

Temperature/Pressure Ratings for Steel Flanges

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.

BS10 Imperial Flanges – Pressure ratings in PSI

FLANGE TABLE	Temperature							Max Hydraulic Test Pressure
	0°F to 450°F -18°C to 230°C	500°F 260°C	600°F 315°C	700°F 370°C	800°F 425°C	850°F 450°C	900°F 480°C	
D	100	95	80	65	50	-	-	150
E	200	185	155	130	100	-	-	300
F	300	280	235	195	150	-	-	450
H	500	465	395	320	250	180	115	750
J	700	650	550	450	350	255	160	1050
K	900	835	705	580	450	325	205	1350
R	1200	1115	945	770	600	435	275	1800
S	1800	1670	1415	1155	900	655	415	2700
T	2800	2600	2200	1800	1400	1025	645	4200

BS4504 Metric Flanges – Pressure ratings in BAR

FLANGE TABLE	Temperature							
	-10°C to 200°C	250°C	300°C	350°C	400°C	425°C	450°C	475°C
6	6	5.5	5	-	-	-	-	-
10	10	9	8	7	6	-	-	-
16	16	15	13	11	9	-	-	-
25	25	24	21	17	14	12	9	6
40	40	38	33	28	23	20	15	10
64	64	61	53	44	36	32	24	16
100	100	95	83	70	57	50	37	25
160	160	152	132	112	92	80	60	40

BS1560/ANSI B16.5 Flanges – Pressure ratings in PSI

CLASS	Temperature							
	-20°F to 200°F -29°C to 93°C	400°F 204°C	600°F 315°C	750°F 400°C	850°F 454°C	900°F 482°C	950°F 510°C	1000°F 538°C
150	240	180	130	100	82	70	55	40
300	700	665	555	425	300	225	155	85
600	1400	1330	1100	850	600	445	310	170
900	2100	2000	1660	1275	900	670	465	255
1500	3500	3330	2770	2125	1500	1115	770	430
2500	5830	5550	4620	3550	2500	1855	1285	715

1/2" - 15mm FLANGE TABLE

	TABLE	FLD DIA.	PCD	NO. BOLTS	DIA.BOLTS	DIA.HOLES	FLD.THK
BS	D	3.3/4"	2.5/8"	4	1/2"	9/16"	3/8"
	E	3.3/4"	2.5/8"	4	1/2"	9/16"	3/8"
	F	3.3/4"	2.5/8"	4	1/2"	9/16"	3/8"
	H	4.1/2"	3.1/4"	4	5/8"	11/16"	1/2"
ASA	125/150	3.1/2"	2.3/8"	4	1/2"	5/8"	7/16"
	300	3.3/4"	2.5/8"	4	1/2"	5/8"	1/2"
	600	3.3/4"	2.5/8"	4	1/2"	5/8"	9/16"
METRIC	PN 6	80	55	4	M10	11	12
	PN 10	95	65	4	M12	14	16
	PN 16	95	65	4	M12	14	16
	PN 25	95	65	4	M12	14	16
	PN 40	95	65	4	M12	14	16

3/4" - 20mm FLANGE TABLES

	TABLE	FLD DIA.	PCD	NO. BOLTS	DIA.BOLTS	DIA.HOLES	FLD.THK
BS	D	4"	2.7/8"	4	1/2"	9/16"	3/8"
	E	4"	2.7/8"	4	1/2"	9/16"	3/8"
	F	4"	2.7/8"	4	1/2"	9/16"	3/8"
	H	4.1/2"	3.1/4"	4	5/8"	11/16"	1/2"
ASA	125/150	3.7/8"	2.3/4"	4	1/2"	5/8"	9/16"
	300	4.5/8"	3.1/4"	4	5/8"	3/4"	5/8"
	600	4.5/8"	3.1/4"	4	5/8"	3/4"	5/8"
METRIC	PN 6	90	65	4	M10	11	14
	PN 10	105	75	4	M12	14	18
	PN 16	105	75	4	M12	14	18
	PN 25	105	75	4	M12	14	18
	PN 40	105	75	4	M12	14	18

1" - 25mm FLANGE TABLES

	TABLE	FLD DIA.	PCD	NO. BOLTS	DIA.BOLTS	DIA.HOLES	FLD.THK
BS	D	4.1/2"	3.1/4"	4	1/2"	9/16"	3/8"
	E	4.1/2"	3.1/4"	4	1/2"	9/16"	3/8"
	F	4.3/4"	3.7/16"	4	5/8"	11/16"	3/8"
	H	4.3/4"	3.7/16"	4	5/8"	11/16"	9/16"
ASA	125/150	4.1/4"	3.1/8"	4	1/2"	5/8"	9/16"
	300	4.7/8"	3.1/2"	4	5/8"	3/4"	11/16"
	600	4.7/8"	3.1/2"	4	5/8"	3/4"	11/16"
METRIC	PN 6	100	75	4	M10	11	14
	PN 10	115	85	4	M12	14	18
	PN 16	115	85	4	M12	14	18
	PN 25	115	85	4	M12	14	18
	PN 40	115	85	4	M12	14	18

1.1/4" - 32mm FLANGE TABLES

	TABLE	FLD DIA.	PCD	NO. BOLTS	DIA.BOLTS	DIA.HOLES	FLD.THK
BS	D	4.3/4"	3.7/16"	4	1/2"	9/16"	1/2"
	E	4.3/4"	3.7/16"	4	1/2"	9/16"	1/2"
	F	5.1/4"	3.7/8"	4	5/8"	11/16"	1/2"
	H	5.1/4"	3.7/8"	4	5/8"	11/16"	11/16"
ASA	125/150	4.5/8"	3.1/2"	4	1/2"	5/8"	1/2"
	300	5.1/4"	3.7/8"	4	5/8"	3/4"	3/4"
	600	5.1/4"	3.7/8"	4	5/8"	3/4"	13/16"
METRIC	PN 6	120	90	4	M12	14	14
	PN 10	140	100	4	M16	18	18
	PN 16	140	100	4	M16	18	18
	PN 25	140	100	4	M16	18	18
	PN 40	140	100	4	M16	18	18

1.1/2" - 40mm FLANGE TABLES

	TABLE	FLD DIA.	PCD	NO. BOLTS	DIA.BOLTS	DIA.HOLES	FLD.THK
BS	D	5.1/4"	3.7/8"	4	1/2"	9/16"	1/2"
	E	5.1/4"	3.7/8"	4	1/2"	9/16"	1/2"
	F	5.1/2"	4.1/8"	4	5/8"	11/16"	1/2"
	H	5.1/2"	4.1/8"	4	5/8"	11/16"	11/16"
ASA	125/150	5"	3.7/8"	4	1/2"	5/8"	9/16"
	300	6.1/8"	4.1/2"	4	3/4"	7/8"	13/16"
	600	6.1/8"	4.1/2"	4	3/4"	7/8"	7/8"
METRIC	PN 6	130	100	4	M12	14	14
	PN10	150	110	4	M16	18	18
	PN 16	150	110	4	M16	18	18
	PN 25	150	110	4	M16	18	18
	PN 40	150	110	4	M16	18	18

2" - 50mm FLANGE TABLES

	TABLE	FLD DIA.	PCD	NO. BOLTS	DIA.BOLTS	DIA.HOLES	FLD.THK
BS	D	6"	4.1/2"	4	5/8"	11/16"	9/16"
	E	6"	4.1/2"	4	5/8"	11/16"	9/16"
	F	6.1/2"	5"	4	5/8"	11/16"	5/8"
	H	6.1/2"	5"	4	5/8"	11/16"	3/4"
ASA	125/150	6"	4.3/4"	4	5/8"	3/4"	5/8"
	300	6.1/2"	5"	8	5/8"	3/4"	7/8"
	600	6.1/2"	5"	8	5/8"	3/4"	1"
METRIC	PN 6	140	110	4	M12	14	14
	PN 10	165	125	4	M16	18	18
	PN 16	165	125	4	M16	18	18
	PN 25	165	125	4	M16	18	18
	PN 40	165	125	4	M16	18	18

2.1/2" - 65mm FLANGE TABLES

	TABLE	FLD DIA.	PCD	NO. BOLTS	DIA.BOLTS	DIA.HOLES	FLD.THK
BS	D	6.1/2"	5"	4	5/8"	11/16"	9/16"
	E	6.1/2"	5"	4	5/8"	11/16"	9/16"
	F	7.1/4"	5.3/4"	8	5/8"	11/16"	5/8"
	H	7.1/4"	5.3/4"	8	5/8"	11/16"	3/4"
ASA	125/150	7"	5.1/2"	4	5/8"	3/4"	11/16"
	300	7.1/2"	5.7/8"	8	3/4"	7/8"	1"
	600	7.1/2"	5.7/8"	8	3/4"	7/8"	1.1/8"
METRIC	PN 6	160	130	4	M12	14	14
	PN 10	185	145	4	M16	18	18
	PN 16	185	145	4	M16	18	18
	PN 25	185	145	8	M16	18	22
	PN 40	185	145	8	M16	18	22

3" - 80mm FLANGE TABLES

	TABLE	FLD DIA.	PCD	NO. BOLTS	DIA.BOLTS	DIA.HOLES	FLD.THK
BS	D	7.1/4"	5.3/4"	4	5/8"	11/16"	9/16"
	E	7.1/4"	5.3/4"	4	5/8"	11/16"	9/16"
	F	8"	6.1/2"	8	5/8"	11/16"	5/8"
	H	8"	6.1/2"	8	5/8"	11/16"	7/8"
ASA	125/150	7.1/2"	6"	4	5/8"	3/4"	3/4"
	300	8.1/4"	6.5/8"	8	3/4"	7/8"	1.1/8"
	600	8.1/4"	6.5/8"	8	3/4"	7/8"	1.1/4"
METRIC	PN 6	190	150	4	M16	18	16
	PN 10	200	160	8	M16	18	20
	PN 16	200	160	8	M16	18	20
	PN 25	200	160	8	M16	18	24
	PN 40	200	160	8	M16	18	24

4" - 100mm FLANGE TABLES

	TABLE	FLD DIA.	PCD	NO. BOLTS	DIA.BOLTS	DIA.HOLES	FLD.THK
BS	D	8.1/2"	7"	4	5/8"	11/16"	11/16"
	E	8.1/2"	7"	8	5/8"	11/16"	11/16"
	F	9"	7.1/2"	8	5/8"	11/16"	3/4"
	H	9"	7.1/2"	8	5/8"	11/16"	1"
ASA	125/150	9"	7.1/2"	8	5/8"	3/4"	15/16"
	300	10"	7.7/8"	8	3/4"	7/8"	1.1/4"
	600	10.3/4"	8.1/2"	8	7/8"	1"	1.1/2"
METRIC	PN 6	210	170	4	M16	18	16
	PN 10	220	180	8	M16	18	20
	PN 16	220	180	8	M16	18	20
	PN 25	235	190	8	M20	22	24
	PN 40	235	190	8	M20	22	24

5" - 125mm FLANGE TABLES

	TABLE	FLD DIA.	PCD	NO. BOLTS	DIA.BOLTS	DIA.HOLES	FLD.THK
BS	D	10"	8.1/4"	8	5/8"	11/16"	11/16"
	E	10"	8.1/4"	8	5/8"	11/16"	11/16"
	F	11"	9.1/4"	8	3/4"	7/8"	7/8"
	H	11"	9.1/4"	8	3/4"	7/8"	1.1/8"
ASA	125/150	10"	8.1/2"	8	3/4"	7/8"	15/16"
	300	11"	9.1/4"	8	3/4"	7/8"	1.3/8"
	600	13"	10.1/2"	8	1"	1.1/8"	1.3/4"
METRIC	PN 6	240	200	8	M16	18	18
	PN 10	250	210	8	M16	18	22
	PN 16	250	210	8	M16	18	22
	PN 25	270	220	8	M24	26	26
	PN 40	270	220	8	M24	26	26

6" - 150mm FLANGE TABLES

	TABLE	FLD DIA.	PCD	NO. BOLTS	DIA.BOLTS	DIA.HOLES	FLD.THK
BS	D	11"	9.1/4"	8	5/8"	11/16"	11/16"
	E	11"	9.1/4"	8	3/4"	7/8"	11/16"
	F	12"	10.1/4"	12	3/4"	7/8"	7/8"
	H	12"	10.1/4"	12	3/4"	7/8"	1.1/8"
ASA	125/150	11"	9.1/2"	8	3/4"	7/8"	1"
	300	12.1/2"	10.5/8"	12	3/4"	7/8"	1.7/16"
	600	14"	11.1/2"	12	1"	1.1/8"	1.7/8"
METRIC	PN 6	265	225	8	M16	18	18
	PN 10	285	240	8	M20	22	22
	PN 16	285	240	8	M20	22	22
	PN 25	300	250	8	M24	26	28
	PN 40	300	250	8	M24	26	28

8" - 200mm FLANGE TABLES

	TABLE	FLD DIA.	PCD	NO. BOLTS	DIA.BOLTS	DIA.HOLES	FLD.THK
BS	D	13.1/4"	11.1/2"	8	5/8"	11/16"	3/4"
	E	13.1/4"	11.1/2"	8	3/4"	7/8"	3/4"
	F	14.1/2"	12.3/4"	12	3/4"	7/8"	1"
	H	14.1/2"	12.3/4"	12	3/4"	7/8"	1.1/4"
ASA	125/150	13.1/2"	11.3/4"	8	3/4"	7/8"	1.1/8"
	300	15"	13"	12	7/8"	1"	1.5/8"
	600	16.1/2"	13.3/4"	12	1.1/8"	1.1/4"	2.3/16"
METRIC	PN 6	320	280	8	M16	18	20
	PN 10	340	295	8	M20	22	24
	PN 16	340	295	12	M20	22	24
	PN 25	360	310	12	M24	26	30
	PN 40	375	320	12	M27	30	34

10" - 250mm FLANGE TABLES

	TABLE	FLD DIA.	PCD	NO. BOLTS	DIA.BOLTS	DIA.HOLES	FLD.THK
BS	D	16"	14"	8	3/4"	7/8"	3/4"
	E	16"	14"	12	3/4"	7/8"	7/8"
	F	17"	15"	12	7/8"	1"	1.1/8"
	H	17"	15"	12	7/8"	1"	1.3/8"
ASA	125/150	16"	14.1/4"	12	7/8"	1"	1.3/16"
	300	17.1/2"	15.1/4"	16	1"	1.1/8"	1.7/8"
	600	20"	17"	16	1.1/4"	1.3/8"	2.1/2"
METRIC	PN 6	375	335	12	M16	18	22
	PN 10	395	350	12	M20	22	26
	PN 16	405	355	12	M24	26	26
	PN 25	425	370	12	M27	30	32
	PN 40	450	385	12	M30	33	38

12" - 300mm FLANGE TABLES

	TABLE	FLD DIA.	PCD	NO. BOLTS	DIA.BOLTS	DIA.HOLES	FLD.THK
BS	D	18"	16"	12	3/4"	7/8"	7/8"
	E	18"	16"	12	7/8"	1"	1"
	F	19.1/4"	17.1/4"	16	7/8"	1"	1.1/4"
	H	19.1/4"	17.1/4"	16	7/8"	1"	1.5/8"
ASA	125/150	19"	17"	12	7/8"	1"	1.1/4"
	300	20.1/2"	17.3/4"	16	1.1/8"	1.1/4"	2"
	600	22"	19.1/4"	20	1.1/4"	1.3/8"	2.5/8"
METRIC	PN 6	440	395	12	M20	22	22
	PN 10	445	400	12	M20	22	26
	PN 16	460	410	12	M24	26	28
	PN 25	485	430	16	M27	30	34
	PN 40	515	450	16	M30	33	42