VESTRA VALVE

DATASHEET

SG-1: ASME 900 THROUGH 3100 LTD, ZERO-LEAKAGE, IN-LINE REPAIRABLE, STEAM GENERATION BLOCK AND ISOLATION

FEATURES & BENEFITS

AVAILABLE SIZES

- 3/4" (20 mm) - 4" (100 mm)

END CONNECTIONS

- Socketweld
- Buttweld
- Flanged (Upon Request)
- Threaded (Upon Request)

BODY MATERIALS

- SA-105
- SA-182 F22 CL 3
- SA-182 F91
- SA-182 F92 (Upon Request)

SEATING COMPONENTS

- Rocket Applied, Chromium Carbide Coatings
- Industry Leading Hardness, Resistant to Erosion, Corrosion, and Thermal Shock
- Constant Contact Seating Surfaces Protected From Flow
- Mate-Lapped for Full, 100% Contact Seating Surfaces
- Pressure Assist Seating and High Strength Belleville Spring Ensure Zero-Leakage Shutoff at All Pressure Differentials

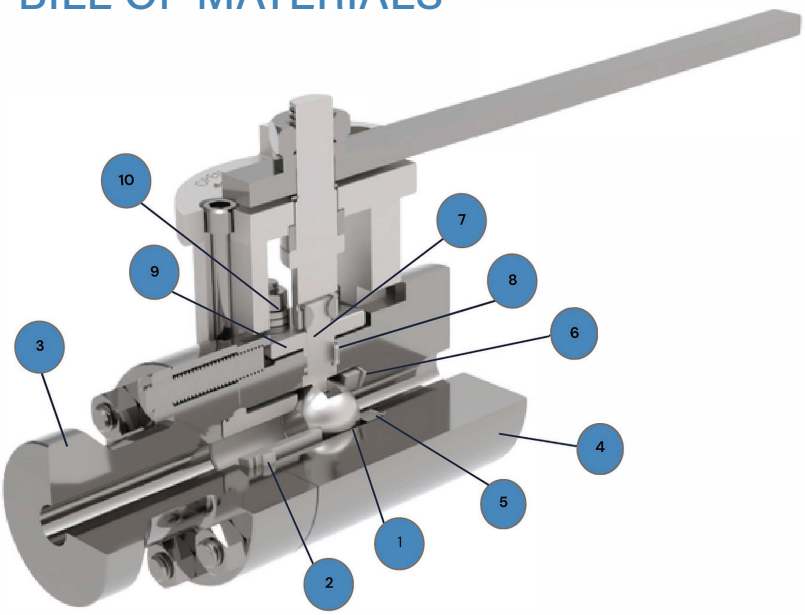
IN-LINE REPAIRABILITY

- Split Body Design Allows For Full Replacement of All Critical Seating Components Without Removal of Actuation

OPERATING MECHANISMS

- Integral T-Shoulder Blowout Proof Stem
- Live-Loaded Packing and 1/4 Turn Operation For Zero Fugitive Leakage and Minimal Wear and Tear
- Robust Mounting Bracket Supports All Actuation Methods in Any Position
- Extended Mounting Bracket Accommodates Power Industry Practices For High Temperature Insulation Thickness
- Hard Stops on the Mounting Bracket Prevent Actuation Over Travel and Guaranties a Perfect Ball and Seat Alignment in the Open Position

BILL OF MATERIALS



Item No.	Description	Material
1	Ball	410SS/Cr Carbide or Inconel 718/Cr Carbide
2	Seat Insert	410SS/Cr Carbide or Inconel 718/Cr Carbide
3	End Cap	A105, F22 or F91
4	Body	A105, F22 or F91
5	Seat	F22
6	Belleville Spring	Inconel 718
7	Stem	Gr 660 or Inconel 718
8	Packing	Gr 660 or Inconel 718
9	Gland	316SS
10	Gland Springs	302SS or Inconel 718

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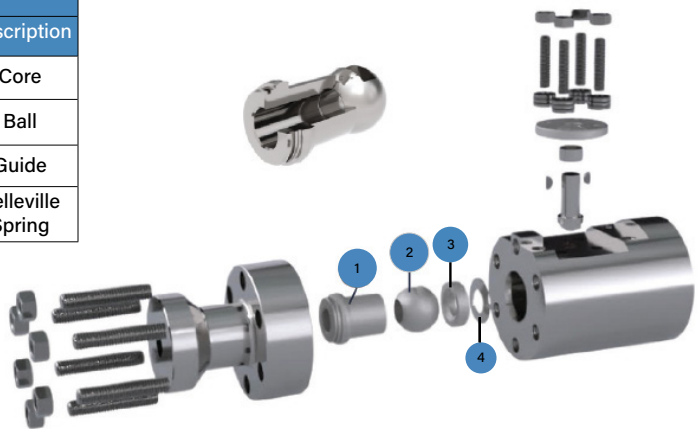
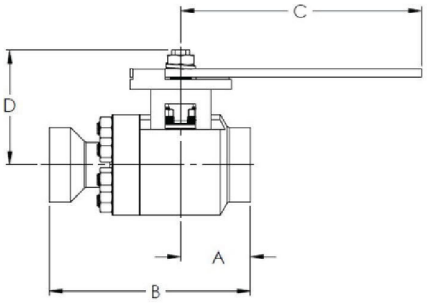
SG-1: ASME 900 through 3100 LTD, Zero-Leakage, In-line Repairable, Steam Generation Block and Isolation Service

IN-LINE REPAIRABILITY BENEFITS

All Performance Critical Sealing and Seating components are Fully Replaceable with Brand New, Factory-Made Parts with Minimal Fieldwork, No Welding and Without Actuator Removal.

Internal Replacement Parts Kit	
Item	Description
1	Core
2	Ball
3	Guide
4	Belleville Spring





Bore	SW END	BW END	A	B	C	D	Weight
0.63 in	3/4, 1, 1-1/2	1/2, 3/4, 1, 1-1/2	2.87 in	8.00 in	12.00 in	5.18 in	22 lb
1.06 in	1-1/2, 2	1-1/2, 2	3.47 in	10.00 in	12.00 in	5.70 in	45 lb
1.5 in	2, 2-1/2	2, 2-1/2	4.25 in	12.00 in	NA	*3.90 in	85 lb
1.75 in	2, 2-1/2	2, 2-1/2, 3	5.50 in	15.00 in	NA	*4.50 in	130 lb
2.13 in	2-1/2	2-1/2, 3, 3-1/2, 4	6.50 in	17.00 in	NA	*5.00 in	165 lb

Bore	SW END (DN)	BW END	A	B	C	D	Weight
16 mm	20, 25, 40	15, 20, 25, 40	73 mm	203 mm	305 mm	132 mm	10 kg
25 mm	45, 50	40, 50	88 mm	254 mm	305 mm	145 mm	20 kg
38 mm	50, 60	40, 50, 65	108 mm	305 mm	NA	*99 mm	39 kg
44.5 mm	50, 60	50, 65, 80	140 mm	381 mm	NA	*114 mm	59 kg
54 mm	60	65, 80, 90, 100	165 mm	432 mm	NA	*127 mm	75 kg

** Lever is not available in 1.50 - 2.13 bore sizes. Dimension is from centerline to top of stem.*

Temperature vs Pressure - Limited Class Ratings

Class	Mat'l†	Temperature (°F)															
		-20 - 100	200	300	400	500	600	650	700	750	800	850	900	950	1000	1050	1100
ASME 3100 Max allowable pressure (psig)	A105	7750	7750	7651	7572	7572	7572	7391	7142	6554	5314	-	-	-	-	-	-
	F22	7750	7750	7639	7520	7484	7452	7396	7308	7308	7308	7000	6200	5098	3983	2604	1635
	F91	7750	7750	7750	7750	7750	7750	7750	7576	7528	7440	7000	6200	5098	5012	5012	4442

Class	Mat'l†	Temperature (°C)																		
		-29 - 38	50	100	150	200	250	300	325	350	375	400	425	450	475	500	538	550	575	600
ASME 3100 Max allowable pressure (barg)	A105	534.3	534.3	534.6	527.4	522.6	522.1	522.1	517.8	505.4	486.7	448.5	371.5	-	-	-	-	-	-	-
	F22	534.3	534.3	534.4	527.5	519.0	516.5	514.4	512.5	508.4	503.8	503.8	503.8	487.5	441.8	368.9	274.7	232.8	156.8	-
	F91	534.3	534.3	534.3	534.3	534.3	534.3	534.3	534.3	531.4	521.9	518.8	513.0	487.5	441.8	368.9	345.6	345.6	340.7	277.3

†Materials pressure and temperature rating per ASME B16.34