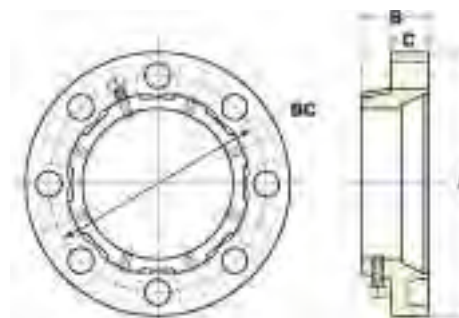


Uni-Flange® Adapter Flanges

Series 200 Adapter Flange for Steel and Ductile Iron Pipe Flange Drilling ANSI B16.1 125 lb. / ANSI B16.5 150 lb.

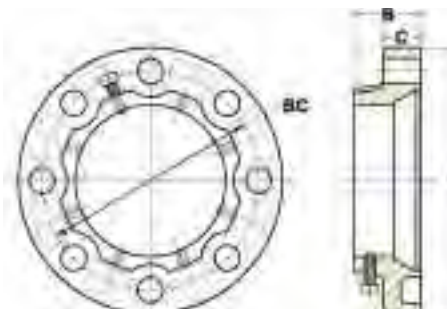
WORKING PRESSURE - 2" THROUGH 8" 200 PSI / 10" THROUGH 12" 175 PSI



NOM. PIPE SIZE	STEEL PIPE		DUCTILE IRON PIPE		APPROX. Wt. LBS.	DIMENSIONS					SET SCREWS	
	O.D. (INCHES)	CATALOG NUMBER	O.D. (INCHES)	CATALOG NUMBER		A	B	BC	C	BOLT HOLE DIA.	SET SCREWS	
											No.	SIZE
2"	2.375	UFA200-S-2	2.50	UFA200-C-2	3.5	6"	1-13/16"	4-3/4"	.75"	3/4"	2	1/2"x1"
2-1/2"	2.875	UFA200-S-25	-	-	4.0	7"	1-13/16"	5-1/2"	.75"	3/4"	4	1/2"x1"
3"	3.500	UFA200-S-3	3.96	UFA200-C-3	5.0	7-1/2"	1-13/16"	6"	.75"	3/4"	4	1/2"x1"
4"	4.500	UFA200-S-4	4.80	UFA200-C-4	7.7	9"	1-7/8"	7-1/2"	.75"	3/4"	4	1/2"x1"
5"	5.563	UFA200-S-5	-	-	8.7	10"	1-7/8"	8-1/2"	.75"	7/8"	8	1/2"x1"
6"	6.625	UFA200-S-6	6.90	UFA200-C-6	10.0	11"	1-7/8"	9-1/2"	.75"	7/8"	8	1/2"x1"
8"	8.625	UFA200-S-8	9.05	UFA200-C-8	16.5	13 1/2"	2-1/4"	11-3/4"	.88"	7/8"	8	5/8"x1-1/4"
10"	10.750	UFA200-S-10	11.10	UFA200-C-10	22.0	16"	2-1/4"	14-1/4"	1.00"	1"	12	5/8"x1-1/4"
12"	12.750	UFA200-S-12	13.20	UFA200-C-12	31.0	19"	2-1/4"	17"	1.00"	1"	12	5/8"x1-1/4"

Series 400 Adapter Flange for Steel and Ductile Iron Pipe Flange Drilling ANSI B16.1 125 lb. / ANSI B16.5 150 lb.

WORKING PRESSURE - 2" THROUGH 12" 250 PSI / 14" THROUGH 24" 150 PSI / 30" THROUGH 48" 100 I



NOM. PIPE SIZE	STEEL PIPE		DUCTILE IRON PIPE		APPROX Wt. LBS.	DIMENSIONS					SET SCREWS	
	O.D. (INCHES)	CATALOG NUMBER	O.D. (INCHES)	CATALOG NUMBER		A	B	BC	C	BOLT HOLE DIA.	SET SCREWS	
											No.	SIZE
2"	2.375	UFA400-S-2	2.50	UFA400-C-2	5.0	6"	2"	4-3/4"	1.06"	3/4"	4	1/2"x1"
2-1/2"	2.875	UFA400-S-25	-	-	7.0	7"	2-1/16"	5-1/2"	1.12"	3/4"	4	1/2"x1"
3"	3.500	UFA400-S-3	3.96	UFA400-C-3	8.0	7-1/2"	2-1/16"	6"	1.12"	3/4"	4	1/2"x1"
4"	4.500	UFA400-S-4	4.80	UFA400-C-4	11.0	9"	2-1/16"	7-1/2"	1.12"	3/4"	8	1/2"x1"
5"	5.563	UFA400-S-5	-	-	13.0	10"	2-1/8"	8-1/2"	1.12"	7/8"	8	5/8"x1-1/4"
6"	6.625	UFA400-S-6	6.90	UFA400-C-6	14.0	11"	2-1/8"	9-1/2"	1.12"	7/8"	8	5/8"x1-1/4"
8"	8.625	UFA400-S-8	9.05	UFA400-C-8	21.0	13-1/2"	2-1/8"	11-3/4"	1.12"	7/8"	8	5/8"x1-1/4"
10"	10.750	UFA400-S-10	11.10	UFA400-C-10	38.0	16"	2-3/16"	14-1/4"	1.19"	1"	12	5/8"x1-1/4"
12"	12.750	UFA400-S-12	13.20	UFA400-C-12	56.0	19"	2-1/4"	17"	1.25"	1"	12	5/8"x1-1/4"
14"	14.000	UFA400-S-14	15.30	UFA400-C-14	70.0	21"	2-5/8"	18-3/4"	1.38"	1-1/8"	12	5/8"x1-1/4"
16"	16.000	UFA400-S-16	17.40	UFA400-C-16	79.0	23-1/2"	2-11/16"	21-1/4"	1.44"	1-1/8"	16	5/8"x1-1/4"
18"	18.000	UFA400-S-18	19.50	UFA400-C-18	90.0	25"	2-13/16"	22-3/4"	1.56"	1-1/4"	16	3/4"x2"
20"	20.000	UFA400-S-20	21.60	UFA400-C-20	145.0	27-1/2"	2-15/16"	25"	1.69"	1-1/4"	20	3/4"x2"
24"	24.000	UFA400-S-24	25.80	UFA400-C-24	175.0	32"	3-1/8"	29-1/2"	1.88"	1-3/8"	20	3/4"x2"
30"	30.000	UFA400-S-30	32.00	UFA400-C-30	270.0	38-3/4"	4"	36"	2.12"	1-3/8"	28	1"x2-1/4"
36"	36.000	UFA400-S-36	38.30	UFA400-C-36	400.0	46"	4-1/2"	42-3/4"	2.38"	1-5/8"	32	1"x2-1/4"
42"	42.000	UFA400-S-42	44.50	UFA400-C-42	495.0	53"	4-3/4"	49-1/2"	2.63"	1-5/8"	36	1"x2-1/4"
48"	48.000	UFA400-S-48	50.80	UFA400-C-48	660.0	59-1/2"	4-7/8"	56"	2.75"	1-5/8"	44	1"x2-1/4"

Options: To order with *Uni-Torque set screw add -UT to the catalog number. Example: UFA200-S-2-UT

To order with *Uni-Torque set screws and EPDM gasket add -UT-EPDM to the catalog number.
Example: UFA200-S-2-UT-EPDM

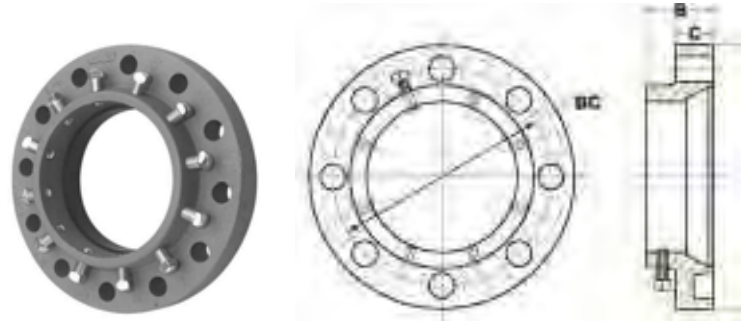
To order with Stainless Steel set screws, sizes 2"-16", add -SS to the catalog number. Example UFA200-S-2-SS.

* **Caution:** Uni-Torque set screws should not be used on steel pipe thinner than schedule 40 or ductile iron pipe thinner than class 52.

Uni-Flange® Adapter Flanges

Series 420 Extra Heavy Adapter Flange for Steel and Ductile Iron Pipe Flange Drilling ANSI B16.1 250 lb. / ANSI B16.5 300 lb.

(MATCHES CLASS F FLANGE)
WORKING PRESSURE - 2" THROUGH 12" 400 PSI

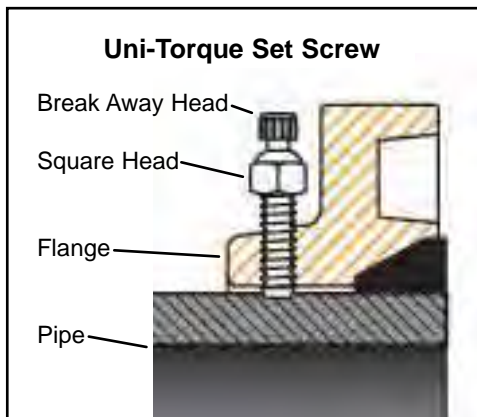


NOM. PIPE SIZE	STEEL PIPE		DUCTILE IRON PIPE		APPROX Wt. LBS.	DIMENSIONS						
	O.D. (INCHES)	CATALOG NUMBER	O.D. (INCHES)	CATALOG NUMBER		A	B	BC	C	BOLT HOLE DIA.	SET SCREWS	
											No.	SIZE
2"	2.375	UFA420-S-2	2.50	UFA420-C-2	7.0	6-1/2"	2-1/4"	5"	1.12"	3/4"	8	1/2" x 1"
3"	3.500	UFA420-S-3	3.96	UFA420-C-3	13.0	8-1/4"	2-7/16"	6-5/8"	1.12"	7/8"	8	1/2" x 1"
4"	4.500	UFA420-S-4	4.80	UFA420-C-4	21.0	10"	2-7/16"	7-7/8"	1.25"	7/8"	8	1/2" x 1"
5"	5.563	UFA420-S-5	-	-	27.0	11"	2-9/16"	9-1/4"	1.38"	7/8"	8	5/8" x 1-1/4"
6"	6.625	UFA420-S-6	6.90	UFA420-C-6	38.0	12-1/2"	2-9/16"	10-5/8"	1.44"	7/8"	12	5/8" x 1-1/4"
8"	8.625	UFA420-S-8	9.05	UFA420-C-8	57.0	15"	2-5/8"	13"	1.62"	1"	12	5/8" x 1-1/4"
10"	10.750	UFA420-S-10	11.10	UFA420-C-10	74.0	17-1/2"	2-5/8"	15-1/4"	1.88"	1-1/8"	16	5/8" x 1-1/4"
12"	12.750	UFA420-S-12	13.20	UFA420-C-12	104.0	20-1/2"	3"	17-3/4"	2.00"	1-1/4"	16	5/8" x 1-1/4"

Options: To order with *Uni-Torque set screw add -UT to the catalog number. Example: UFA200-S-2-UT
To order with *Uni-Torque set screws and EPDM gasket add -UT-EPDM to the catalog number.
Example: UFA200-S-2-UT-EPDM

* **Caution:** Uni-Torque set screws should not be used on steel pipe thinner than schedule 40 or ductile iron pipe thinner than class 52.

Optional Uni-Torque Set Screws



Optional Uni-Torque Set Screws are available for use with Uni-Flange® Adapters, 2" through 16" nominal pipe sizes with the pipe thickness shown in the table below. These set screws feature a "break away head" that shears at the recommended torque, leaving a square head that can be used if future removal of the flange is required. To order an Adapter Flange with Uni-Torque set screws add "-UT" to the catalog number. Example: UFA200-S-2-UT.

UNI-TORQUE SET SCREW SIZE	PRE-SET TORQUE VALUE	*RECOMMENDED PIPE THICKNESS
1/2"x1"	65 ft-lb ± 7	Ductile Iron, Class 52-56 Steel, Schedule 40 and up
5/8"x2"	87 ft-lb ± 7	Ductile Iron, Class 52-56, Steel, Schedule 40 and up

Note: 1/2" x 1" Uni-Torque Set Screws require a 3/8", 12 point, deep socket. 5/8" x 2" Uni-Torque Set Screws require a 7/16", 12 point, deep socket.

* **Caution:** Uni-Torque set screws should not be used on steel pipe thinner than schedule 40 or ductile iron pipe thinner than class 52.

Recommended Set Screw Torque Values Series 200 / 400 / 420

Series 200 Adapter Flange

FLANGE SIZE	SET SCREW SIZE	RECOMMENDED SET SCREW TORQUE VALUES (FT. LBS.)												
		DUCTILE IRON PIPE (CLASS)				STEEL PIPE (SCHEDULE)				DUCTILE IRON PIPE (PRESSURE CLASS)				
		50	51	52	53+	10	20	30	40+	150	200	250	300	350
2"	1/2"x1"	-	-	70	70	30	-	-	35	-	-	-	-	-
2-1/2"	1/2"x1"	-	-	-	-	30	-	-	35	-	-	-	-	-
3"	1/2"x1"	-	50	70	70	30	-	-	70	-	-	-	-	50
4"	1/2"x1"	-	50	70	70	30	-	-	70	-	-	-	-	50
5"	1/2"x1"	-	-	-	-	30	-	-	70	-	-	-	--	50
6"	1/2"x1"	50	60	70	70	30	-	-	90	-	-	-	-	50
8"	5/8"x1-1/4"	50	60	90	90	30	50	90	90	-	-	-	-	50
10"	5/8"x1-1/4"	50	60	90	90	40	50	90	90	-	-	-	-	50
12"	5/8"x1-1/4"	50	60	90	90	40	50	90	90	-	-	-	-	50

Series 400 and 420 Adapter Flanges

FLANGE SIZE	SET SCREW SIZE	RECOMMENDED SET SCREW TORQUE VALUES (FT. LBS.)												
		DUCTILE IRON PIPE (CLASS)				STEEL PIPE (SCHEDULE)				DUCTILE IRON PIPE (PRESSURE CLASS)				
		50	51	52	53+	10	20	30	40+	150	200	250	300	350
2"	1/2"x1"	-	-	70	70	30	-	-	35	-	-	-	-	-
2-1/2"	1/2"x1"	-	-	-	-	30	-	-	35	-	-	-	-	-
3"	1/2"x1"	-	50	70	70	30	-	-	70	-	-	-	-	50
3-1/2"	1/2"x1"	-	-	-	-	30	-	-	70	-	-	-	-	50
4"	1/2"x1"	-	50	70	70	30	-	-	70	-	-	-	--	50
5"	1/2"x1"	-	-	-	-	30	-	-	70	-	-	-	-	50
6"	5/8"x1-1/4"	50	60	80	80	30	-	-	90	-	-	-	-	50
8"	5/8"x1-1/4"	50	60	80	80	30	50	90	90	-	-	-	-	50
10"	5/8"x1-1/4"	50	60	80	80	40	50	90	90	-	-	-	-	50
12"	5/8"x1-1/4"	50	60	80	80	40	50	90	90	-	-	-	-	50
14"	5/8"x1-1/4"	60	70	90	90	-	60	90	90	-	-	50	50	60
16"	5/8"x1-1/4"	60	70	90	90	-	60	90	90	-	-	50	60	60
18"	3/4"x2"	70	80	115	115	-	60	100	115	-	-	60	70	70
20"	3/4"x2"	70	80	115	115	-	70	100	115	-	-	70	70	70
24"	3/4"x2"	70	80	115	115	-	70	100	125	-	70	70	70	80
30"	1"x2-1/4"	90	110	125	125	-	-	-	125	70	80	90	110	125
36"	1"x2-1/4"	90	110	125	125	-	-	-	125	80	90	90	110	125
42"	1"x2-1/4"	90	110	125	125	-	-	-	125	90	90	90	110	125
48"	1"x2-1/4"	90	110	125	125	-	-	-	-	90	90	110	110	125

Adapter Flanges are not suitable for use on spiral butt-welded steel pipe.

Deflection Chart

Series 200 / 400 / 420

Uni-Flange® Adapters may be used to join flanged pipes and fittings that are slightly misaligned. They offer the following deflection capabilities, at full rated working pressure of the flange. Maximum angles of deflection may require an angular pipe cut to provide proper gasket compression.

NOM. PIPE SIZE	DUCTILE IRON PIPE O.D. (IN.)	STEEL PIPE O.D. (IN.)	MAXIMUM ANGLE DEFLECTION	DEFLECTION IN./18 FT. LGTH. -(IN.)
2"	2.50	2.375	4° - 2'	15.23
2-1/2"	N/A	2.875	3° - 56'	14.85
3"	3.96	3.500	3° - 50'	14.47
3-1/2"	N/A	4.000	3° - 47'	14.28
4"	4.80	4.500	3° - 44'	14.09
5"	N/A	5.563	3° - 41'	13.91
6"	6.90	6.625	3° - 36'	13.59
8"	9.06	8.625	3° - 20'	12.58
10"	11.10	10.750	3° - 13'	12.14
12"	13.20	12.750	2° - 35'	9.12
14"	15.30	14.000	2° - 20'	8.80
16"	17.40	16.000	2° - 5'	7.86
18"	19.50	18.000	2° - 0'	7.54
20"	21.60	20.000	1° - 56'	7.29
24"	25.80	24.000	1° - 37'	6.10
30"	32.00	30.000	1° - 35'	5.97
36"	38.30	36.000	1° - 23'	5.22
42"	44.50	42.000	1° - 11'	4.46
48"	50.80	48.000	1° - 2'	3.89

Thrust Restraint

The Uni-Flange® Adapter Series offers the following thrust restraint capabilities.

NOM. PIPE SIZE	SERIES 200		SERIES 400		SERIES 420	
	WWP RATING (PSI)	THRUST AT RATED PRESSURE (LBS.)	WWP RATING (PSI)	THRUST AT RATED PRESSURE (LBS.)	WWP RATING (PSI)	THRUST AT RATED PRESSURE (LBS.)
2"	200	892	250	1,115	400	1,784
3"	200	1,922	250	2,403	400	3,844
4"	200	3,181	250	3,975	400	6,360
6"	200	6,924	250	8,655	400	13,848
8"	200	11,724	250	14,655	400	23,448
10"	175	15,911	250	22,730	400	36,368
12"	175	22,375	250	31,965	400	51,144
14"	-	-	150	23,091	-	-
16"	-	-	150	30,159	-	-
18"	-	-	150	38,170	-	-
20"	-	-	150	47,124	-	-
24"	-	-	150	67,858	-	-
30"	-	-	100	70,686	-	-
36"	-	-	100	101,790	-	-
42"	-	-	100	138,540	-	-
48"	-	-	100	180,956	-	-

These values are calculated using steel pipe outside diameter dimensions.