

### Applications

Control valve isolation  
 Main steam isolation  
 Feedwater heater isolation  
 Boiler feed pump isolation  
 Economizer isolation  
 Bottom ash isolation  
 Isolation applications

### End Connections

Per customer specification

### Sizes

1/2 to 42 inch  
 Larger sizes available upon request

### Valve Sized Specifically for Customer Application Requirements

### Features

#### Straight-through Bore Path

- Sealing surfaces not exposed to torturous effects of high pressure steam
- Greatly minimizes any pressure drops
- Allows for higher Cv
- Available in large bore sizes

#### Bidirectional Sealing

- Floating ball design

#### Ball & Seats

- Mate-lapped for 100% sealing contact
- Ensures absolute shutoff
- Corrosion resistant
- Seats are protected from flow in open / closed position
- Seats are field replaceable

#### Forged Body

- Designed to withstand high temperatures up to 1652°F / 900°C
- High pressures up to 30,000 psig

#### Inner Stem Seals

- Provides a reliable combination of bearing and pressurized stem seal

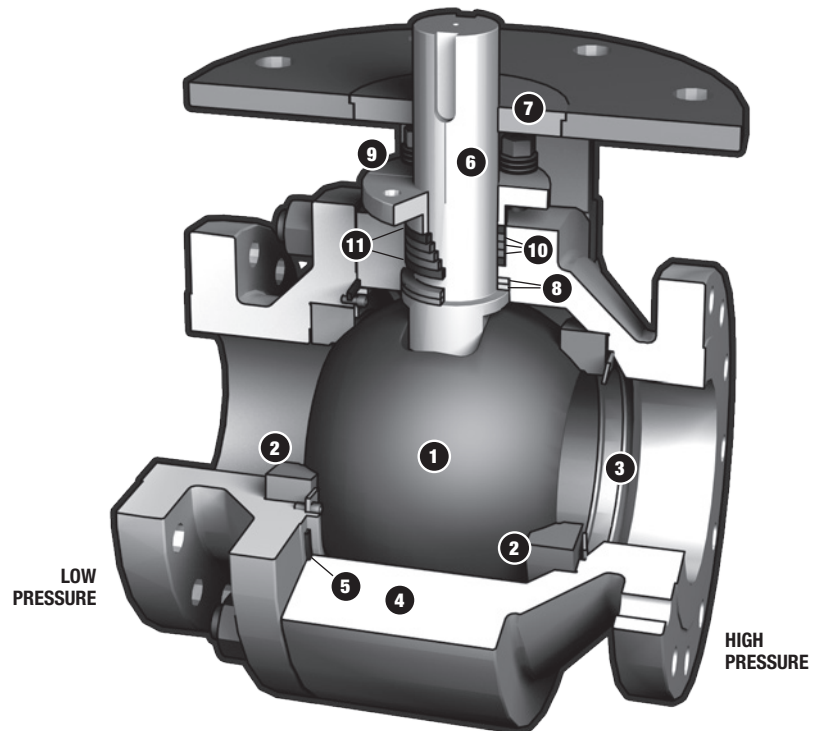
#### Seat Spring

- Assisted by line pressure, provides a constant mechanical force on ball against seat to maintain seal

### Bill of Materials

Item No.	Description	Material
1	Ball	410SS / CC Coated
2	Seat	410SS / CC Coated
3	Seat Spring	Inconel 718
4	Body	A182 F22 A105 A182 F91
5	Body Gasket	Inconel 600 Grafoil Filled or Inconel 718 / Gold Plated
6	Stem	17-4PH SS or A638 GR660
7	Stem Bushing	Coated Cast Iron
8	Inner Stem Seal	410SS / CC Coated
9	Gland Flange	316SS / Moly Coated
10	Stem Packing	Expanded Graphite
11	Anti-Extrusion Rings	Braided Graphite w/ Inconel Wires

SS = Stainless Steel  
 CC = Chromium Carbide

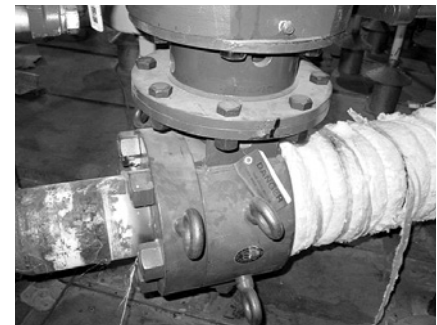


## Dependable Isolation Under Extreme Conditions

Bore Sizes <sup>1</sup> (inches)							
NPS	Class						
	150	300	600	900	1500	2500	4500 <sup>2</sup>
1/2	0.63 <sup>3</sup>	0.63 <sup>3</sup>	0.63 <sup>3</sup>	0.63 <sup>3</sup>	0.63 <sup>3</sup>	0.63 <sup>3</sup>	0.63
3/4	0.63 <sup>4</sup>	0.63 <sup>4</sup>	0.63 <sup>4</sup>	0.63 <sup>4</sup>	0.63 <sup>4</sup>	0.63 <sup>3</sup>	0.63
1	1.00	1.00	1.00	0.63 <sup>4</sup>	0.63 <sup>4</sup>	0.63 <sup>4</sup>	0.63
1-1/2	1.30 <sup>4</sup>	1.30 <sup>4</sup>	1.30 <sup>4</sup>	1.30 <sup>4</sup>	1.30 <sup>4</sup>	1.00 <sup>4</sup>	1.00
2	2.00	2.00	2.00	1.87	1.87	1.30 <sup>4</sup>	1.30
3	3.00	3.00	3.00	2.87	2.75	2.25	Note 2
4	4.00	4.00	4.00	3.87	3.62	2.87	Note 2
6	6.00	6.00	6.00	5.75	5.37	4.37	Note 2
8	8.00	8.00	7.87	7.50	7.00	5.75	Note 2
10	10.00	10.00	9.75	9.37	8.75	7.25	Note 2
12	12.00	12.00	11.75	11.12	10.37	8.62	Note 2
14	13.25	13.25	12.87	12.25	11.37	9.50	Note 2
16	15.25	15.25	14.75	14.00	13.00	10.87	Note 2

Bore Sizes <sup>1</sup> (mm)							
DN	Class						
	150	300	600	900	1500	2500	4500 <sup>2</sup>
15	16.0 <sup>3</sup>	16.0 <sup>3</sup>	16.0 <sup>3</sup>	16.0 <sup>3</sup>	16.0 <sup>3</sup>	16.0 <sup>3</sup>	16.0
20	16.0 <sup>4</sup>	16.0 <sup>4</sup>	16.0 <sup>4</sup>	16.0 <sup>4</sup>	16.0 <sup>4</sup>	16.0 <sup>3</sup>	16.0
25	25.4	25.4	25.4	16.0 <sup>4</sup>	16.0 <sup>4</sup>	16.0 <sup>4</sup>	16.0
40	33.0 <sup>4</sup>	33.0 <sup>4</sup>	33.0 <sup>4</sup>	33.0 <sup>4</sup>	33.0 <sup>4</sup>	28.4 <sup>4</sup>	28.4
50	50.8	50.8	50.8	47.5	47.5	33.0 <sup>4</sup>	33.0
80	76.2	76.2	76.2	72.9	69.9	57.2	Note 2
100	101.6	101.6	101.6	98.3	91.9	72.9	Note 2
150	152.4	152.4	152.4	146.1	136.4	111.0	Note 2
200	203.2	203.2	199.9	190.5	177.8	146.1	Note 2
250	254.0	254.0	247.7	238.0	222.3	184.2	Note 2
300	304.8	304.8	298.5	282.4	263.4	218.9	Note 2
350	336.6	336.6	326.9	311.2	288.8	241.3	Note 2
400	387.4	387.4	374.7	355.6	330.2	276.1	Note 2

Cv – Full Bore <sup>1</sup>							
Valve Size (inches)	Class						
	150	300	600	900	1500	2500	4500 <sup>5</sup>
1/2	26	26	26	26	26	20	6
3/4	62	62	62	52	52	33	19
1	114	114	114	85	85	62	38
1-1/2	271	271	271	223	223	145	140
2	498	498	498	432	432	271	271
3	1176	1176	1176	1071	978	640	Note 2
4	2159	2159	2159	2014	1749	1071	Note 2
6	5076	5076	5076	4641	4019	2603	Note 2
8	9300	9300	8985	8120	7023	4641	Note 2
10	14866	14866	14096	12966	11289	7561	Note 2
12	21800	21800	20857	18579	16045	10881	Note 2
14	28838	28838	25249	22764	19466	13347	Note 2
16	36041	36041	33608	30124	25787	17712	Note 2



The C-Series valve was chosen for our customer's Boiler Purge System because of the rapid operation available with quick, quarter-turn rotation and absolute shutoff. These photos were taken during a routine maintenance shutdown with part of the insulation removed.

For reduced bore Cv calculations, contact the MOGAS Technology Development department.

<sup>1</sup> For larger sizes or values not specified, contact the MOGAS Engineering department.

<sup>2</sup> Due to various bore sizes, these values will be determined based on customer application.

<sup>3</sup> Bore is larger than ASME B16.34 Appendix A.

<sup>4</sup> Bore is smaller than ASME B16.34 Appendix A.

<sup>5</sup> Cv information for the ASME 4500 Class is based upon the inside diameter of the pipe schedule, while the remaining values are based upon ASME 16.34.