ODWS Stainless steel self-drilling screws for timber

Stainless steel self drilling screw with reduced drilling point guaranteeing quick and firm installation in wooden substrate

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 has a thickness of no less than 12um. Shape and type of thread designed specifically for use in wood 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 wooden construction. Sharp point of the drill prevents movement of the surface of the fixture.
- Reduced drilling point ensures optimal tightness and correct hole diameter in thin metal sheets.

Applications

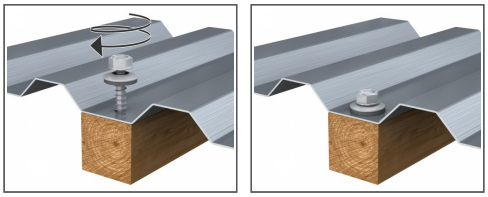
- Profiled sheet to wood and aluminium
- Composite panels to wood and aluminium

Base materials

Approved for use in:

- Timber

Installation guide

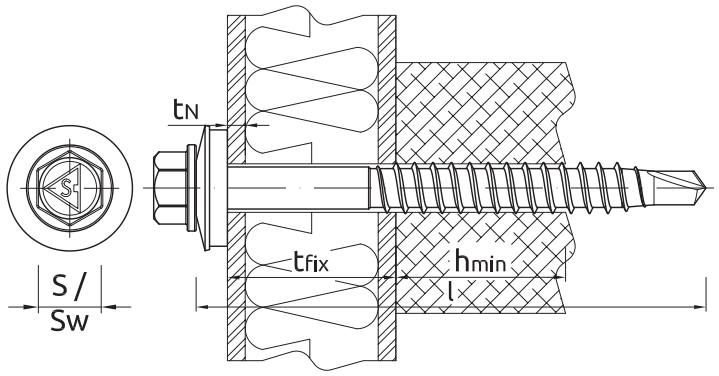


1. Screw must be installed at 90 degrees to substrate.
2. Special driver must be used.
3. Lowest torque setting on impact screwdriver to start.
4. Reduce speed when the washer starts to deform.
5. Use a cordless Impact screwdriver. Note: Never use a power drill.
6. For installation please use screwdriver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

Product information

Size	Product Code	Screw			Fixture	Max. drilling thickness	Washer size
		Diameter	Length	Head size	Max. thickness with washer		
		d	l	S	t_{fix}		
		[mm]					
Ø6.5	ODWS-65050	6.5	50	8	15	2.5	16, 19
	ODWS-65065	6.5	65	8	30	2.5	16, 19
	ODWS-65100	6.5	100	8	65	2.5	16, 19
	ODWS-65120	6.5	120	8	85	2.5	16, 19
	ODWS-65140	6.5	140	8	105	2.5	16, 19
	ODWS-65160	6.5	160	8	125	2.5	16, 19

Installation data



Size			Ø6.5
Hole diameter in substrate	d_0	[mm]	-
Min. hole depth in substrate	h_0	[mm]	-
Min. installation depth	h_{nom}	[mm]	25
Min. substrate thickness	h_{min}	[mm]	25
Min. spacing	s_{min}	[mm]	30
Min. edge distance	c_{min}	[mm]	25
Wrench size	Sw	[mm]	8
Screw diameter	d	[mm]	6.5

Basic performance data

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

Size		TENSION LOAD	SHEAR LOAD
		Ø6.5 (S16)	Ø6.5
MEAN ULTIMATE LOAD			
Substrate thickness min. 25mm	[kN]	2.23	1.88
CHARACTERISTIC LOAD			
Substrate thickness min. 25mm	[kN]	1.67	1.34
DESIGN LOAD			
Substrate thickness min. 25mm	[kN]	1.26	1.01
RECOMMENDED LOAD			
Substrate thickness min. 25mm	[kN]	0.90	0.72

Design performance data

DESIGN PERFORMANCE DATA Ø6.5

TENSION LOAD TO PULL SCREW WITH WASHER 16 THROUGH FIXTURE

Size			Ø6.5										
Sheet metal thickness	t_N	[mm]	**0.40**	**0.50**	**0.55**	**0.63**	**0.75**	**0.88**	**1.00**	**1.13**	**1.25**	**1.50**	**1.75**
Characteristic load	N_{Rk}	[kN]	1.18	1.67	1.92	2.32	2.93	3.61	4.25	4.25	4.25	4.25	4.25
Design resistance γ_{Ms} = 1.33	N_{Rd}	[kN]	0.89	1.26	1.44	1.74	2.20	2.71	3.20	3.20	3.20	3.20	3.20

SHEAR LOAD

Size			Ø6.5										
Sheet metal thickness	t_N	[mm]	**0.40**	**0.50**	**0.55**	**0.63**	**0.75**	**0.88**	**1.00**	**1.13**	**1.25**	**1.50**	**1.75**
Characteristic resistance	V_{Rk}	[kN]	1.02	1.34	1.47	1.71	2.23	2.86	3.53	3.53	3.53	3.53	3.53
Design resistance γ_{Mc} = 1.33	V_{Rd}	[kN]	0.77	1.01	1.11	1.29	1.68	2.15	2.65	2.65	2.65	2.65	2.65

Product commercial data

Product Code	Washer size [mm]	Quantity [pcs]			Weight [kg]			Bar Codes
		Box	Outer	Pallet	Box	Outer	Pallet	
ODWS-65050 [1)]	16, 19	100	1200	28800	1.77	21.2	539.8	5906675345222
ODWS-65065 [1)]	16, 19	100	1200	28800	1.77	21.2	539.8	5906675345321
ODWS-65100 [1)]	16, 19	100	1200	28800	1.77	21.2	539.8	5906675345420
ODWS-65120 [1)]	16, 19	100	1200	28800	2.1	25.4	640.6	5906675345529
ODWS-65140 [1)]	16, 19	100	800	19200	2.5	19.8	504.2	5906675345628
ODWS-65160 [1)]	16, 19	100	800	19200	2.8	22.4	567.6	5906675345727

1) ETA-10/0183