

Sure Shot®

SINGLE CHAMBER ORIFICE FITTING



Sure Shot® Single – Chamber Features:

- Fast inexpensive orifice plate change
- Meets or exceeds all industry specifications.
- Telemetry capabilities in sizes 3" 4" & 6" – Consult Sales
- Sure Shot® single chamber fitting provides both cost and time saving opportunities to the operator.
- One piece body allows operator the freedom to remove orifice plate without the time consuming operational steps associated with Orifice Flange Unions.
- The orifice plate seal is HNBR bonded to a stainless steel metal insert. This insert retains seal shape, ensuring no protrusion into the bore. The Sure Shot® Seal Ring design provides a positive seal against the orifice plate and the upstream fitting seat. This conforms to AGA 3/API 14.3 requirements.

Sure Shot® Single Chamber Fitting Applications:

- Gas Gathering
- Compressor Stations
- Onshore – Offshore Production
- Coal-Seam Gas Measurement
- Gas Distribution
- Gas Transmission
- Process Gas Plant

Fitting Pressure Ratings:

- ANSI Class 150 (285 PSI CWP)
- ANSI Class 300 (740 PSI CWP)
- ANSI Class 600 (1480 PSI CWP)
- ANSI Class 900 (2250 PSI CWP)

* Note: Consult Sales for Higher ANSI Ratings

Standard Materials of Construction:

- Body Material - A-216 WCB/WCC
Note: Consult factory for any other fitting body material.
- Flange Ratings – ANSI Class 150 to ANSI Class 1500
- Fitting End Connections – F x W, W x W
- Raised Face Flange is standard for ANSI Class 150 to ANSI Class 600
- RTJ Flange is standard for ANSI Class 900

Conforms to the following industry standards:

- AGA 3/API 14.3, ISO-5167
- ANSI B31.3, MSS SP-55, ANSI B16.5
- Sure Shot® fittings conform to NACE MR-01-75-2000

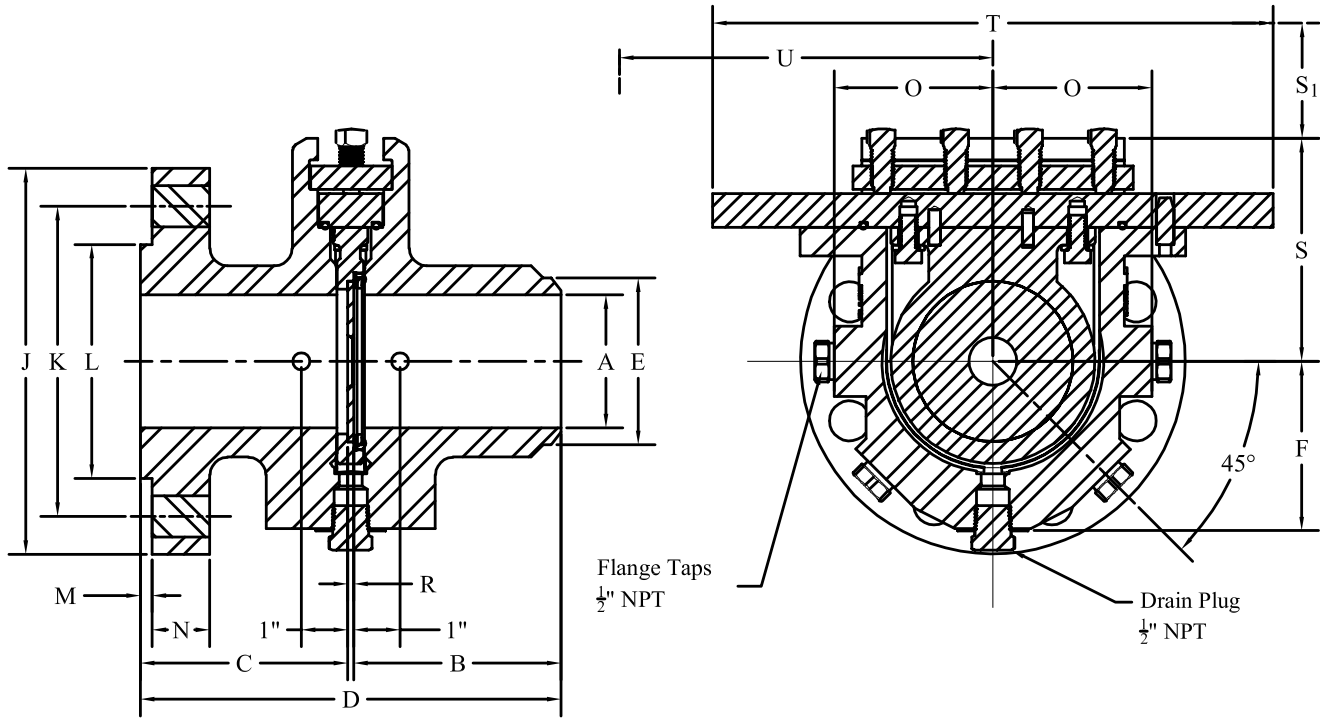
Operating Range:

- Sizes 2" thru 6" ANSI Class 150, 300, & 600
- Sizes 3" thru 4" ANSI Class 900
- Temperature -20° F to 275° F (-29° C. to 120° C.)

Quality Check:

- Hydrostatic test 1-1/2 times rated CWP.
- Tested for positive plate seal, pressure tap integrity, seal protrusion and eccentricity

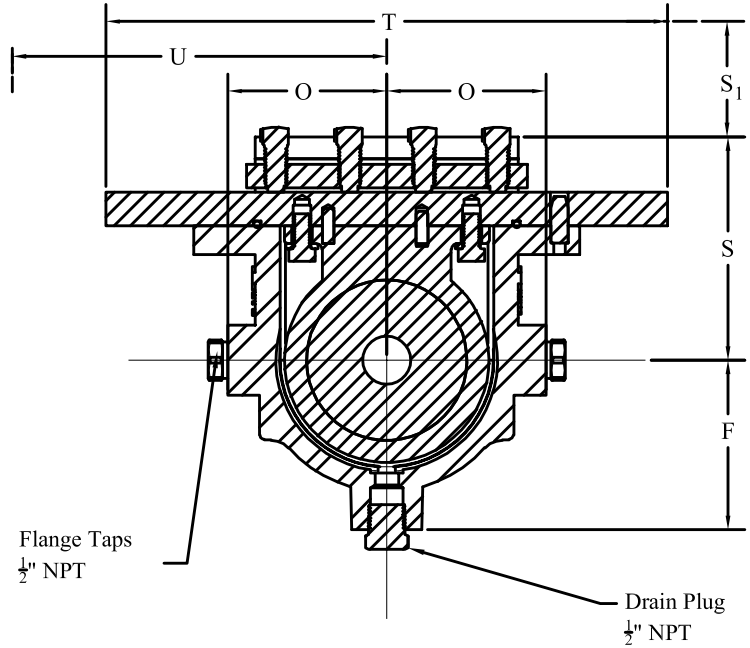
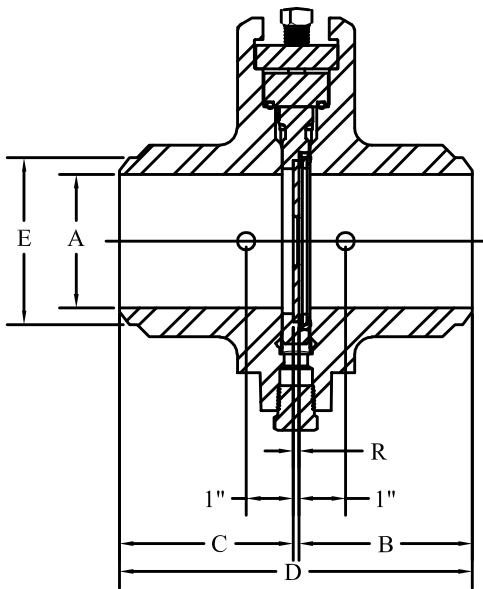




Raised Face / RTJ Flange X Weld

	Bore diameter	Upstream face of orifice plate to weld level	Downstream face of orifice plate to face of flange	Overall face to face length	Diameter of hub at point of weld	Centerline to bottom of fitting	Outside diameter of flange	Bolt circle diameter	Raised face diameter (Tol. $+0.000$ -0.005)	Height of raised face / RTJ	Flange thickness	Center of bore to 1/2" flange taps	Orifice plate thickness	Centerline to top of fitting	Plate removal clearance	Overall width	Clamping bar removal clearance	Number and diameter of studs per flange	Length of studs with 2 hex nuts	Weight (lbs. approx.)
Size	A	B	C	D	E	F	J	K	L	M	N	O	R	S	S ₁	T	U			
Class 150 (285 PSIG) CWP, Schedule 40																				
2"	2.067	3-9/16	3-9/16	7-1/4	2.375	3.54	6	4-3/4	3-5/8	1/16	3/4	2.88	1/8	4.28	5.625	11	2-3/8	(4)5/8	3-1/4	26
3"	3.068	3-7/8	3-7/8	7-7/8	3.500	4.02	7-1/2	6	5	1/16	15/16	3.40	1/8	4.77	6.750	12	3-1/8	(4)5/8	3-3/4	45
4"	4.026	4-7/16	4-7/16	9	4.625	4.52	9	7-1/2	6-3/16	1/16	15/16	3.90	1/8	5.15	7.500	13	3-1/2	(8)5/8	3-3/4	60
6"	6.065	5-1/16	5-1/16	10-1/4	6.875	5.50	11	9-1/2	8-1/2	1/16	1	4.94	1/8	6.25	9.500	15	4-3/8	(8)3/4	4	105
Class 300 (740 PSIG) CWP, Schedule 40																				
2"	2.067	3-9/16	3-9/16	7-1/4	2.375	3.54	6-1/2	5	3-5/8	1/16	7/8	2.88	1/8	4.28	5.325	11	2-3/8	(8)5/8	3-1/2	28
3"	3.068	4-1/16	4-1/16	8-1/4	3.500	4.02	8-1/4	6-5/8	5	1/16	1-1/8	3.40	1/8	4.77	6.750	12	3-1/8	(8)3/4	4-1/4	50
4"	4.026	4-7/16	4-7/16	9	4.625	4.52	10	7-7/8	6-3/16	1/16	1-1/4	3.90	1/8	5.15	7.500	13	3-1/2	(8)3/4	4-1/2	67
6"	6.065	5-1/16	5-1/16	10-1/4	6.875	5.50	12-1/2	10-5/8	8-1/2	1/16	1-7/16	4.94	1/8	6.25	9.500	15	4-3/8	(12)3/4	5	120
Class 600 (1480 PSIG) CWP, Schedule 40																				
2"	2.067	3-15/16	3-15/16	8	2.375	3.54	6-1/2	5	3-5/8	1/4	1-1/4	2.88	1/8	4.28	5.625	11	2-3/8	(8)5/8	4-1/4	35
3"	3.068	4-7/16	4-7/16	9	3.500	4.02	8-1/4	6-5/8	5	1/4	1-1/2	3.40	1/8	4.77	6.750	12	3-1/8	(8)3/4	5	53
4"	4.026	4-15/16	4-15/16	10	4.625	4.52	10-3/4	8-1/2	6-3/16	1/4	1-3/4	3.90	1/8	5.15	7.500	13	3-1/2	(8)7/8	5-3/4	80
6"	6.065	5-11/16	5-11/16	11-1/2	6.875	5.50	14	11-1/2	8-1/2	1/4	2-1/8	4.94	1/8	6.25	9.500	15	4-3/8	(12)1	6-3/4	149
Class 900 (2250 PSIG) CWP, Schedule 80																				
3"	2.900	6-7/16	6-7/16	13	3.625	3.48	9-1/2	7-1/2	5	5/16	1-1/2	3.40	1/8	4.77	6.750	12	4-1/4	(8)7/8	5-3/4	78
4"	3.826	6-15/16	6-15/16	14	4.625	4.05	11-1/2	9-1/4	6-3/16	5/16	1-3/4	3.90	1/8	5.19	7.500	13	4-7/16	(8)1-1/8	6-3/4	107
Class 1500 (3750 PSIG) CWP, Schedule 160																				
2"	1.687	5-13/16	5-13/16	11-3/4	2.500	3.13	8-1/2	6-1/2	3-5/8	5/16	1-1/2	2.88	1/8	4.32	5.625	11	4	(8)7/8	5-3/4	59
3"	2.624	6-7/16	6-7/16	13	3.625	3.48	10-1/2	8	5	5/16	1-7/8	3.40	1/8	4.77	6.750	12	4-1/4	(8)1-1/8	5-3/4	94
4"	3.438	6-15/16	6-15/16	14	4.625	4.05	12-1/4	9-1/2	6-3/16	5/16	2-1/8	3.90	1/8	5.19	7.500	13	4-7/16	(8)1-1/4	6-3/4	127

Raised Face Flange is standard for ANSI Class 150 to ANSI Class 600. RTJ Flange is standard for ANSI Class 900 & ANSI Class 1500



Weld X Weld

	Bore diameter	Upstream face of orifice plate to weld bevel	Downstream face of orifice plate to weld bevel	Overall face to face length	Diameter of hub at point of weld	Centerline to bottom of fitting	Center of bore to 1/2" flange taps	Orifice plate thickness	Centerline to top of fitting	Plate Removal Clearance	Overall width	Clamping bar removal clearance	Weight (lbs. approx.)
Size	A	B	C	D	E	F	O	R	S	S ₁	T	U	
Class 150 - 600 (1480 PSIG) CWP, Schedule 40													
2"	2.067	3-9/16	3-9/16	7-1/4	2.375	3.54	2.88	1/8	4.28	5.625	11	2-3/8	21
3"	3.068	4-7/16	4-7/16	9	3.500	4.02	3.40	1/8	4.77	6.750	12	3-1/8	38



Sure Shot® Single Chamber Fitting Parts & Material List

Item No.	Description:	Standard Material: *	# of Parts Required:
1	Body	Cast Carbon Steel - A216 WCB/WCC (ANSI Class 150 - 1500)	1
2	Orifice Plate Carrier, Patented	ASTM A351 Gr. CF8M	1
3 ¹	Orifice Plate Seal Ring, Patented	Stainless Steel/HNBR Bonded	1
4	Clamping Bar Screws, Coated	Carbon Steel Gr. 8	4 to 12
5	Clamping Bar, Coated	Carbon Steel	1
6	Drain Plug NPT	Carbon Steel - 6000 psi Rated	1
7	Plugs for Flange Taps 1/2" NPT	Carbon Steel - 6000 psi Rated	4 or 8 for TT Taps
8	Sealing Bar, Coated	Carbon Steel	1
9	Sealing Bar O-Ring	Standard HNBR	1
10	Plate Carrier Cap Screws	Stainless Steel	2
11	Plate Carrier Cap Screws Lock Washers	Stainless Steel	2
12	Name Tag	Stainless Steel	1

* Materials subject to change. Please consult sales.

¹ To be ordered separately

