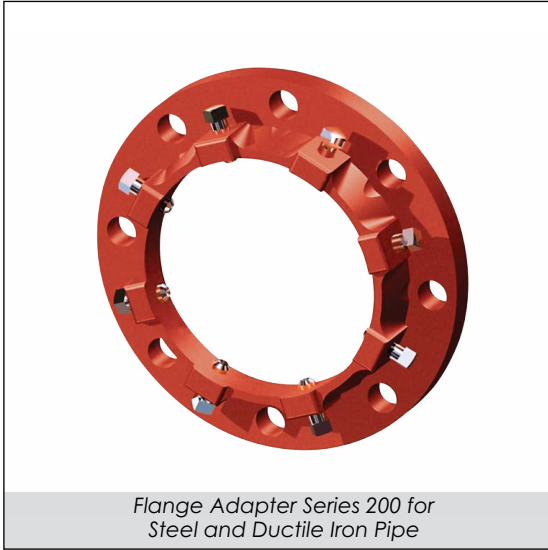




Flange Adapters series 200

For Steel (3"-12") and Ductile Iron (3"-12") Pipe - Flange Drilling ANSI B16.1 125 lbs
Working Pressure: 3"-8" 200 PSI, 10"-12" 175 PSI
Sizes 3" - 36"



Flange Adapter Series 200 for Steel and Ductile Iron Pipe

INFORMATION

The Series 200 Flange Adapter provides restraint by utilizing set screws in a locking device similar to the mechanical joint retainer glands. This adapter eliminates the need for thrust blocks and other restraining devices and has been used throughout the world for more than 40 years.

Proven Design

FEATURES & ADVANTAGES

- Flange adapters are made of Ductile Iron - ASTM A536 Grade 65-45-12.
- Sizes 3"-12" are Underwriters Laboratories Inc. Listed at 200 PSI for 3"-8" sizes and 175 PSI for 10"-12" sizes. For use on PC350 ductile iron and SCH40 steel pipe.
- Bolt hole drilling is to ANSI B16.1 class 125.
- Uses standard mechanical joint gasket for seal on DI Pipe and Transition Gasket on steel pipe.
- Pipe fabrication can be done on site, using plain end pipe.
- Flange Adapters are ideal for jobs involving retro-fitting.
- Can be used on Ductile Iron (3"-12") and Steel (3"-12") Pipe -- steel pipe sizes require a transition gasket.
- Can be used in above or below ground applications
- If future maintenance is required, Flange Adapters can be easily disassembled.
- Standard gland color is Coral Red (RAL 3016).

Note: See page 80 for Technical information and page 82 for installation instructions.

SAMPLE SPECIFICATIONS

Flange Adapter for use on iron or steel pipe shall be manufactured of high strength ductile iron in accordance to ASTM A536 Grade 65-45-12 for all sizes. Applicable dimensions shall conform to ANSI/AWWA C111/A21.11, C110/A21.10 and C153/A21.53. Flange ends to meet ANSI B16.1 Class 125 & ANSI/AWWA C115/A21.15.

The device shall be Underwriters Laboratories Listed for sizes 3"-12". Flange Adapter shall have a working pressure rating of 200 PSI for sizes 3"-8" and 175 PSI for 10"-12". Flange adapters shall be Star® Pipe Products Flange adapter Series 200 or an approved equal.

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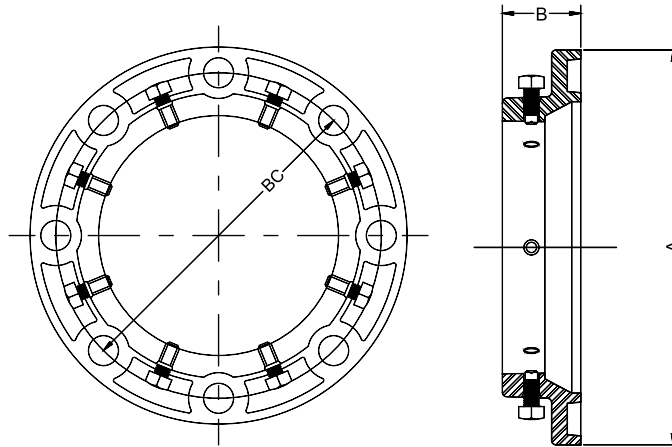


Flange Adapters series 200/400

For Steel (3"-12") and Ductile Iron (3"-36") Pipe - Flange Drilling ANSI B16.1 125 lbs

Sizes 3" - 36"

TECHNICAL INFORMATION



FLANGE ADAPTER 200 SPECIFICATIONS*

NOM. SIZE	DUCTILE PIPE O.D.	STEEL PIPE O.D.	APPROX. WT. (LBS)	A	B	BC	BOLT HOLE DIA.	SET SCREWS	
								QTY	SIZE
3	3.96	3.50	5.84	7.50	2.00	6.00	3/4	4	1/2 x 1 1/4
4	4.80	4.50	8.12	9.00	2.07	7.50	3/4	4	1/2 x 1 1/4
6	6.90	6.63	11.05	11.00	2.19	9.50	7/8	8	1/2 x 1 1/4
8	9.05	8.63	17.13	13.50	2.31	11.75	7/8	8	5/8 x 1 1/2
10	11.10	10.75	25.15	16.00	2.50	14.25	1	12	5/8 x 1 1/2
12	13.20	12.75	34.38	19.00	2.50	17.00	1	12	5/8 x 1 1/2

*All dimensions in inches except where indicated.

FLANGE ADAPTER 400 SPECIFICATIONS*

NOM. SIZE	DUCTILE PIPE O.D.	STEEL PIPE+ O.D.	APPROX. WT. (LBS)	A	B	BC	BOLT HOLE DIA.	SET SCREWS	
								QTY	SIZE
3	3.96	3.50	5.84	7.50	2.00	6.00	3/4	4	1/2 x 1 1/4
4	4.80	4.50	8.12	9.00	2.07	7.50	3/4	4	1/2 x 1 1/4
6	6.90	6.63	11.05	11.00	2.19	9.50	7/8	8	1/2 x 1 1/4
8	9.05	8.63	17.13	13.50	2.31	11.75	7/8	8	5/8 x 1 1/2
10	11.10	10.75	25.15	16.00	2.50	14.25	1	12	5/8 x 1 1/2
12	13.20	12.75	34.38	19.00	2.50	17.00	1	12	5/8 x 1 1/2
14	15.30	N/A	53.00	21.00	2.75	18.75	1 1/8	12	5/8 x 1 1/2
16	17.40	N/A	69.00	23.50	2.75	21.25	1 1/8	16	5/8 x 1 1/2
18	19.50	N/A	76.00	25.00	3.25	22.75	1 1/4	16	3/4 x 2
20	21.60	N/A	95.00	27.50	3.25	25.00	1 1/4	20	3/4 x 2
24	25.80	N/A	131.00	32.00	3.69	29.50	1 3/8	20	3/4 x 2
30	32.00	N/A	206.00	38.75	4.25	36.00	1 3/8	28	1 x 2 1/4
36	38.30	N/A	300.00	46.00	4.38	42.75	1 5/8	32	1 x 2 1/4

*All dimensions in inches except where indicated.

Notes:

+ Transition gasket required on steel pipe.

STAR® PIPE PRODUCTS



Flange Adapters series 400

For Steel (3"-12") and Ductile Iron (3"-36") Pipe - Flange Drilling ANSI B16.1 125 lbs
Working Pressure: 3"-12" 250 PSI, 14"-24" 150 PSI, 30"-36" 100 PSI
Sizes 3" - 36"



Flange Adapter Series 400 for Steel and Ductile Iron Pipe

INFORMATION

Flange adapters can be used to restrain plain end pipe to flange fittings instead of using threaded or welded flanges on plain end pipe. Flange adapters provide restraint by use of a set screw locking device similar to that used in mechanical joint retainer gland. This type adapter flange eliminates the need for thrust blocks and other restraining devices and has been used throughout the world for more than forty years.

Proven Design

FEATURES & ADVANTAGES

- Flange adapters are made of Ductile Iron - ASTM A536 Grade 65-45-12.
- Sizes 3"-12" are Underwriters Laboratories Inc. Listed at 200 PSI for 3"-8" sizes and 175 PSI for 10"-12" sizes. For use on PC350 ductile iron and SCH40 steel pipe.
- Bolt hole drilling is to ANSI B16.1 class 125.
- Uses standard mechanical joint gasket for seal on DI Pipe and Transition Gasket on steel pipe.
- Pipe fabrication can be done on site, using plain end pipe.
- Flange Adapters are ideal for jobs involving retro-fitting.
- Can be used on Ductile Iron (3"-36") and Steel (3"-12") Pipe -- steel pipe sizes require a transition gasket.
- Can be used in above or below ground applications
- If future maintenance is required, Flange Adapters can be easily disassembled.
- Standard gland color is Coral Red (RAL 3016).

SAMPLE SPECIFICATIONS

Flange Adapter for use on iron or steel pipe shall be manufactured of high strength ductile iron in accordance to ASTM A536 Grade 65-45-12 for all sizes. Applicable dimensions shall conform to ANSI/AWWA C111/A21.11, C110/A21.10 and C153/A21.53. Flange ends to meet ANSI B16.1 Class 125 & ANSI/AWWA C115/A21.15.

Flange Adapter shall have a working pressure rating of 250 PSI for sizes 3"-12", 150 PSI for sizes 14"-24" and 100 PSI for 30"-36".

The device shall be Underwriters Laboratories Inc. listed at 200 PSI for 3"-8" sizes and at 175 PSI for 10"-12" sizes for use on ductile iron and steel pipe.

Flange adapters shall be Star® Pipe Products Flange adapter Series 400 or an approved equal.

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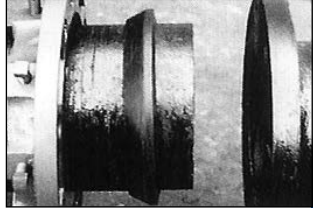
STAR® PIPE PRODUCTS



Flange Adapters series 200/400

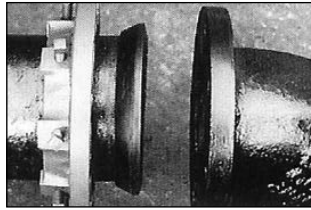
For Steel (3"-12") and Ductile Iron (3"-36") Pipe-Flange Drilling ANSI B16.1 125 lbs
Sizes 3" - 36"

INSTALLATION INSTRUCTIONS - SIZES 3" - 36"



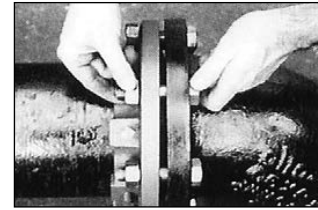
STEP 1

Pipe should be cut square and be free of burrs. Series 200/400 adapter flanges should not be used on beveled end of pipe. Clean the plain end of the pipe. Thoroughly lubricate the pipe and gasket with soap based lubricant. Slide the flange onto the pipe with the gasket cavity facing the end of the pipe. Slide the lubricated gasket over the pipe end, with the taper end facing the gasket cavity in the flange.



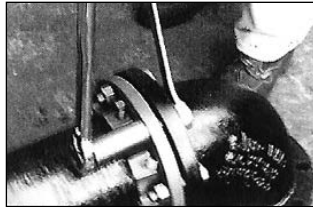
STEP 2

Slide the flange forward until the gasket is evenly seated in the flange cavity, with the leading edge of the gasket flush with the end of the pipe. Butt the end of the pipe against the facing flange.



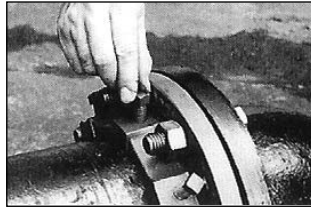
STEP 3

Using conventional flange bolts, mate the Flange Adapter to the standard flange.



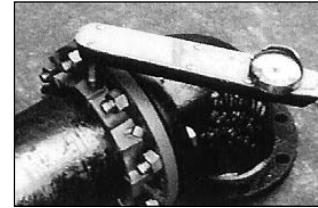
STEP 4

Be sure to evenly tighten the bolts alternately on opposite sides. Do not over tighten the flange bolts. **Refer TABLE A for recommended Flange bolt torque values.** It is not necessary to bring the Flange Adapter to a face to face contact with the standard flange. A gap of approximately 1/8" between flanges is normal.



STEP 5

Hand tighten all set screws until they come in contact with the pipe.



STEP 6

Tighten in an alternating manner going on opposite sides (star method) to the torque values shown on the chart below.

Note: Not to be used on plain end fittings or PVC and HDPE pipe.

TABLE A) RECOMMENDED FLANGE BOLT TORQUE	
SIZE (IN)	RANGE OF TORQUE (FT-LBS)
3	45 - 60
4	75 - 90
6	75 - 90
8	90 - 110
10 - 12	90 - 110
14 - 16	90 - 110
18 - 20	90 - 110
24	90 - 110
30 - 36	110 - 130

RECOMMENDED SET SCREW TORQUE VALUES

FLANGE SIZE	SET SCREW SIZE	RECOMMENDED SET SCREW TORQUE VALUE (FT-LBS)								
		DUCTILE IRON PIPE (CLASS)					STEEL PIPE (SCHEDULE)			
		50	51	52	53+	PC350	10	20	30	40+
3"	1/2" x 1 1/4"	-	50	70	70	50	30	-	-	70
4"	1/2" x 1 1/4"	-	50	70	70	50	30	-	-	70
6"	1/2" x 1 1/4"	50	60	80	90	50	30	-	-	90
8"	5/8" x 1 1/2"	75	75	80	90	75	30	50	50	90
10"	5/8" x 1 1/2"	75	75	80	90	75	40	50	50	90
12"	5/8" x 1 1/2"	75	75	80	90	75	40	50	60	90
14"	5/8" x 1 1/2"	75	75	90	90	75	N/A	N/A	N/A	N/A
16"	5/8" x 1 1/2"	75	75	90	90	75	N/A	N/A	N/A	N/A
18"	3/4" x 2"	75	80	115	115	75	N/A	N/A	N/A	N/A
20"	3/4" x 2"	75	80	115	115	75	N/A	N/A	N/A	N/A
24"	3/4" x 2"	75	80	115	115	80	N/A	N/A	N/A	N/A
30"	1" x 2 1/4"	90	110	125	125	125	N/A	N/A	N/A	N/A
36"	1" x 2 1/4"	90	110	125	125	125	N/A	N/A	N/A	N/A

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