mm	Dimensions (dxL) mm	Head size AF	Package contents	Ordering designation	Item no.
2.5	2.5	4.8x20	8	250	S-MS01Z 4.8x20 M	**385450**