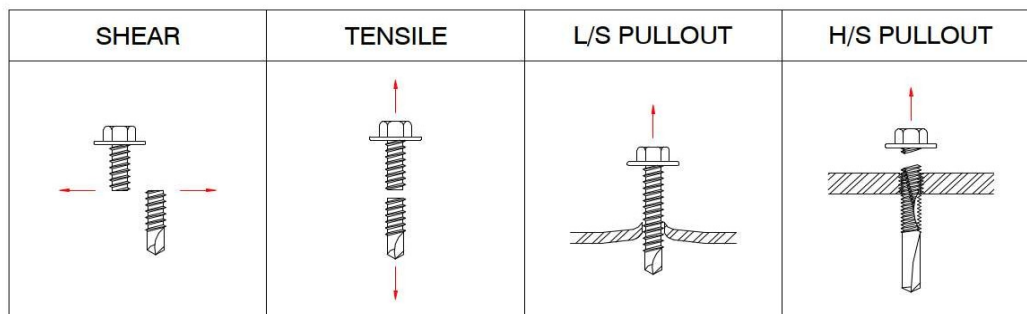


Technical Data Carbon Steel Self-Drilling Screws



Material Specification

Manufactured from high quality medium carbon cold forming steel, heat treated to give high quality drilling performance and mechanical strength and coated with a specialist three part organic based coating.

Coating Specification

Coating consists of 4 microns zinc followed by 2 coatings of Dacromet.

Testing is performed as per DIN 50018, Kesternich – 12 cycles, no visible corrosion and 15 cycles, 15% visible corrosion.

Salt Spray Testing performance is between 800 and 1000 hours

Pullout Performance

Thread pulling out of steel thicker than 6.0mm, the limiting factor is the tensile strength of the fastener. The figures quoted for steel from 6.0mm thickness are from steel classified as grade 43A. Figures quoted for steel thickness 1.2 to 3.0mm are from steel specified as grade 450N/mm². Figures quoted for timber are from C16 structural grade. Steel and timber of different grades may have different results

Ultimate Pullout values (kN)

Steel

Code	Drilling Capacity (mm)	Steel Thickness (mm)								
		1.2	AG40 (1.25)	1.4	1.6	1.8	2.0	2.5	3.0	6.0
CPLS	1.2 - 3.2	2.42		3.16	3.49	4.16	4.78	7.71	9.04	-
LS	1.2 - 3.2	2.32	2.91	2.74	3.76	4.13	5.15	7.05	8.60	-
LSB28	1.2 - 3.0	3.26	3.61	3.82	4.19	5.07	6.05	7.83	-	-
CPHS	4.0 - 12.0	-	-	-	-	-	-	-	-	19.00
HS	4.0 - 12.0	-	-	-	-	-	-	-	-	17.67

Timber

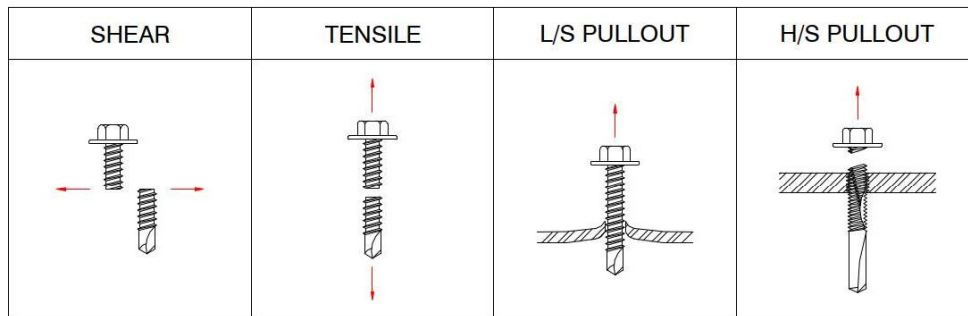
Code	Drilling Capacity (mm)	Embedment (mm)			
		40	50	60	70
TF	0.7mm to Timber	3.56	4.44	5.34	6.32

Ultimate Performance of Fasteners (kN)

Screw Diameter (mm)	Steel Thickness (mm)	Ultimate Shear Strength	Ultimate Tensile Strength
4.8	1.2 - 3.0	6.10	8.60
5.5	1.25 - 3.0	9.00	12.60
5.5	4.0 - 12.0	9.30	17.67
6.3	0.7mm to Timber	11.50	18.00

Values shown are laboratory test results and should be taken as a guide for design purposes

Technical Data Bi-metal Stainless Steel Self-Drilling Screws



Material Specification

The main body and head of the fasteners are manufactured from 304 grade austenitic stainless steel. The drill point and first threads are a heat-treated carbon steel.

Pullout Performance from Steel

Thread pulling out of steel thicker than 6.0mm, the limiting factor is the tensile strength of the fastener. The figures quoted for steel from 6.0mm thickness are from steel classified as grade 43A. Figures quoted for steel thickness 1.2 to 3.0mm are from steel specified as grade 450N/mm². Steel of different grade may have different results

Ultimate Pull-out values (kN)

Code	Drilling Capacity	Steel Thickness (mm)								
		1.2	AG40 (1.25)	1.4	1.6	1.8	2.0	2.5	3.0	6.0
BM-CPLS	1.2 – 3.2	2.560	3.321	3.260	3.664	4.229	5.282	7.570	9.500	-
BM-LS	1.2 – 3.2	2.322	3.059	3.069	3.347	4.165	5.203	7.035	8.186	-
BM-LSHF	1.2 – 2.0	3.530	3.632	4.448	5.327	5.462	7.041	-	-	-
BM-CPHS	4.0 – 12.0	-	-	-	-	-	-	-	-	11.232
BM-HS	4.0 – 12.0	-	-	-	-	-	-	-	-	12.914

Ultimate Performance of Fasteners (kN)

Screw Diameter (mm)	Steel Thickness (mm)	Ultimate Shear Strength	Ultimate Tensile Strength
5.5	1.2 – 3.0	7.50	10.50
6.3	1.2 – 3.0	10.10	15.60
5.5	4.0 – 12.5	7.50	12.91

Washer Pull-over (kN)

Washer Size	Sheet Type		
	0.7mm Steel	0.7mm Aluminium	0.9mm Aluminium
16mm	5.6	2.2	2.5
19mm	6.5	2.5	3.4

Values shown are laboratory test results and should be taken as a guide for design purposes