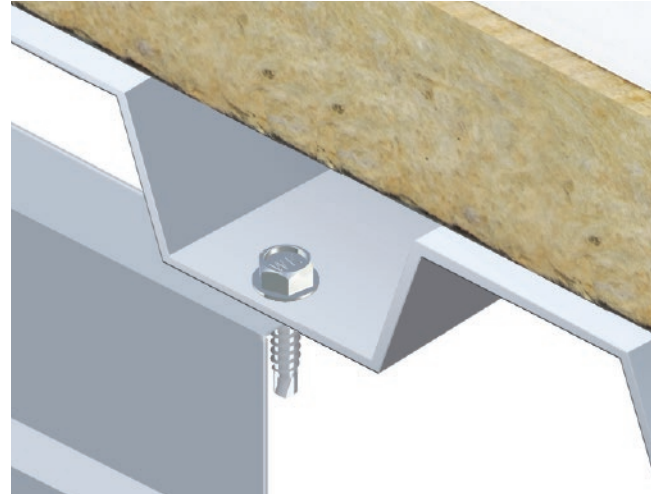


WS Self-drilling screw for fixing steel sheets in steel construction



ETA-16/0443



Description

Carbon-steel or stainless steel self-drilling screw for fixing thin-walled sheets in steel construction.

Protective coating / Material



Technical parameters

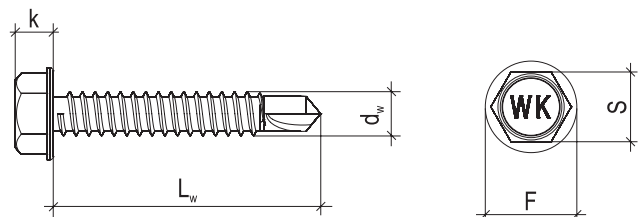
Screw diameter	d_w [mm]	4.2	4.8	5.5	6.3
Drilling capacity	t_{max} [mm]	2.0	3.0	5.0	7.0
Spanner size (S)	-	SW 7	SW 8	SW 8	SW 10
Head height	k [mm]	4.5	4.5	4.9	5.4
Head diameter	F [mm]	8.6	10.0	10.5	12.5
Tip length	[mm]	7.0	8.0	9.0	11.0
Screw material	WS/WS-D	heat-treated carbon steel			
	A2-WS	stainless steel A2/bimetal			
Protective coating	WS	galvanized zinc coating min. 12µm			
	WS-D/A2-WS	ceramic coating SQ			
Substrate material	WS/WS-D	steel min. S280GD			
	A2-WS	steel / aluminium min. S280GD/AW-6060			
Technical approval	[-]	ETA-16/0443			

Features and advantages

Self-drilling tip	Ability of drilling plates of thickness up to 7 mm, short time of fixing
Branding of head of screw	WK feature at head of the screw facilitates the identification of our company as the producer and easy recognition of the product
Anti-corrosion coating - electro-galvanized (WS)	Thickness of zinc coating min. 12 µm, guarantee of quality and high level of anti-corrosion protection
Anti-corrosion coating - ceramic coating (WS-D)	Very high level of anti-corrosion protection (several times higher than the traditional galvanization)
A2 stainless steel screws (A2-WS)	Highest level of anti-corrosion protection - possibility of applying screws even in category of corrosiveness of C4

Installation parameters

Screw diameter	d_w [mm]	4.2	4.8	5.5	6.3
Min. construction thickness	h_{min} [mm]	0.50	0.75	1.0	3.0
Fastener anchorage depth	h_{eff} [mm]	push-through installation			
Min. spacing	S_{min} [mm]	50			
Min. edge distance	C_{min} [mm]	25			



How to read the code, e.g. A2-WS-55038?

A2	WS	55	038
Stainless steel A2	Type	Diameter 5.5mm	Length 38mm

* - made to order

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	Code				$d_w \times L_w$ [mm]	Max. effective length t_{fix} [mm]	Drilling capacity t_{max} [mm]	Thread length [mm]	
			¹ Min. order quantity WS-D						
ø4.2	WS-42016	WS-D-42016	300000	-	4.2x16	1	2	16	500
	WS-42019	WS-D-42019		-	4.2x19	7	2	19	500
	WS-42025	WS-D-42025		-	4.2x25	14	2	25	500
ø4.8	WS-48016	WS-D-48016	400000	A2-WS-48016	4.8x16	5	3	16	500
	WS-48019	WS-D-48019		A2-WS-48019	4.8x19	9	3	19	500
	WS-48025	WS-D-48025		A2-WS-48025	4.8x25	14	3	25	500
	WS-48032	WS-D-48032		A2-WS-48032	4.8x32	21	3	32	500
ø5.5	WS-55019	WS-D-55019	300000	A2-WS-55019	5.5x19	4	5	19	500
	WS-55025	WS-D-55025		A2-WS-55025	5.5x25	10	5	25	500
	WS-55032	WS-D-55032		A2-WS-55032	5.5x32	17	5	32	500
	WS-55038	WS-D-55038		A2-WS-55038	5.5x38	23	5	38	250
	WS-55045	WS-D-55045		A2-WS-55045	5.5x45	30	5	45	250
	WS-55050	WS-D-55050		A2-WS-55050	5.5x50	35	5	50	250
	WS-55060	WS-D-55060		-	5.5x60	45	5	60	250
	WS-55075	WS-D-55075		-	5.5x75	60	5	75	200
	WS-55090	WS-D-55090		-	5.5x90	75	5	75	100
WS-55120	WS-D-55120	-	5.5x120	105	5	75	100		
ø6.3	WS-63019	WS-D-63019	300000	-	6.3x19	4	7	19	250
	WS-63025	WS-D-63025		-	6.3x25	10	7	25	250
	WS-63032	WS-D-63032		-	6.3x32	17	7	32	250
	WS-63038	WS-D-63038		-	6.3x38	23	7	38	200
	WS-63100	WS-D-63100		-	6.3x100	85	7	75	100
made to order ¹				made to order					

¹ Minimum order quantity per size - shown in table

Characteristic pull-out / shear strength [kN]

WS-4.2 / WS-D-4.2

Construction thickness [mm]	Steel sheet thickness [mm]				
	0.50	0.63	0.75	0.88	1.00
0.50	0.43/0.92	0.43/0.92	0.43/0.92	0.43/0.92	0.43/0.92
0.63	0.43/0.92	0.57/1.11	0.57/1.11	0.57/1.11	0.57/1.11
0.75	0.43/0.92	0.57/1.11	0.69/1.66	0.69/1.66	0.69/1.66
0.88	0.43/0.92	0.57/1.11	0.69/1.66	0.73/1.84	0.73/1.84
1.00	0.43/0.92	0.57/1.11	0.69/1.66	0.73/1.84	0.78/1.88

WS-4.8 / WS-D-4.8 / A2-WS-4.8

Construction thickness [mm]	Steel sheet thickness [mm]						
	0.50	0.63	0.75	0.88	1.00	1.25	1.50
0.75	0.63/1.32	0.78/1.59	0.78/2.38	0.78/2.38	0.78/2.38	0.78/2.38	0.78/2.38
0.88	0.63/1.32	0.89/1.59	0.97/2.38	0.97/3.02	0.97/3.02	0.97/3.02	0.97/3.02
1.00	0.63/1.32	0.89/1.59	1.01/2.38	1.07/3.02	1.16/3.03	1.16/3.03	1.16/3.03
1.25	0.63/1.32	0.89/1.59	1.01/2.38	1.07/3.02	1.16/3.03	1.16/3.10	1.16/3.10
1.50	0.63/1.32	0.89/1.59	1.01/2.38	1.07/3.02	1.16/3.03	1.16/3.10	1.16/3.15

WS-5.5 / WS-D-5.5 / A2-WS-5.5

Construction thickness [mm]	Steel sheet thickness [mm]					
	0.50	0.63	0.75	0.88	1.00	1.25÷2.00
1.00	0.63/1.53	0.89/1.88	1.01/2.52	1.07/2.87	1.10/2.90	1.10/4.09
1.25÷3.0	0.63/1.53	0.89/1.88	1.01/2.52	1.07/2.87	1.16/2.90	1.16/4.09

WS-6.3 / WS-D-6.3

Construction thickness [mm]	Steel sheet thickness [mm]					
	0.50	0.63	0.75	0.88	1.00	1.25÷2.00
3.0÷5.0	0.63/1.75	0.89/2.48	1.01/3.04	1.07/3.59	1.16/3.62	1.16/4.57

Partial safety factor of 1.33 recommended