

GENERAL INSTRUMENTS CONSORTIUM

FLANGES

PRODUCT CATALOGUE

Materials / Types / Dimensional tables



Stainless Steel & Duplex Steel Flanges

Size	:	1/2"NB to 48" NB, ANSI B 16.5
Class	:	150#, 300#, 600#, 900#, 1500#, 2500#, in ASA 150 & ASA 300
Stainless Steel	:	ASTM A 240/182 F-304/304H/304L/316/316H/ 316L/316TI/309/310/317L/321/347/904L
Duplex Steel	:	ASTM A 182-F51, F53, F55

Alloy Steel, Carbon Steel & LTCS Flanges

Size	:	1/2"NB to 48" NB ANSI B16.5
Schedule	:	150#, 300#, 600#, 900#, 1500#, 2500# in ASA 150 & ASA 300
Alloy Steel	:	ASTM A182-F5, F9, F11, F21, F22 & F91
Carbon Steel	:	ASTM A 105, ASTM A694, F42, F46, F52, F60, F65, F70
Low Temp. CS	:	A 350 LF2, A 516 GR. 70

Copper & Nickel Alloys Flanges

Size	:	1/2"NB to 6"NB in various Schedule
Standard	:	150#, 300#, 600#, 900#, 1500#, 2500# in ASA 150 & ASA 300
Copper Nickel	:	C70600 (90:10), C71500 (70:30), C71640
Nickel	:	UNS N02200, N02201
Monel	:	UNS N04400, N05500, Alloy 20
Inconel	:	UNS N06600, N06601, N06625, N08800, N08810, N08825
Hastelloy	:	UNS N10276, N06022, N10665, N06455
Titanium	:	Gr. 1,2,3 DTH 3.7025, DTH 3.7035, DTH 3.7055

Test Certificate

Manufacturer Test Certification
En 3.1 & 3.2
IBR Test Certification Form IIIC

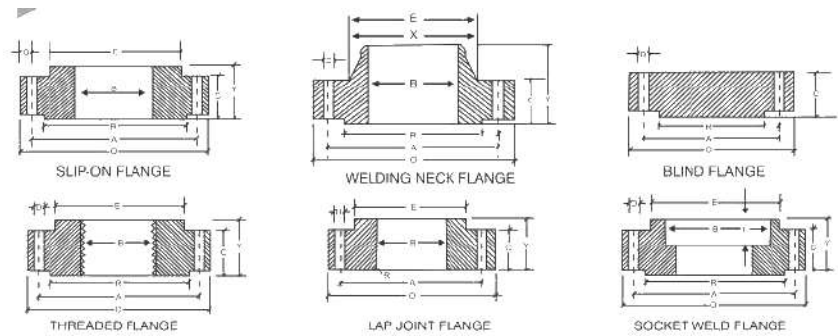
Type

Weldolet
Socketweld
Slip on
Blind

Screwed/Threaded
Long Weldneck
Lapped Joint
Spectacle Blind



DIMENSIONS OF CLASS 150/300/600 FLANGES AS PER B 16.5



DIMENSIONS OF CLASS 150 FLANGES AS PER B 16.5

Nominal Pipe Size	Flange Dia O	Dia of Bolt Circle A	No. of Bolt Holes D	No. of Holes	Thk. of Holes C	Dia of Hub E	Length through Hub			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S/O & S/W Y	W/N Y	L/J Y	S/O & S/W B	L/J B			
15	88.9	60.3	15.9	4	11.1	30.2	15.9	47.6	15.9	22.3	22.9	34.9	9.5	21.33
20	98.4	69.8	15.9	4	12.7	38.1	15.9	52.4	15.9	27.7	28.2	42.9	11.1	26.67
25	107.9	79.4	15.9	4	14.3	49.2	17.5	55.6	17.5	34.5	35.0	50.8	12.7	33.40
32	117.5	88.9	15.9	4	15.9	58.7	20.6	57.1	20.6	43.2	43.7	63.5	14.3	42.16
40	127.0	98.4	15.9	4	17.5	65.1	22.2	61.9	22.2	49.5	50.0	73.0	15.9	48.26
50	152.4	120.6	19.0	4	19.0	77.8	25.4	63.5	25.4	62.0	62.5	92.1	17.5	60.31
65	177.8	139.7	19.0	4	22.2	90.5	28.6	69.8	28.6	74.7	75.4	104.8	19.0	73.02
80	190.5	152.4	19.0	4	23.8	107.9	30.2	69.8	30.2	90.7	91.4	127.0	20.6	88.90
100	228.6	190.5	19.0	8	23.8	134.9	33.3	76.2	33.3	116.1	116.8	157.2	23.8	114.30
125	254.0	215.9	22.2	8	23.8	163.5	36.5	88.9	36.5	143.8	144.5	185.7	23.8	141.30
150	279.4	241.3	22.2	8	25.4	192.1	39.7	88.9	39.7	170.1	171.4	215.9	27.0	168.27
200	342.9	298.4	22.2	8	28.6	246.1	44.4	101.6	44.4	221.5	222.2	269.9	31.7	219.07
250	406.4	361.9	25.4	12	30.2	304.8	49.2	101.6	49.2	276.3	277.4	323.8	33.3	273.05
300	482.6	431.8	25.4	12	31.8	365.1	55.6	114.3	55.6	327.1	328.2	381.0	39.7	323.85
350	533.4	476.2	28.6	12	34.9	400.0	57.1	127.0	79.4	359.1	360.2	412.7	41.3	355.60
400	596.9	539.7	28.6	16	36.5	457.2	63.5	127.0	87.3	415	411.2	469.9	44.4	406.40
450	635.0	577.8	31.7	16	39.7	504.8	68.3	139.7	96.8	461.8	462.3	533.4	49.2	457.20
500	698.5	635.0	31.7	20	42.9	558.8	73.0	144.5	103.2	513.1	514.3	584.2	54.0	508.00
600	812.8	749.3	34.9	20	47.6	663.6	82.5	152.4	111.1	615.9	615.9	692.1	63.5	609.60

DIMENSIONS OF CLASS 300 FLANGES AS PER B 16.5

Nominal Pipe Size	Flange Dia O	Dia of Bolt Circle A	No. of Bolt Holes D	No. of Holes	Thk. of Holes C	Dia of Hub E	Length through Hub			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S/O & S/W Y	W/N Y	L/J Y	S/O & S/W B	L/J B			
15	95.2	66.7	15.9	4	14.3	38.1	22.2	52.4	22.2	22.3	22.9	34.9	9.5	21.33
20	117.5	82.5	19.0	4	15.9	47.6	25.4	57.1	25.4	27.7	28.2	42.9	11.1	26.67
25	123.8	88.9	19.0	4	17.5	54.0	27.0	61.9	27.0	34.5	35.0	50.8	12.7	33.40
32	133.3	98.4	19.0	4	19.0	63.5	27.0	65.1	27.0	43.2	43.7	63.5	14.3	42.16
40	155.6	114.3	22.2	4	20.3	69.8	30.2	68.3	30.2	49.5	50.0	73.0	15.9	48.26
50	165.1	127.0	19.0	8	22.2	84.1	33.3	69.8	33.3	62.0	62.5	92.1	17.5	60.31
65	190.5	149.2	22.2	8	25.4	100.0	38.1	76.2	38.1	74.7	75.4	104.8	19.0	73.02
80	209.5	168.3	22.2	8	28.6	117.5	42.9	79.4	42.9	90.7	91.4	127.0	20.6	88.90
100	254.0	200.0	22.2	8	31.8	146.0	47.6	85.7	47.6	116.1	116.8	157.2	23.8	114.30
125	279.4	234.9	22.2	8	34.9	177.8	50.8	98.4	50.8	143.8	144.5	185.7	-	141.30
150	317.5	269.9	22.2	12	38.5	206.4	52.4	98.4	62.4	170.7	171.4	215.9	-	168.27
200	381.0	330.2	25.4	12	41.3	260.3	61.9	111.1	61.9	221.5	222.2	269.9	-	219.07
250	444.5	387.3	28.6	16	47.6	320.7	66.7	117.5	95.2	276.3	277.4	323.8	-	273.05
300	520.7	450.8	31.7	16	50.8	374.6	73.0	130.2	101.6	327.1	328.2	381.0	-	323.85
350	584.2	514.3	31.7	20	54.0	425.4	76.2	142.9	111.1	359.1	360.2	412.7	-	355.60
400	647.7	571.5	34.9	20	57.2	482.6	82.5	146.0	120.6	410.5	411.2	469.9	-	406.40
450	711.2	628.5	34.9	24	60.3	533.4	88.9	158.7	130.2	461.8	462.3	533.4	-	457.20
500	774.7	685.8	34.9	24	63.5	587.4	95.2	161.9	139.7	513.1	514.3	584.2	-	508.00
600	914.4	812.8	41.3	24	69.8	701.7	106.4	168.3	152.4	615.9	615.9	692.1	-	609.60

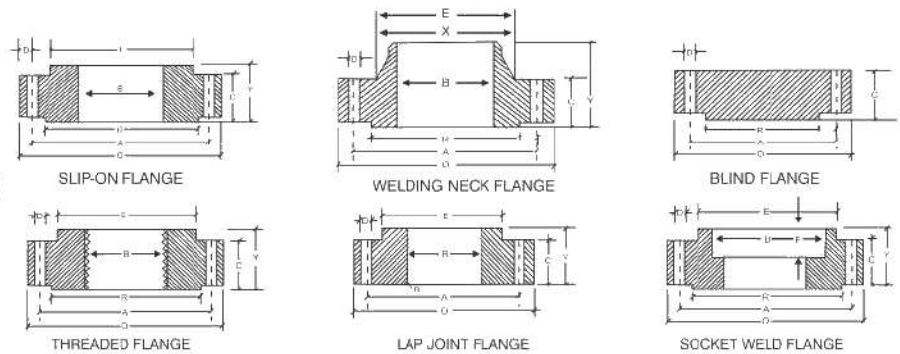
DIMENSIONS OF CLASS 600 FLANGES AS PER B 16.5

Nominal Pipe Size	Flange Dia O	Dia of Bolt Circle A	No. of Bolt Holes D	Thk. of Holes	No. of Holes	Dia of Hub E	Length through Hub			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S/O & S/W Y	W/N Y	L/J Y	S/O & S/W B	L/J B			
15	95.2	66.7	15.9	4	14.3	38.1	22.2	52.4	22.3	22.3	22.8	34.9	9.5	21.33
20	117.5	82.5	19.0	4	15.9	47.6	25.4	57.1	25.4	27.7	28.1	42.9	11.1	26.67
25	123.8	88.9	19.0	4	17.5	54.0	27.0	61.9	26.9	34.5	35.0	50.8	12.7	33.40
32	133.3	98.4	19.0	4	20.6	63.5	28.6	66.7	28.4	43.2	43.6	63.5	14.2	42.16
40	155.6	114.3	22.2	4	22.2	69.8	31.7	69.8	31.7	49.5	50.0	73.0	15.8	48.26
50	165.1	127.0	19.0	8	25.4	84.1	36.5	73.0	36.5	62.0	62.4	92.1	17.4	60.31
65	190.5	149.2	22.2	8	28.6	100.0	41.3	79.4	41.1	74.7	75.4	104.8	19.0	73.02
80	209.5	168.3	22.2	8	31.8	117.5	46.0	82.5	45.9	90.7	91.4	127.0	-	88.90
100	273.0	215.9	25.4	8	38.1	152.4	54.0	101.6	53.8	116.1	116.8	157.2	-	114.30
125	330.2	266.7	28.6	8	44.4	188.9	60.3	114.3	60.4	143.8	141.5	185.7	-	141.30
150	355.6	292.1	28.6	12	47.6	222.2	66.7	117.5	66.5	170.7	171.4	215.9	-	168.27
200	419.1	349.2	31.7	12	55.6	273.0	76.2	133.3	76.2	221.5	222.2	269.9	-	219.07
250	508.0	431.8	34.9	16	63.5	342.9	85.7	152.4	111.2	276.3	277.3	323.8	-	273.05
300	558.8	488.9	34.9	20	66.7	400.0	92.1	155.6	117.3	327.1	328.1	381.0	-	323.85
350	603.2	527.0	38.1	20	69.9	431.8	93.7	165.1	127.0	359.1	360.1	412.7	-	355.60
400	685.8	603.2	41.3	20	76.2	495.3	106.4	177.8	139.7	410.5	411.2	469.9	-	406.40
450	742.9	654.0	44.4	20	82.6	546.1	117.5	184.1	152.4	461.8	462.2	533.4	-	457.20
500	812.8	729.9	44.4	24	88.9	609.6	127.0	190.5	165.1	513.1	514.3	584.2	-	508.00
600	939.8	838.2	50.8	24	101.6	717.5	139.7	203.2	184.1	615.9	615.9	692.1	-	609.60

All Dimensions are in Millimeters.

Flanges except Lap Joint Will be furnished with 1.6 mm raised face Class 150/300 & 3.35 mm for Class 600. Which is included in "Thickness" (C) and Length Through Hub (Y).

DIMENSIONS OF CLASS 900/1500/2500 FLANGES AS PER B 16.5



Nominal Pipe Size	Flange Dia O	Dia of Bolt Circle A	No. of Bolt Holes D	No. of Holes	Thk. of Flange C	Dia of Hub E	Length through Hub			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S/O & S/W Y	W/N Y	L/J Y	S/O & S/W B	L/J B			
15	120.6	82.5	22.2	4	22.2	38.1	31.7	60.3	31.7	22.3	22.8	34.9	9.5	21.33
20	130.2	88.9	22.2	4	25.4	44.4	34.9	69.8	35.0	27.7	28.1	42.9	11.1	26.67
25	149.2	101.6	25.4	4	28.6	52.4	41.3	73.0	41.1	34.5	35.0	50.8	12.7	33.40
32	158.7	111.1	25.4	4	28.6	63.5	41.3	73.0	41.1	43.2	43.6	63.5	14.2	42.16
40	177.8	123.8	28.6	4	31.8	69.8	44.4	82.5	44.4	49.5	50.0	73.0	15.8	48.26
50	215.9	165.1	25.4	8	38.1	104.9	57.1	101.6	57.1	62.0	62.4	92.1	17.4	60.31
65	244.5	190.5	28.6	8	41.3	123.8	63.5	104.8	63.5	74.7	75.4	104.8	19.0	73.02
80	2241.3	190.5	25.4	8	38.1	127.0	53.9	101.6	53.8	90.7	91.4	127.0	-	88.90
100	292.1	234.9	31.7	8	44.4	158.7	69.8	114.3	69.8	116.0	116.8	157.1	-	114.30
125	349.2	279.4	35.0	8	50.8	190.5	79.3	127.0	79.2	143.7	144.5	185.7	-	141.30
150	381.0	317.5	31.7	12	55.6	234.9	85.5	139.7	85.8	170.6	171.4	215.9	-	168.27
200	469.9	393.7	38.1	12	63.5	298.4	101.6	162.0	114.3	221.4	222.2	269.9	-	219.07
250	546.1	469.9	38.1	16	69.8	368.3	107.9	184.1	127.0	276.3	277.3	323.8	-	273.05
300	609.6	533.4	38.1	20	79.3	419.1	117.4	200.0	142.7	327.1	328.1	381.0	-	323.85

Nominal Pipe Size	Flange Dia O	Dia of Bolt Circle A	No. of Bolt Holes D	No. of Holes	Thk. of Flange C	Dia of Hub E	Length through Hub			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S/O & S/W Y	W/N Y	L/J Y	S/O & S/W B	L/J B			
15	120.6	82.5	22.2	4	22.2	38.1	31.7	60.3	31.7	22.3	22.8	34.9	9.5	21.33
20	130.2	88.9	22.2	4	25.4	44.4	34.9	69.8	34.9	27.7	28.1	42.9	11.1	26.67
25	149.2	101.6	25.4	4	28.6	52.4	41.3	73.0	41.3	34.5	35.0	50.8	12.7	33.40
32	158.7	111.1	25.4	4	28.6	63.5	41.3	73.0	41.3	43.2	43.6	63.5	14.2	42.16
40	177.8	123.8	28.6	4	31.8	69.8	44.4	82.5	44.4	49.5	50.0	73.0	15.8	48.26
50	215.9	165.1	25.4	8	38.1	104.8	57.1	101.6	57.1	62.0	62.4	92.1	17.4	60.31
65	244.5	190.5	28.6	8	41.3	123.8	63.5	104.8	63.5	74.7	75.4	104.8	19.0	73.02
80	266.7	203.2	31.7	8	47.6	133.3	73.0	117.5	73.0	90.7	91.7	127.0	-	88.90
100	311.1	241.3	34.9	8	54.0	161.9	90.5	123.0	90.4	116.1	116.8	157.2	-	114.30
125	374.6	292.1	41.3	8	73.0	196.8	104.8	155.6	104.8	143.8	144.5	185.7	-	141.30
150	393.7	317.5	38.1	12	82.6	228.6	119.1	171.4	119.1	170.7	171.4	215.9	-	168.27
200	482.6	393.7	44.4	12	92.1	292.1	142.9	212.7	142.8	221.5	222.2	269.9	-	219.07
250	584.2	482.6	50.8	12	107.9	368.3	158.7	254.0	177.8	276.3	277.3	323.8	-	273.05
300	673.1	571.5	54.0	16	123.8	450.8	181.0	282.6	218.9	327.1	328.1	381.0	-	323.85

Nominal Pipe Size	Flange Dia O	Dia of Bolt Circle A	No. of Bolt Holes D	No. of Holes	Thk. of Flange C	Dia of Hub E	Length through Hub			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S/O & S/W Y	W/N Y	L/J Y	S/O & S/W B	L/J B			
15	133.3	88.9	22.2	4	30.2	42.9	39.7	73.0	39.7	22.3	22.3	34.9	-	21.33
20	139.7	95.2	22.2	4	31.7	50.8	42.9	79.4	42.9	27.7	27.7	42.9	-	26.67
25	158.7	107.9	25.4	4	34.9	57.1	47.7	88.9	47.7	34.5	34.5	50.8	-	33.40
32	184.1	130.2	28.6	4	38.1	73.0	52.4	95.2	52.4	43.2	43.2	63.5	-	42.16
40	203.2	146.0	31.7	4	44.4	79.4	60.3	111.1	60.3	49.5	49.5	73.0	-	48.26
50	234.9	171.4	28.6	8	50.8	95.2	69.8	127.0	69.8	62.4	62.0	92.1	-	60.31
65	266.7	196.8	31.7	8	57.1	114.3	79.4	142.9	79.4	74.7	74.7	104.8	-	73.02
80	304.8	228.6	34.9	8	66.7	133.3	92.1	168.3	92.1	90.7	90.7	127.0	-	88.90
100	355.6	273.0	41.3	8	76.2	165.1	107.9	190.5	107.9	116.1	116.1	157.2	-	114.30
125	416.1	323.8	47.6	8	92.1	203.2	130.0	228.6	130.0	143.8	143.8	185.7	-	141.30
150	482.6	368.3	54.0	8	107.9	234.9	152.4	273.0	152.4	170.7	170.7	215.1	-	168.27
200	552.4	438.1	54.0	12	127.0	304.8	177.8	317.5	177.8	221.5	221.5	269.9	-	219.07
250	673.1	539.7	66.7	12	165.1	374.6	228.6	419.1	228.6	276.3	276.3	323.8	-	273.05
300	762.0	619.1	73.0	12	184.1	441.3	254.9	463.5	254.0	327.1	327.1	381.0	-	323.85

All Dimensions are in Millimeters.

Flanges except Lap Joint Will be furnished with 6.35 mm raised face, Which is included in " Thickness" (C) and Length Through Hub (Y)

TABLE - D

For Working Stream Pressure above 250 lbs and upto 350 lbs per sq. inch

Nominal Pipe Size (in m)	Dia. of Flang	Dia. of Bolt Circle (PCD)	No. of Bolt	Dia. of Bolt	Thickness of Flange
mm	mm	mm	mm	mm	mm
15	95	67	4	13	5
20	102	73	4	13	5
25	114	83	4	13	5
32	121	87	4	13	6
40	133	98	4	13	6
50	152	114	4	16	8
65	165	127	4	16	8
80	184	145	4	16	10
100	216	178	4	16	10
125	254	210	8	16	13
150	279	235	8	16	13
200	337	292	8	16	13
250	406	356	8	19	16
300	457	406	12	19	16
350	527	470	12	22	19
400	578	521	12	22	19
450	641	584	12	22	22
500	705	641	16	22	25
600	826	756	16	25	29

TABLE - E

For Working Stream Pressure above 350 lbs and upto 450 lbs per sq. inch

Nominal Pipe Size (in mm)	Dia. of Flang	Dia. of Bolt Circle(PCD)	No. of Bolt	Dia. of Bolt	Thickness of Flange
mm	mm	mm	mm	mm	mm
15	95	67	4	13	6
20	102	73	4	13	6
25	114	83	4	13	7
32	121	87	4	13	8
40	133	98	4	13	9
50	152	114	4	6	10
65	165	127	4	16	10
80	184	145	4	16	11
100	216	178	8	16	13
125	254	210	8	16	14
150	279	235	8	19	17
200	337	292	8	19	19
250	406	356	12	19	22
300	457	406	12	22	25
350	527	470	12	22	25
400	578	521	12	22	25
450	641	584	16	22	29
500	705	641	16	22	32
600	826	756	16	25	38

TABLE - F

For Working Stream Pressure above 250 lbs and upto 350 lbs per sq. inch

Nominal Pipe Size (in mm)	Dia. of Flang	Dia. of Bolt Circle (PCD)	No. of Bolt	Dia. of Bolt	Thickness of Flange
mm	mm	mm	mm	mm	mm
15	95	67	4	13	10
20	102	73	4	13	10
25	121	87	4	16	10
32	133	98	4	16	13
40	140	105	4	16	13
50	165	127	4	16	16
65	184	145	8	16	16
80	203	165	8	16	16
100	229	191	8	16	19
125	279	235	8	19	22
150	305	260	12	19	22
200	368	324	12	19	25
250	432	381	12	22	25
300	489	438	16	22	29
350	552	495	16	25	32
400	610	552	20	25	32
450	673	610	20	29	35
500	737	673	24	29	38
600	851	781	24	32	38

TABLE - H

For Working Stream Pressure above 350 lbs and upto 450 lbs per sq. inch

Nominal Pipe Size (in mm)	Dia. of Flang	Dia. of Bolt Circle(PCD)	No. of Bolt	Dia. of Bolt	Thickness of Flange
mm	mm	mm	mm	mm	mm
15	114	83	4	16	13
20	114	83	4	16	13
25	121	87	4	16	14
32	133	98	4	16	17
40	140	105	4	16	17
50	165	127	4	16	19
65	184	145	8	16	19
80	203	165	8	16	22
100	229	191	8	16	25
125	279	235	8	19	29
150	305	260	12	19	29
200	368	324	12	19	32
250	432	381	12	22	35
300	489	438	16	22	38
350	552	495	16	25	41
400	610	552	20	25	44
450	673	610	20	29	48
500	737	673	24	29	51
600	851	781	24	32	57

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Table 12 — Dimensions of PN 10 flanges

Dimensions in millimetres

DN	Mating dimensions					Outside diameter of neck A	Bore diameters			Flange thick-ness				Cham-fer E	Collar thickness				Diameter of shoulder G _{max}	Length					Neck diameters			Corner radii R ₁	Wall thickness (see 5.6.1) S			
	Outside diameter D	Diameter of bolt circle K	Diameter of bolt hole L	Bolting			B ₁	B ₂	B ₃	C ₁	C ₂	C ₃	C ₄		F	H ₁	H ₂	H ₃		H ₄	H ₅	N ₁	N ₂	N ₃								
				Number	Size																											
																									Flange type							
01, 02, 04, 05, 11, 12, 13, 21						11 21 ^a 34 ^c 35 - 37	01 12 32	02	04	01 02 04	11 12 13	21	05	02 04	32 34	35	36	37	05	12 13	11 34 ^c	11 34 ^c	35	36	37	11 34 ^c	12 13	21	11 12 13 21, 34	34	11, 35 to 37	
10	90	60	14	4	M12	17,2	18,0	21	31	14	16	16	16	3	12	5	2	2,5	—	22	35	6	35	35	7	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	2	2,5	—	22	38	6	38	38	7	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	2,5	3	—	26	40	6	40	40	8	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	2,5	3	—	28	40	6	40	40	10	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	3	3	—	30	42	6	42	42	12	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	3	3	—	32	45	7	45	45	15	64	70	70	6	2,6		
50	165	125	18	4	M16	60,3	61,5	65	77	20	18	18	18	5	16	8	3	4	—	28	45	8	45	45	20	74	84	84	6	2,9		
65	185	145	18	8	M16	76,1	77,5	81	96	20	18	18	18	6	16	8	3	4	55	32	45	10	45	45	20	92	104	104	6	2,9		
80	200	160	18	8	M16	88,9	90,5	94	108	20	20	20	20	6	16	10	3	4	70	34	50	10	50	50	25	105	118	120	6	3,2		
100	220	180	18	8	M16	114,3	116,0	120	134	22	20	20	20	6	18	10	4	4	90	40	52	12	52	52	25	131	140	140	8	3,6		
125	250	210	18	8	M16	139,7	141,5	145	162	22	22	22	22	6	18	10	4	4	115	44	55	12	55	55	25	156	168	170	8	4,0		
150	285	240	22	8	M20	168,3	170,5	174	188	24	22	22	22	6	20	10	4	4	140	44	55	12	55	55	25	184	195	190	10	4,5		
200	340	295	22	8	M20	219,1	221,5	226	240	24	24	24	24	6	20	11	5	4	190	44	62	16	62	62	30	234	246	246	10	6,3		
250	395	350	22	12	M20	273,0	276,5	281	294	26	26	26	26	8	22	12	8	—	235	46	68	16	68	68	—	292	298	298	12	6,3		
300	445	400	22	12	M20	323,9	327,5	333	348	26	26	26	26	8	22	12	8	—	285	46	68	16	68	68	—	342	350	348	12	7,1		
350	505	460	22	16	M20	355,6	359,5	365	400	30	26	26	26	8	22	13	8	—	330	53	68	16	68	68	—	385	400	408	12	7,1		
400	565	515	26	16	M24	406,4	411,0	416	450	32	26	26	26	8	24	14	8	—	380	57	72	16	72	72	—	440	456	456	12	7,1		
450	615	565	26	20	M24	457,0	462,0	467	498	36	28	28	28	8	24	15	—	—	425	63	72	16	72	—	—	488	502	502	12	7,1		
500	670	620	26	20	M24	508,0	513,5	519	550	38	28	28	28	8	26	16	—	—	475	67	75	16	75	—	—	542	559	559	12	7,1		
600	780	725	30	20	M27	610,0	616,5	622	650	42	30	34	34	8	26	18	—	—	575	75	82	18	80	—	—	642	658	658	12	—		
700	895	840	30	24	M27	711,0	b	721	—	50	35	b	38	8	—	20	—	—	670	—	85	18	80	—	—	746	—	772	12	—		
800	1 015	950	33	24	M30	813,0		824	—	56	38		—	48	8	—	20	—	—	770	—	96	18	90	—	—	850	—	876	12	—	
900	1 115	1 050	33	28	M30	914,0		926	—	62	38		—	50	8	—	22	—	—	860	—	99	20	95	—	—	950	—	976	12	—	
1 000	1 230	1 160	36	28	M33	1 016,0		1 028	—	70	44		—	54	8	—	24	—	—	960	—	105	20	95	—	—	1 052	—	1 080	16	—	
1 200	1 455	1 380	39	32	M36	1 219,0		1 234	—	83	55		—	66	8	—	26	—	—	1 160	—	132	25	115	—	—	1 256	—	1 292	16	—	
1 400	1 675	1 590	42	36	M39	1 422,0	—	—	—	—	—	—	—	—	—	—	—	—	—	143	25	—	—	—	1 460	—	1 496	16	—			
1 600	1 915	1 820	48	40	M45	1 626,0	—	—	—	—	—	—	—	—	—	—	—	—	—	159	25	—	—	—	1 666	—	1 712	16	—			
1 800	2 115	2 020	48	44	M45	1 829,0	—	—	—	—	—	—	—	—	—	—	—	—	—	175	30	—	—	—	1 868	—	1 910	16	—			

See Annex A

See Annex A

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Table 13 — Dimensions of PN 16 flanges

Dimensions in millimetres

DN	Mating dimensions					Outside diameter of neck <i>A</i>	Bore diameters			Flange thickness				Chamfer <i>E</i>	Collar thickness			Diameter of shoulder <i>G</i> _{max}	Length					Neck diameters			Corner radii <i>R</i> ₁	Wall thickness (see 5.6.1) <i>S</i>			
	Outside di- ameter <i>D</i>	Diameter of bolt circle <i>K</i>	Diamete- r of bolt hole <i>L</i>	Bolting																											
				Num- ber	Size		<i>B</i> ₁	<i>B</i> ₂	<i>B</i> ₃	<i>C</i> ₁	<i>C</i> ₂	<i>C</i> ₃	<i>C</i> ₄						<i>H</i> ₁	<i>H</i> ₂	<i>H</i> ₃	<i>H</i> ₄	<i>H</i> ₅	<i>N</i> ₁	<i>N</i> ₂	<i>N</i> ₃					
							Flange type																								
	01, 02, 04, 05, 11, 12, 13, 21						11 21 ^a 34 ^d 35 - 37	01 12 32	02	04	01 02 04	11 12 13	21		05	02 04	32 34		35	36	37	05	12 13	11 34 ^c	11 34 ^c	35		36	37	11 34 ^c	12 13
10	90	60	14	4	M12	17,2	18,0	21	31	14	16	16	16	3	12	5	2	2,5	—	22	35	6	35	35	7	28	30	28	4	1,8	See Annex A
15	95	65	14	4	M12	21,3	22,0	25	35	14	16	16	16	3	12	5	2	2,5	—	22	38	6	38	38	7	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	2,5	3	—	26	40	6	40	40	8	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	2,5	3	—	28	40	6	40	40	10	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	3	3	—	30	42	6	42	42	12	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	3	3	—	32	45	7	45	45	15	64	70	70	6	2,6	
50	165	125	18	4	M16	60,3	61,5	65	77	20	18	18	18	5	16	8	3	4	—	28	45	8	45	45	20	74	84	84	6	2,9	
65	185	145	18	8 ^b	M16	76,1	77,5	81	96	20	18	18	18	6	16	8	3	4	55	32	45	10	45	45	20	92	104	104	6	2,9	
80	200	160	18	8	M16	88,9	90,5	94	108	20	20	20	20	6	16	10	3	4	70	34	50	10	50	50	25	105	118	120	6	3,2	
100	220	180	18	8	M16	114,3	116,0	120	134	22	20	20	20	6	18	10	4	4	90	40	52	12	52	52	25	131	140	140	8	3,6	
125	250	210	18	8	M16	139,7	141,5	145	162	22	22	22	22	6	18	10	4	4	115	44	55	12	55	55	25	156	168	170	8	4,0	
150	285	240	22	8	M20	168,3	170,5	174	188	24	22	22	22	6	20	10	5	5	140	44	55	12	55	55	25	184	195	190	10	4,5	
200	340	295	22	12	M20	219,1	221,5	226	240	26	24	24	24	6	20	11	6	6	190	44	62	16	62	62	30	235	246	246	10	6,3	
250	405	355	26	12	M24	273,0	276,5	281	294	29	26	26	26	8	22	12	10	—	235	46	70	16	70	68	—	292	298	296	12	6,3	

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Table 14 — Dimensions of PN 25 flanges

Dimensions in millimetres

DN	Mating dimensions					Outside diameter of neck	Bore diameters				Flange thickness				Chamfer	Collar thickness	Diameter of shoulder	Length				Neck diameters			Corner radii	Wall thickness (see 5.6.1)
	Outside diameter	Diameter of bolt circle	Diameter of bolt hole	Bolting			B ₁	B ₂	B ₃	C ₁	C ₂	C ₃	C ₄	E				F	G _{max}	H ₁	H ₂	H ₃	H ₄	N ₁		
				Number	Size	A									01	02	04								01	11
	D	K	L																							
01, 02, 04, 05, 11, 12, 13, 21					Flange type																					
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	360	310	26	12	M24	219,1	221,5	226	250	32	30	30	30	6	26	18	190	52	80	16	80	244	256	252	10	6,3
250	425	370	30	12	M27	273,0	276,5	281	302	35	32	32	32	8	26	18	235	60	88	18	88	298	310	304	12	7,1
300	485	430	30	16	M27	323,9	327,5	333	356	38	34	34	34	8	28	20	285	67	92	18	92	352	364	364	12	8,0
350	555	490	33	16	M30	355,6	359,5	365	408	42	38	38	38	8	32	22	332	72	100	20	100	398	418	418	12	8,0
400	620	550	36	16	M33	406,4	411,0	416	462	48	40	40	40	8	34	24	380	78	110	20	110	452	472	472	12	8,8
450	670	600	36	20	M33	457,0	462,0	467	510	54	46	46	46	8	36	26	425	84	110	20	110	500	520	520	12	8,8
500	730	660	36	20	M33	508,0	513,5	519	558	58	48	48	48	8	38	28	475	90	125	20	125	558	580	580	12	10,0
600	845	770	39	20	M36	610,0	616,5	622	670	68	48	48	48	8	40	30	575	100	125	20	115	660	684	684	12	11,0
700	960	875	42	24	M39	711,0	—	721	—	85	50	—	—	8	—	30	—	—	129	20	125	760	—	780	12	—
800	1 085	990	48	24	M45	813,0	—	824	—	95	53	—	—	8	—	35	—	—	138	22	135	864	—	882	12	—
900	1 185	1 090	48	28	M45	914,0	—	—	—	—	57	—	—	—	—	—	—	—	148	24	—	968	—	982	12	—
1 000	1 320	1 210	56	28	M52	1 016,0	—	—	—	—	63	—	—	—	—	—	—	—	160	24	—	1 070	—	1 086	16	—
1 200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1 400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1 600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1 800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2 000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

See Annex A

- ^a For flanges type 21 the outside hub diameter approximately corresponds to the outside pipe diameter.
^b To be specified by the purchaser.
^c Use is limited up to DN 500.
^d Only mating dimensions fixed, see Annex J.

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Table 15 — Dimensions of PN 40 flanges

Dimensions in millimetres

DN	Mating dimensions					Outside diameter of neck	Bore diameters			Flange thickness				Chamfer	Collar thickness	Diameter of shoulder	Length				Neck diameters			Corner radii	Neck thickness (see 5.6.1)		
	Outside diameter	Diameter of bolt circle	Diameter of bolt hole	Bolting																							
				D	K		L	Number	Size	A	B ₁	B ₂	B ₃				C ₁	C ₂	C ₃	C ₄	E	F	G _{max}			H ₁	H ₂
	Flange type																										
01, 02, 04, 05, 11, 12, 13, 21						11 21 ^a 34 ^c	01 12 32	02	04	01 02 04	11 12 13	21	05	02 04	32 34 ^c	35	05	12 13	11 34 ^c	11 34 ^c	35	11 34	12 13	21	11 12 13 21	34 ^c	11, 35
10	90	60	14	4	M12	17,2	18,0	21	31	14	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	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	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	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	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	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	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	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	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	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	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	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	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	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	8	34	25	285	67	115	18	115	362	380	378	12	8,0		
350	580	510	36	16	M33	355,6	359,5	365	418	58	46	46	8	36	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	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	d	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	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	8	54	—	575	100	150	20	—	666	686	686	12	16,0		
700																											
800																											
900																											
1 000																											
1 200																											
1 400																											
1 600																											

See Annex A

b