



HIGH-PRESSURE LARGE BORE VALVES

Technical Data	
Sizes	4 - 36"
Pressure Classes	ASME / ANSI Class 900 - 4500
Materials of Construction	Carbon steel (A216 WCB) – standard Alloy steel (A217 WC9) – standard Stainless steel (A351 CF8M) – standard Duplex steel Exotic alloys Other materials available upon request
In Compliance	ASME B16.34 PED Nuclear ASME III Class 1, 2 and 3 Nuclear Safety Related - 10CFR50 Appendix B SIL
End Connections	Raised face flange – standard Buttweld - standard Other end connections available upon request
Shutoff	Absolute zero-leakage shutoff

FEATURES

The V1-4 category extends our core design concepts to large diameter and higher-pressure applications. This valve is designed for critical isolation applications in the mining and minerals processing, power, hydrocarbon refining and processing, oil and gas production and other industries. The V1-4 is available in ANSI pressure classes 900 - 4500, in sizes 4" - 36" and in virtually any material with pressure containing parts made exclusively from forgings. Standard end connections are butt weld and flanged or valves can be custom-designed to include special end connections as well as purge ports, cavity fillers, fugitive emission bonnets, abrasion resistant linings and many other process-specific options.

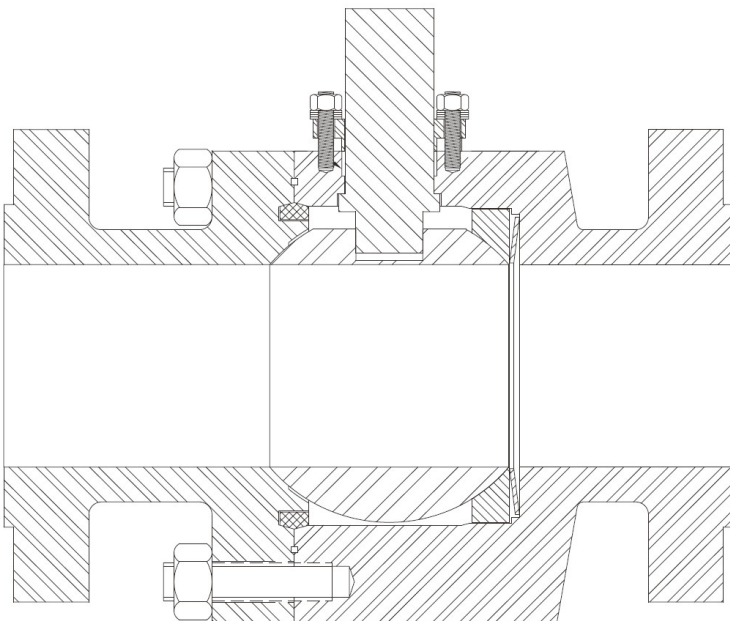
Integral metal seat. With our proprietary HVOF RiTech® coating technology, the integral seat in ValvTechnologies' valves is resistant to the attack of abrasive magnetite and ferrous oxides that may be seen in the steam flow.

Body seal ring. ValvTechnologies employs a field-proven seal ring technology to ensure sealing under all operating conditions, up to 1400°F. The body seal ring is loaded at a pressure higher than 20,000 psi. In addition, valves sized 3" and above contain a secondary Grafoil® seal to further guarantee reliability.

Patented coating process. The sealing surfaces are overlaid with tungsten or chromium carbide using our exclusive HVOF RiTech® process. These surfaces have a hardness of 68 – 72 Rc to allow long periods of operation in the most severe conditions.

Live-loaded gland area. The V Series' sealing design features a four stud, live-loaded assembly designed for heavy industrial applications. The sealing material is high purity Grafoil® surrounded by stainless steel wire mesh anti-extrusion rings. The six Belleville® springs (per stud) provide constant load pressure through extreme thermal shocks and prevent wear leaks in high-cycle service.

Blow-out proof stem. The design utilizes a one piece, hard-faced, blow-out proof stem that is inserted through the inside of the body cavity eliminating the possibility of blow-out through the gland area.



FULL PORT DIMENSIONS (ANSI 900/1500/2500)

Size	900 Class			1500 Class			2500 Class		
	Bore	Face to Face	Flange OD	Bore	Face to Face	Flange OD	Bore	Face to Face	Flange OD
4"	3.50	18.00	11.50	3.50	21.50	12.25	3.50	26.50	14.00
6"	5.13	24.00	15.00	5.13	27.75	15.50	3.50	36.00	19.00
8"	7.13	29.00	18.50	6.06	32.75	19.50	5.13	40.25	21.75
10"	8.06	33.00	21.50	8.06	39.00	23.00	7.13	50.00	26.50
12"	10.06	38.00	24.00	10.06	44.50	26.50	8.06	56.00	30.00
14"	12.06	40.50	25.25	10.06	49.50	29.50	-	-	-
16"	13.25	44.50	27.75	12.06	54.50	32.50	-	-	-
18"	15.25	48.00	31.00	13.25	60.50	36.00	-	-	-
20"	17.25	52.00	33.75	15.25	65.50	38.75	-	-	-
22"	19.25	56.50	37.50	-	-	-	-	-	-
24"	19.25	61.00	41.00	19.25	76.50	46.00	-	-	-
26"	21.25	65.50	42.75	-	-	-	-	-	-
28"	23.25	70.00	46.00	-	-	-	-	-	-
30"	25.25	74.50	48.50	-	-	-	-	-	-
32"	27.25	79.00	51.75	-	-	-	-	-	-
34"	29.25	83.50	55.00	-	-	-	-	-	-
36"	31.25	88.00	57.50	-	-	-	-	-	-

NOTE: Other bore sizes are available, please consult with factory.

STANDARD PORT DIMENSIONS (ANSI 900/1500/2500)

Size	900 Class			1500 Class			2500 Class		
	Bore	Face to Face	Flange OD	Bore	Face to Face	Flange OD	Bore	Face to Face	Flange OD
4"	2.13	18.00	11.50	2.13	21.50	12.25	2.13	26.50	14.00
6"	3.50	24.00	15.00	3.50	27.75	15.50	2.13	36.00	19.00
8"	5.13	29.00	18.50	5.13	32.75	19.50	3.50	40.25	21.75
10"	7.13	33.00	21.50	7.13	39.00	23.00	6.06	50.00	26.50
12"	8.06	38.00	24.00	8.06	44.50	26.50	7.13	56.00	30.00
14"	8.06	40.50	25.25	8.06	49.50	29.50	-	-	-
16"	10.06	44.50	27.75	10.06	54.50	32.50	-	-	-
18"	12.06	48.00	31.00	12.06	60.50	36.00	-	-	-
20"	13.25	52.00	33.75	12.06	65.50	38.75	-	-	-
22"	15.25	56.50	37.50	-	-	-	-	-	-
24"	17.25	61.00	41.00	15.25	76.50	46.00	-	-	-
26"	19.25	65.50	42.75	-	-	-	-	-	-
28"	19.25	70.00	46.00	-	-	-	-	-	-
30"	21.25	74.50	48.50	-	-	-	-	-	-
32"	23.25	79.00	51.75	-	-	-	-	-	-
34"	25.25	83.50	55.00	-	-	-	-	-	-
36"	27.25	88.00	57.50	-	-	-	-	-	-

NOTE: Other bore sizes are available, please consult with factory.