

Valves[®]
O N L I N E

DISCOVER OUR
FLANGE TABLES



FLANGE TABLES

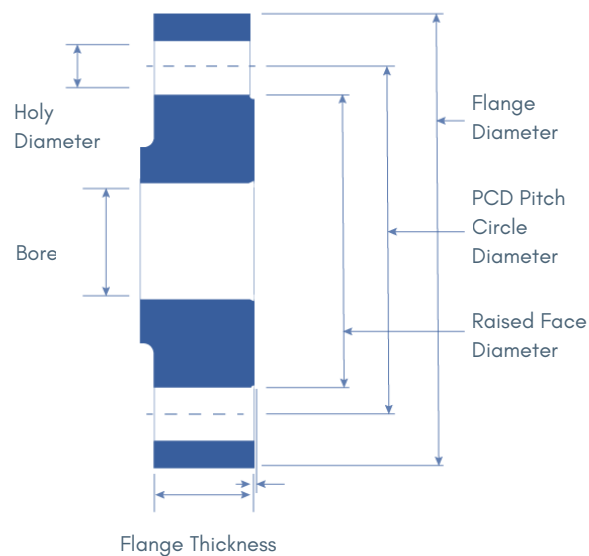
03	Flange Diagram and Information	04	1/2" NB (DN15) Flange table	05	3/4" NB (DN20) Flange table	06	1" NB (DN25) Flange table
07	1 1/4" NB (DN32) Flange table	08	1 1/2" NB (DN40) Flange table	09	2" NB (DN50) Flange table	10	2 1/2" NB (DN65) Flange table
11	3" NB (DN80) Flange table	12	4" NB (DN100) Flange table	13	5" NB (DN125) Flange table	14	6" NB (DN150) Flange table
15	8" NB (DN200) Flange table	16	10" NB (DN250) Flange table	17	12" NB (DN300) Flange table	18	Pressure Rating Imperial
19	Pressure Rating Metric	20	Gasket materials	21	PVC Flanges & Tables PN6/PN10	22	PVC Flanges & Tables PN16/BS10/ASA150

GENERAL INFORMATION

Flanges are usually used to connect a valve into a pipework.

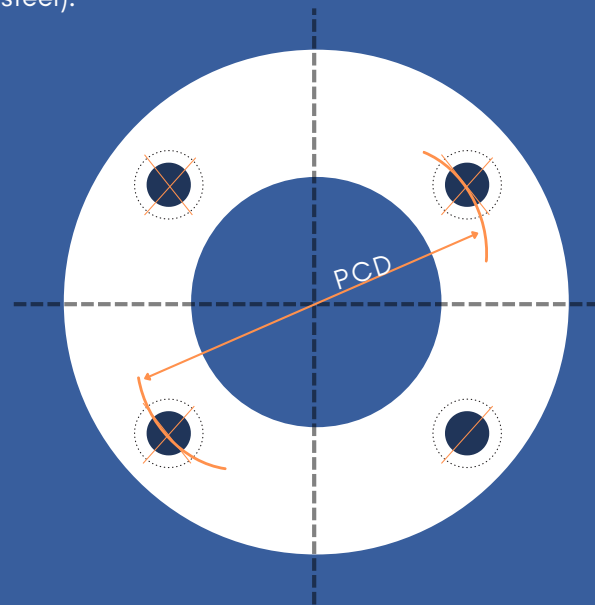
There are many different standards throughout the world relating to the sizing and specification of flange & bolt sets.

The most commonly used are: ASA / ANSI / ASME (USA), PN / DIN (EU), BS10 / BS4504 (British), and JIS / KS (Japanese/Korean).



There are many common flange standards and flanges. The British standards relate to: metric sizing in the case of BS4504 and Imperial sizing for BS10. The American standard, ANSI, is also used in Britain.

Within the same standards, these flanges can be either flat faced (commonly cast iron, ductile iron) or raised face (for cast steel and stainless steel).



Flange PCD

Pitch Circle Diameter (PCD).

Is the distance between the centre of the bolt holes.

Nominal Diameter (DN):

DN stands for "Diameter Nominale".

It is a translation between imperial and metric sizing, though not exact.

1/2"	DN15	5"	DN125
3/4"	DN20	6"	DN150
1"	DN25	8"	DN200
1 1/4"	DN32	10"	DN250
1 1/2"	DN40	12"	DN300
2"	DN50	14"	DN350
2 1/2"	DN65	16"	DN400
3"	DN80	18"	DN450
4"	DN100	20"	DN500

NOTE:

Care must be taken in bolt fastening sequences and in bolting torque.

FLANGE DIMENSIONS

1/2" NB (DN15) FLANGE TABLE

1/2"	FLANGE DIAMETER	PCD	NO. OF BOLT HOLES	DIAMETER OF BOLTS	DIAMETER OF HOLES	DIAMETER OF RAISED FACE	HEIGHT OF RAISED FACE
PN6	80mm	55mm	4	M10	11mm	40mm	2mm
PN10	95mm	65mm	4	M12	14mm	45mm	2mm
PN16	95mm	65mm	4	M12	14mm	45mm	2mm
PN25	95mm	65mm	4	M12	14mm	45mm	2mm
PN40	95mm	65mm	4	M12	14mm	45mm	2mm
PN64	105mm	75mm	4	M12	14mm	45mm	2mm
TABLE D	3 3/4" (95mm)	2 5/8" (67mm)	4	1/2" (13mm)	9/16" (14mm)		
TABLE E	3 3/4" (95mm)	2 5/8" (67mm)	4	1/2" (13mm)	9/16" (14mm)		
TABLE F	3 3/4" (95mm)	2 5/8" (67mm)	4	1/2" (13mm)	9/16" (14mm)		
TABLE H	4 1/2" (114mm)	3 1/4" (83mm)	4	5/8" (16mm)	11/16" (17mm)	2 1/4" (57mm)	1/16" (2mm)
ANSI 125/150	3 1/2" (89mm)	2 3/8" (60mm)	4	1/2" (13mm)	5/8" (16mm)	1 3/8" (35mm)	1/16" (2mm)
ANSI 300	3 3/4" (95mm)	2 5/8" (67mm)	4	1/2" (13mm)	5/8" (16mm)	1 3/8" (35mm)	1/16" (2mm)

FLANGE DIMENSIONS

3/4" NB (DN20) FLANGE TABLE

3/4"	FLANGE DIAMETER	PCD	NO. OF BOLT HOLES	DIAMETER OF BOLTS	DIAMETER OF HOLES	DIAMETER OF RAISED FACE	HEIGHT OF RAISED FACE
PN6	90mm	65mm	4	M10	11mm	50mm	2mm
PN10	105mm	75mm	4	M12	14mm	58mm	2mm
PN16	105mm	75mm	4	M12	14mm	58mm	2mm
PN25	105mm	75mm	4	M12	14mm	58mm	2mm
PN40	105mm	75mm	4	M12	14mm	58mm	2mm
PN64	130mm	90mm	4	M16	18mm	58mm	2mm
TABLE D	4" (102mm)	2 7/8" (73mm)	4	1/2" (13mm)	9/16" (14mm)		
TABLE E	4" (102mm)	2 7/8" (73mm)	4	1/2" (13mm)	9/16" (14mm)		
TABLE F	4" (102mm)	2 7/8" (73mm)	4	1/2" (13mm)	9/16" (14mm)		
TABLE H	4 1/2" (114mm)	3 1/4" (83mm)	4	5/8" (16mm)	11/16" (14mm)	2 1/4" (57mm)	1/16" (2mm)
ANSI 125/150	3 7/8" (98mm)	2 3/4" (70mm)	4	1/2" (13mm)	5/8" (16mm)	1 11/16" (43mm)	1/16" (2mm)
ANSI 300	4 5/8" (117mm)	3 1/4" (83mm)	4	5/8" (16mm)	3/4" (19mm)	1 11/16" (43mm)	1/16" (2mm)

FLANGE DIMENSIONS

1" NB (DN25) FLANGE TABLE

1"	FLANGE DIAMETER	PCD	NO. OF BOLT HOLES	DIAMETER OF BOLTS	DIAMETER OF HOLES	DIAMETER OF RAISED FACE	HEIGHT OF RAISED FACE
PN6	100mm	75mm	4	M10	11mm	60mm	2mm
PN10	115mm	85mm	4	M12	14mm	68mm	2mm
PN16	115mm	85mm	4	M12	14mm	68mm	2mm
PN25	115mm	85mm	4	M12	14mm	68mm	2mm
PN40	115mm	85mm	4	M12	14mm	68mm	2mm
PN64	140mm	100mm	4	M16	18mm	68mm	2mm
TABLE D	4 1/2" (114mm)	3 1/4" (83mm)	4	1/2" (13mm)	9/16" (14mm)		
TABLE E	4 1/2" (114mm)	3 1/4" (83mm)	4	1/2" (13mm)	9/16" (14mm)		
TABLE F	4 3/4" (121mm)	3 7/16" (87mm)	4	5/8" (16mm)	11/16" (17mm)	2 1/2" (64mm)	1/16" (2mm)
TABLE H	4 3/4" (121mm)	3 7/16" (87mm)	4	5/8" (16mm)	11/16" (17mm)	2 1/2" (64mm)	1/16" (2mm)
ANSI 125/150	4 1/4" (108mm)	3 1/8" (79mm)	4	1/2" (13mm)	5/8" (16mm)	2" (51mm)	1/16" (2mm)
ANSI 300	4 7/8" (124mm)	3 1/2" (89mm)	4	5/8" (16mm)	3/4" (19mm)	2" (51mm)	1/16" (2mm)

FLANGE DIMENSIONS

1 1/4" NB (DN32) FLANGE TABLE

1 1/4"	FLANGE DIAMETER	PCD	NO. OF BOLT HOLES	DIAMETER OF BOLTS	DIAMETER OF HOLES	DIAMETER OF RAISED FACE	HEIGHT OF RAISED FACE
PN6	120mm	90mm	4	M12	14mm	70mm	2mm
PN10	140mm	100mm	4	M16	18mm	78mm	2mm
PN16	140mm	100mm	4	M16	18mm	78mm	2mm
PN25	140mm	100mm	4	M16	18mm	78mm	2mm
PN40	140mm	100mm	4	M16	18mm	78mm	2mm
PN64	155mm	110mm	4	M20	22mm	78mm	2mm
TABLE D	4 3/4" (121mm)	3 7/16" (87mm)	4	1/2" (13mm)	9/16" (14mm)		
TABLE E	4 3/4" (121mm)	3 7/16" (87mm)	4	1/2" (13mm)	9/16" (14mm)		
TABLE F	5 1/4" (133mm)	3 7/8" (98mm)	4	5/8" (16mm)	11/16" (17mm)		
TABLE H	5 1/4" (133mm)	3 7/8" (98mm)	4	5/8" (16mm)	11/16" (17mm)	3" (76mm)	1/16" (2mm)
ANSI 125/150	4 5/8" (117mm)	3 1/2" (89mm)	4	1/2" (13mm)	5/8" (16mm)	2 1/2" (64mm)	1/16" (2mm)
ANSI 300	5 1/4" (133mm)	3 7/8" (98mm)	4	5/8" (16mm)	3/4" (19mm)	2 1/2" (64mm)	1/16" (2mm)

FLANGE DIMENSIONS

1 1/2" NB (DN40) FLANGE TABLE

1 1/2"	FLANGE DIAMETER	PCD	NO. OF BOLT HOLES	DIAMETER OF BOLTS	DIAMETER OF HOLES	DIAMETER OF RAISED FACE	HEIGHT OF RAISED FACE
PN6	130mm	100mm	4	M12	14mm	80mm	3mm
PN10	150mm	110mm	4	M16	18mm	88mm	3mm
PN16	150mm	110mm	4	M16	18mm	88mm	3mm
PN25	150mm	110mm	4	M16	18mm	88mm	3mm
PN40	150mm	110mm	4	M16	18mm	88mm	3mm
PN64	170mm	125mm	4	M20	22mm	88mm	3mm
TABLE D	5 1/4" (133mm)	3 7/8" (98mm)	4	1/2" (13mm)	9/16" (14mm)		
TABLE E	5 1/4" (133mm)	3 7/8" (98mm)	4	1/2" (13mm)	9/16" (14mm)		
TABLE F	5 1/2" (140mm)	4 1/8" (105mm)	4	5/8" (16mm)	11/16" (17mm)		
TABLE H	5 1/2" (140mm)	4 1/8" (105mm)	4	5/8" (16mm)	11/16" (17mm)	3 1/4" (83mm)	1/16" (2mm)
ANSI 125/150	5" (127mm)	3 7/8" (98mm)	4	1/2" (13mm)	5/8" (16mm)	2 7/8" (73mm)	1/16" (2mm)
ANSI 300	6 1/8" (156mm)	4 1/4" (114mm)	4	3/4" (19mm)	7/8" (22mm)	2 7/8" (73mm)	1/16" (2mm)

FLANGE DIMENSIONS

2" NB (DN50) FLANGE TABLE

2"	FLANGE DIAMETER	PCD	NO. OF BOLT HOLES	DIAMETER OF BOLTS	DIAMETER OF HOLES	DIAMETER OF RAISED FACE	HEIGHT OF RAISED FACE
PN6	140mm	110mm	4	M12	14mm	90mm	3mm
PN10	165mm	125mm	4	M16	18mm	102mm	3mm
PN16	165mm	125mm	4	M16	18mm	102mm	3mm
PN25	165mm	125mm	4	M16	18mm	102mm	3mm
PN40	165mm	125mm	4	M16	18mm	102mm	3mm
PN64	180mm	135mm	4	M20	22mm	102mm	3mm
TABLE D	6" (152mm)	4 1/2" (114mm)	4	5/8" (16mm)	11/16" (17mm)		
TABLE E	6" (152mm)	4 1/2" (114mm)	4	5/8" (16mm)	11/16" (17mm)		
TABLE F	6 1/2" (165mm)	5" (127mm)	4	5/8" (16mm)	11/16" (17mm)		
TABLE H	6 1/2" (165mm)	5" (127mm)	4	5/8" (16mm)	11/16" (17mm)	4" (102mm)	1/16" (2mm)
ANSI 125/150	6" (152mm)	4 3/4" (121mm)	4	5/8" (16mm)	3/4" (19mm)	3 5/8" (92mm)	1/16" (2mm)
ANSI 300	6 1/2" (165mm)	5" (127mm)	4	5/8" (16mm)	3/4" (19mm)	3 5/8" (92mm)	1/16" (2mm)

FLANGE DIMENSIONS

2 1/2" NB (DN65) FLANGE TABLE

2 1/2"	FLANGE DIAMETER	PCD	NO. OF BOLT HOLES	DIAMETER OF BOLTS	DIAMETER OF HOLES	DIAMETER OF RAISED FACE	HEIGHT OF RAISED FACE
PN6	160mm	130mm	4	M14	14mm	110mm	3mm
PN10	185mm	145mm	4	M18	18mm	122mm	3mm
PN16	185mm	145mm	4	M18	18mm	122mm	3mm
PN25	185mm	145mm	8	M18	18mm	122mm	3mm
PN40	185mm	145mm	8	M18	18mm	122mm	3mm
PN64	205mm	160mm	8	M22	22mm	122mm	3mm
TABLE D	6 1/2" (165mm)	5" (127mm)	4	5/8" (16mm)	11/16" (17mm)		
TABLE E	6 1/2" (165mm)	5" (127mm)	4	5/8" (16mm)	11/16" (17mm)		
TABLE F	7 1/4" (184mm)	5 3/4" (146mm)	8	5/8" (16mm)	11/16" (17mm)		
TABLE H	7 1/4" (184mm)	5 3/4" (146mm)	8	5/8" (16mm)	11/16" (17mm)	4 1/2" (114mm)	1/16" (2mm)
ANSI 125/150	7" (178mm)	5 1/2" (140mm)	4	5/8" (16mm)	3/4" (19mm)	4 1/8" (105mm)	1/16" (2mm)
ANSI 300	7 1/2" (191mm)	5 7/8" (149mm)	8	3/4" (19mm)	7/8" (22mm)	4 1/8" (105mm)	1/16" (2mm)

FLANGE DIMENSIONS

3" NB (DN80) FLANGE TABLE

3"	FLANGE DIAMETER	PCD	NO. OF BOLT HOLES	DIAMETER OF BOLTS	DIAMETER OF HOLES	DIAMETER OF RAISED FACE	HEIGHT OF RAISED FACE
PN6	190mm	150mm	4	M16	18mm	128mm	3mm
PN10	200mm	160mm	8	M16	18mm	138mm	3mm
PN16	200mm	160mm	8	M16	18mm	138mm	3mm
PN25	200mm	160mm	8	M16	18mm	138mm	3mm
PN40	200mm	160mm	8	M16	18mm	138mm	3mm
PN64	215mm	170mm	8	M20	22mm	138mm	3mm
TABLE D	7 1/4" (184mm)	5 3/4" (146mm)	4	5/8" (16mm)	11/16" (17mm)		
TABLE E	7 1/4" (184mm)	5 3/4" (146mm)	4	5/8" (16mm)	11/16" (17mm)		
TABLE F	8" (203mm)	6 1/2" (165mm)	8	5/8" (16mm)	11/16" (17mm)		
TABLE H	8" (203mm)	6 1/2" (165mm)	8	5/8" (16mm)	11/16" (17mm)	5" (127mm)	1/16" (2mm)
ANSI 125/150	7 1/2" (191mm)	6" (152mm)	4	5/8" (16mm)	3/4" (19mm)	5" (127mm)	1/16" (2mm)
ANSI 300	8 1/4" (210mm)	6 5/6" (168mm)	8	3/4" (19mm)	7/8" (22mm)	5" (127mm)	1/16" (2mm)

FLANGE DIMENSIONS

4" NB (DN100) FLANGE TABLE

4"	FLANGE DIAMETER	PCD	NO. OF BOLT HOLES	DIAMETER OF BOLTS	DIAMETER OF HOLES	DIAMETER OF RAISED FACE	HEIGHT OF RAISED FACE
PN6	210mm	170mm	4	M16	18mm	148mm	3mm
PN10	220mm	180mm	8	M16	18mm	158mm	3mm
PN16	220mm	180mm	8	M16	18mm	158mm	3mm
PN25	235mm	190mm	8	M20	22mm	162mm	3mm
PN40	235mm	190mm	8	M20	22mm	162mm	3mm
PN64	250mm	200mm	8	M24	26mm	162mm	3mm
TABLE D	8 1/2" (216mm)	7" (178mm)	4	5/8" (16mm)	11/16" (17mm)		
TABLE E	8 1/2" (216mm)	7" (178mm)	8	5/8" (16mm)	11/16" (17mm)		
TABLE F	9" (229mm)	7 1/2" (191mm)	8	5/8" (16mm)	11/16" (17mm)		
TABLE H	9" (229mm)	7 1/2" (191mm)	8	5/8" (16mm)	11/16" (17mm)	6" (152mm)	1/16" (2mm)
ANSI 125/150	9" (229mm)	7 1/2" (191mm)	8	5/8" (16mm)	3/4" (19mm)	6 3/16" (157mm)	1/16" (2mm)
ANSI 300	10" (254mm)	7 7/8" (200mm)	8	3/4" (19mm)	7/8" (22mm)	6 3/16" (157mm)	1/16" (2mm)

FLANGE DIMENSIONS

5" NB (DN125) FLANGE TABLE

5"	FLANGE DIAMETER	PCD	NO. OF BOLT HOLES	DIAMETER OF BOLTS	DIAMETER OF HOLES	DIAMETER OF RAISED FACE	HEIGHT OF RAISED FACE
PN6	240mm	200mm	4	M16	18mm	178mm	3mm
PN10	250mm	210mm	8	M16	18mm	188mm	3mm
PN16	250mm	210mm	8	M16	18mm	188mm	3mm
PN25	270mm	220mm	8	M24	26mm	188mm	3mm
PN40	270mm	220mm	8	M24	26mm	188mm	3mm
PN64	295mm	240mm	8	M27	30mm	188mm	3mm
TABLE D	10" (254mm)	8 1/4" (210mm)	8	5/8" (16mm)	11/16" (17mm)		
TABLE E	10" (254mm)	8 1/4" (210mm)	8	5/8" (16mm)	11/16" (17mm)		
TABLE F	11" (279mm)	9 1/4" (235mm)	8	3/4" (19mm)	7/8" (22mm)		
TABLE H	11" (279mm)	9 1/4" (235mm)	8	3/4" (19mm)	7/8" (22mm)	7" (178mm)	1/16" (2mm)
ANSI 125/150	10" (254mm)	8 1/2" (216mm)	8	3/4" (19mm)	7/8" (22mm)	7 5/16" (186mm)	1/16" (2mm)
ANSI 300	11" (279mm)	9 1/4" (235mm)	8	3/4" (19mm)	7/8" (22mm)	7 5/16" (186mm)	1/16" (2mm)

FLANGE DIMENSIONS

6" NB (DN150) FLANGE TABLE

6"	FLANGE DIAMETER	PCD	NO. OF BOLT HOLES	DIAMETER OF BOLTS	DIAMETER OF HOLES	DIAMETER OF RAISED FACE	HEIGHT OF RAISED FACE
PN6	265mm	225mm	8	M16	18mm	202mm	3mm
PN10	285mm	240mm	8	M20	22mm	212mm	3mm
PN16	285mm	240mm	8	M20	22mm	212mm	3mm
PN25	300mm	250mm	8	M24	26mm	218mm	3mm
PN40	300mm	250mm	8	M24	26mm	218mm	3mm
PN64	345mm	280mm	8	M30	33mm	218mm	3mm
TABLE D	11" (279mm)	9 1/4" (235mm)	8	5/8" (16mm)	11/16" (17mm)		
TABLE E	11" (279mm)	9 1/4" (235mm)	8	3/4" (19mm)	7/8" (22mm)		
TABLE F	12" (305mm)	10 1/4" (260mm)	12	3/4" (19mm)	7/8" (22mm)		
TABLE H	12" (305mm)	10 1/4" (260mm)	12	3/4" (19mm)	7/8" (22mm)	2 1/4" (57mm)	1/16" (2mm)
ANSI 125/150	11" (279mm)	9 1/2" (241mm)	8	3/4" (19mm)	7/8" (22mm)	8 1/2" (216mm)	1/16" (2mm)
ANSI 300	12 1/2" (318mm)	10 5/8" (270mm)	12	3/4" (19mm)	7/8" (22mm)	8 1/2" (216mm)	1/16" (2mm)

FLANGE DIMENSIONS

8" NB (DN200) FLANGE TABLE

8"	FLANGE DIAMETER	PCD	NO. OF BOLT HOLES	DIAMETER OF BOLTS	DIAMETER OF HOLES	DIAMETER OF RAISED FACE	HEIGHT OF RAISED FACE
PN6	320mm	280mm	8	M16	18mm	258mm	3mm
PN10	340mm	295mm	8	M20	22mm	268mm	3mm
PN16	340mm	295mm	12	M20	22mm	268mm	3mm
PN25	360mm	310mm	12	M24	26mm	278mm	3mm
PN40	375mm	320mm	12	M27	30mm	285mm	3mm
PN64	415mm	345mm	12	M33	36mm	285mm	3mm
TABLE D	13 1/4" (337mm)	11 1/2" (292mm)	8	5/8" (16mm)	11/16" (17mm)		
TABLE E	13 1/4" (337mm)	11 1/2" (292mm)	8	3/4" (19mm)	7/8" (22mm)		
TABLE F	14 1/2" (368mm)	12 3/4" (324mm)	12	3/4" (19mm)	7/8" (22mm)		
TABLE H	14 1/2" (368mm)	12 3/4" (324mm)	12	3/4" (19mm)	7/8" (22mm)	10 1/4" (260mm)	1/16" (2mm)
ANSI 125/150	13 1/2" (343mm)	11 3/4" (298mm)	8	3/4" (19mm)	7/8" (22mm)	10 5/8" (270mm)	1/16" (2mm)
ANSI 300	15" (381mm)	13" (330mm)	12	7/8" (22mm)	1" (15mm)	10 5/8" (270mm)	1/16" (2mm)

FLANGE DIMENSIONS

10" NB (DN250) FLANGE TABLE

10"	FLANGE DIAMETER	PCD	NO. OF BOLT HOLES	DIAMETER OF BOLTS	DIAMETER OF HOLES	DIAMETER OF RAISED FACE	HEIGHT OF RAISED FACE
PN6	375mm	335mm	12	M16	18mm	312mm	3mm
PN10	395mm	350mm	12	M20	22mm	320mm	3mm
PN16	405mm	355mm	12	M24	26mm	320mm	3mm
PN25	425mm	370mm	12	M27	30mm	335mm	3mm
PN40	450mm	385mm	12	M30	33mm	345mm	3mm
PN64	470mm	400mm	12	M33	36mm	345mm	3mm
TABLE D	16" (406mm)	14" (356mm)	8	3/4" (19mm)	7/8" (22mm)		
TABLE E	16" (406mm)	14" (356mm)	12	3/4" (19mm)	7/8" (22mm)		
TABLE F	17" (432mm)	15" (381mm)	12	7/8" (22mm)	1" (25mm)		
TABLE H	17" (432mm)	15" (381mm)	12	7/8" (22mm)	1" (25mm)	12 1/4" (311mm)	1/16" (2mm)
ANSI 125/150	16" (406mm)	14 1/4" (362mm)	12	7/8" (22mm)	1" (25mm)	12 3/4" (324mm)	1/16" (2mm)
ANSI 300	17 1/2" (445mm)	15 1/4" (387mm)	16	1" (25mm)	1 1/8" (29mm)	12 3/4" (324mm)	1/16" (2mm)

FLANGE DIMENSIONS

12" NB (DN300) FLANGE TABLE

12"	FLANGE DIAMETER	PCD	NO. OF BOLT HOLES	DIAMETER OF BOLTS	DIAMETER OF HOLES	DIAMETER OF RAISED FACE	HEIGHT OF RAISED FACE
PN6	440mm	395mm	12	M20	22mm	365mm	4mm
PN10	445mm	400mm	12	M20	22mm	370mm	4mm
PN16	460mm	410mm	12	M24	26mm	378mm	4mm
PN25	485mm	430mm	16	M27	30mm	395mm	4mm
PN40	515mm	450mm	16	M30	33mm	410mm	4mm
PN64	530mm	460mm	16	M33	36mm	410mm	4mm
TABLE D	18" (457mm)	16" (406mm)	12	3/4" (19mm)	7/8" (22mm)		
TABLE E	18" (457mm)	16" (406mm)	12	7/8" (22mm)	1" (25mm)		
TABLE F	19 1/4" (489mm)	17 1/4" (438mm)	16	7/8" (22mm)	1" (25mm)		
TABLE H	19 1/4" (489mm)	17 1/4" (438mm)	16	7/8" (22mm)	1" (25mm)	14 1/4" (362mm)	1/16" (2mm)
ANSI 125/150	19" (483mm)	17" (432mm)	12	7/8" (22mm)	1" (25mm)	15" (381mm)	1/16" (2mm)
ANSI 300	20 1/2" (521mm)	17 3/4" (451mm)	16	1 1/8" (29mm)	1 1/4" (32mm)	15" (381mm)	1/16" (2mm)

PRESSURE RATINGS IN PSI

BS10 IMPERIAL FLANGES

FLANGE TABLE	0°F TO 450°F -18°C TO 230°C	500°F 260°C	600°F 315°C	700°F 370°C	800°F 370°C	850°F 450°C	900°F 480°C	MAX HYDRAULIC TEST PRESSURE
TABLE D	100	95	80	65	50			150
TABLE E	200	185	155	130	100			300
TABLE F	300	280	235	195	150			450
TABLE H	500	465	395	320	250	180	115	750
TABLE J	700	650	550	450	350	255	160	1050
TABLE K	900	835	705	580	450	325	205	1350
TABLE R	1200	1115	945	770	600	435	275	1800
TABLE S	1800	1670	1415	1155	900	655	415	2700
TABLE T	2800	2600	2200	1800	1400	1025	645	4200

PRESSURE RATING (PN):

Where PN stands for Pressure Nominale and prefixes the pressure rating.

For example a PN16 flange is designed to operate up to 16 bar and typical ratings include PN6, PN10, PN16, PN25, PN40, PN64, PN100.

The American ANSI standard refers instead to a pressure/temperature rating termed "Class" i.e. ANSI 150.

* Please note that the following flange tables are provided as a guide only, we cannot accept responsibility for any errors that may have been included.

PRESSURE RATINGS IN BAR
BS4504 METRIC FLANGES



FLANGE TABLE	-10°C TO 200°C	200°C	300°C	350°C	400°C	425°C	450°C	475°C
TABLE 6	6	5.5	5					
TABLE 10	10	9	8	7	6			
TABLE 16	16	15	13	11	9			
TABLE 25	25	24	21	17	14	12	9	6
TABLE 40	40	38	33	28	23	20	15	10
TABLE 64	64	61	53	44	36	32	24	16
TABLE 100	100	95	83	70	57	50	37	25
TABLE 160	160	152	132	112	92	80	60	40

* Please note that the following flange tables are provided as a guide only, we cannot accept responsibility for any errors that may have been included.

GASKET MATERIALS

EDPM

Suitable for:

Hydraulic fluids, ketones, hot and cold water, and alkalis, heat, ozone and weather resistance.

Not suitable for:

Oils, gasoline, kerosene, aromatic and aliphatic hydrocarbons, halogenated solvents and concentrated acids.

Temperature range: -40°C to +120°C.

NATURAL RUBBER NBR

Suitable for:

Acids & bases, abrasion resistance.

Not suitable for:

Oils, oxidising agents, aromatics, hydrocarbons, sunlight, ozone and oxygen.

Temperature range: -40°C to +80°C.

NEOPRENE

Suitable for:

Weathering resistance, ozone, low gas permeability, seawater applications.

Not suitable for:

Low temperature operations.

Temperature range: -20°C to +100°C.

NITRILE

Suitable for:

Oils, hot oils, animal fats, acids & bases, heat and resistance to abrasion, gas.

Not suitable for:

Ozone, sunlight or weather resistance.

Temperature range: -20°C to +110°C.

BUTYL

Suitable for:

Ozone, weathering, general chemical resistance, low gas & moisture permeability.

Not suitable for:

Oils, fuels and fats.

Temperature range: -40°C to +100°C.

VITON

Suitable for:

High temperature solvents, oils.

Not suitable for:

Acetone, esters, ketones, low temperature applications or steam.

Temperature range: -10°C to +250°C.

SILICONE

Suitable for:

High and low temperatures, electrically insulating.

Temperature range: -60°C to +220°C.

PVC FLANGES

In Europe, the drilling will be generally either PN6, PN10 or PN16. If it is an old piece of equipment, you are connecting the plastic pipe to a pump or filter, therefore, the flange may be a BS10 drilling. However, if it is an imported piece of equipment from another country like America, the drilling could well be ASA150 (or ANSI). A good idea is to measure the PCD and look it up on the flange drilling tables below.

PIPE SIZE		PN6 DRILLING		
INCH	METRIC	PCD MM	BOLT DIAMETER	NO. OF BOLTS
1/2"	20	55	M10	4
3/4"	25	65	M10	4
1"	32	75	M10	4
1 1/4"	40	90	M12	4
1 1/2"	50	100	M12	4
2"	63	110	M12	4
2 1/2"	75	130	M12	4
3"	90	150	M16	4
4"	110	170	M16	4
5"	140	200	M16	8
6"	160	225	M16	8
8"	200	280	M16	8
10"	280	335	M16	12

PIPE SIZE		PN10 DRILLING		
INCH	METRIC	PCD MM	BOLT DIAMETER	NO. OF BOLTS
1/2"	20	65	M12	4
3/4"	25	75	M12	4
1"	32	85	M12	4
1 1/4"	40	100	M16	4
1 1/2"	50	110	M16	4
2"	63	125	M16	4
2 1/2"	75	145	M16	4
3"	90	160	M16	8
4"	110	180	M16	8
5"	140	210	M16	8
6"	160	240	M20	8
8"	200	295	M20	8
10"	280	350	M20	12

PIPE SIZE		PN16 DRILLING		
INCH	METRIC	PCD MM	BOLT DIAMETER	NO. OF BOLTS
1/2"	20	65	M12	4
3/4"	25	75	M12	4
1"	32	85	M16	4
1 1/4"	40	100	M16	4
1 1/2"	50	110	M16	4
2"	63	125	M16	4
2 1/2"	75	145	M16	4
3"	90	160	M16	8
4"	110	180	M16	8
5"	140	210	M16	8
6"	160	240	M20	8
8"	200	295	M20	12
10"	280	350	M20	12

PVC FLANGES

PIPE SIZE		ASA 150 DRILLING	
INCH	PCD MM	BOLT DIAMETER	NO. OF BOLTS
1/2"	60	M12	4
3/4"	70	M12	4
1"	80	M12	4
1 1/4"	90	M12	4
1 1/2"	98	M16	4
2"	121	M16	4
2 1/2"	138	M16	4
3"	152	M16	4
4"	190	M16	8
5"	216	M20	8
6"	241	M20	8
8"	298	M20	8
10"	364	M24	12

Please note that the drilling must be the same on both flanges, if not, the bolt holes won't line up and you won't be able to connect them.

Once you have your PCD measurement, check it up in the tables to determine the drilling standard.

Please note: PN10/16 - some flanges have both PN10/16 written on them. These refer to the fact that either PN10 or PN16 flanges will fit, because the drillings for many sizes are the same.

PIPE SIZE		BS10 TABLE D/E DRILLING	
INCH	PCD MM	BOLT DIAMETER	NO. OF BOLTS
1/2"	67	M12	4
3/4"	73	M12	4
1"	83	M12	4
1 1/4"	87	M12	4
1 1/2"	98	M16	4
2"	114	M16	4
2 1/2"	127	M16	4
3"	146	M16	4
4" (D)	178	M16	4
4" (E)	178	M16	8
5"	210	M16	8
6"	235	M16	8
8"	292	M16	8
10"	406	M20	8

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