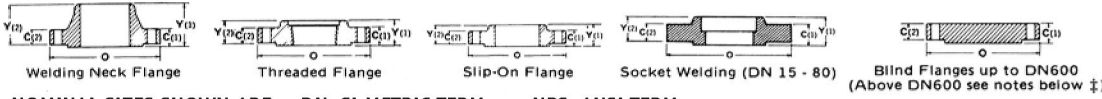




Forged Flanges To American Standards

DN 15 to 600 are to ANSI B16.5 (BS 1560).
DN 750 & 900 are to BS 3293 for Slip-On & Weldneck only.



NOMINAL SIZES SHOWN ARE ∇DN: SI METRIC TERM ±NPS: ANSI TERM

Note: All dimensions are in millimetres – (mm)

Nominal Size		PN20 (CLASS 150)							PN50 (CLASS 300)						PN100 (CLASS 600)						Nominal Size			
		Dia. of Fig.	Thick-ness of Fig. Min.	Length Thru Hub		Dia. of Bolt Circle	Dia. of Bolt Holes	No. of Bolts	Dia. of Fig.	Thick-ness of Fig. Min.	Length Thru Hub		Dia. of Bolt Circle	Dia. of Bolt Holes	No. of Bolts	Dia. of Fig.	Thick-ness of Fig. Min.	Length Thru Hub		Dia. of Bolt Circle			Dia. of Bolt Holes	No. of Bolts
∇	±	0	C(1) [†]	Thrd. Slip-on Soc./Weld Y(1) [†]	Weld Neck Y(1) [†]	0	C(1) [†]	Thrd. Slip-on Soc./Weld Y(1) [†]	Weld Neck Y(1) [†]	0	C(2) [†]	Thrd. Slip-on Soc./Weld Y(2) [†]	Weld Neck Y(2) [†]	0	C(2) [†]	Thrd. Slip-on Soc./Weld Y(2) [†]	Weld Neck Y(2) [†]	0	C(2) [†]	Thrd. Slip-on Soc./Weld Y(2) [†]	Weld Neck Y(2) [†]	∇	±	
DN	NPS																					DN	NPS	
15	½	90	11.5	16	48	60.5	16	4	95	14.5	22	52	66.5	16	4	95	14.5	22	52	66.5	16	4	15	½
20	¾	100	13.0	16	52	70.0	16	4	120	16.0	25	57	82.5	20	4	120	16.0	25	57	82.5	20	4	20	¾
25	1	110	14.5	17	56	79.5	16	4	125	17.5	27	62	89.0	20	4	125	17.5	27	62	89.0	20	4	25	1
32	1¼	120	16.0	21	57	89.0	16	4	135	19.5	27	65	98.5	20	4	135	21.0	29	67	98.5	20	4	32	1¼
40	1½	127	17.5	22	62	98.5	16	4	155	21.0	30	68	114.5	22	4	155	22.5	32	70	114.5	22	4	40	1½
50	2	150	19.5	25	64	120.5	20	4	165	22.5	33	70	127.0	20	8	165	26.5	37	73	127.0	20	8	50	2
65	2½	180	22.5	29	70	139.5	20	4	190	25.5	38	76	149.0	22	8	190	29.0	41	79	149.0	22	8	65	2½
80	3	190	24.0	30	70	152.5	20	4	210	29.0	43	79	168.5	22	8	210	32.0	46	83	168.5	22	8	80	3
90	3½	215	24.0	32	71	178.0	20	8	230	30.5	44	81	184.0	22	8	230	35.0	49	86	184.0	26	8	90	3½
100	4	230	24.0	33	76	190.5	20	8	255	32.0	48	86	200.0	22	8	275	38.5	54	102	216.0	26	8	100	4
125	5	255	24.0	36	89	216.0	22	8	280	35.0	51	98	235.0	22	8	330	44.5	60	114	267.0	30	8	125	5
150	6	280	25.5	40	89	241.5	22	8	320	37.0	52	98	270.0	22	12	355	48.0	67	117	292.0	30	12	150	6
200	8	345	29.0	44	102	298.5	22	8	380	41.5	62	111	330.0	26	12	420	55.5	76	133	349.0	33	12	200	8
250	10	405	30.5	49	102	362.0	26	12	445	48.0	67	117	387.5	30	16	510	63.5	86	152	432.0	36	16	250	10
300	12	485	32.0	56	114	432.0	26	12	520	51.0	73	130	451.0	33	16	560	66.5	92	156	489.0	36	20	300	12
350	14	535	35.0	57	127	476.0	30	12	585	54.0	76	143	514.5	33	20	605	70.0	94	165	527.0	39	20	350	14
400	16	600	37.0	64	127	540.0	30	16	650	57.5	83	146	571.5	36	20	685	76.5	106	178	603.0	42	20	400	16
450	18	635	40.0	68	140	578.0	33	16	710	60.5	89	159	628.5	36	24	745	83.0	117	184	654.0	45	20	450	18
500	20	700	43.0	73	145	635.0	33	20	775	63.5	95	162	686.0	36	24	815	89.0	127	190	724.0	45	24	500	20
600	24	815	48.0	83	152	749.5	36	20	915	70.0	106	168	813.0	42	24	940	102.0	140	203	838.0	52	24	600	24
750	30	985	54.0†	89	130.2	914.0	35	28	1090	92.0	210	210	997.0	48	28	1130	114.0	248	248	1022.0	54	28	750	30
900	36	1170	60.3†	95	136.5	1086.0	41	32	1270	105.0	241	241	1168.0	54	32	1315	124.0	283	283	1194.0	67	28	900	36

- NOTES:**
- * 1. The 1.6mm Raised Face is included in thickness C(1) and length through hub Y(1). This applies to PN20 and PN50 Pressure Ratings.
 - = 2. The 6.4mm Raised Face is not included in thickness C(2) and length through hub Y(2). PN100, 150, 250 and 420 Pressure Ratings are regularly furnished with 6.4mm Raised Face which is additional to the flange thickness C(2) and Y(2).
 - 3. Always specify bore when ordering weldneck flanges. Bore dimensions shown opposite also provide inside pipe diameters

LARGE DIAMETER FLANGES ABOVE DN 600

- † For Blind Flanges refer to ASME B16.47-A (MSS SP44).
- BS 3293 covers Slip-On and Weldneck but excludes Blind Flanges.
- ASME B16.47-A (MSS SP44) covers Blind and Weldneck but excludes Slip-On Flanges.
- BS 3293 Weldneck PN20 flange thickness, C(1), is less than MSS SP44 equivalents.
- ASME B16.47-B (API - 605) Dimensions for large Diameter Flanges vary considerably from both BS 3293 and ASME B16.47-A (MSS SP44) – Details on request.

Ratified Face Diam.	NOMINAL SIZE		O. D. of PIPE mm	APPROXIMATE WELDING NECK FLANGE BORES – mm													
	∇ DN	± NPS		SCH. 10	SCH. 20	SCH. 30	STD. WT	SCH. 40	SCH. 60	EXT. STG.	SCH. 80	SCH. 100	SCH. 120	SCH. 140	SCH. 160	X.X. STG.	
35	15	½	21.3				15.8									11.8	6.4
43	20	¾	26.7				20.9									15.5	11.0
51	25	1	33.4				26.6									20.7	15.2
64	32	1¼	42.2				35.1									29.5	22.8
73	40	1½	48.3				40.9									34.0	27.9
92	50	2	60.3				52.5									42.9	38.2
105	65	2½	73.0				62.7									54.0	45.0
127	80	3	88.9				77.9									66.7	58.4
140	90	3½	101.6				90.1										
157	100	4	114.3				102.3									92.1	87.3
186	125	5	141.3				128.2									115.9	109.6
216	150	6	168.3				154.1									139.7	131.8
270	200	8	219.1			206.4	205.0									188.9	182.6
324	250	10	273.1			260.3	257.5	254.5								236.5	230.2
381	300	12	323.9			311.1	307.1	304.8								273.1	266.7
413	350	14	355.6			342.9	339.8	336.6	336.6	333.3						307.9	300.0
470	400	16	406.4			393.7	390.6	387.4	387.4	381.0						363.5	354.0
533	450	18	457.0			444.5	441.4	434.9	438.2	428.7						409.5	398.5
584	500	20	508.0			495.3	489.0	482.6	489.0	477.8						455.6	442.9
692	600	24	610.0			596.9	590.6	581.1	590.6	574.6						531.8	517.6
857	750	30	762.0			746.2	736.6	730.2	743.0							736.6	
1022	900	36	914.0			898.6	889.0	882.6	882.6	876.3						889.0	