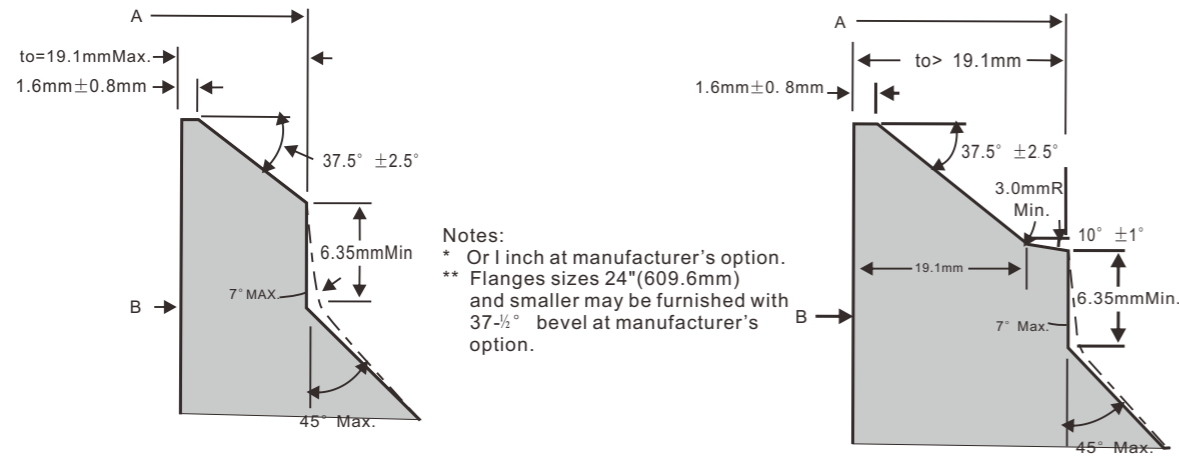


WELDING-ENDS FOR WELDING -NECK FLANGE

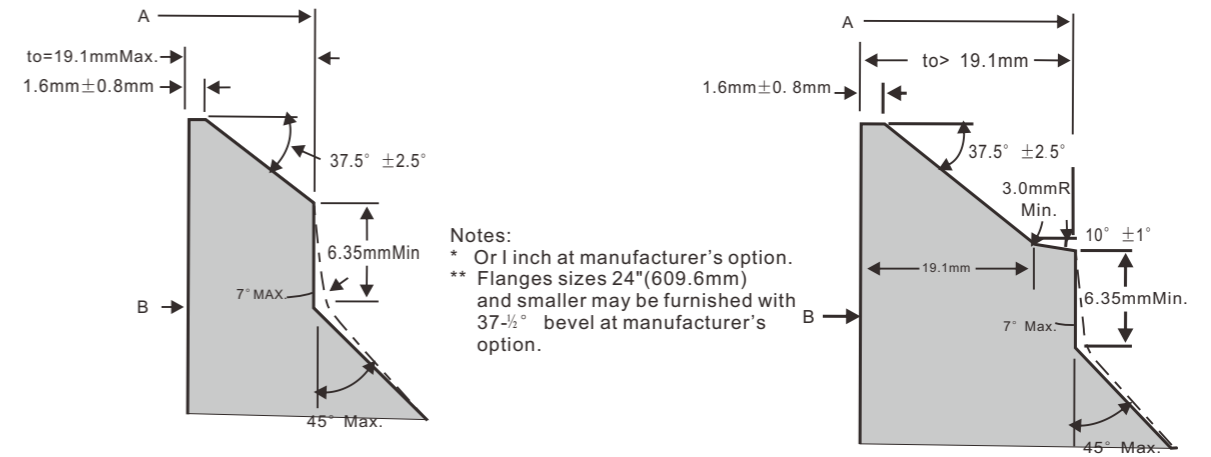


BEVLE FOR WALL THICKNESS (t)
0.19 IN. TO 0.88 IN. INCLUSIVE

BEVLE FOR WALL THICKNESS (t)
GREATER THAN 0.88 IN.

Notes:
* Or 1 inch at manufacturer's option.
** Flanges sizes 24"(609.6mm)
and smaller may be furnished with
37-1/2° bevel at manufacturer's
option.

WELDING-ENDS FOR WELDING -NECK FLANGE



BEVLE FOR WALL THICKNESS (t)
0.19 IN. TO 0.88 IN. INCLUSIVE

BEVLE FOR WALL THICKNESS (t)
GREATER THAN 0.88 IN.

Notes:
* Or 1 inch at manufacturer's option.
** Flanges sizes 24"(609.6mm)
and smaller may be furnished with
37-1/2° bevel at manufacturer's
option.

Unit:mm

Nominal Pipe Size	Length thru Hub	Diam. of Hub Bevel	Radius of Fillet	DRILLING		
				Bolt Circle Diam.	Number of Holes	Diam of Holes
				T1	A	r
12	114.3	323.9	9.7	431.8	12	25.4
14	127.0	355.6	9.7	476.3	12	28.4
16	127.0	406.4	9.7	539.8	16	28.4
18	139.7	457.2	9.7	577.9	16	31.8
20	144.5	508.0	9.7	635.0	20	31.8
22	149.4	558.8	9.7	692.2	20	35.1
24	152.4	609.6	9.7	749.3	20	35.1
26	120.7	660.4	9.7	806.5	24	35.1
28	125.5	711.2	11.2	863.6	28	35.1
30	136.7	762.0	11.2	914.4	28	35.1
32	144.5	812.8	11.2	977.9	28	41.1
34	149.4	863.6	12.7	1028.7	32	41.1
36	157.2	914.4	12.7	1085.9	32	41.1
38	157.2	965.2	12.7	1149.4	32	41.1
40	163.6	1016.0	12.7	1200.2	36	41.1
42	171.5	1066.8	12.7	1257.3	36	41.1
44	177.8	1117.6	12.7	1314.5	40	41.1
46	185.7	1168.4	12.7	1365.3	40	41.1
48	192.0	1219.2	12.7	1422.4	44	41.1
50	203.2	1270.0	12.7	1479.6	44	47.8
52	209.6	1320.8	12.7	1536.7	44	47.8
54	215.9	1371.6	12.7	1593.9	44	47.8
56	228.6	1422.4	12.7	1651.0	48	47.8
58	235.0	1473.2	12.7	1708.2	48	47.8
60	239.8	1524.0	12.7	1759.0	52	47.8

(4) Maximum Pressure Rating for raised face flanges is 285 psi (19.5 BARS) at atmospheric temperature.

(5) Flange dimensions of size 12"(304.8mm) through 24"(609.6mm) flanges (except 22"(558.8mm)) are in accordance with ANSI B16.5

Unit:mm

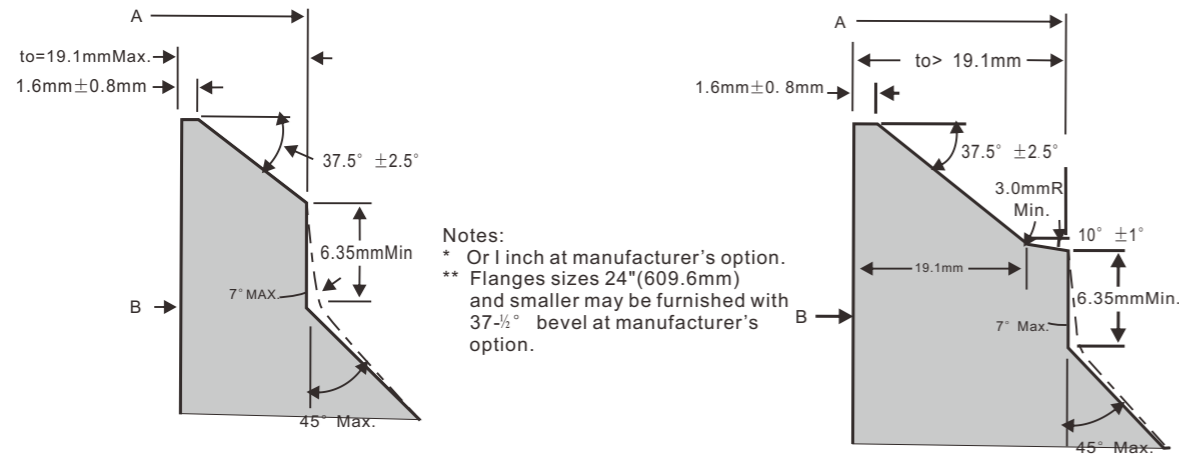
Nominal Pipe Size	DRILLING			Pitch Diam.	GROOVE DIMENSIONS			Diam. of Raised Face	Ring and Groove Number
	Bolt Circle Diam.	Number of Holes	Diam of Holes		Width	Depth	Radius		
	C				F	E	R		
12	450.9	16	31.8	381.0	11.9	7.9	0.8	412.8	R57
14	514.4	20	31.8	419.1	11.9	7.9	0.8	457.2	R61
16	571.5	20	35.1	469.9	11.9	7.9	0.8	508.0	R65
18	628.7	24	35.1	533.4	11.9	7.9	0.8	574.5	R69
20	685.8	24	35.1	584.2	13.5	9.5	1.5	635.0	R73
22	743.0	24	41.1	635.0	15.1	11.1	1.5	685.8	R81
24	812.8	24	41.1	692.2	16.7	11.1	1.5	749.3	R77
26	876.3	28	44.5	749.3	19.8	12.7	1.5	809.6	R93
28	939.8	28	44.5	800.1	19.8	12.7	1.5	860.6	R94
30	997.0	28	47.8	857.3	19.8	12.7	1.5	917.4	R95
32	1054.1	28	50.8	914.4	23.0	14.3	1.5	984.3	R96
34	1104.9	28	50.8	965.2	23.0	14.3	1.5	1035.1	R97
36	1168.4	32	53.8	1022.4	23.0	14.3	1.5	1092.2	R98
38	1092.2	32	41.1						
40	1155.7	32	44.5						
42	1206.5	32	44.5						
44	1263.7	32	47.8						
46	1320.8	28	50.8						
48	1371.6	32	50.8						
50	1428.8	32	53.8						
52	1479.6	32	53.8						
54	1549.4	28	60.5						
56	1600.2	28	60.5						
58	1651.0	32	60.5						
60	1701.8	32	60.5						

(4) Maximum Pressure Rating for raised face flanges is 740 psi (51 BARS) at atmospheric temperature.

(5) Flange dimensions of size 12"(304.8mm) through 24"(609.6mm) flanges (except 22"(658.8mm)) are in accordance with ANSI B16.5

(6) For sizes 26"(660.4mm) and larger 'Diameter of Hub at Bevel(A)' are in accordance with ASME Boiler and pressure vessel code.

WELDING-ENDS FOR WELDING -NECK FLANGE

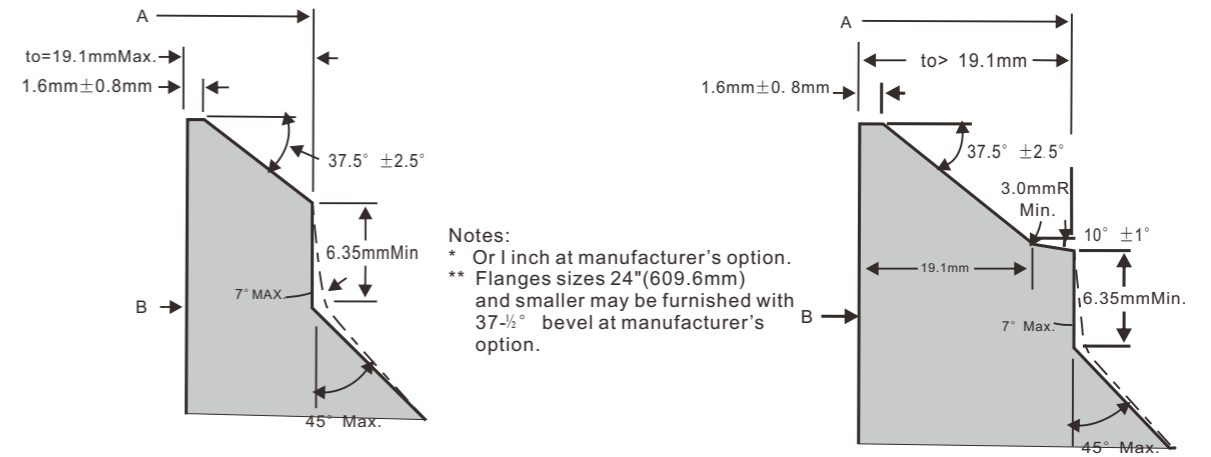


Notes:
 * Or 1 inch at manufacturer's option.
 ** Flanges sizes 24"(609.6mm) and smaller may be furnished with 37-1/2° bevel at manufacturer's option.

BEVLE FOR WALL THICKNESS (t)
0.19 IN. TO 0.88 IN. INCLUSIVE

BEVLE FOR WALL THICKNESS (t)
GREATER THAN 0.88 IN.

WELDING-ENDS FOR WELDING -NECK FLANGE



Notes:
 * Or 1 inch at manufacturer's option.
 ** Flanges sizes 24"(609.6mm) and smaller may be furnished with 37-1/2° bevel at manufacturer's option.

BEVLE FOR WALL THICKNESS (t)
0.19 IN. TO 0.88 IN. INCLUSIVE

BEVLE FOR WALL THICKNESS (t)
GREATER THAN 0.88 IN.

Unit:mm

Nominal Pipe Size	DRILLING			Pitch Diam.	GROOVE DIMENSIONS			Diam. of Raised Face	Ring and Groove Number
	Bolt Circle Diam.	Number of Holes	Diam of Holes		Width	Depth	Radius		
	C				F	E	R		
12	450.9	16	35.1	381.0	11.9	7.9	0.8	412.8	R57
14	514.4	20	35.1	419.1	11.9	7.9	0.8	457.2	R61
16	571.5	20	35.1	469.9	11.9	7.9	0.8	508.0	R65
18	628.7	24	38.1	533.4	11.9	7.9	0.8	574.5	R69
20	685.8	24	41.1	584.2	13.5	9.5	1.5	635.0	R73
22	743.0	24	44.5	635.0	15.1	11.1	1.5	685.8	R81
24	812.8	24	47.8	692.2	16.7	11.1	1.5	749.3	R77
26	876.3	28	47.8	749.3	19.8	12.7	1.5	809.6	R93
28	939.8	28	50.8	800.1	19.8	12.7	1.5	860.6	R94
30	997.0	28	53.8	857.3	19.8	12.7	1.5	917.4	R95
32	1054.1	28	53.8	914.4	23.0	14.3	1.5	984.3	R96
34	1104.9	28	53.8	965.2	23.0	14.3	1.5	1035.1	R97
36	1168.4	32	53.8	1022.4	23.0	14.3	1.5	1092.2	R98
38	1117.6	32	47.8						
40	1174.8	32	50.8						
42	1225.6	32	50.8						
44	1282.7	32	53.8						
46	1339.9	36	53.8						
48	1403.4	28	60.5						
50	1460.5	32	60.5						
52	1511.3	32	60.5						
54	1581.2	28	66.5						
56	1632.0	32	66.5						
58	1682.8	32	66.5						
60	1752.6	32	73.2						

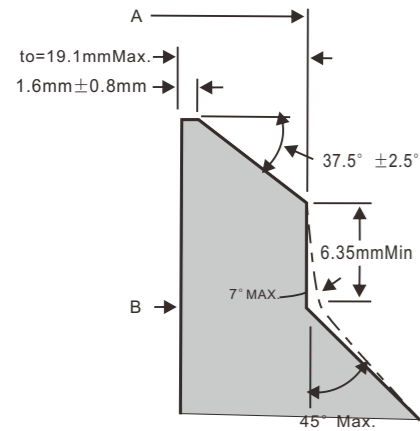
(4) Maximum Pressure Rating for raised face flanges is 985 psi(51 BARS) at atmospheric temperature.
 (5) Flange dimensions of size 12"(304.8mm) through 24"(609.6mm) flanges(except 22"(658.8mm)) are in accordance with ANSIB165
 (6) For sizes 26"(660.4mm) and larger ' Diameter of Hub at Bevel(A)' are in accordance with ASME Boiler and pressure vessel code.

Unit:mm

Nominal Pipe Size	DRILLING			Pitch Diam.	GROOVE DIMENSIONS			Diam. of Raised Face	Ring and Groove Number
	Bolt Circle Diam.	Number of Holes	Diam of Holes		Width	Depth	Radius		
	C				F	E	R		
12	489.0	20	35.1	381.0	11.9	7.9	0.8	412.8	R57
14	527.1	20	38.1	419.1	11.9	7.9	0.8	457.2	R61
16	603.3	20	41.1	469.9	11.9	7.9	0.8	508.0	R65
18	654.1	20	44.5	533.4	11.9	7.9	0.8	574.5	R69
20	723.9	24	44.5	584.2	13.5	9.5	1.5	635.0	R73
22	777.7	24	47.8	635.0	15.1	11.1	1.5	685.8	R81
24	838.2	24	50.8	692.2	16.7	11.1	1.5	749.3	R77
26	914.4	28	50.8	749.3	19.8	12.7	1.5	809.8	R93
28	965.2	28	53.8	800.1	19.8	12.7	1.5	860.6	R94
30	1022.4	28	53.8	857.3	19.8	12.7	1.5	917.4	R95
32	1079.5	28	60.5	914.4	23.0	14.3	1.5	984.3	R96
34	1130.3	28	60.5	965.2	23.0	14.3	1.5	1035.1	R97
36	1193.8	28	66.5	1022.4	23.0	14.3	1.5	1092.2	R98
38	1162.1	28	60.5						
40	1212.9	32	60.5						
42	1282.7	28	66.5						
44	1333.5	32	66.5						
46	1390.7	32	66.5						
48	1460.5	32	73.2						
50	1524.0	28	79.2						
52	1574.8	32	79.2						
54	1632.0	32	79.2						
56	1695.5	32	85.9						
58	1746.3	32	85.9						
60	1822.5	28	91.9						

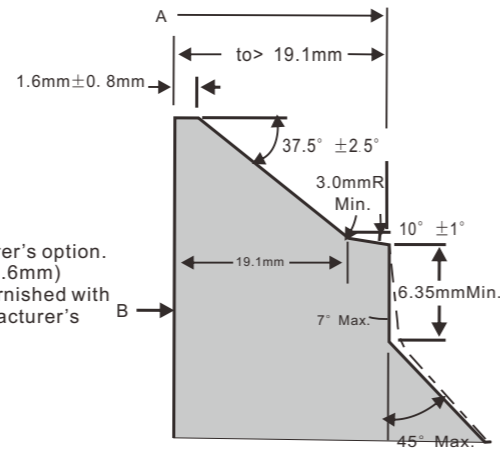
(4) Maximum Pressure Rating for raised face flanges is 1480 psi(102.1 BARS) at atmospheric temperature.
 (5) Flange dimensions of size 12"(304.8mm) through 24"(609.6mm) flanges(except 22"(658.8mm)) are in accordance with ANSIB165
 (6) For sizes 26"(660.4mm) and larger ' Diameter of Hub at Bevel(A)' are in accordance with ASME Boiler and pressure vessel code.

WELDING-ENDS FOR WELDING -NECK FLANGE



BEVLE FOR WALL THICKNESS (t)
0.19 IN. TO 0.88 IN. INCLUSIVE

Notes:
* Or 1 inch at manufacturer's option.
** Flanges sizes 24"(609.6mm)
and smaller may be furnished with
37-1/2° bevel at manufacturer's
option.



BEVEL FOR WALL THICKNESS (t)
GREATER THAN 0.88 IN.

Unit:mm

Nominal Pipe Size	DRILLING			Pitch Diam.	GROOVE DIMENSIONS			Diam. of Raised Face	Ring and Groove Number
	Bolt Circle Diam.	Number of Holes	Diam of Holes		Width	Depth	Radius		
	C				F	E	R		
12	533.4	20	38.1	381.0	11.9	7.9	0.8	419.1	R57
14	558.8	20	41.1	419.1	16.7	11.1	1.5	466.9	R62
16	616.0	20	44.5	469.9	16.7	11.1	1.5	523.7	R66
18	685.8	20	50.8	533.4	19.8	12.7	1.5	593.9	R70
20	749.3	20	53.8	584.2	19.8	12.7	1.5	647.7	R74
24	901.7	20	66.5	692.2	27.0	15.9	2.3	771.7	R78
26	952.5	20	73.2	749.3	30.2	17.5	2.3	831.9	R100
28	1022.4	20	79.2	800.1	33.3	17.5	2.3	889.0	R101
30	1085.9	20	79.2	857.3	33.3	17.5	2.3	946.2	R102
32	1155.7	20	85.9	914.4	33.3	17.5	2.3	1003.3	R103
34	1225.6	20	91.9	965.2	36.5	20.6	2.3	1066.8	R104
36	1289.1	20	91.9	1022.4	36.5	20.6	2.3	1124.0	R105
38	1289.1	20	91.9						
40	1339.9	24	91.9						
42	1390.7	24	91.9						
44	1463.5	24	98.6						
46	1536.7	24	104.6						
48	1587.5	24	104.6						

(4) Maximum Pressure Rating for raised face flanges is 220 psi(153.1 BARS) at atmospheric temperature.

(5) Flange dimensions of size 12"(304.8mm) through 24"(609.6mm) flanges(except 22"(658.8mm)) are in accordance with ANSIB165

(6) For sizes 26"(660.4mm) and larger ' Diameter of Hub at Bevel(A)' are in accordance with ASME Boiler and pressure vessel code.