

SAE Flange Clamps ISO 6162-1, 3000psi working pressure, SAE J518 code 61 flange series,FL-W series

SAE Flange Clamps Code 61 FL-W series



YUYAO SWINTOOL CO.,LTD

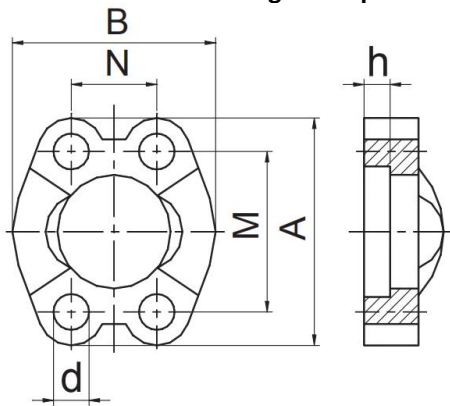
www.swintool.com

Yuyao Swintool Co.,ltd www.swintool.com

SAE code 61 Flange Clamps FL series

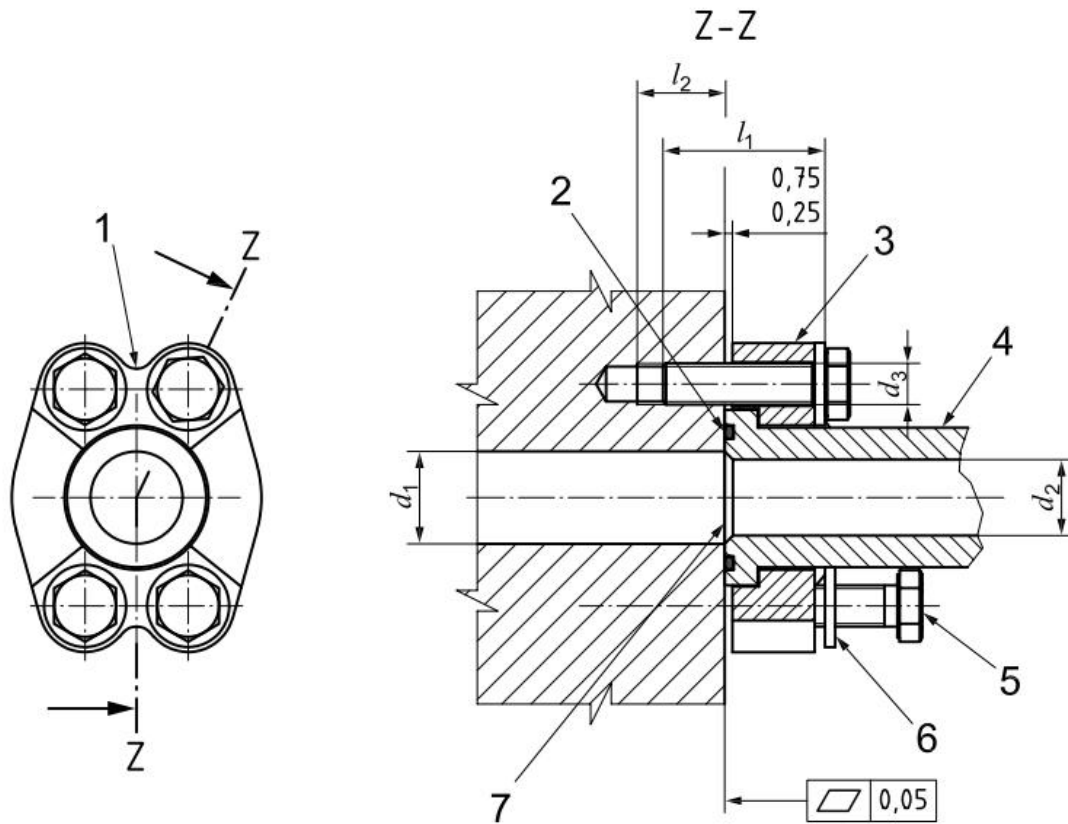
Instruction for code 61 Flange Clamps one piece type:

- Working pressure** of SAE code 61 series flange clamps is 3000 PSI, 3,5 MPa (35 bar) to 35 MPa (350 bar).
- SAE Flange clamps dimensions** is according to ISO 6162-1:2012. ISO Nominal Size: DN 13; DN 19; DN 25; DN 32; DN 38; DN 51; DN 64; DN 76; DN 89; DN 102; DN 127; Inch size: 1/2"; 3/4"; 1"; 1 1/4"; 1 1/2"; 2"; 2 1/2"; 3".
- Material of SAE one-piece flange clamp** is made of carbon steel C45 ,Stainless steel 304,316 or 316L.
- The external surface Corrosion protection** of all carbon steel flange clamps,shall be protected with an appropriate coating to pass a minimum 72-h salt spray test in accordance with ISO 9227.
- Test requirement for pressure/temperature:** Flange type connections conforming to this part of ISO 6162 shall be subjected to the burst and cyclic endurance tests specified in ISO 19879 to verify that they meet the specified pressure/temperature requirements.
- Designation of one piece flange clamps connections**
 One-piece flange clamp of size DN 25: Clamp ISO 6162-1, FC×25
 Swintool company use FL-16(dash size)W: SAE 3000 psi flange clamps size 1" inch.
 Parker company use FUS3x(2,3,4,5,6,8, etc) and FCC (dash size FCCT1)
 Stauff company use BM-30x(1,2,3,4,5,6,7,8,9,10,11)
- Dimensions of SAE Flange Clamps Code 61**



PART NO.	FLANGE SIZE	BOLT	DIMENSIONS					
			A	B	M	d	N	h
FL-08W	1/2"	M8x25	54	46	38.1	9	17.5	6.2
FL-12W	3/4"	M10x30	65.1	52	47.6	11	22.2	6.2
FL-16W	1"	M10x30	69.8	59	52.4	11	26.2	7.5
FL-20W	1.1/4"	M10x30	79.4	73	58.7	11	30.2	7.5
FL-24W	1.1/2"	M12x35	93.7	83	69.8	13.5	35.7	7.5
FL-32W	2"	M12x35	101.6	97	77.8	13.5	42.9	9
FL-40W	2.1/4"	M12x40	114	108	89	13.5	50.8	9
FL-48W	3"	M16x50	135	130.6	106.4	16.7	62	9

Assembled flange connection with one-piece flange clamp (FC or FCM)



Dimensions, torques and maximum working pressures for one-piece flange assemblies for use with inch screws

Dimensions in millimetres unless noted

Nominal size DN	d_1 +0 -1,5	d_2 max.	O-ring size code ^a	Flat washer ^b (recommended)	Type 2 – inch screws of grade 8 in accordance with SAE J429				Maximum working pressure MPa (bar)	Minimum burst pressure MPa (bar)
					d_3 Screw thread ^c UNC	l_1 Screw length ^d nom.	l_2 Min. full thread	Screw torque ^e (N·m) +10 % -0		
13	13,0	13,0	210	M8	5/16-18	32	20	32	35 (350)	140 (1 400)
19	19,2	19,2	214	M10	3/8-16	32	22	60	35 (350)	140 (1 400)
25	25,6	25,6	219	M10	3/8-16	32	22	60	32 (320)	128 (1 280)
32	32,0	32,0	222	7/16 ^b	7/16-14	38	25	92	28 (280)	112 (1 120)
38	38,2	38,2	225	M12	1/2-13	38	27	150	21 (210)	84 (840)
51	51,0	51,0	228	M12	1/2-13	38	27	150	21 (210)	84 (840)
64	63,5	63,5	232	M12	1/2-13	44	27	150	17,5 (175)	70 (700)
76	76,2	76,2	237	M16	5/8-11	44	30	295	16 (160)	64 (640)
89	89,0	89,0	241	M16	5/8-11	51	30	295	3,5 (35)	14 (140)
102	101,6	101,6	245	M16	5/8-11	51	30	295	3,5 (35)	14 (140)
127	127,0	127,0	253	M16	5/8-11	57	30	295	3,5 (35)	14 (140)

WARNING — It is important that all screws be lightly torqued before applying the final recommended torque values to avoid breaking the split flange clamps or one-piece flange clamps during installation (see Annex A for assembly guidelines).

^a O-ring size code in accordance with ISO 3601-1; see Annex B for reference dimensions.

^b ANSI/ASME B18.22.1 Type B narrow washers of HV 300 quality material for the corresponding screw size in this table may be substituted for all sizes except for DN 32, where a washer conforming to ISO 7089 might cause interference.

^c Coarse pitch thread in accordance with ISO 263 and ISO 725 (UNC-2A for screw threads, UNC-2B for port threads).

^d Screw lengths are calculated for steel; use of other materials can require different screw lengths.

^e These torque values are only a guide when using lubricated screws, calculated with a coefficient of friction of 0,17. Net tightening torque depends on many factors, including lubrication, coating and surface finish.