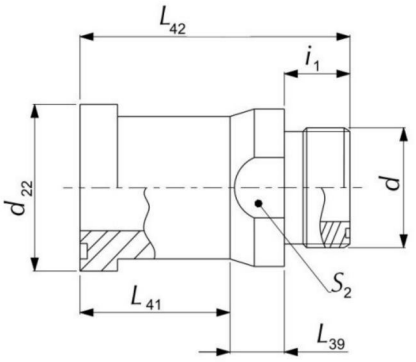


Figure 44A
(Compact – 52M2961 OR 52M2962)

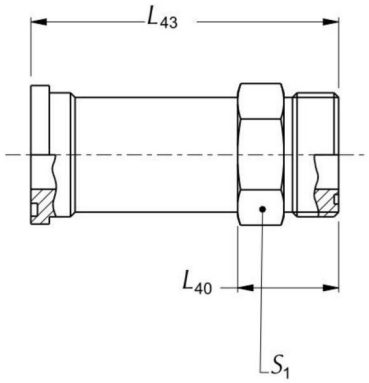


Figure 44B
(Short – 52M3061 OR 52M3062)
(Medium – 52M3161 OR 52M3162)
(Long – 52M3261 OR 52M3262)

Figures 45A and 45B – Compact, short, medium and long straight 4-bolt flange connectors

NOTE: For dimensions not shown, see SAE J1453-1, ISO 6162-1 (SAE J518-1) and ISO 6162-2 (SAE J518-2).

Table 24A - Dimensions for straight ISO 6162-1 4-bolt flange connectors

dimensions in millimeters

Ordering Size Code	Flange Dash Size	**d_{22}** Code 61 Flange Head Ref	ORFS SAE Dash Size	**d** ORFS Thread (inch)	**i_1** ±0.4	**L_{39}** Ref	**L_{40}** ±0.8	**L_{41}** Compact Code 61 52M2961 ±0.8	**L_{42}** Compact Code 61 52M2961 ±0.8	**L_{43}** Short Code 61 52M3061 ±0.8	**L_{43}** Medium Code 61 52M3161 ±0.8	**L_{43}** Long Code 61 52M3261 ±0.8
12-12	-12	38.1	-12	1-3/16-12	17.0	13	33	35	65	105	155	215
12-16	-12	38.1	-16	1-7/16/-12	17.5	13	38	35	66	106	156	216
16-16	-16	44.45	-16	1-7/16/-12	17.5	14	38	40	72	132	192	252
16-20	-16	44.45	-20	1-11/16-12	17.5	14	38	40	72	132	192	252
20-20	-20	50.8	-20	1-11/16-12	17.5	16	38	43	77	137	207	287
20-24	-20	50.8	-24	2-12	17.5	16	38	43	77	137	207	287
24-24	-24	60.35	-24	2-12	17.5	18	38	50	86	156	226	216
24-32	-24	60.35	-32	2-1/2-12	22.0	18	45	50	90	170	250	350

Table 24B - Dimensions for straight ISO 6162-2 4-bolt flange connectors

dimensions in millimeters

Ordering Size Code	Flange Dash Size	**d_{22}** Code 62 Flange Head Ref	ORFS SAE Dash Size	**d** ORFS Thread (inch)	**L_{41}** Compact Code 62 52M2962 ±0.8	**L_{42}** Compact Code 62 52M2962 ±0.8	**L_{43}** Short Code 62 52M3062 ±0.8	**L_{43}** Medium Code 62 52M3162 ±0.8	**L_{43}** Long Code 62 52M3262 ±0.8	**S_1** Hex	**S_2** Forging Wrench Flat Min	**S_2** Forging Wrench Flat Max
12-12	-12	41.3	-12	1-3/16-12	43	73	105	155	215	32	27	41
12-16	-12	41.3	-16	1-7/16/-12	43	74	106	156	216	41	36	46
16-16	-16	47.6	-16	1-7/16/-12	53	85	132	192	252	41	36	46
16-20	-16	47.6	-20	1-11/16-12	53	85	132	192	252	46	41	55
20-20	-20	54	-20	1-11/16-12	57	91	137	207	287	46	41	55
20-24	-20	54	-24	2-12	57	91	137	207	287	55	50	60
24-24	-24	63.5	-24	2-12	71	107	156	226	216	55	50	60
24-32	-24	63.5	-32	2-1/2-12	71	111	170	250	350	70	65	85

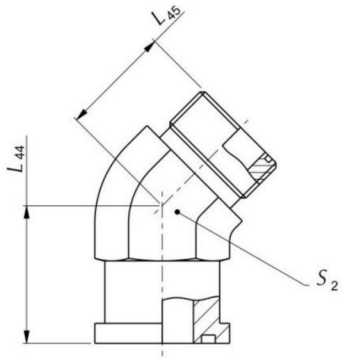


Figure 46A
(Compact – 52M3361 OR 52M3362)

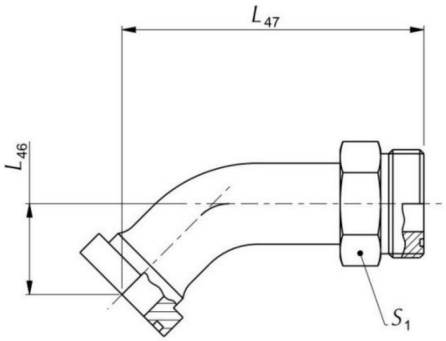


Figure 46B
(Short – 52M2261 OR 52M2262)
(Medium – 52M2361 OR 52M2362)

Figures 46A and 46B – Compact, short and medium 45º elbow 4-bolt flange connectors

NOTE: For dimensions not shown, see SAE J1453-1, ISO 6162-1 (SAE J518-1) and ISO 6162-2 (SAE J518-2).

Table 25A - Dimensions for 45º elbow ISO 6162-1 4-bolt flange connectors

dimensions in millimeters

Ordering Size Code mm	Flange Dash Size	**d_{22}** Code 61 Flange Head Ref	ORFS Dash Size	**d** ORFS Thread (inch)	**L_{44}** Compact Code 61 52M3361 ±0.8	**L_{45}** Compact Code 61 52M3361 ±1.5	**L_{46}** Short Code 61 52M2261 ± 1.5	**L_{46}** Medium Code 61 52M2361 ±1.5	**L_{47}** Code 61 ± 1.5
12-12	-12	38.1	-12	1-3/16-12	40	32	22	26	80
12-16	-12	38.1	-16	1-7/16/-12	40	33	28	32	110
16-16	-16	44.45	-16	1-7/16/-12	45	34	28	32	110
16-20	-16	44.45	-20	1-11/16-12	45	34	32	38	125
20-20	-20	50.8	-20	1-11/16-12	56	36	32	38	125
20-24	-20	50.8	-24	2-12	56	36	38	44	145
24-24	-24	60.35	-24	2-12	68	41	38	44	145
24-32	-24	60.35	-32	2-1/2-12	68	48	48	56	155

Table 25B - Dimensions for 45º elbow ISO 6162-2 4-bolt flange connectors

dimensions in millimeters

Ordering Size Code mm	Flange Dash Size	**d_{22}** Code 62 Flange Head Ref	ORFS Dash Size	**d** ORFS Thread (inch)	**L_{44}** Compact Code 62 52M3362 ±0.8	**L_{45}** Compact Code 62 52M3362 ±1.5	**L_{46}** Short Code 62 52M2262 ± 1.5	**L_{46}** Medium Code 62 52M2362 ±1.5	**L_{47}** Code 62 ± 1.5	**S_1** Hex	**S_2** Forging Wrench Flat Min	**S_2** Forging Wrench Flat Max
12-12	-12	41.3	-12	1-3/16-12	48	32	22	26	80	32	27	41
12-16	-12	41.3	-16	1-7/16/-12	48	33	28	32	110	41	36	46
16-16	-16	47.6	-16	1-7/16/-12	58	34	28	32	110	41	36	46
16-20	-16	47.6	-20	1-11/16-12	58	34	32	38	125	46	41	55
20-20	-20	54	-20	1-11/16-12	70	36	32	38	125	46	41	55
20-24	-20	54	-24	2-12	70	36	38	44	145	55	50	60
24-24	-24	63.5	-24	2-12	89	41	38	44	145	55	50	60
24-32	-24	63.5	-32	2-1/2-12	89	48	48	56	155	70	65	85

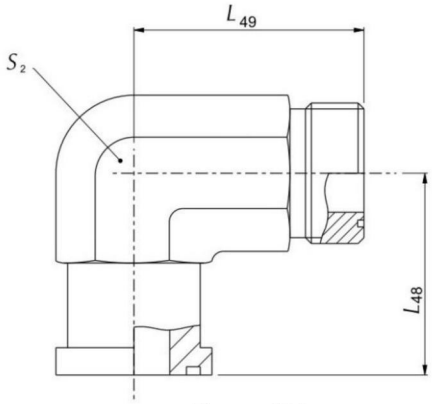


Figure 47A
(Compact – 52M3461 OR 52M3462)

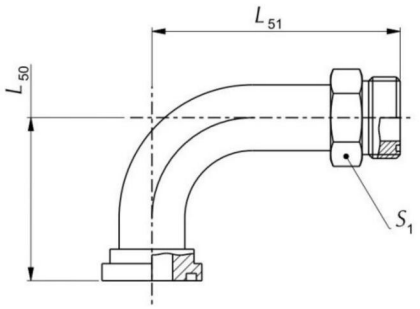


Figure 47B
(Short – 52M1461 OR 52M1462)
(Medium – 52M2061 OR 52M2062)
(Long – 52M1561 OR 52M1562)

Figures 47A and 47B – Compact, short, medium and long 90º elbow 4-bolt flange head to ORFS connector

NOTE: For dimensions not shown, see SAE J1453-1, ISO 6162-1 (SAE J518-1) and ISO 6162-2 (SAE J518-2).

Table 26A - Dimensions for 90º elbow ISO 6162-1 4-bolt flange connectors

dimensions in millimeters

Ordering Size Code mm	Flange Dash Size	**d_{22}** Code 61 Flange Head Ref	ORFS Dash Size	**d** ORFS Thread (inch)	**L_{48}** Compact Code 61 52M3461 ±1.5	**L_{49}** Compact Code 61 52M3461 ±1.5	**L_{50}** Short Code 61 52M1461 ±1.5	**L_{50}** Medium Code 61 52M2061 ±1.5	**L_{50}** Long Code 61 52M1561 ±1.5	**L_{51}** Code 61 ±1.5
12-12	-12	38.1	-12	1-3/16-12	54	59	56	58	133	60
12-16	-12	38.1	-16	1-7/16/-12	54	59	61	70	154	70
16-16	-16	44.45	-16	1-7/16/-12	60	61	61	70	154	70
16-20	-16	44.45	-20	1-11/16-12	60	61	68	90	189	90
20-20	-20	50.8	-20	1-11/16-12	66	65	68	90	189	90
20-24	-20	50.8	-24	2-12	66	65	81	104	220	105
24-24	-24	60.35	-24	2-12	80	75	81	104	220	105
24-32	-24	60.35	-32	2-1/2-12	80	83	120	138	275	140