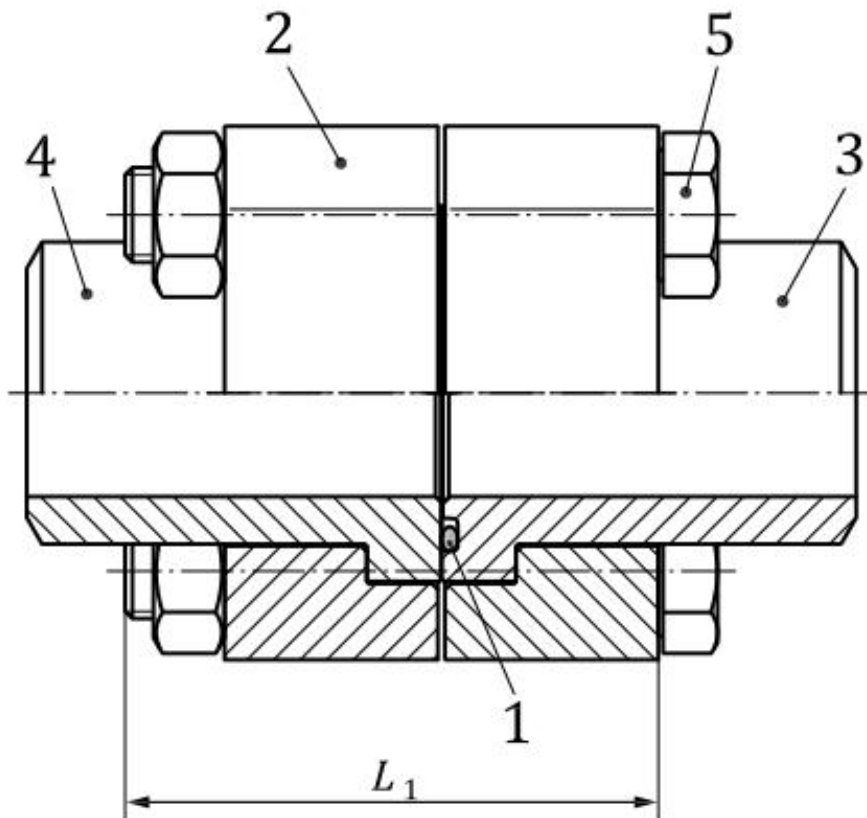


## Metric Square Hydraulic Flange



### Square Flanges connection system

ISO 6164 four-screw one-piece square flange connection

## Hydraulic Fluid power square flange clamps connection

Metric square hydraulic flanges fittings is 4 bolt flange dimensions, according to ISO 6164 standards. It is the square pattern block flanges for the hydraulic applications to be seal of motor, pump, jack etc in mobile and industrial pipeworks equipment.

The dimension of ISO square flange clamp is different from SAE J518 standard size chart, four screw one piece flange connections is used for high pressures of 42 MPa. Size from DN 25 to 80. Working pressure is based on ferrous material of flange clamps, flanged head, screw and port. minums

Square flange coupling connection assembly types as follows:

Flanged joint assembly with butt-weld

Flanged connection assembly to port

Components of ISO square flange connection systems including:

Square Flange Clamps

Square Flange Adapters (flange head with or without groove

O-ring seal

Screw

Maximum working pressure of square flange Assembly

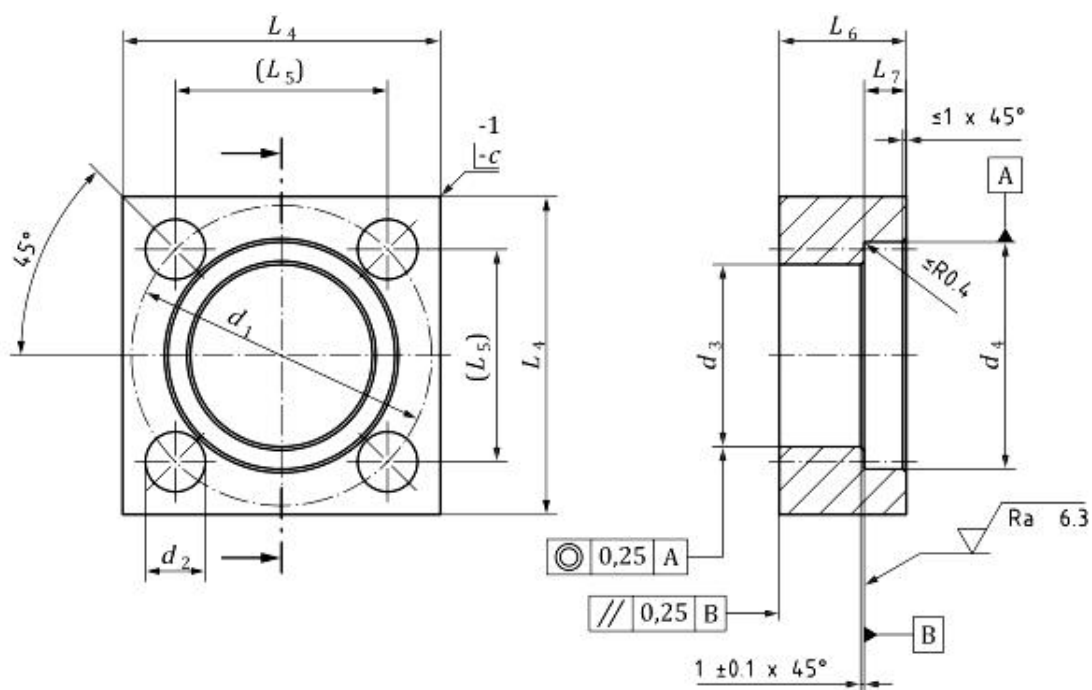
Nominal size DN	$L_1$ Screw length	$L_2^a$ Screw length	$L_{3min}$ Thread length <sup>a</sup>	$t_1$ Screw thread <sup>b</sup>	Screws of property class 10,9	
					Maximum working pressure MPa (bar)	Minimum burst pressure MPa (bar)
25	65	40	15,5	M10×1,5	42 (420)	168 (1 680)
32	75	50	20,5	M12×1,75	42 (420)	168 (1 680)
38	90	60	24,5	M16×2	42 (420)	168 (1 680)
51	100	65	25,5	M16×2	42 (420)	168 (1 680)
56	130	80	31	M20×2,5	42 (420)	168 (1 680)
63	140	90	39 <sup>c</sup>	M24×3	42 (420)	168 (1 680)
70	150	100	41 <sup>c</sup>	M24×3	42 (420)	168 (1 680)
80	180	120	51 <sup>c</sup>	M30×3,5	42 (420)	168 (1 680)

<sup>a</sup> Thread and screw lengths are calculated for steel; use of other port materials can require different screw and thread lengths.

<sup>b</sup> Thread in accordance with ISO 724, with coarse pitch in accordance with ISO 261.

<sup>c</sup> Screw length  $L_1$  and port thread depth  $L_3$  are increased in comparison to ISO 6164:1994.

## Square Flange Clamps

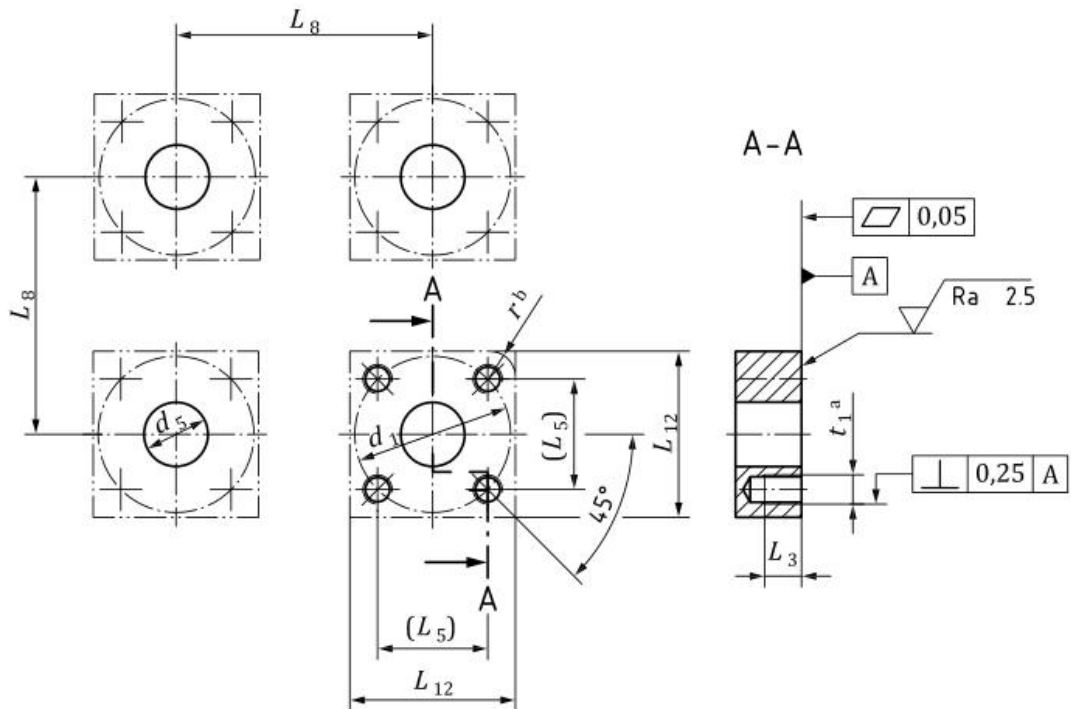


Square flange size chart

Part No.	Dominal size	d1	d2	d3	d4	L4	L5	L6	L7	c
FCS-25	25	62	11	38.9	48.4	65	43.8	25	8.5	10
FCS-32	32	73	13	44.6	54.8	75	51.6	30	9.3	12
FCS-38	38	85	17	51.6	64.3	90	60.1	36	11.5	14
FCS-51	51	98	17	67.6	80.2	100	69.3	40	11.5	16
FCS-56	56	118	21	80.5	95	120	83.4	50	15.5	20
FCS-63	63	145	21	90.5	111	150	102.5	52	16.1	20
FCS-70	70	160	25	102.5	120	160	113.1	60	17.5	20
FCS-80	80	175	31	114.5	136	180	123.7	70	21	24

Hydraulic square flange connection one piece clamp at 42 Mpa, DN 25 to 80.

Square Flange Port



Port dimensions for square flange port

Dominal size	d1	d5	L3	L5	L8	L12	r	t1	remark
25	62	11	15.5	43.8	68	65.3	10	M10x1.5	
32	73	13	20.5	51.6	80	75.3	12	M12x1.75	
38	85	17	24.5	60.1	95	90.3	14	M16x2	
51	98	17	24.5	69.3	105	100.3	16	M16x2	
56	118	21	31	83.4	125	120.3	20	M20x2.5	
63	145	21	39	102.5	155	150.5	20	M24x3	
70	160	25	41	113.1	165	160.5	20	M24x3	

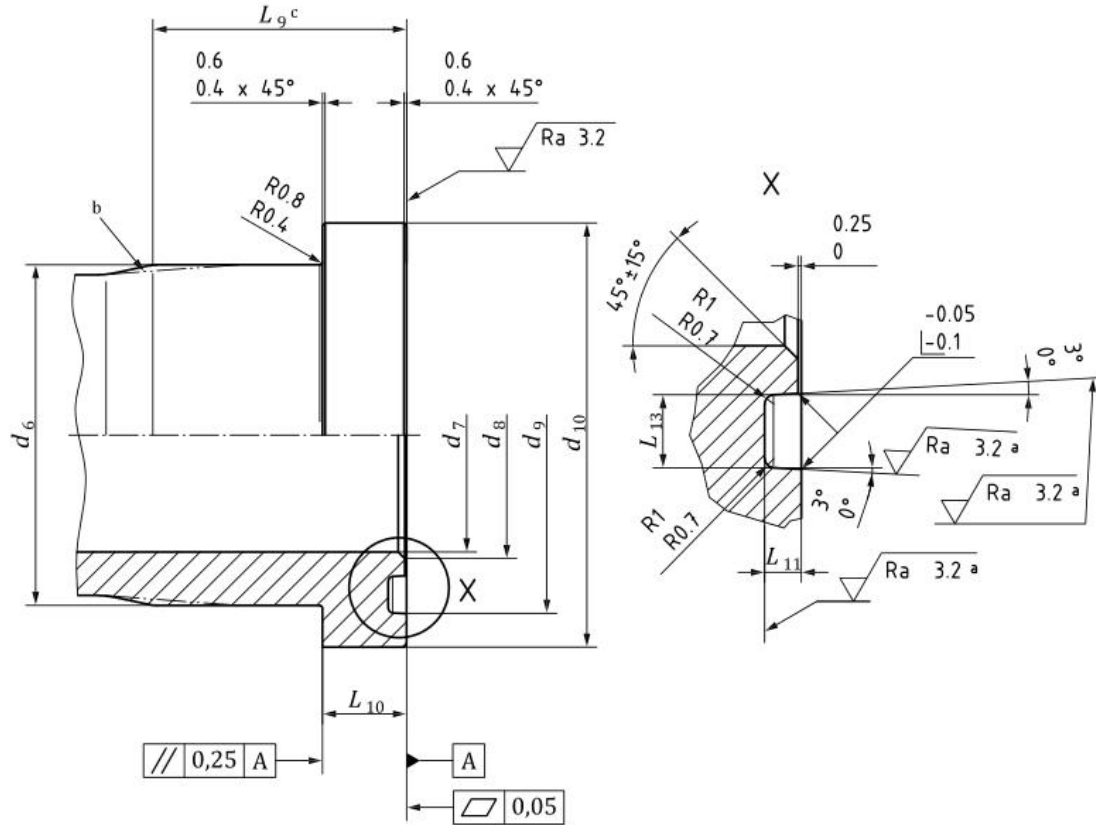
These dimension is only for your reference.

Thread in accordance with ISO 724, coarse pitch ISO 261.

Thread and screw length are caculated for different steel,

## Hydraulic square flange connection one piece clamp at 42 Mpa, DN 25 to 80.

### Square Flange Head



### Square flange head dimensions

Part No.	Dominal size	d6 max	d7 max	d8 max	d9	d10	L9	L10	L11	L13
FCSH-25	25	38	23	25	39.2	47.6	27	9.5	2.75	5.4
FCSH-32	32	44	29	30	43.9	54	32	10.3	2.75	5.4
FCSH-38	38	51	35	37	53.2	63.5	38	12.6	2.75	5.4
FCSH-51	51	67	45	47	65.8	79.4	42	12.6	4.25	7.7
FCSH-56	56	80	54	56	78.3	94.2	52	16.5	4.25	7.7
FCSH-63	63	90	59	60	84.5	110	56	18	4.25	7.7
FCSH-70	70	102	66	68	93.8	119	65	20	4.25	7.7
FCSH-80	80	114	74	76	97	135	75	23.5	4.25	7.7

### Note:

Different material is chosen for the port d8 maintain the different working pressure.