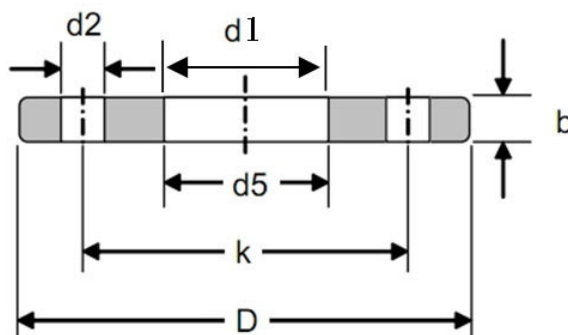


DIN Flanges Summary Chart

Flange Type	Pressure Rating (PN)											
	2.5	6	10	16	25	40	64	100	160	250	320	400
	Flange Code (DIN)											
Blind flange		2527	2527	2527	2527	2527	2527	2527				
Flat flange for welding (slip on)		2573	2576	2502 2543	2503 2544	2503 2545						
Welding neck flange	2630	2631	2632	2633	2634	2635	2636	2637	2638	2628	2629	2627
Lapped (lapped joint) flange, Plain collar		2641	2642		2655	2656						
Loose flange and ring for welding		2652	2653									
Loose flange and ring with neck for welding			2673									
Threaded flange with neck		2565		2566	2567	2567	2568	2569				
Long neck welding flange			28115		28115							
Hubbed slip-on Flange for welding			86029	86030								

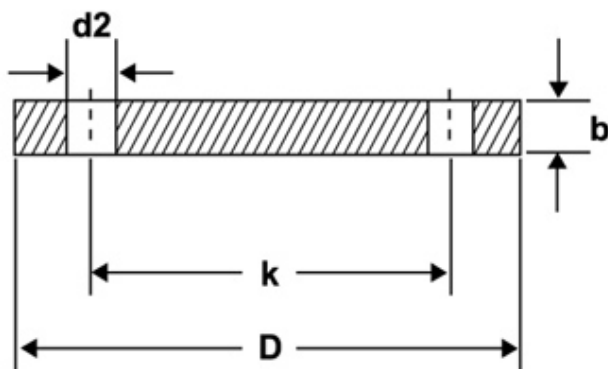
DIN 2503 Flat Flange For Welding (Slip On) PN40



DN	Pipe OD		d5	D	b	k	No. of Holes	d2	KG
	ISO	DIN							
10	-	14.0	14.5	90	16	60	4	14	0.61
	17.2	-	17.7	90	16	60	4	14	0.60
15	-	20.0	21.0	95	16	65	4	14	0.67
	21.3	-	22.0	95	16	65	4	14	0.67
20	-	25.0	26.0	105	18	75	4	14	0.94
	26.9	-	27.6	105	18	75	4	14	0.94
25	-	30.0	31.0	115	18	85	4	14	1.13
	33.7	-	34.4	115	18	85	4	14	1.11
32	-	38.0	39.0	140	18	100	4	18	1.66
	42.4	-	43.1	140	18	100	4	18	1.62
40	-	44.5	45.5	150	18	110	4	18	1.89
	48.3	-	49.0	150	18	110	4	18	1.85
50	-	57.0	58.1	165	18	125	4	18	2.50
	60.3	-	61.1	165	18	125	4	18	2.46
65	76.1	-	77.1	185	22	145	8	18	2.99
80	88.9	-	90.3	200	24	160	8	18	3.61
100	-	108.0	109.6	235	24	190	8	22	5.82
	114.3	-	115.9	235	24	190	8	22	5.61
125	-	133.0	134.8	270	26	220	8	26	7.91
	139.7	-	141.6	270	26	220	8	26	7.83
150	-	159.0	161.1	300	28	250	8	26	10.12
	168.2	-	170.5	300	28	250	8	26	9.58
175	193.7	-	196.1	350	2	295	12	30	14.45
200	219.1	-	221.8	375	34	320	12	30	16.90
250	-	267.0	270.2	450	38	385	12	33	27.28
	273.0	-	276.2	450	38	385	12	33	26.51
300	323.9	-	327.6	515	42	450	16	33	36.38
350	355.6	-	359.7	580	46	510	16	36	52.83
	-	368.0	372.2	580	46	510	16	36	50.24
400	406.4	-	411.0	660	50	585	16	39	74.71
	-	419	423.7	660	50	585	16	39	71.44
500	508.0	-	513.6	755	52	670	20	42	86.87
600	610.0	-	616.5	890	54	795	20	48	121.84
700	711.0	-	716.0	995	58	900	24	48	150.93
800	813.0	-	818.0	1140	64	1030	24	58	219.08
900	914.0	-	920.0	1250	70	1140	28	58	271.16
1000	1016.0	-	1022.0	1360	78	1250	28	58	344.95

Dimensions in millimeter (mm).

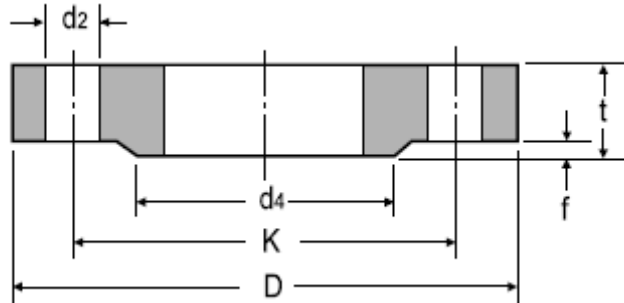
DIN 2527 Blind Flange



PN40							PN64				
DIN	No. of holes	D	b	k	d2	KG	D	b	k	d2	KG
10	4	90	16	60	14	0.72	100	20	70	14	1.04
15	4	95	16	65	14	0.81	105	20	75	14	2.98
20	4	105	18	75	14	1.14	130	22	90	18	2.19
25	4	115	18	85	14	1.38	140	24	100	18	2.65
32	4	140	18	100	18	2.03	155	24	110	22	3.26
40	4	150	18	110	18	2.35	170	26	125	22	4.18
50	4	165	20	125	18	3.2	180	26	135	22	4.67
65	8	185	22	145	18	4.29	205	26	160	22	5.94
80	8	200	24	160	18	5.54	215	28	170	22	7.18
100	8	235	24	190	22	7.6	250	30	200	26	10.10
125	8	270	26	220	26	10.82	295	34	240	30	16.10
150	8	300	28	250	26	14.6	345	36	280	33	23.50
175	12	350	32	295	30	22.04	375	40	310	33	30.80
200	12	375	34	320	30	27.21	415	42	345	36	39.70
250	12	450	38	385	33	44.38	470	46	400	36	56.70
300	16	515	42	450	33	64.17	530	52	460	36	57.40
350	16	580	46	510	36	89.52	600	56	525	39	114
400	16	660	50	585	39	126.76	670	60	585	42	152
500	20	755	56	670	42	184.63	-	-	-	-	-
600	20	890	62	795	48	285.17	-	-	-	-	-
700	24	995	64	900	48	368.83	-	-	-	-	-
800	24	1140	70	1030	56	528.39	-	-	-	-	-
900	28	1250	76	1140	56	690.99	-	-	-	-	-
1000	28	1360	84	1250	56	912.42	-	-	-	-	-

Dimensions in millimeter (mm).

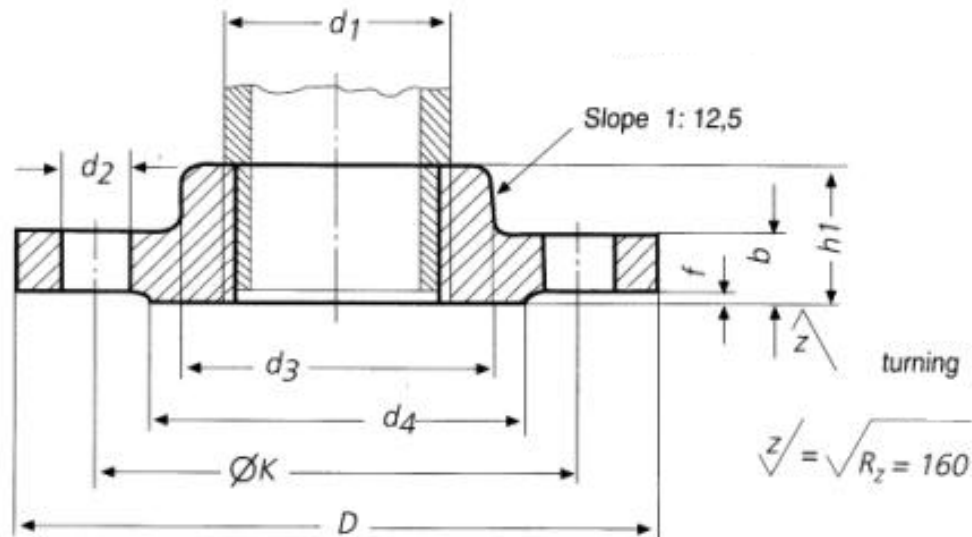
DIN 2545 Flat Flange For Welding (Slip On) PN40



DN	Pipe OD		d4	D	t	f	K ϕ	No. of Holes	d2	KG
	ISO	DIN								
10	17.2	14	40	90	-	2	60	4	14	0.72
15	21.3	20	45	95	16	2	65	4	14	0.81
20	26.9	25	58	105	18	2	75	4	14	1.24
25	33.7	30	68	115	18	2	85	4	14	1.38
32	42.4	38	78	140	18	2	100	4	18	2.03
40	48.3	44.5	88	150	18	3	110	4	18	2.35
50	60.3	57	102	165	20	3	125	4	18	3.20
65	76.1	-	122	185	22	3	145	4	18	4.29
80	88.9	-	138	200	24	3	160	8	18	5.88
100	114.3	108	162	235	24	3	190	8	23	7.54
125	139.7	133	188	270	26	3	220	8	27	10.80
150	168.3	159	218	300	28	3	250	8	27	14.50
175	193.7	191	260	350	32	3	295	12	30	22.10
200	219.1	216	285	375	34	3	320	12	30	27.20
250	273	267	345	450	38	3	385	12	33	43.80
300	323.9	318	410	515	42	4	450	16	33	63.30
350	355.6	368	465	580	46	4	510	16	36	89.50
400	406.4	419	535	660	50	4	585	16	39	127.00
500	508	521	615	755	52	4	670	20	42	172.00

Dimensions in millimeter (mm).

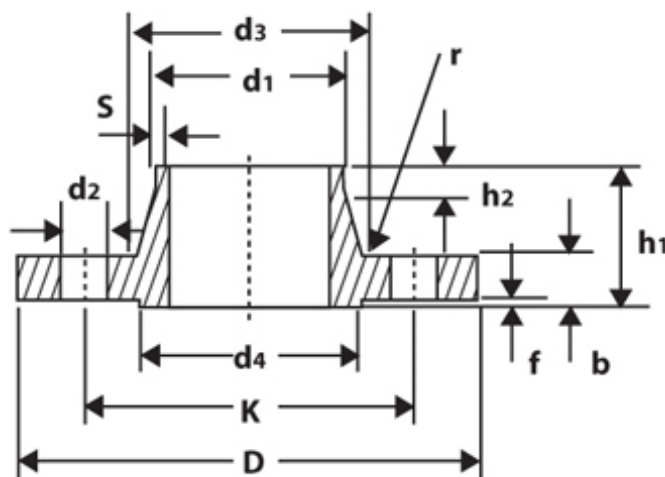
DIN 2567 Threaded Flange With Neck PN25 and PN40



DN	d1	Thread DIN 2999	D	b	k	h1	d3	d4	f	No. of holes	Thread	d2	KG
6	10.2	R1/8	75	14	50	20	20	32	2	4	M10	11	0.388
8	13.5	R1/4	80	14	55	20	25	38	2	4	M10	11	0.450
10	17.2	R3/8	90	16	60	22	30	40	2	4	M12	14	0.630
15	21.3	R1/2	95	16	65	22	35	45	2	4	M12	14	0.710
20	26.9	R3/4	105	18	75	26	45	58	2	4	M12	14	1.030
25	33.7	R1	115	18	85	28	52	68	2	4	M12	14	1.280
32	42.4	R1.1/4	140	18	100	30	60	78	2	4	M16	18	1.870
40	48.3	R1.1/2	150	18	110	32	70	88	3	4	M16	18	2.140
50	60.3	R2	165	20	125	34	85	102	3	4	M16	18	2.850
65	76.1	R2.1/2	185	22	145	38	105	122	3	8	M16	18	3.850
80	88.9	R3	200	24	160	40	118	138	3	8	M16	18	4.800
100	114.3	R4	235	24	190	44	145	162	3	8	M20	22	6.430
125	139.7	R5	270	26	220	48	170	188	3	8	M24	26	8.770
150	165.1	R6	300	28	250	52	200	218	3	8	M24	26	10.500

Dimensions in millimeter (mm).

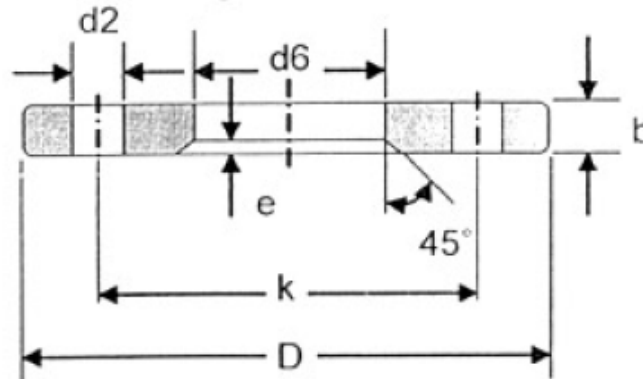
DIN 2635 Welding Neck Flange PN40



DN	d1		D	b	k	h1	d3	S	r	h2	d4	f	No. of holes	d2	KG
	ISO	DIN													
10	-	14	90	16	60	35	25	1.8	4	6	40	2	4	14	0.67
	17.2	-	90	16	60	35	28	1.8	4	6	40	2	4	14	0.66
15	-	20	95	16	65	38	30	2	4	6	45	2	4	14	0.75
	21.3	-	95	16	65	38	32	2	4	6	45	2	4	14	0.75
20	-	25	105	18	75	40	48	2.3	4	6	58	2	4	14	1.07
	26.9	-	105	18	75	40	40	2.3	4	6	58	2	4	14	1.07
25	-	30	115	18	85	40	42	2.6	4	6	68	2	4	14	1.29
	33.7	-	115	18	85	40	46	2.6	4	6	68	2	4	14	1.28
32	-	38	140	18	100	42	52	2.6	6	6	78	2	4	18	1.88
	42.4	-	140	18	100	42	56	2.6	6	6	78	2	4	18	1.86
40	-	44.5	150	18	110	45	60	2.6	6	7	88	3	4	18	2.1
	48.3	-	150	18	110	45	64	2.6	6	7	88	3	4	18	2.08
50	-	57	165	20	125	48	72	2.9	6	8	102	3	4	18	2.81
	60.3	-	165	20	125	48	75	2.9	6	8	102	3	4	18	2.78
65	76.1	-	185	22	145	52	90	2.9	6	10	122	3	8	18	3.81
80	88.9	-	200	24	160	58	105	3.2	8	12	138	3	8	18	4.62
100	-	108	235	24	190	65	128	3.8	8	12	162	3	8	22	6.42
	114.3	-	235	24	190	65	134	3.6	8	12	162	3	8	22	6.27
125	-	133	270	26	220	68	155	4	8	12	188	3	8	26	8.83
	139.7	-	270	26	220	68	162	4	8	12	188	3	8	26	8.61
150	-	159	300	28	250	75	182	4.5	10	12	218	3	8	26	11.67
	168.3	-	300	28	250	75	192	4.5	10	12	218	3	8	26	11.29
175	193.7	-	350	32	295	82	218	5.6	10	15	260	3	12	30	17.01
200	219.1	-	375	34	320	88	244	6.3	10	16	285	3	12	30	20.49
250	-	267	450	38	385	105	298	7.1	12	18	345	3	12	33	33.75
	273	-	450	38	385	105	306	7.1	12	18	345	3	12	33	33.34
300	323.9	-	515	42	450	115	362	8	12	18	410	4	16	33	46.55
350	355.6	-	580	46	510	125	408	8.8	12	20	465	4	16	36	67.73
	-	368	580	46	510	125	408	8.8	12	20	465	4	16	36	63.96
400	406.4	-	660	50	585	135	462	11	12	20	535	4	16	39	96.73
	-	419	660	50	585	135	462	11	12	20	535	4	16	39	91.99
500	508	-	755	52	670	140	562	14.2	12	20	615	4	20	42	120.96

Dimensions in millimeter (mm).

DIN 2656 Lapped (Lapped Joint) Flange, Plain Collar PN40



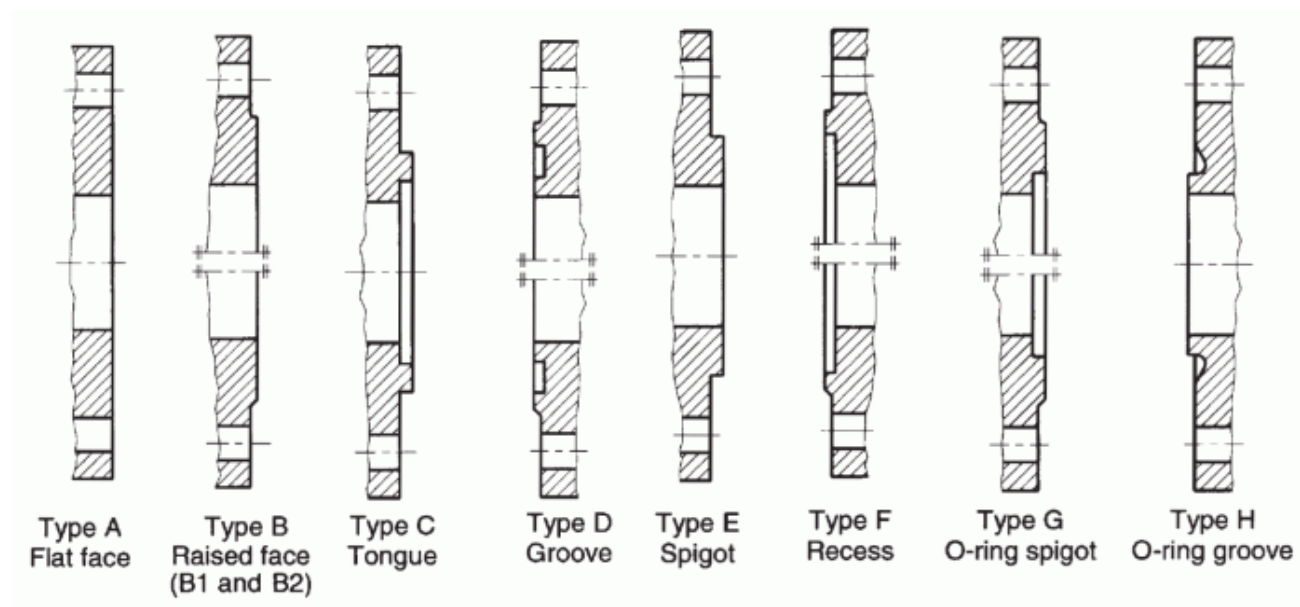
DN	Pipe OD		D	d6	b	k	e	No. of holes	d2	KG
	ISO	DIN								
10	-	14	90	16	16	60	5	4	14	0.7
	17.2	-	90	19	16	60	5	4	14	0.69
15	-	20	95	22	16	65	5	4	14	0.77
	21.3	-	95	24	16	65	5	4	14	0.76
20	-	25	105	28	16	75	5	4	14	0.93
	26.9	-	105	30	16	75	5	4	14	0.92
25	-	30	115	33	18	85	6	4	14	1.26
	33.7	-	115	36	18	85	6	4	14	1.24
32	-	38	140	42	18	100	6	4	18	1.84
	42.4	-	140	46	18	100	6	4	18	1.8
40	-	44.5	150	50	18	110	6	4	18	2.08
	48.3	-	150	54	18	110	6	4	18	2.03
50	-	57	165	62	20	125	6	4	18	2.72
	60.3	-	165	65	20	125	6	4	18	2.68
65	76.1	-	165	81	20	145	6	8	18	3.09
80	88.9	-	200	94	22	160	6	8	18	3.88
100	-	108	235	113	22	190	6	8	22	5.23
	114.3	-	235	119	22	190	6	8	22	5.04
125	-	133	270	138	24	220	6	8	26	7.17
	139.7	-	270	145	24	220	6	8	26	6.88
150	-	159	300	164	24	250	6	8	26	8.54
	168.3	-	300	173	24	250	6	8	26	8.09
200	219.1	-	375	225	30	320	8	12	30	14.65
250	-	267	450	273	36	385	8	12	33	25.5
	273	-	450	279	36	385	8	12	33	24.77
300	323.9	-	515	329	40	450	8	16	33	34.42
350	355.8	-	580	362	46	510	8	16	36	52.36
	-	363	580	374	46	510	8	16	36	49.85
400	406.4	-	660	413	50	585	8	16	39	74.2
	-	419	660	426	50	585	8	16	39	70.84

Dimensions in millimeter (mm).

EN 1092-1 Flanges Summary Chart

Description		Rated Pressure (in bar) (1 bar = 14.5 psi = 100 kPa)										
		6	10	16	25	40	63	100	160	250	320	400
01	Plate flanges for welding	V	V	V	V	V	V	V				
02	Loose plate flanges with weld-on plate collar	V	V	V	V	V						
04	Loose plate flanges with weld-neck collar	V	V	V	V	V						
05	Blank <blind> flanges	V	V	V	V	V	V	V				
11	Weld-Neck Flanges	V	V	V	V	V	V	V	V	V	V	V
12	Hubbed slip-on flanges for welding	V	V	V	V	V	V	V				
13	Hubbed threaded flanges			V		V	V	V				
21	Integral flanges	V	V	V	V	V	V	V	V	V	V	V
32	Weld-on plate collars	V	V	V	V	V						
33	Lapped pipe ends	V	V	V	V	V						
34	Weld-neck collars	V	V	V	V	V						

Flange Facing Type EN 1092-1



Note 1: For facings types B, D, F and G, the transition from the edge of the raised face to the flange shall be radius, or chamfer at the choice of the flange manufacturer.

Note 2: B1 and B2 are raised face (type B) for different applications.

For flanges and collars (except types 33, 36 and 37) with facing types A, B1, E and F, turning shall be carried out with a round nosed tool in accordance with Table as hereunder.

Surface finish for jointing faces

Facing types	Method of machining	Radius of tool nose mm	R_a^a μm		R_z^a μm	
		Min.	Min.	Max.	Min.	Max.
A, B1 ^b , E, F	Turning ^c	1.0	3.2	12.5	12.5	50
B2 ^b , C, D, G, H	Turning ^c	-	0.8	3.2	3.2	12.5

For certain applications, e.g. low temperature gases, it may be necessary to stipulate closer control to the surface finish.

a) R_a and R_z are defined in EN ISO 4287.

b) Types B1 and B2 are raised face (type B) flanges with different specified surface roughness values.
 B1 : Standard facing for all PN numbers.
 B2 : Only if agreed between the purchaser and the flange manufacturer.

c) The term 'turning' includes any method of machine operation producing either serrated concentric or serrated spiral grooves.

Flanges type 05 up to PN 40 and collars (except types 33, 36 and 37) shall have type A facing, other flanges shall have type B1 facings; unless type B2 facing is agreed between the purchaser and the supplier.

Figure 1 illustrates eight types of shaft-hub fits, labeled Type A through Type H, each showing a cross-sectional view of the shaft and hub assembly with specific dimensions and fit parameters.

- Type A: flat face** - Shows a shaft of diameter c inserted into a hub with bore diameter ϕd_1 . The fit parameters are y (interference) and z (clearance).
- Type B: raised face (B1 and B2)** - Shows a shaft of diameter c inserted into a hub with bore diameter ϕd_1 . The fit parameters are y (interference) and z (clearance).
- Type C: tongue face** - Shows a shaft of diameter c inserted into a hub with bore diameter ϕd_1 . The fit parameters are y (interference) and z (clearance).
- Type D: groove face** - Shows a shaft of diameter c inserted into a hub with bore diameter ϕd_1 . The fit parameters are y (interference) and z (clearance).
- Type E: spigot** - Shows a shaft of diameter c inserted into a hub with bore diameter ϕd_1 . The fit parameters are y (interference) and z (clearance).
- Type F: recess** - Shows a shaft of diameter c inserted into a hub with bore diameter ϕd_1 . The fit parameters are y (interference) and z (clearance).
- Type G: O ring recess** - Shows a shaft of diameter c inserted into a hub with bore diameter ϕd_1 . The fit parameters are y (interference) and z (clearance).
- Type H: O ring groove** - Shows a shaft of diameter c inserted into a hub with bore diameter ϕd_1 . The fit parameters are y (interference) and z (clearance).

** Flange facing types G and H according to Figure 4 are only used for PN 10 to PN 40.

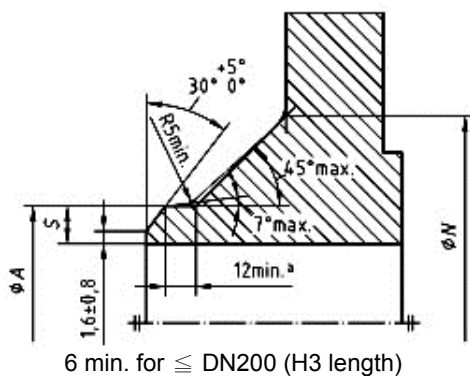
Wall thickness and end preparation EN 1092-1

Weld-end preparation for flanges types 11 and 34

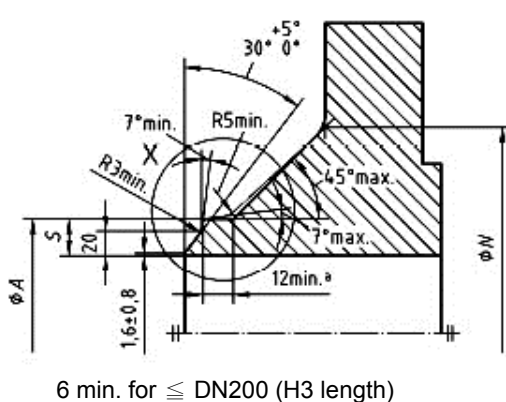
Unless otherwise specified, for flanges in accordance with this European Standard the welding end connections given in A1 to A3 shall be used. Additional types of welding ends are specified in EN ISO 9692-2 and example of designs in EN 1708-1 and may be used by agreement between the component or pressure equipment manufacturer and the flange manufacturer.

- Wall thickness $S \leq 3$ mm: Flanges/collars may be delivered with square cut ends.
- Wall thickness $3 < S < 22$: Bevelled ends with an angle of $30^\circ \begin{smallmatrix} +5^\circ \\ -0^\circ \end{smallmatrix}$ and root face of $(1,6 \pm 0,8)$ mm.
- If flange wall thickness (S) > pipe wall thickness (T), the inner diameter shall be chamfered with an angle of $15^\circ \begin{smallmatrix} +5^\circ \\ -0^\circ \end{smallmatrix}$ to match (see A3).

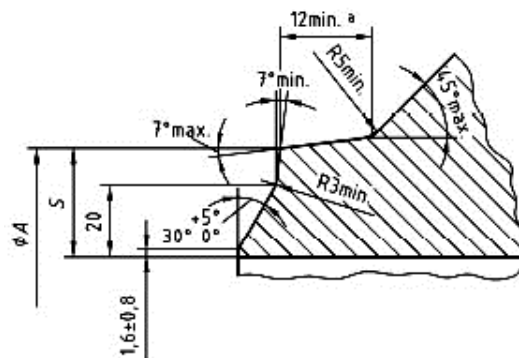
A1 — Welding end connection for wall thickness S up to 22 mm



A2 — Welding end connection for wall thickness $S \geq 22$ mm



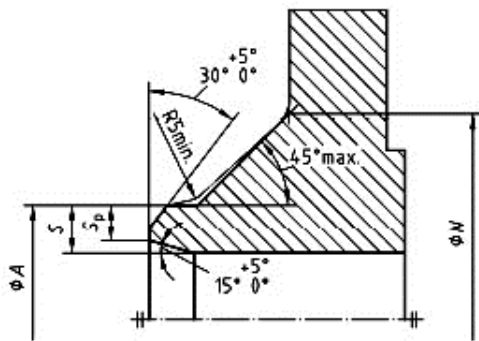
X



Wall thickness and end preparation EN 1092-1

Weld-end preparation for flanges types 11 and 34

A3 — Permissible bevel design for unequal wall thickness



S Flange wall thickness

S_p Reduced flange wall thickness

NOTE 1: For flanges required to connect to non-austenitic steel pipe of nominal wall thickness less than 4,8 mm, the welding ends should be finished to a slight chamfer or be square, at the option of the flange manufacturer, if nothing else has been agreed between flange manufacturer and purchaser or pressure equipment manufacturer.

NOTE 2: For flanges required to connect to austenitic stainless steel pipe of nominal wall thickness 3,2 mm or less, the welding ends should be square cut ends.

NOTE 3: The mating wall thickness of the flange (S_p) shall match to the pipe wall thickness (T).

Wall thickness and end preparation EN 1092-1

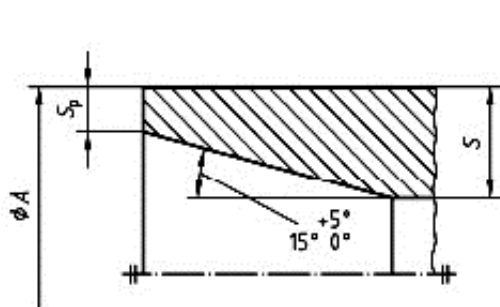
Wall thickness for flange type 11

ψ A	PN2.5		PN6		PN10		PN16		PN25		PN40		PN63		PN100	
	S	Sp	S	Sp	S	Sp	S	Sp	S	Sp	S	Sp	S	Sp	S	Sp
17.2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
21.3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3.2	2
26.9	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.6	2.3	3.2	2.3
33.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.6	2.6
42.4	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.9	2.6	3.6	2.9
48.3	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.9	2.9	3.6	3.2
60.3	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4	3.2	4	3.6
76.1	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4	3.6	4	4
88.9	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.5	4	5	5
114.3	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.5	4.5	5.6	5.6
139.7	4	4	4	4	4	4	4	4	4	4	4	4	5.6	5.6	6.3	6.3
168.3	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	6.3	6.3	8	8
219.1	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	7.1	7.1	8.8	8.8
273.0	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	7.1	7.1	7.1	7.1	8.8	10	10
323.9	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	8	8	8	8	11	10	12.5	12.5
355.6	7.1	7.1	7.1	7.1	7.1	7.1	8	8	8	8	8.8	8.8	12.5	10	14.2	14.2
406.4	7.1	7.1	7.1	7.1	7.1	7.1	8	8	8.8	8.8	11	11	14.2	11	16	16
457	7.1	7.1	7.1	7.1	7.1	7.1	8	8	8.8	8.8	12.5	12.5				
508	7.1	7.1	7.1	7.1	7.1	7.1	8	8	10	10	14.2	14.2				
610	7.1	7.1	7.1	7.1	8	7.1	10	8.8	11	11	16	16				
711	7.1	7.1	8	7.1	8.8	8	10	8.8	14.2	12.5						
813	7.1	7.1	8	7.1	8.8	8	12.5	10	16	14.2						
914	7.1	7.1	8	7.1	12.5	10	12.5	10	17.5	16						
1016	7.1	7.1	8	7.1	12.5	10	12.5	10	20	17.5						
1219	8	7.1	8.8	8	12.5	11	14.2	12.5								
1422	8	7.1	8.8	8	14.2	12.5	16	14.2								
1626	8.8	8	10	9	16	14.2	17.5	16								
1829	10	10	11	10	17.5	16	20	17.5								
2032	11	10	12.5	11	17.5	16	22	20								
2235	11	10	14	12.5	20	18										
2438	11	10	15	14.2	22.2	20										
2620	11	10	16	14.2	25	22.2										
2820	11	10	17	16	25	22.2										
3020	11	10	20	16	32	24										
3220	11	10	20	16												
3420	11	10	22	17.5												
3620	11	10	22	17.5												
3820	11	10														
4020	11	10														

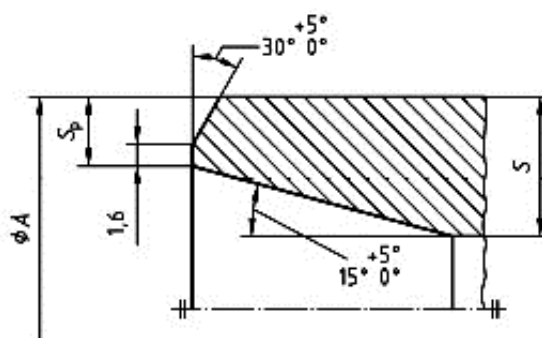
Sp Valves shall match those given in EN 10220 respectively EN ISO 1127.

Wall thickness and end preparation EN 1092-1

Wall-end preparation for type 35



Chamfer A

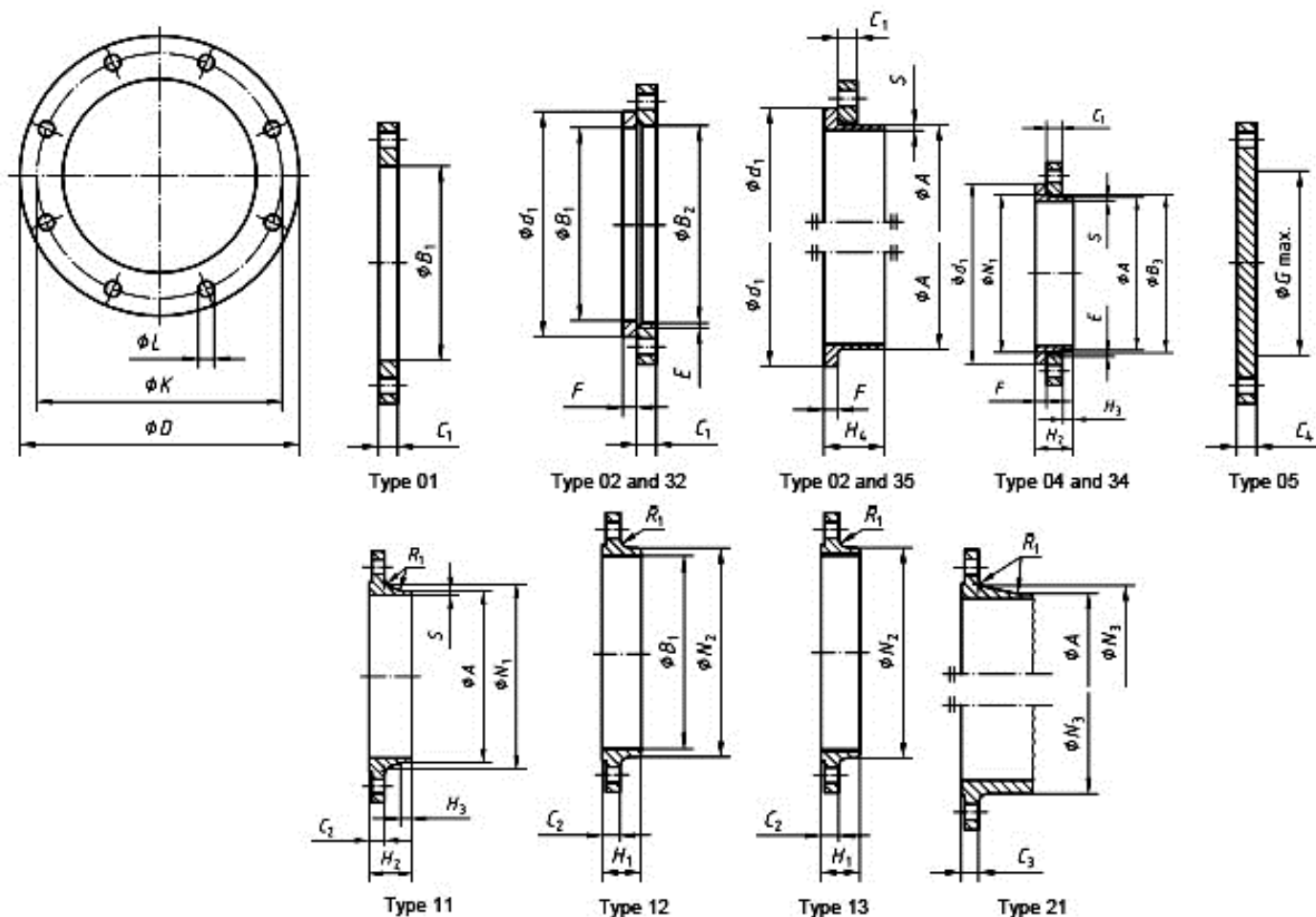


Chamfer B

Wall thickness for flange type 35

φ A	PN2.5		PN6		PN10		PN16		PN25		PN40		Chamfer
	S	Sp	S	Sp	S	Sp	S	Sp	S	Sp	S	Sp	
17.2	3	2	3	2	3	2	3	2	3	2	3	2	A
21.3	3	2	3	2	3	2	3	2	3	2	3	2	
26.9	3	2	3	2	3	2	3	2	3	2	3	2	
33.7	3	2	3	2	3	2	3	2	3	2	3	2	
42.4	3	2	3	2	3	2	3	2	3	2	3	2	
48.3	3	2	3	2	3	2	3	2	3	2	3	2	
60.3	3	2	3	2	3	2	3	2	4	2.6	4	2.6	
76.1	4	2	4	2	4	2	4	2	5	2.6	5	2.6	
88.9	4	2	4	2	4	2	4	2	6	2.6	6	2.6	
114.3	4	2	4	2	4	2	4	2	6	3.2	6	3.2	
139.7	5	2	5	2	5	2	5	2	6	3.2	6	3.2	B
168.3	6	2	6	2	6	2	6	2	8	3.2	8	4	
219.1	6	2.6	6	2.6	6	2.6	6	2.6	8	3.2	10	5	
273	8	3.2	8	3.2	8	3.2	8	3.2	10	5	12	6.3	
323.9	8	3.2	8	3.2	8	3.2	10	4	10	6.3	12	8	
355.6	8	3.2	8	3.2	8	3.2	10	4	12	6.3	14	8	
406.4	8	3.2	8	3.2	8	3.2	12	5	14	8	16	10	
457	8	3.6	8	3.6	8	3.6	12	5	15	8			
508	8	4	8	4	8	4	12	6.3	16	10			
610	8	5	8	5	10	5	12	8	18	10			
711	8	5	8	5	10	6.3	14	8	20	14.2			
813	10	6.3	10	6.3	12	6.3	16	10	20	14.2			
914	10	6.3	10	6.3	12	8	18	10					
1016	12	8	12	8	12	8	18	10					
1219	14	10	14	10	16	10							

EN 1092-1 PN40 Flanges



Flange type (typ) as in EN 1092-1	
01 (Plate [slip-on] flanges for welding)	13 (Hubbed threaded flanges)
02 (Loose plate flanges with weld-on plate collar)	21 (Integral flanges)
04 (Loose plate flanges with weld-neck collar)	32 (Weld-on plate collars)
05 (Blank [blind] flanges)	34 (Weld-neck collars)
11 (Weld-neck flanges)	35 (Welding neck)
12 (Hubbed slip-on flanges for welding)	

EN 1092-1 PN40 Flanges

DN	Mating dimensions					Outside Diameter of Neck	Bore Diameter				Flange thickness				Chamfer	Collar thickness		Diameter of Shoulders	Length				Neck diameters			Corner Radius	Wall thickness	
	Outside Diameter	Diameter of Bolt Circle	Diameter of Bolt Hole	Bolting																								
	D	K	L	No	Size		A	B1	B2	B3	C1	C2	C3	C4	E	F	G max	H1	H2	H3	H4	N1	N2	N3	R1			S
	Flange type																											
	01, 02, 04, 05, 11, 12, 13, 21					11 21*** 34*	01 12 32	02	04	01 02 04	11 12 13	21	05	02 04	32 34*	35	05	12 13	11 34*	11 34*	35	11 34	12 13	21	11 12 13 21	34*	11 35	
10	90	60	14	4	M12	17.2	18.0	21	31	14	16	16	16	3	12	5	-	22	35	6	35	28	30	28	4	1.8		
15	95	65	14	4	M12	21.3	22.0	25	35	14	16	16	16	3	12	5	-	22	38	6	38	32	35	32	4	2.0		
20	105	75	14	4	M12	26.9	27.5	31	42	16	18	18	18	4	14	6	-	26	40	6	40	40	45	40	4	2.3		
25	115	85	14	4	M12	33.7	34.5	38	49	16	18	18	18	4	14	7	-	28	40	6	40	46	52	50	4	2.6		
32	140	100	18	4	M16	42.4	43.5	47	59	18	18	18	18	5	14	8	-	30	42	6	42	56	60	60	6	2.6		
40	150	110	18	4	M16	48.3	49.5	53	67	18	18	18	18	5	14	8	-	32	45	7	45	64	70	70	6	2.6		
50	165	125	18	4	M16	60.3	61.5	65	77	20	20	20	20	5	16	10	-	34	48	8	48	75	84	84	6	2.9		
65	185	145	18	8	M16	76.1	77.5	81	96	22	22	22	22	6	16	11	55	38	52	10	52	90	104	104	6	2.9		
80	200	160	18	8	M16	88.9	90.5	94	114	24	24	24	24	6	18	12	70	40	58	12	58	105	118	120	8	3.2		
100	235	190	22	8	M20	114.3	116.0	120	138	26	24	24	24	6	20	14	90	44	65	12	65	134	145	142	8	3.6		
125	270	220	26	8	M24	139.7	141.5	145	166	28	26	26	26	6	22	16	115	48	68	12	68	162	170	162	8	4.0		
150	300	250	26	8	M24	168.3	170.5	174	194	30	28	28	28	6	24	18	140	52	75	12	75	192	200	192	10	4.5		
200	375	320	30	12	M27	219.1	221.5	226	250	36	34	34	36	6	28	20	190	52	88	16	88	244	260	254	10	6.3		
250	450	385	33	12	M30	273.0	276.5	281	312	42	38	38	38	8	30	22	235	60	105	18	105	306	312	312	12	7.1		
300	515	450	33	16	M30	323.9	327.5	333	368	52	42	42	42	8	34	25	285	67	115	18	115	362	380	376	12	8.0		
350	580	510	36	16	M33	355.6	359.5	365	418	58	46	46	46	8	32	28	330	72	125	20	125	408	424	432	12	8.8		
400	660	585	39	16	M36	406.4	411.0	416	472	65	50	50	50	8	42	32	380	78	135	20	135	462	478	498	12	11.0		
450	685	610	39	20	M36	457.0	462.0	467	510	**	57	57	57	8	46	-	425	84	135	20	-	500	522	522	12	12.5		
500	755	670	42	20	M39	508.0	513.5	519	572		57	57	57	8	50	-	475	90	140	20	-	562	576	576	12	14.2		
600	890	795	48	20	M45	610.0	616.5	622	676		72	72	72	8	40	-	575	100	150	20	-	666	686	686	12	16.0		
700	995	900	48	24	M45	To be specified by the purchaser																						
800	1140	1030	56	24	M52																							
900	1250	1140	56	28	M52																							
1000	1360	1250	56	28	M52																							
1200	1575	1460	62	32	M56																							
1400	1795	1680	62	36	M56																							
1600	2025	1900	70	40	M64																							
1800	2195	2070	70	44	M64																							
2000	2425	2300	70	48	M64																							

See "Wall thickness and end preparation"

* Use is limited up to DN600.

** To be specified by the purchaser.

*** For flanges type 21 the outside hub diameter approximately corresponds to the outside pipe diameter.

Note 1: Dimensions N1, N2 and N3 are measured at the intersection of the hub draft angle and the back face of the flange.

Note 2: The centre portion of the face of a flange type 05 need not be machined provided that the diameter of the un-machined portion does not exceed the recommended diameter for G max.

Note 3: For d1 dimensions see document "Flange Facing Dimensions EN 1092-1".