OCS BI-METAL SELF-DRILLING SCREWS

Stainless self-drilling screw for sheet metal installation on structures.

ETA-24/0237

In accordance with the RAL colour system

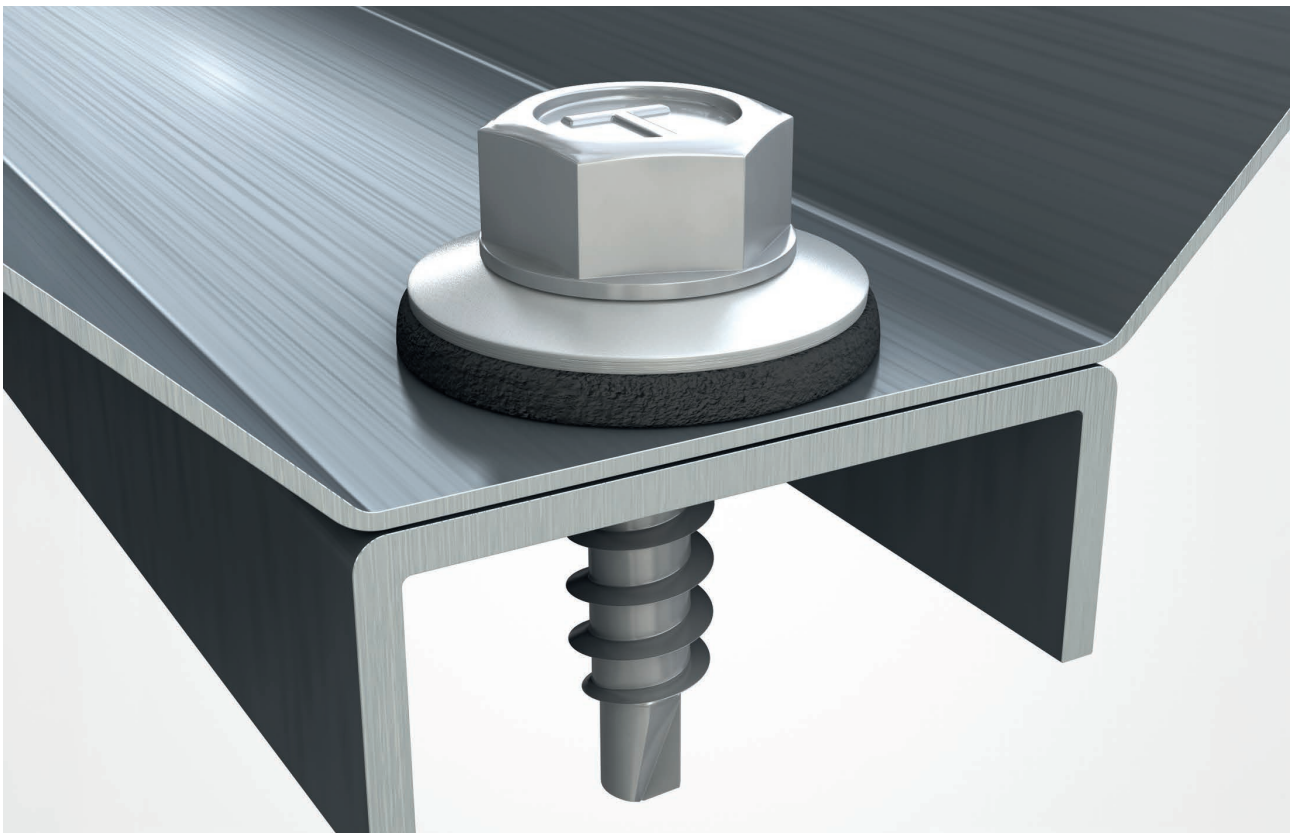


FEATURES AND BENEFITS

- The stainless steel self-drilling screw manufactured in BIMETAL technology combines high mechanical strength with excellent corrosion resistance.
- The case-hardened thread ensures high cutting performance and secure anchorage in the substrate, while maintaining a ductile core. This increases resistance to dynamic loads and reduces the risk of screw fracture.
- The optimised thread geometry and pitch ensure fast penetration into the steel substrate and provide high load-bearing capacity of the joint.
- The thread extended up to the head prevents screw overdriving and ensures strong clamping of the connected elements. It allows installation without a sealing washer in applications where watertightness is not required.
- The specially designed thread geometry and pitch enable stable and durable fastening of profiled sheets to each other, ensuring high load-bearing capacity of the joint.
- The self-vulcanizing EPDM sealing washer is resistant to UV radiation, ageing, and temperature fluctuations. It guarantees long-term watertightness and protects the joint against water ingress.
- The screw is intended for outdoor applications and maintains its performance in environments with elevated humidity and significant temperature variations.
- The optimised drill point geometry enables efficient drilling in steel, reducing installation time and increasing assembly efficiency.
- Screws available with a coloured polyester coating (RAL) provide additional corrosion protection and ensure aesthetic matching with roofing or façade cladding. UV stabilisers guarantee long-term colour durability and resistance to fading throughout the service life

BASE MATERIAL

- Steel profile
- Metal Sheet & Profiles



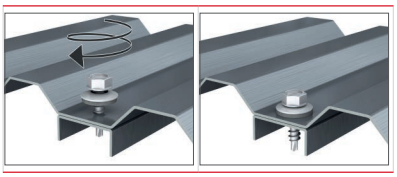
APPLICATIONS

For fixing of:
Overlapping sheet connection



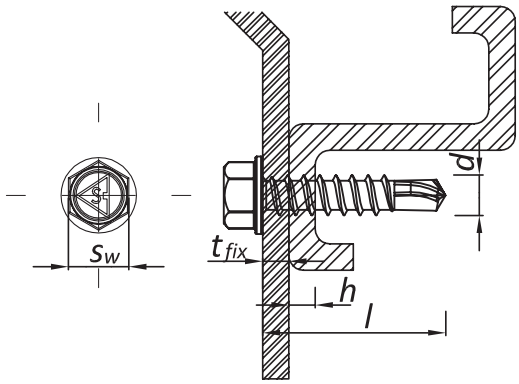


INSTALLATION GUIDE



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			Max. Thickness	Drilling capacity	Washer size	Washer material	Colour
		Diameter	Length	Head size					
		d	l	Sw	tfix				
		[mm]							
5,5	OCS-55025	5,5	25	8	13	6	-	-	-
	OCS-55025S14	5,5	25	8	10	6	14	stainless steel	-
	OCS-55025S14 + RAL	5,5	25	8	10	6	14	stainless steel	RAL
	OCS-55025S16	5,5	25	8	10	6	16	stainless steel	-
	OCS-55030	5,5	30	8	18	6	-	-	-
	OCS-55030S14	5,5	30	8	15	6	14	stainless steel	-
	OCS-55030S16	5,5	30	8	15	6	16	stainless steel	-
	OCS-55030S16 + RAL	5,5	30	8	15	6	16	stainless steel	RAL
	OCS-55035	5,5	35	8	23	6	-	-	-
	OCS-55035S14	5,5	35	8	20	6	14	stainless steel	-
	OCS-55035S14 + RAL	5,5	35	8	20	6	14	stainless steel	RAL
	OCS-55035S16	5,5	35	8	20	6	16	stainless steel	-
	OCS-55050	5,5	50	8	38	6	-	-	-
	OCS-55050S14	5,5	50	8	35	6	14	stainless steel	-
	OCS-55050S16	5,5	50	8	35	6	16	stainless steel	-
	OCS-55070	5,5	70	8	58	6	-	-	-
	OCS-55070S14	5,5	70	8	55	6	14	stainless steel	-
	OCS-55070S14 + RAL	5,5	70	8	55	6	14	stainless steel	RAL

INSTALLATION DATA

Size			Ø5.5
Thread diameter	d	[mm]	5,5
Min. substrate thickness	t_{II}	[mm]	1,00
Max. drilling capacity	$t_I + t_{II}$	[mm]	6,0
Min. edge distance	c_{min}	[mm]	10
Min. spacing	s_{min}	[mm]	30
Wrench size	SW	[mm]	8
Head height	k	[mm]	5,3

DESIGN PERFORMANCE DATA

K-OCS 5,5 X L										
Thickness of metal member or sheeting	t_I	[mm]	0,40	0,50	0,63	0,75	0,88	1,00	1,25	1,50
TENSION LOAD										
CHARACTERISTIC RESISTANCE - CONNECTION FAILURE (screw K-OCS 5,5 without washer) [1)]										
Thickness of steel substructure t_{II} = 1,00mm	N_{Rk}	[kN]	0,21	0,24	0,28	0,46	0,46	0,57	0,57	0,57
Thickness of steel substructure t_{II} = 1,25mm	N_{Rk}	[kN]	0,21	0,24	0,28	0,46	0,46	0,57	0,57	0,57
Thickness of steel substructure t_{II} = 1,50mm	N_{Rk}	[kN]	0,21	0,24	0,28	0,46	0,46	0,57	0,57	0,57
Thickness of steel substructure t_{II} = 2,00mm	N_{Rk}	[kN]	0,21	0,24	0,28	0,46	0,46	0,57	0,57	0,57
Thickness of steel substructure t_{II} = 3,00mm	N_{Rk}	[kN]	0,21	0,24	0,28	0,46	0,46	0,57	0,57	0,57
Thickness of steel substructure t_{II} = 4,00mm	N_{Rk}	[kN]	0,21	0,24	0,28	0,46	0,46	0,57	0,57	0,57
Partial safety factor	γ_M	[-]	1,33	1,33	1,33	1,33	1,33	1,33	1,33	1,33
CHARACTERISTIC RESISTANCE - CONNECTION FAILURE (screw K-OCS 5,5 with washer ≥ Ø14) [1)]										
Thickness of steel substructure t_{II} = 1,00mm	N_{Rk}	[kN]	0,98	1,15	1,15	1,15	1,15	1,15	1,15	1,15
Thickness of steel substructure t_{II} = 1,25mm	N_{Rk}	[kN]	0,98	1,36	1,36	1,36	1,36	1,36	1,36	1,36
Thickness of steel substructure t_{II} = 1,50mm	N_{Rk}	[kN]	0,98	1,66	1,90	1,90	1,90	1,90	1,90	1,90
Thickness of steel substructure t_{II} = 2,00mm	N_{Rk}	[kN]	0,98	1,66	2,25	2,25	2,25	2,25	2,25	2,25
Thickness of steel substructure t_{II} = 3,00mm	N_{Rk}	[kN]	0,98	1,66	2,31	2,87	2,87	3,26	3,26	3,26
Thickness of steel substructure t_{II} = 4,00mm	N_{Rk}	[kN]	0,98	1,66	2,31	2,87	2,87	3,26	3,26	3,26
Partial safety factor	γ_M	[-]	1,33	1,33	1,33	1,33	1,33	1,33	1,33	1,33
CHARACTERISTIC RESISTANCE - CONNECTION FAILURE (screw K-OCS 5,5 with washer ≥ Ø16) [1)]										
Thickness of steel substructure t_{II} = 1,00mm	N_{Rk}	[kN]	1,15	1,15	1,15	1,15	1,15	1,15	1,15	1,15
Thickness of steel substructure t_{II} = 1,25mm	N_{Rk}	[kN]	1,20	1,36	1,36	1,36	1,36	1,36	1,36	1,36
Thickness of steel substructure t_{II} = 1,50mm	N_{Rk}	[kN]	1,20	1,83	1,90	1,90	1,90	1,90	1,90	1,90
Thickness of steel substructure t_{II} = 2,00mm	N_{Rk}	[kN]	1,20	1,83	2,25	2,25	2,25	2,25	2,25	2,25
Thickness of steel substructure t_{II} = 3,00mm	N_{Rk}	[kN]	1,20	1,83	2,51	3,20	3,20	3,64	3,64	3,64
Thickness of steel substructure t_{II} = 4,00mm	N_{Rk}	[kN]	1,20	1,83	2,51	3,20	3,20	3,64	3,64	3,64
Partial safety factor	γ_M	[-]	1,33	1,33	1,33	1,33	1,33	1,33	1,33	1,33
PULL-THROUGH FAILURE (screw K-OCS 5,5 without washer)										
Characteristic resistance	$N_{Rk,I,k}$	[kN]	0,21	0,24	0,28	0,46	0,46	0,57	0,57	0,57
Partial safety factor	γ_{Ms}	[-]	1,33	1,33	1,33	1,33	1,33	1,33	1,33	1,33
PULL-THROUGH FAILURE (screw K-OCS 5,5 with washer ≥ Ø14)										
Characteristic resistance	$N_{Rk,I,k}$	[kN]	0,98	1,66	2,31	2,87	2,87	3,26	3,26	3,26
Partial safety factor	γ_{Ms}	[-]	1,33	1,33	1,33	1,33	1,33	1,33	1,33	1,33
PULL-THROUGH FAILURE (screw K-OCS 5,5 with washer ≥ Ø16)										
Characteristic resistance	$N_{Rk,I,k}$	[kN]	1,20	1,83	2,51	3,20	3,20	3,64	3,64	3,64
Partial safety factor	γ_{Ms}	[-]	1,33	1,33	1,33	1,33	1,33	1,33	1,33	1,33
CHARACTERISTIC RESISTANCE - PULL-OUT FAILURE (screw K-OCS 5,5 without or with washer ≥ Ø14 or Ø16)										
Thickness of steel substructure t_{II} = 1,00mm	$N_{Rk,II,k}$	[kN]	1,15	1,15	1,15	1,15	1,15	1,15	1,15	1,15
Thickness of steel substructure t_{II} = 1,25mm	$N_{Rk,II,k}$	[kN]	1,36	1,36	1,36	1,36	1,36	1,36	1,36	1,36
Thickness of steel substructure t_{II} = 1,50mm	$N_{Rk,II,k}$	[kN]	1,90	1,90	1,90	1,90	1,90	1,90	1,90	1,90
Thickness of steel substructure t_{II} = 2,00mm	$N_{Rk,II,k}$	[kN]	2,25	2,25	2,25	2,25	2,25	2,25	2,25	2,25
Thickness of steel substructure t_{II} = 3,00mm	$N_{Rk,II,k}$	[kN]	4,94	4,94	4,94	4,94	4,94	4,94	4,94	4,94
Thickness of steel substructure t_{II} = 4,00mm	$N_{Rk,II,k}$	[kN]	7,04	7,04	7,04	7,04	7,04	7,04	7,04	7,04
Partial safety factor	γ_{Ms}	[-]	1,33	1,33	1,33	1,33	1,33	1,33	1,33	1,33

DESIGN PERFORMANCE DATA

K-OCS 5,5 X L										
Thickness of metal member or sheeting	t_I	[mm]	0,40	0,50	0,63	0,75	0,88	1,00	1,25	1,50
SHEAR LOAD										
CHARACTERISTIC RESISTANCE - CONNECTION FAILURE (screw K-OCS 5,5 without or with washer ≥ Ø14 or Ø16)										
Thickness of steel substructure t_{II} = 1,00mm	V_{Rk}	[kN]	0,87	1,51	1,69	2,17	2,17	2,30	2,30	2,30
Thickness of steel substructure t_{II} = 1,25mm	V_{Rk}	[kN]	0,87	1,51	1,69	2,17	2,17	2,30	2,30	2,30
Thickness of steel substructure t_{II} = 1,50mm	V_{Rk}	[kN]	0,87	1,51	1,69	2,17	2,17	2,30	2,30	2,30
Thickness of steel substructure t_{II} = 2,00mm	V_{Rk}	[kN]	0,87	1,51	1,69	2,17	2,17	2,30	2,30	2,30
Thickness of steel substructure t_{II} = 3,00mm	V_{Rk}	[kN]	0,87	1,51	1,69	2,17	2,17	2,30	2,30	2,30
Thickness of steel substructure t_{II} = 4,00mm	V_{Rk}	[kN]	0,87	1,51	1,69	2,17	2,17	2,30	2,30	2,30
Partial safety factor	γ_M	[-]	1,33	1,33	1,33	1,33	1,33	1,33	1,33	1,33

[1] min (NRk,I,k ; NRk,II,k)

LOGISTICAL DATA

Product code	Quantity [pcs]			Bar codes
	Inner box	Outer box	Pallet	
OCS-55025	200	3200	76800	5906675340227
OCS-55025S14	200	3200	76800	5906675340234
OCS-55025S14 + RAL	200	3200	76800	-
OCS-55025S16	200	3200	76800	5906675340241
OCS-55030	200	3200	76800	5906675340326
OCS-55030S14	200	3200	76800	5906675340333
OCS-55030S16	200	3200	76800	5906675340340
OCS-55030S16 + RAL	200	3200	76800	-
OCS-55035	200	3200	76800	5906675340425
OCS-55035S14	200	3200	76800	5906675340432
OCS-55035S14 + RAL	200	3200	76800	-
OCS-55035S16	200	3200	76800	5906675340449
OCS-55050	100	1600	38400	5906675340524
OCS-55050S14	100	1600	38400	5906675340531
OCS-55050S16	100	1600	38400	5906675340548
OCS-55070	100	1200	28800	5906675115702
OCS-55070S14	100	1200	28800	5906675289465
OCS-55070S14 + RAL	100	1200	28800	-

RELATED PRODUCT

DRILLING

POWER TOOLS

18 V RawlDRIVER 100Nm
Cordless impact drill driver
R-PDD18-P100



ACCESSORIES

HEX Holder 1/4"
Impact Socket Cr-Mo
RT-IS-08



Protective gloves
R-PGL

