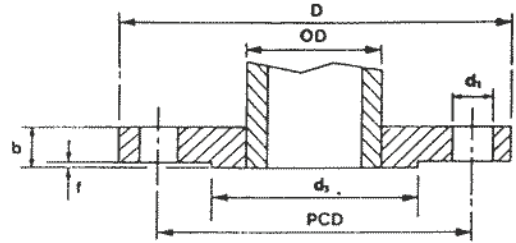


FLANGES

Steel Flanges to BS 4504 Part 1:1969 SABS 1123:1977 BS 10:1962



15 mm Nominal Bore. Pipe OD 21,3

Table	Flange	Raised face		Holes	Bolt	PCD	Mass			
		D	b					d ₃	f	No. d ₁
BS 4504	6/3	80,0	12,0	40,0	2,0	4	11,0	M10	55,0	0,35
	10/3	95,0	14,0	45,0	2,0	4	14,0	M12	65,0	0,59
	16/3	95,0	14,0	45,0	2,0	4	14,0	M12	65,0	0,59
	25/3	95,0	16,0	45,0	2,0	4	14,0	M12	65,0	0,69
	40/3	95,0	16,0	45,0	2,0	4	14,0	M12	65,0	0,69
SABS 1123	600/3	80,0	10,0	40,0	2,0	4	11,0	M10	55,0	0,29
	1 000/3	95,0	10,0	45,0	2,0	4	14,0	M12	65,0	0,42
	1 600/3	95,0	10,0	45,0	2,0	4	14,0	M12	65,0	0,42
	2 500/3	95,0	14,0	45,0	2,0	4	14,0	M12	65,0	0,60
	4 000/3	95,0	14,0	45,0	2,0	4	14,0	M12	65,0	0,60
BS10	T/D	95,3	4,8	—	—	4	14,3	12,7	66,7	0,67
	T/E	95,3	6,3	—	—	4	14,3	12,7	66,7	0,67
	T/F	95,3	9,5	—	—	4	14,3	12,7	66,7	0,67

20 mm Nominal Bore. Pipe OD 26,9

Table	Flange	Raised face		Holes	Bolt	PCD	Mass			
		D	b					d ₃	f	No. d ₁
BS 4504	6/3	90,0	14,0	50,0	2,0	4	11,0	M10	65,0	0,53
	10/3	105,0	16,0	58,0	2,0	4	14,0	M12	75,0	0,85
	16/3	105,0	16,0	58,0	2,0	4	14,0	M12	75,0	0,85
	25/3	105,0	18,0	58,0	2,0	4	14,0	M12	75,0	0,97
	40/3	105,0	18,0	58,0	2,0	4	14,0	M12	75,0	0,97
SABS 1123	600/3	90,0	10,0	50,0	2,0	4	11,0	M10	65,0	0,38
	1 000/3	105,0	10,0	58,0	2,0	4	14,0	M12	75,0	0,53
	1 600/3	105,0	10,0	58,0	2,0	4	14,0	M12	75,0	0,53
	2 500/3	105,0	14,0	58,0	2,0	4	14,0	M12	75,0	0,75
	4 000/3	105,0	14,0	58,0	2,0	4	14,0	M12	75,0	0,75
BS10	T/D	101,6	4,8	—	—	4	14,2	12,7	73,0	0,76
	T/E	101,6	6,3	—	—	4	14,2	12,7	73,0	0,76
	T/F	101,6	9,5	—	—	4	14,2	12,7	73,0	0,76

25 mm Nominal Bore. Pipe OD 33,7

Table	Flange	Raised face		Holes	Bolt	PCD	Mass			
		D	b					d ₃	f	No. d ₁
BS 4504	6/3	100,0	14,0	60,0	2,0	4	11,0	M10	75,0	0,65
	10/3	115,0	16,0	68,0	2,0	4	14,0	M12	85,0	1,00
	16/3	115,0	16,0	68,0	2,0	4	14,0	M12	85,0	1,00
	25/3	115,0	18,0	68,0	2,0	4	14,0	M12	85,0	1,20
	40/3	115,0	18,0	68,0	2,0	4	14,0	M12	85,0	1,20
SABS 1123	600/3	100,0	10,0	60,0	2,0	4	11,0	M10	75,0	0,46
	1 000/3	115,0	10,0	68,0	2,0	4	14,0	M12	85,0	0,63
	1 600/3	115,0	10,0	68,0	2,0	4	14,0	M12	85,0	0,63
	2 500/3	115,0	16,0	68,0	2,0	4	14,0	M12	85,0	1,07
	4 000/3	115,0	16,0	68,0	2,0	4	14,0	M12	85,0	1,07
BS10	T/D	114,3	4,8	—	—	4	14,3	12,7	82,6	0,97
	T/E	114,3	7,1	—	—	4	14,3	12,7	82,6	0,94
	T/F	120,6	9,5	—	—	4	17,5	15,9	87,3	1,03

32 mm Nominal Bore. Pipe OD 42,4

Table	Flange	Raised face		Holes	Bolt	PCD	Mass			
		D	b					d ₃	f	No. d ₁
BS 4504	6/3	120,0	16,0	70,0	2,0	4	14,0	M12	90,0	1,10
	10/3	140,0	16,0	78,0	2,0	4	18,0	M16	100,0	1,50
	16/3	140,0	16,0	78,0	2,0	4	18,0	M16	100,0	1,50
	25/3	140,0	18,0	78,0	2,0	4	18,0	M16	100,0	1,70
	40/3	140,0	18,0	78,0	2,0	4	18,0	M16	100,0	1,70
SABS 1123	600/3	120,0	10,0	70,0	2,0	4	14,0	M12	90,0	0,69
	1 000/3	140,0	10,0	78,0	2,0	4	18,0	M16	100,0	0,94
	1 600/3	140,0	10,0	78,0	2,0	4	18,0	M16	100,0	0,94
	2 500/3	140,0	18,0	78,0	2,0	4	18,0	M16	100,0	1,70
	4 000/3	140,0	18,0	78,0	2,0	4	18,0	M16	100,0	1,70
BS10	T/D	120,7	6,3	—	—	4	14,2	12,7	87,3	0,98
	T/E	120,7	7,9	—	—	4	14,2	12,7	87,3	0,98
	T/F	133,3	12,7	—	—	4	17,5	15,9	98,4	1,21

40 mm Nominal Bore. Pipe OD 48,3

Table	Flange	Raised face		Holes	Bolt	PCD	Mass			
		D	b					d ₃	f	No. d ₁
BS 4504	6/3	130,0	16,0	80,0	3,0	4	14,0	M12	100,0	1,20
	10/3	150,0	16,0	88,0	3,0	4	18,0	M16	110,0	1,60
	16/3	150,0	16,0	88,0	3,0	4	18,0	M16	110,0	1,60
	25/3	150,0	20,0	88,0	3,0	4	18,0	M16	110,0	2,10
	40/3	150,0	20,0	88,0	3,0	4	18,0	M16	110,0	2,10
SABS 1123	600/3	130,0	10,0	80,0	3,0	4	14,0	M12	100,0	0,75
	1 000/3	150,0	10,0	88,0	3,0	4	18,0	M16	110,0	1,00
	1 600/3	150,0	10,0	88,0	3,0	4	18,0	M16	110,0	1,00
	2 500/3	150,0	20,0	88,0	3,0	4	18,0	M16	110,0	2,10
	4 000/3	150,0	20,0	88,0	3,0	4	18,0	M16	110,0	2,10
BS10	T/D	133,4	6,3	—	—	4	14,2	12,7	98,4	1,16
	T/E	133,4	8,7	—	—	4	14,2	12,7	98,4	1,16
	T/F	139,7	12,7	—	—	4	17,5	15,9	104,8	1,29

50 mm Nominal Bore. Pipe OD 60,3

Table	Flange	Raised face		Holes	Bolt	PCD	Mass			
		D	b					d ₃	f	No. d ₁
BS 4504	6/3	140,0	16,0	90,0	3,0	4	14,0	M12	110,0	1,30
	10/3	165,0	18,0	102,0	3,0	4	18,0	M16	125,0	2,20
	16/3	165,0	18,0	102,0	3,0	4	18,0	M16	125,0	2,20
	25/3	165,0	20,0	102,0	3,0	4	18,0	M16	125,0	2,50
	40/3	165,0	20,0	102,0	3,0	4	18,0	M16	125,0	2,50
SABS 1123	600/3	140,0	10,0	90,0	3,0	4	14,0	M12	110,0	0,81
	1 000/3	165,0	10,0	102,0	3,0	4	18,0	M16	125,0	1,22
	1 600/3	165,0	12,0	102,0	3,0	4	18,0	M16	125,0	1,47
	2 500/3	165,0	20,0	102,0	3,0	4	18,0	M16	125,0	2,50
	4 000/3	165,0	20,0	102,0	3,0	4	18,0	M16	125,0	2,50
BS10	T/D	152,4	7,9	—	—	4	17,5	15,9	114,3	1,47
	T/E	152,4	9,5	—	—	4	17,5	15,9	114,3	1,47
	T/F	165,1	15,9	—	—	4	17,5	15,9	127,0	2,23

65 mm Nominal Bore. Pipe OD 76,1

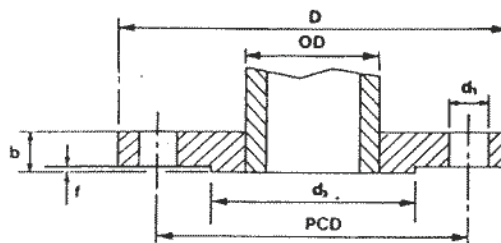
Table	Flange	Raised face		Holes	Bolt	PCD	Mass			
		D	b					d ₃	f	No. d ₁
BS 4504	6/3	160,0	16,0	110,0	3,0	4	14,0	M12	130,0	1,60
	10/3	185,0	18,0	122,0	3,0	4	18,0	M16	145,0	2,70
	16/3	185,0	18,0	122,0	3,0	4	18,0	M16	145,0	2,70
	25/3	185,0	22,0	122,0	3,0	8	18,0	M16	145,0	3,20
	40/3	185,0	22,0	122,0	3,0	8	18,0	M16	145,0	3,20
SABS 1123	600/3	160,0	10,0	110,0	3,0	4	14,0	M12	130,0	1,00
	1 000/3	185,0	12,0	122,0	3,0	4	18,0	M16	145,0	1,80
	1 600/3	185,0	12,0	122,0	3,0	4	18,0	M16	145,0	1,80
	2 500/3	185,0	22,0	122,0	3,0	4	18,0	M16	145,0	3,20
	4 000/3	185,0	22,0	122,0	3,0	4	18,0	M16	145,0	3,20
BS10	T/D	165,1	7,9	—	—	4	17,5	15,9	127,0	1,65
	T/E	165,1	10,3	—	—	4	17,5	15,9	127,0	1,65
	T/F	184,1	15,9	—	—	8	17,5	15,9	146,0	2,68

80 mm Nominal Bore. Pipe OD 88,9

Table	Flange	Raised face		Holes	Bolt	PCD	Mass			
		D	b					d ₃	f	No. d ₁
BS 4504	6/3	190,0	18,0	128,0	3,0	4	18,0	M16	150,0	2,60
	10/3	200,0	20,0	138,0	3,0	8	18,0	M16	160,0	3,30
	16/3	200,0	20,0	138,0	3,0	8	18,0	M16	160,0	3,30
	25/3	200,0	24,0	138,0	3,0	8	18,0	M16	160,0	4,00
	40/3	200,0	24,0	138,0	3,0	8	18,0	M16	160,0	4,00
SABS 1										

FLANGES

Steel Flanges to BS 4504 Part 1:1969 SABS 1123:1977 BS 10:1962



100 mm Nominal Bore. Pipe OD 114,3

Table	Flange	Raised face		Holes		Bolt size	PCD	Mass kg		
		D	b	d ₃	f				No.	d ₁
BS 4504	6/3	210,0	18,0	148,0	3,0	4	18,0	M16	170,0	2,90
	10/3	220,0	20,0	158,0	3,0	8	18,0	M16	180,0	3,60
	16/3	220,0	20,0	158,0	3,0	8	18,0	M16	180,0	3,60
	25/3	235,0	26,0	162,0	3,0	8	22,0	M20	190,0	5,70
	40/3	235,0	26,0	162,0	3,0	8	22,0	M20	190,0	5,70
SABS 1123	600/3	210,0	10,0	148,0	3,0	4	18,0	M16	170,0	1,61
	1 000/3	220,0	12,0	158,0	3,0	8	18,0	M16	180,0	2,16
	1 600/3	220,0	14,0	158,0	3,0	8	18,0	M16	180,0	2,52
	2 500/3	235,0	25,0	162,0	3,0	8	22,0	M20	190,0	5,48
	4 000/3	235,0	25,0	162,0	3,0	8	22,0	M20	190,0	5,48
BS10	T/D	215,9	9,5	-	-	4	17,5	15,9	177,8	2,25
	T/E	215,9	13,7	-	-	8	17,5	15,9	177,8	2,25
	T/F	228,6	19,0	-	-	8	17,5	15,9	190,5	4,46

125 mm Nominal Bore. Pipe OD 139,7

Table	Flange	Raised face		Holes		Bolt size	PCD	Mass kg		
		D	b	d ₃	f				No.	d ₁
BS 4504	6/3	240,0	20,0	178,0	3,0	8	18,0	M16	200,0	3,90
	10/3	250,0	22,0	188,0	3,0	8	18,0	M16	210,0	5,00
	16/3	250,0	22,0	188,0	3,0	8	18,0	M16	210,0	5,00
	25/3	270,0	28,0	188,0	3,0	8	26,0	M24	220,0	7,70
	40/3	270,0	28,0	188,0	3,0	8	26,0	M24	220,0	7,70
SABS 1123	600/3	240,0	12,0	178,0	3,0	8	18,0	M16	200,0	2,34
	1 000/3	250,0	14,0	188,0	3,0	8	18,0	M16	210,0	3,18
	1 600/3	250,0	16,0	188,0	3,0	8	18,0	M16	210,0	3,64
	2 500/3	270,0	28,0	188,0	3,0	8	26,0	M24	220,0	7,70
	4 000/3	270,0	28,0	188,0	3,0	8	26,0	M24	220,0	7,70
BS10	T/D	254,0	12,7	-	-	8	17,5	15,9	209,8	3,48
	T/E	254,0	14,3	-	-	8	17,5	15,9	209,8	3,84
	T/F	279,4	22,2	-	-	8	22,2	19,0	234,9	7,81

150 mm Nominal Bore. Pipe OD 168,3 OR 165,1 (to be specified)

Table	Flange	Raised face		Holes		Bolt size	PCD	Mass kg		
		D	b	d ₃	f				No.	d ₁
BS 4504	6/3	265,0	20,0	202,0	3,0	8	18,0	M16	225,0	4,40
	10/3	285,0	22,0	212,0	3,0	8	22,0	M20	240,0	6,00
	16/3	285,0	22,0	212,0	3,0	8	22,0	M20	240,0	6,00
	25/3	300,0	30,0	218,0	3,0	8	26,0	M24	250,0	9,70
	40/3	300,0	30,0	218,0	3,0	8	26,0	M24	250,0	9,70
SABS 1123	600/3	265,0	12,0	202,0	3,0	8	18,0	M16	225,0	2,64
	1 000/3	285,0	16,0	212,0	3,0	8	22,0	M20	240,0	4,36
	1 600/3	285,0	18,0	212,0	3,0	8	22,0	M20	240,0	4,90
	2 500/3	300,0	30,0	218,0	3,0	8	26,0	M24	250,0	9,70
	4 000/3	300,0	30,0	218,0	3,0	8	26,0	M24	250,0	9,70
BS10	T/D	279,4	12,7	-	-	8	17,5	15,9	235,0	3,88
	T/E	279,4	17,5	-	-	8	22,2	19,0	235,0	5,36
	T/F	304,8	22,2	-	-	12	22,2	19,0	260,4	8,71

200 mm Nominal Bore. Pipe OD 219,1

Table	Flange	Raised face		Holes		Bolt size	PCD	Mass kg		
		D	b	d ₃	f				No.	d ₁
BS 4504	6/3	320,0	22,0	258,0	3,0	8	18,0	M16	280,0	6,40
	10/3	340,0	24,0	268,0	3,0	8	22,0	M20	295,0	8,70
	16/3	340,0	24,0	268,0	3,0	12	22,0	M20	295,0	8,40
	25/3	360,0	28,0	278,0	3,0	12	26,0	M24	310,0	12,00
	40/3	375,0	34,0	285,0	3,0	12	30,0	M27	320,0	16,00
SABS 1123	600/3	320,0	14,0	258,0	3,0	8	18,0	M16	280,0	6,21
	1 000/3	340,0	18,0	268,0	3,0	8	22,0	M20	295,0	6,53
	1 600/3	340,0	22,0	268,0	3,0	12	22,0	M20	295,0	7,70
	2 500/3	360,0	28,0	278,0	3,0	12	26,0	M24	310,0	12,00
	4 000/3	375,0	32,0	285,0	3,0	12	26,0	M24	320,0	15,06
BS10	T/D	336,6	12,7	-	-	8	17,5	15,9	292,1	4,91
	T/E	336,6	19,0	-	-	8	22,2	19,0	292,1	7,59
	T/F	368,3	25,4	-	-	12	22,2	19,0	323,9	13,39

250 mm Nominal Bore. Pipe OD 273

Table	Flange	Raised face		Holes		Bolt size	PCD	Mass kg		
		D	b	d ₃	f				No.	d ₁
BS 4504	6/3	375,0	24,0	312,0	3,0	12	18,0	M16	335,0	8,50
	10/3	395,0	26,0	320,0	3,0	12	22,0	M20	350,0	11,00
	16/3	405,0	26,0	320,0	3,0	12	26,0	M24	355,0	12,00
	25/3	425,0	32,0	335,0	3,0	12	30,0	M27	370,0	17,50
	40/3	450,0	42,0	345,0	3,0	12	33,0	M30	385,0	28,50
SABS 1123	600/3	375,0	16,0	312,0	3,0	12	18,0	M16	335,0	5,67
	1 000/3	395,0	20,0	320,0	3,0	12	22,0	M20	350,0	8,46
	1 600/3	405,0	25,0	320,0	3,0	12	26,0	M24	355,0	11,54
	2 500/3	425,0	30,0	335,0	3,0	12	26,0	M24	370,0	16,41
	4 000/3	450,0	38,0	345,0	3,0	12	33,0	M30	385,0	25,79
BS10	T/D	406,4	15,9	-	-	8	22,2	19,0	355,6	8,70
	T/E	406,4	22,2	-	-	12	22,2	19,0	355,6	12,05
	T/F	431,8	28,6	-	-	12	25,4	22,2	381,0	19,20

300 mm Nominal Bore. Pipe OD 323,9

Table	Flange	Raised face		Holes		Bolt size	PCD	Mass kg		
		D	b	d ₃	f				No.	d ₁
BS 4504	6/3	440,0	24,0	365,0	4,0	12	22,0	M20	395,0	11,00
	10/3	445,0	26,0	370,0	4,0	12	22,0	M20	400,0	12,50
	16/3	460,0	28,0	378,0	4,0	12	26,0	M24	410,0	15,50
	25/3	485,0	38,0	395,0	4,0	16	30,0	M27	430,0	25,50
	40/3	515,0	50,0	410,0	4,0	16	33,0	M30	450,0	42,00
SABS 1123	600/3	440,0	20,0	365,0	4,0	12	22,0	M20	395,0	9,17
	1 000/3	445,0	22,0	370,0	4,0	12	22,0	M20	400,0	10,58
	1 600/3	460,0	28,0	378,0	4,0	12	26,0	M24	410,0	15,50
	2 500/3	485,0	32,0	395,0	4,0	16	26,0	M24	430,0	21,47
	4 000/3	515,0	40,0	410,0	4,0	16	33,0	M30	450,0	33,60
BS10	T/D	457,2	19,0	-	-	12	22,2	19,0	406,4	12,05
	T/E	457,2	25,4	-	-	12	25,4	22,2	406,4	16,07
	T/F	489,0	31,8	-	-	16	25,4	22,2	438,2	25,45

350 mm Nominal Bore. Pipe OD 355,6

Table	Flange	Raised face		Holes		Bolt size	PCD	Mass kg		
		D	b	d ₃	f				No.	d ₁
BS 4504	6/3	490,0	26,0	415,0	4,0	12	22,0	M20	445,0	15,50
	10/3	505,0	28,0	430,0	4,0	16	22,0	M20	460,0	19,50
	16/3	520,0	32,0	438,0	4,0	16	26,0	M24	470,0	24,50
	25/3	555,0	42,0	450,0	4,0	16	33,0	M30	490,0	40,50
	40/3	580,0	56,0	465,0	4,0	16	36,0	M33	510,0	63,00
SABS 1123	600/3	490,0	22,0	415,0	4,0	12	22,0	M20	445,0	13,12
	1 000/3	505,0	25,0	430,0	4,0	16	22,0	M20	460,0	17,41
	1 600/3	520,0	30,0	438,0	4,0	16	26,0	M24	470,0	22,97
	2 500/3	555,0	35,0	450,0	4,0	16	33,0	M30	490,0	33,75
	4 000/3	580,0	45,0	465,0	4,0	16	33,0	M30	510,0	50,62
BS10	T/D	527,1	22,2	-	-	12	25,4	22,2	469,9	18,75
	T/E	527,1	28,6	-	-	12	25,4	22,2	469,9	25,89
	T/F	552,5	34,9	-	-	16	28,6	25,4	495,3	36,16

400 mm Nominal Bore. Pipe OD 406,4

Table	Flange	Raised face		Holes		Bolt size	PCD	Mass kg		
		D	b	d ₃	f				No.	d ₁
BS 4504	6/3	540,0	28,0	465,0	4,0	16	22,0	M20	495,0	19,00
	10/3	565,0	32,0	482,0	4,0	16	26,0	M24	515,0	26,50
	16/3	580,0	36,0	490,0	4,0	16	30,0	M27	525,0	33,00
	25/3	620,0	46,0	505,0	4,0	16	36,0	M33		

