



# FLANGED FITTINGS



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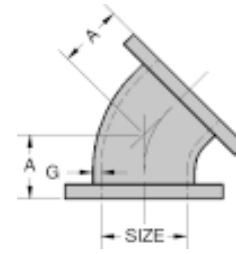
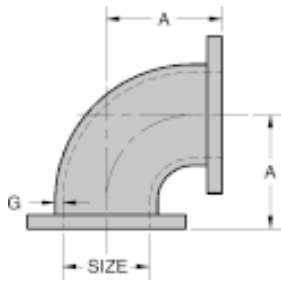
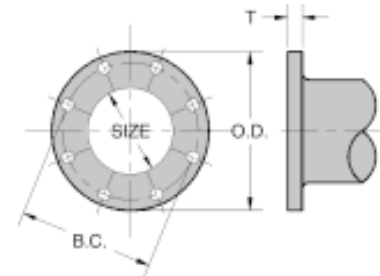


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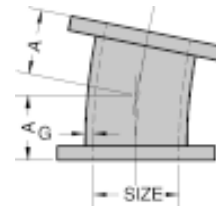
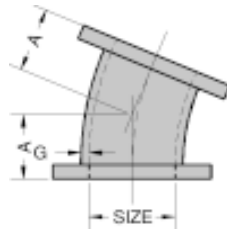
Ductile iron per ASTM A536. Pressure rated for 250 psi. Gray iron per ASTM A126. Pressure rated for 175 psi. Dimensions in accordance with ANSI/AWWA C110/A21, 10 and ANSI B16.1. Drilling in accordance with ANSI B16.1 Class 125/150 flanges.

FLANGE DETAILS						
SIZE (IN.)	FLANGE DIAMETER OD	BOLT CIRCLE BC	FLANGE THICKNESS T (MIN.)	BOLT HOLE DIA	NUMBER OF BOLTS	BOLTS SIZE
3	7.50	6.00	0.75	0.75	4	0.62x2.50
4	9.00	7.50	0.94	0.75	8	0.62x3.00
6	11.00	9.50	1.00	0.88	8	0.75x3.50
8	13.50	11.75	1.12	0.88	8	0.75x3.50
10	16.00	14.25	1.19	1.00	12	0.88x4.00
12	19.00	17.00	1.25	1.00	12	0.88x4.00



FBD90 FLANGED 90° ELBOW			
NOMINAL PIPE SIZE (IN.)	CENTER TO FACE A	WALL THICKNESS G (MIN.)	WEIGHT LBS.
3	5.50	0.48	24
4	6.50	0.52	40
6	8.00	0.55	66
8	9.00	0.60	105
10	11.00	0.68	170
12	12.00	0.75	250

FBD45 FLANGED 45° ELBOW			
NOMINAL PIPE SIZE (IN.)	CENTER TO FACE A	WALL THICKNESS G (MIN.)	WEIGHT LBS.
3	3.00	0.48	20
4	4.00	0.52	35
6	5.00	0.55	57
8	5.50	0.60	92
10	6.50	0.68	143
12	7.50	0.75	215



FBD22 FLANGED 22 1/2° ELBOW			
NOMINAL PIPE SIZE (IN.)	CENTER TO FACE A	WALL THICKNESS G (MIN.)	WEIGHT LBS.
3	3.00	0.48	20
4	4.00	0.52	35
6	5.00	0.55	55
8	5.50	0.60	90
10	6.50	0.68	140
12	7.50	0.75	215

FBD11 FLANGED 11 1/4° ELBOW			
NOMINAL PIPE SIZE (IN.)	CENTER TO FACE A	WALL THICKNESS G (MIN.)	WEIGHT LBS.
3	3.00	0.48	20
4	4.00	0.52	35
6	5.00	0.55	55
8	5.50	0.60	90
10	6.50	0.68	140
12	7.50	0.75	214



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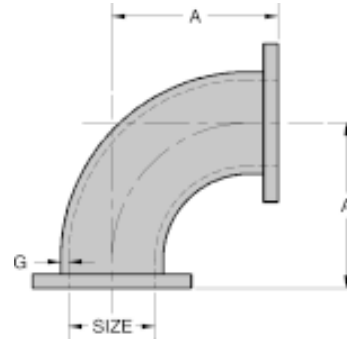
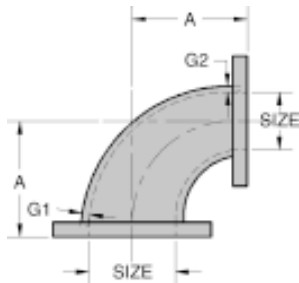


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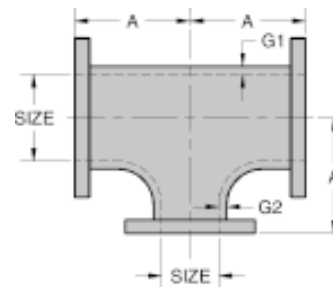
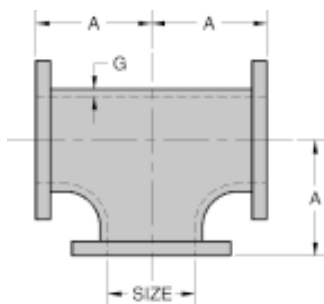
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<b>FBRD90 FLANGED REDUCING 90° ELBOW</b>				
NOMINAL PIPE SIZE (IN.)	CENTER TO FACE A	1st WALL THICKNESS G1 (MIN.)	2nd WALL THICKNESS G2 (MIN.)	WEIGHT LBS.
4X3	6.50	0.52	0.48	35
6X3	8.00	0.55	0.48	59
6X4	8.00	0.55	0.52	63
8X4	9.00	0.60	0.52	88
8X6	9.00	0.60	0.55	101
10X6	11.00	0.68	0.55	146
10X8	11.00	0.68	0.60	170
12X6	12.00	0.75	0.55	209
12X8	12.00	0.75	0.60	234
12X10	12.00	0.75	0.68	241

<b>FBLRD90 FLANGED LONG RADIUS 90° EL</b>			
NOMINAL PIPE SIZE (IN.)	CENTER TO FACE A	WALL THICKNESS G (MIN.)	WEIGHT LBS.
3	7.75	0.48	30
4	9.00	0.52	55
6	11.50	0.55	85
8	14.00	0.60	145
10	16.50	0.68	210
12	19.00	0.75	325



<b>FTD FLANGED STRAIGHT TEE</b>			
NOMINAL PIPE SIZE (IN.)	CENTER TO FACE A	WALL THICKNESS G (MIN.)	WEIGHT LBS.
3	5.50	0.48	37
4	6.50	0.52	63
6	8.00	0.55	100
8	9.00	0.60	160
10	11.00	0.68	255
12	12.00	0.75	385

<b>FTD FLANGED REDUCING TEE</b>				
NOMINAL PIPE SIZE (IN.)	CENTER TO FACE A	1st WALL THICKNESS G1 (MIN.)	2nd WALL THICKNESS G2 (MIN.)	WEIGHT LBS.
4X3	6.50	0.52	0.48	55
6X3	8.00	0.55	0.48	86
6X4	8.00	0.55	0.52	93
8X4	9.00	0.60	0.52	139
8X6	9.00	0.60	0.55	146
10X4	11.00	0.68	0.52	218
10X6	11.00	0.68	0.55	227
10X8	11.00	0.68	0.60	238
12X4	12.00	0.75	0.52	313
12X6	12.00	0.75	0.55	326
12X8	12.00	0.75	0.60	342
12X10	12.00	0.75	0.68	362



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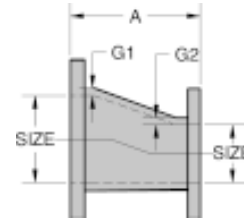
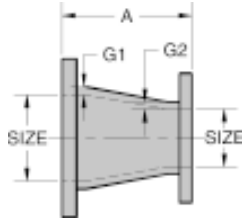


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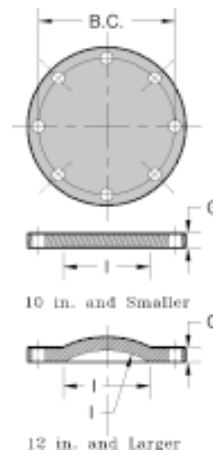
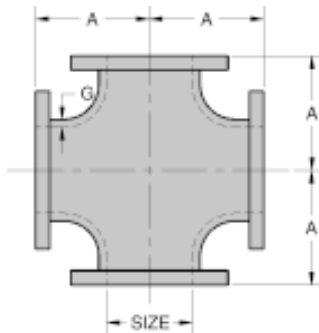


## FRD FLANGED CONCENTRIC REDUCER

NOMINAL PIPE SIZE (IN.)	FACE TO FACE A	1st WALL THICKNESS G1 (MIN.)	2nd WALL THICKNESS G2 (MIN.)	WEIGHT LBS.
4X3	7.00	0.52	0.48	29
6X3	9.00	0.55	0.48	42
6X4	9.00	0.55	0.52	48
8X4	11.00	0.60	0.52	70
8X6	11.00	0.60	0.55	80
10X6	12.00	0.68	0.55	104
10X8	12.00	0.68	0.60	120
12X6	14.00	0.75	0.55	145
12X8	14.00	0.75	0.60	160
12X10	14.00	0.75	0.60	180

## FERD FLANGED ECCENTRIC REDUCER

NOMINAL PIPE SIZE (IN.)	FACE TO FACE A	1st WALL THICKNESS G1 (MIN.)	2nd WALL THICKNESS G2 (MIN.)	WEIGHT LBS.
4X3	7.00	0.52	0.48	26
6X3	9.00	0.55	0.48	44
6X4	9.00	0.55	0.52	46
8X4	11.00	0.60	0.52	70
8X6	11.00	0.60	0.55	75
10X6	12.00	0.68	0.55	112
10X8	12.00	0.68	0.60	120
12X6	14.00	0.75	0.55	130
12X8	14.00	0.75	0.60	145
12X10	14.00	0.75	0.60	170



## FXD FLANGED CROSS

NOMINAL PIPE SIZE (IN.)	CENTER TO FACE A	WALL THICKNESS G (MIN.)	WEIGHT LBS.
3	5.50	0.48	47
4	6.50	0.52	77
6	8.00	0.55	125
8	9.00	0.60	200
10	11.00	0.68	280
12	12.00	0.75	430

## FLBD BLIND FLANGE

NOMINAL PIPE SIZE (IN.)	DIAMETER OF PORT I	BOLT CIRCLE BC	WALL THICKNESS G (MIN.)	WEIGHT LBS.
3	3.00	6.00	0.75	9
4	4.00	7.50	0.94	16
6	6.00	9.50	1.00	25
8	8.00	11.75	1.12	42
10	10.00	14.25	1.19	63
12	12.00	17.00	1.25	85



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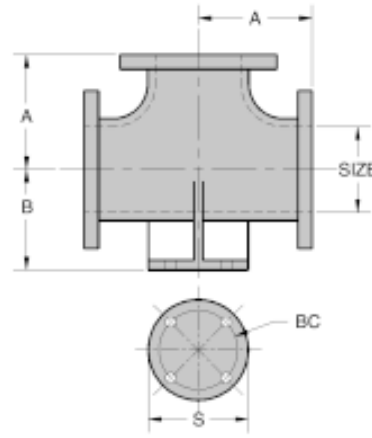
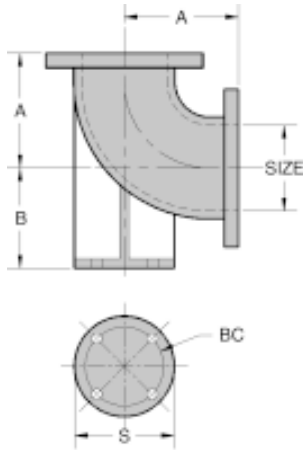


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## FBBD90 FLANGED BASE 90° ELBOW

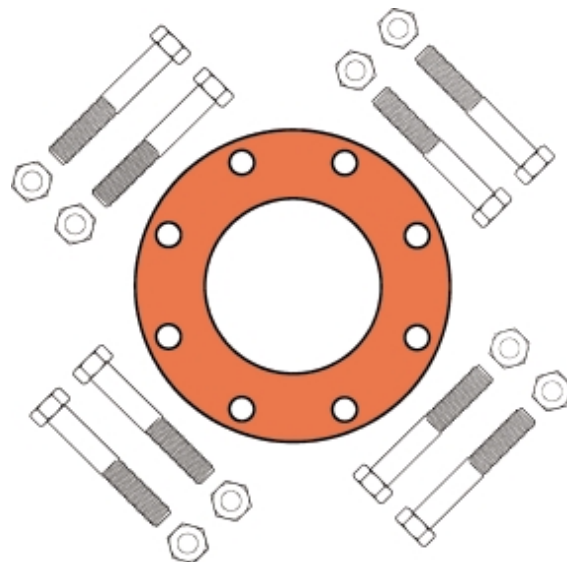
NOMINAL PIPE SIZE (IN.)	CENTER TO FACE A	HEIGHT OF BASE B	BASE DIA. S	BOLT CIRCLE BC	WEIGHT LBS.
3	5.50	4.88	5.00	3.88	32
4	6.50	5.50	6.00	4.75	53
6	8.00	7.00	7.00	5.50	89
8	9.00	8.38	9.00	7.50	153
10	11.00	9.75	9.00	7.50	225
12	12.00	11.25	11.00	9.50	340

## FBTD FLANGED BASE TEE

NOMINAL PIPE SIZE (IN.)	CENTER TO FACE A	HEIGHT OF BASE B	BASE DIA. S	BOLT CIRCLE BC	WEIGHT LBS.
3	5.50	4.88	5.00	3.88	47
4	6.50	5.50	6.00	4.75	73
6	8.00	7.00	7.00	5.50	120
8	9.00	8.38	9.00	7.50	210
10	11.00	9.75	9.00	7.50	300
12	12.00	11.25	11.00	9.50	430

Flange accessory packs with 1/8" thick rubber (ASTM D2000 type a) gasket & hex bolts & nuts

Nom. Size	BOLTS	QTY	Weight
3	5/8 x 2 1/2	4	2
4	5/8 x 3	8	3
6	3/4 x 3 1/2	8	5
8	3/4 x 3 1/2	8	6
10	7/8 x 4	12	12
12	7/8 x 4	12	13
14	1 x 4 1/2	12	19
16	1 x 4 1/2	16	25
18	1 1/8 x 5	16	35
20	1 1/8 x 5	20	45
24	1 1/4 x 5 1/2	20	63
30	1 1/4 x 6 1/2	28	95
36	1 1/2 x 7	32	170
42	1 1/2 x 8	36	215
48	1 1/2 x 8	44	265
54	1 3/4 x 8 1/2	44	390





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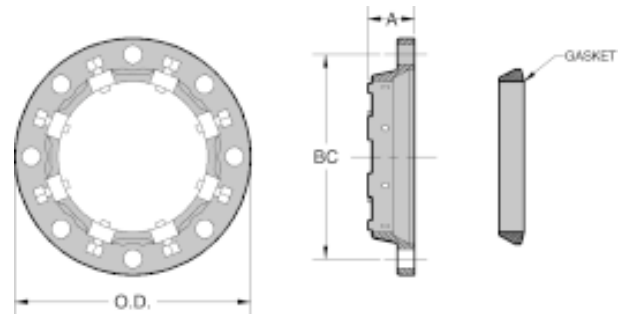
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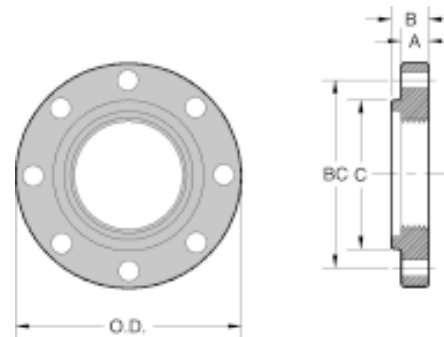
Series 200 adapter flange conveniently joins plain end steel or ductile iron pipe to flanged end equipment, valves or pipe. Eliminates threading, welding or grooving the pipe ends. Sizes 3"-12" are UL/ULC listed. Size 3"-10" are FM approved.



## SF200 STAR ADAPTER FLANGE ( 200 SERIES )

NOMINAL PIPE SIZE (IN.)	STEEL PIPE O.D.	FLANGE DIAMETER OD	END TO END A	BOLT CIRCLE BC	SET SCREWS		RECOMMENDED SET-SCREW TORQUE ( LB.FT. )			WEIGHT LBS.
					QTY	SIZE	SCH 20	SCH 30	SCH 40+	
3	3.50	7.50	2.00	6.00	2	1/2 X 1 1/4	-	-	70	5
4	4.50	9.00	2.07	7.50	4	1/2 X 1 1/4	-	-	70	7
6	6.63	11.00	2.19	9.50	8	1/2 X 1 1/4	-	-	70	10
8	8.63	13.50	2.31	11.75	8	5/8 X 1 1/2	50	50	90	15
10	10.75	16.00	2.50	14.25	12	5/8 X 1 1/2	50	50	90	25
12	12.75	19.00	2.50	17.00	12	5/8 X 1 1/2	50	60	90	33

Companion flanges are produced from ductile iron per ASTM A536. Drilling is in accordance with ANSI B16.1 Class 125/150. Threads are NPT per ANSI/ASME B1.20.1



## FLDC COMPANION FLANGE

NOMINAL PIPE SIZE (IN.)	STEEL PIPE O.D.	FLANGE DIAMETER OD	THICKNESS A	END TO END B	HUB DIA C	BOLT CIRCLE BC	BOLT HOLE DIA	QTY OF BOLTS	BOLTS SIZE	WEIGHT LBS
4	4.50	9.00	0.94	1.38	5.32	7.50	0.75	8	0.62X3.00	14
5	5.56	10.00	0.94	1.38	6.44	8.50	0.88	8	0.75X3.00	18
6	6.63	11.00	1.00	1.56	7.56	9.50	0.88	8	0.75X3.50	19
8	8.63	13.50	1.12	1.87	9.75	11.75	0.88	8	0.75X3.50	30