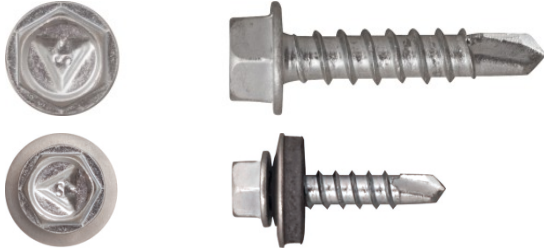


OCS Stainless steel self-drilling screws

Stainless steel self drilling screw with the special drill bit shape designed to provide quick and trouble-free installation in metal constructions made from cold formed sections



Approvals and Reports

- ETA-10/0183



Product information

Features and benefits

- Stainless steel self drilling screw made with BIMETAL
- Hardened surface of the thread (flexible core). Corrosion resistant zinc coating of thickness not less than 12 µm. The shape of the thread and its height is closely related to the intended use of self drilling fixing into steel construction.
- Self vulcanizing EPDM washer. Temperature and UV resistant. The special shape of the washer ensures proper seating of the sealing material on the outer cladding material fixture which guarantees a proper seal.
- The drill bit is designed to provide quick and trouble-free installation in the steel. Sharp point of the drill prevents movement of the surface of the fixture.

Applications

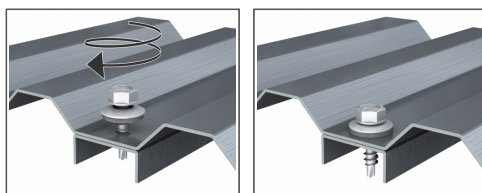
- For fixing: Supporting and cladding metal sheet to steel structures on facades or flat roof construction

Base materials

Approved for use in:

- Structural Steel
- Metal Sheet & Profiles

Installation guide

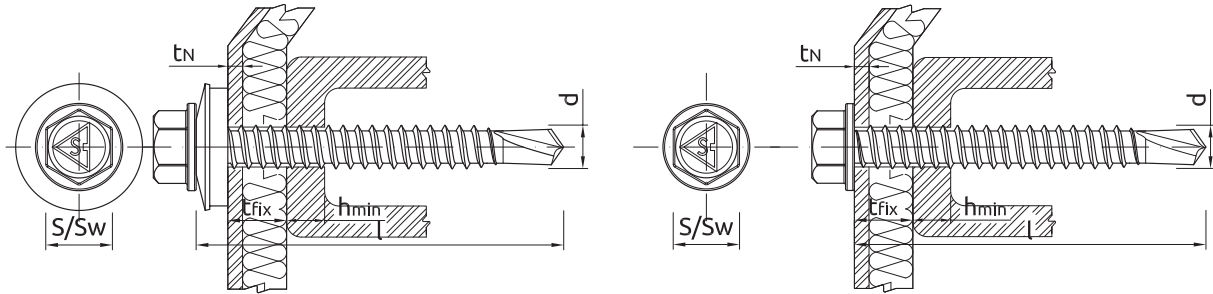


1. Screw must be installed at 90 degrees to substrate.
2. Special driver must be used.
3. Lowest torque setting on impact screwdriver to start.
4. Reduce speed when the washer starts to deform.
5. Use a cordless Impact screwdriver. Note: Never use a power drill.
6. For installation please use screwdriver of load capacity 1600 - 2000 rpm with regulated torque.

Product information

Size	Product Code
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Installation data



Size			Ø5.5
Screw diameter	d	[mm]	5.5
Hole diameter in substrate	d ₀	[mm]	-
Min. hole depth in substrate	h ₀	[mm]	-
Min. installation depth	h _{nom}	[mm]	-
Min. substrate thickness	h _{min}	[mm]	1
Min. spacing	s _{min}	[mm]	30
Min. edge distance	c _{min}	[mm]	10
Wrench size	Sw	[mm]	8

Basic performance data

Performance data for single screw without influence of edge distance and spacing

Size	TENSION LOAD		SHEAR LOAD	
		Ø5.5 (S16)		Ø5.5
MEAN ULTIMATE LOAD				
Substrate thickness 1,00mm	[kN]	1.14		2.19
Substrate thickness 1,50mm	[kN]	2.23		4.16
CHARACTERISTIC LOAD				
Substrate thickness 1,00mm	[kN]	1.00		1.88
Substrate thickness 1,50mm	[kN]	1.67		2.62
DESIGN LOAD				
Substrate thickness 1,00mm	[kN]	0.75		1.41
Substrate thickness 1,50mm	[kN]	1.26		1.97
RECOMMENDED LOAD				
Substrate thickness 1,00mm	[kN]	0.54		1.01
Substrate thickness 1,50mm	[kN]	0.90		1.41

Design performance data

DESIGN PERFORMANCE DATA Ø5.5

TENSION LOADS FOR SCREW WITH WASHER 16

Size			Ø5.5										
Sheet metal thickness	t_N	[mm]	0.50	0.55	0.63	0.75	0.88	1.00	1.13	1.25	1.50	1.75	2.00
SUBSTRATE THICKNESS 1.00 mm													
Characteristic load	N_{Rk}	[kN]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Design resistance $V_{Ms} = 1.33$	N_{Rd}	[kN]	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
SUBSTRATE THICKNESS 1.13 mm													
Characteristic load	N_{Rk}	[kN]	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17
Design resistance $V_{Ms} = 1.33$	N_{Rd}	[kN]	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
SUBSTRATE THICKNESS 1.25 mm													
Characteristic load	N_{Rk}	[kN]	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34
Design resistance $V_{Ms} = 1.33$	N_{Rd}	[kN]	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
SUBSTRATE THICKNESS 1.50 mm													
Characteristic load	N_{Rk}	[kN]	1.67	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
Design resistance $V_{Ms} = 1.33$	N_{Rd}	[kN]	1.26	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29
SUBSTRATE THICKNESS 1.75 mm													
Characteristic load	N_{Rk}	[kN]	1.67	1.92	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14
Design resistance $V_{Ms} = 1.33$	N_{Rd}	[kN]	1.26	1.44	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61
SUBSTRATE THICKNESS 2.00 mm													
Characteristic load	N_{Rk}	[kN]	1.67	1.92	2.32	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60
Design resistance $V_{Ms} = 1.33$	N_{Rd}	[kN]	1.26	1.44	1.74	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
SUBSTRATE THICKNESS 2.50 mm													
Characteristic load	N_{Rk}	[kN]	1.67	1.92	2.32	2.93	3.61	3.68	3.68	3.68	3.68	3.68	3.68
Design resistance $V_{Ms} = 1.33$	N_{Rd}	[kN]	1.26	1.44	1.74	2.20	2.71	2.77	2.77	2.77	2.77	2.77	2.77
SUBSTRATE THICKNESS 3.00 mm													
Characteristic load	N_{Rk}	[kN]	1.67	1.92	2.32	2.93	3.61	4.25	4.25	4.25	4.25	4.25	4.25
Design resistance $V_{Ms} = 1.33$	N_{Rd}	[kN]	1.26	1.44	1.74	2.20	2.71	3.20	3.20	3.20	3.20	3.20	3.20
SUBSTRATE THICKNESS 20.0 mm													
Characteristic load	N_{Rk}	[kN]	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Design resistance $V_{Ms} = 1.33$	N_{Rd}	[kN]	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
SUBSTRATE THICKNESS 20.0 mm													
Characteristic load	N_{Rk}	[kN]	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
Design resistance $V_{Ms} = 1.33$	N_{Rd}	[kN]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
SUBSTRATE THICKNESS 20.0 mm													
Characteristic load	N_{Rk}	[kN]	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66
Design resistance $V_{Ms} = 1.33$	N_{Rd}	[kN]	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
SUBSTRATE THICKNESS 21.0 mm													
Characteristic load	N_{Rk}	[kN]	1.67	1.92	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93
Design resistance $V_{Ms} = 1.33$	N_{Rd}	[kN]	1.26	1.44	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45

SHEAR LOAD

Size			Ø5.5										
Sheet metal thickness	t_N	[mm]	0.50	0.55	0.63	0.75	0.88	1.00	1.13	1.25	1.50	1.75	2.00
SUBSTRATE THICKNESS 1.00 mm													
Characteristic resistance	V_{Rk}	[kN]	1.21	1.29	1.42	1.60	1.76	1.88	1.88	1.88	1.88	1.88	1.88
Design resistance $V_{Mc} = 1.33$	V_{Rd}	[kN]	0.91	0.97	1.07	1.20	1.32	1.41	1.41	1.41	1.41	1.41	1.41
SUBSTRATE THICKNESS 1.13 mm													
Characteristic resistance	V_{Rk}	[kN]	1.21	1.29	1.42	1.60	1.76	1.88	1.88	1.88	1.88	1.88	1.88
Design resistance $V_{Mc} = 1.33$	V_{Rd}	[kN]	0.91	0.97	1.07	1.20	1.32	1.41	1.41	1.41	1.41	1.41	1.41
SUBSTRATE THICKNESS 1.25 mm													
Characteristic resistance	V_{Rk}	[kN]	1.21	1.29	1.42	1.60	1.76	1.88	1.88	1.88	1.88	1.88	1.88
Design resistance $V_{Mc} = 1.33$	V_{Rd}	[kN]	0.91	0.97	1.07	1.20	1.32	1.41	1.41	1.41	1.41	1.41	1.41

Design performance data

Size			Ø5.5										
Sheet metal thickness	t_N	[mm]	0.50	0.55	0.63	0.75	0.88	1.00	1.13	1.25	1.50	1.75	2.00
SUBSTRATE THICKNESS 1.50 mm													
Characteristic resistance	V_{Rk}	[kN]	1.21	1.29	1.50	1.75	2.01	2.24	2.43	2.62	2.62	2.62	2.62
Design resistance $V_{M_c} = 1.33$	V_{Rd}	[kN]	0.91	0.97	1.13	1.32	1.51	1.68	1.83	1.97	1.97	1.97	1.97
SUBSTRATE THICKNESS 1.75 mm													
Design resistance $V_{M_c} = 1.33$	V_{Rd}	[kN]	0.91	0.97	1.18	1.43	1.70	1.95	2.24	2.53	2.53	2.53	2.53
Characteristic resistance	V_{Rk}	[kN]	1.21	1.29	1.57	1.90	2.26	2.59	2.98	3.37	3.37	3.37	3.37
SUBSTRATE THICKNESS 2.00 mm													
Design resistance $V_{M_c} = 1.33$	V_{Rd}	[kN]	0.91	0.97	1.18	1.43	1.70	1.95	2.24	2.53	2.53	2.53	2.53
Characteristic resistance	V_{Rk}	[kN]	1.21	1.29	1.57	1.90	2.26	2.59	2.98	3.37	3.37	3.37	3.37
SUBSTRATE THICKNESS 2.50 mm													
Design resistance $V_{M_c} = 1.33$	V_{Rd}	[kN]	0.91	0.97	1.18	1.43	1.70	2.03	2.41	2.78	2.78	2.78	2.78
Characteristic resistance	V_{Rk}	[kN]	1.21	1.29	1.57	1.90	2.26	2.70	3.20	3.70	3.70	3.70	3.70
SUBSTRATE THICKNESS 3.00 mm													
Design resistance $V_{M_c} = 1.33$	V_{Rd}	[kN]	0.91	0.97	1.18	1.43	1.70	2.11	2.57	3.03	3.03	3.03	3.03
Characteristic resistance	V_{Rk}	[kN]	1.21	1.29	1.57	1.90	2.26	2.81	3.42	4.03	4.03	4.03	4.03
SUBSTRATE THICKNESS 20.6 mm													
Design resistance $V_{M_c} = 1.33$	V_{Rd}	[kN]	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Characteristic resistance	V_{Rk}	[kN]	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23
SUBSTRATE THICKNESS 20.8 mm													
Design resistance $V_{M_c} = 1.33$	V_{Rd}	[kN]	0.92	0.92	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Characteristic resistance	V_{Rk}	[kN]	1.23	1.23	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51
SUBSTRATE THICKNESS 20.9 mm													
Design resistance $V_{M_c} = 1.33$	V_{Rd}	[kN]	0.92	0.92	1.14	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38
Characteristic resistance	V_{Rk}	[kN]	1.23	1.23	1.51	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83
SUBSTRATE THICKNESS 21.0 mm													
Design resistance $V_{M_c} = 1.33$	V_{Rd}	[kN]	0.92	0.92	1.14	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62
Characteristic resistance	V_{Rk}	[kN]	1.23	1.23	1.51	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15