

POLYBALL™ WATER VALVES



**Polyethylene Valves
for Water and Wastewater.**



*Providing valves and equipment to the
world's energy markets for over 100 years.*

Over 100 years of experience in the valve industry.

The Kerotest Polyball™ line of polyethylene ball valves is designed to be the WATER industry standard for high performance polyethylene valving. The product is a “no-compromise” solution. Utility users will enjoy the very best performance with highest flow capacity, maximum pressure capability, compatible fusion materials and reliable, leak free operation.

The Kerotest Polyball™ Water Valve meets or exceeds all industry standards. Some examples are:

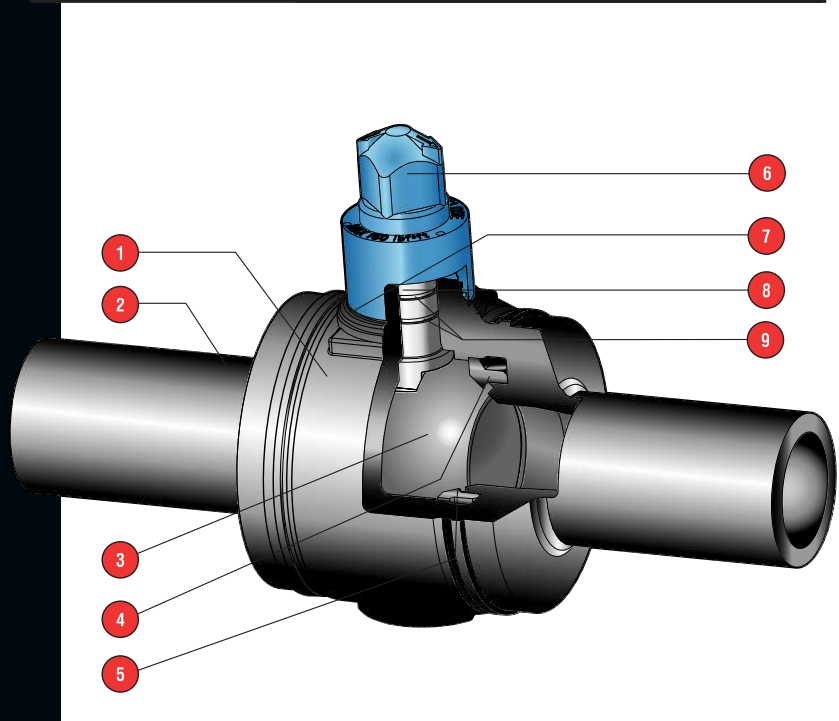
- NSF/ANSI 61 Drinking Water System Components - Health Effects
- AWWA C901 & C906
- IAMPO IGC 151-99
- Manufactured in an ISO 9001 guided facility
- Made in the United States of America
- Drop-tight shut-off
- Maintenance-free, corrosion-free
- Independent third party testing

Count on Polyball to take your water valves to a new level.

POLYBALL™ WATER VALVES

GENERAL INFORMATION

ITEM	OPERATING FEATURES
MAXIMUM ALLOWABLE SERVICE PRESSURES - PE 4710	SDR 9 : 160 psi (11 bar); 74°F (23°C) SDR 11 : 160 psi (11 bar); 74°F (23°C) SDR 13.5 : 128 psi (8.8 bar); 74°F (23°C) SDR 17 : 100 psi (6.9 bar); 74°F (23°C)
MATERIALS	High Density Polyethylene (PE 4710)
TEMPERATURE	32°F to 140°F (0°C to 60°C)
PIPE CONNECTION VIA	Butt Fusion, Electrofusion or Flanged End
BORE	Full Port or Reduced Port
SDR	17.0, 15.5, 13.5, 11.5, 11.0, 9.3, 9.0, 7.0



MATERIALS OF CONSTRUCTION

NO.	COMPONENT	MATERIAL	FEATURES AND BENEFITS
1	Body	POLYETHYLENE	PE 4710, flat base, robust design
2	Ends	POLYETHYLENE	PE 4710, various SDR's
3	Ball	POLYPROPYLENE	High strength, long life and low operating torque
4	Retainer	POLYPROPYLENE	Positive restraint under any condition; Retains seat under high differential pressure
5	Ball Seat	BUNA-N	Reliable sealing, 32°F to 140°F
6	Actuator	POLYPROPYLENE	2" operating square, positive position indication, over-torque protection
7	Weather Seal	BUNA-N	Protects from ground water and dirt
8	Stem	ACETAL	Excellent durability and strength, blowout proof *
9	Stem Seals	BUNA-N	Redundant sealing with dual o-rings

* Stem is stainless steel on 2" RP, 1 1/2" FP, 1 1/4" FP sizes.



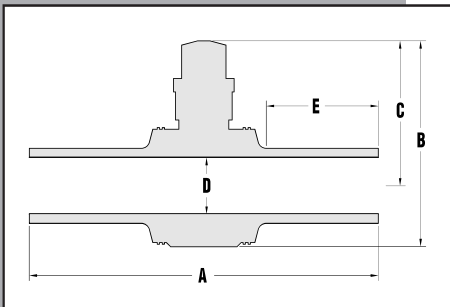
The Polyball®
Full Port Style

Valve Sizes and Dimensions (Approx. inches)

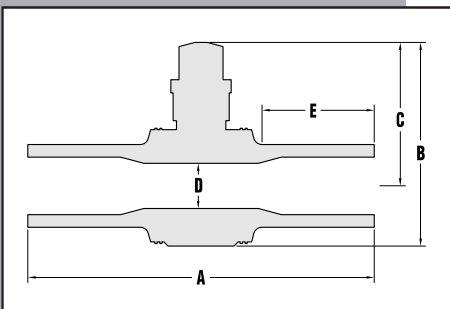
Full Port

SIZE	A	B	C	D	E	Cv	WEIGHT (lbs)
1/2"	11.5	5.2	3.7	1.01	3.0	21	1
3/4"	11.5	5.2	3.7	1.01	3.0	30	1
1"	12	5.2	3.7	1.01	3.0	42	2
* 1 1/4"	11.8	6.9	5.2	1.38	3.2	49	2
* 1 1/2"	11.8	6.9	5.2	1.38	3.2	150	2
2"	19	9.7	7.0	1.90	6.4	180	5
3"	21	12.2	8.7	2.70	6.4	400	10
4"	25	14.8	10.2	3.63	7.6	710	20
6"	27	19.6	13.2	5.25	7.0	1900	42
8"	28	25.5	17.2	6.70	5.3	3750	96

Full Port



Reduced Port



Valve Sizes and Dimensions (Approx. inches)

Reduced Port

SIZE	A	B	C	D	E	Cv	WEIGHT (lbs)
* 2"	11.8	6.9	5.2	1.38	3.2	150	2
4"	21	12.2	8.7	2.70	6.5	450	11
6"	25	14.8	10.2	3.63	7.3	910	26
8"	27	19.6	13.2	5.25	7.2	2200	47
10"	28	25.5	17.2	6.70	5.5	4450	102
12"	28	25.5	17.2	6.70	5.7	4950	110

Metric

Valve Sizes and Dimensions (Approx. millimeters)

Full Port

SIZE	A	B	C	D	E	Cv	WEIGHT (kgs)
20 mm	292	132	94	26	76	16	0.5
25 mm	292	132	94	26	76	22	0.5
32 mm	292	132	94	26	76	30	0.5
40 mm	305	132	94	26	81	40	0.5
50 mm	300	175	132	35	81	150	1.0
63 mm	482	245	180	48	160	180	2.3
90 mm	535	310	220	69	160	400	4.6
110 mm	635	375	260	92	190	710	9.1
160 mm	685	500	335	133	175	1900	19.1
180 mm	685	500	335	133	175	2100	19.1
200 mm	710	650	435	170	135	3750	43.6
225 mm	710	650	435	170	135	4000	45.0
315 mm	710	650	435	170	135	4950	50.0

Made in America

The Polyball valve is manufactured in the United States in our state-of-the-art facility in Mansura, Louisiana. Custom, dedicated tooling and equipment have been developed for every valve size to achieve and maintain quality levels during production and minimize variation in all processes.

Kerotest POLYBALL™ WATER Valves protect and preserve safe, healthy, leak-free drinking water distribution systems. All POLYBALL™ WATER Valves are approved for use in potable water systems per NSF 61 requirements. NSF 61 certificate number C0040958-01.

Refer to www.nsf.org for the official Kerotest POLYBALL™ Water Valve listing.

Furthermore, each valve is manufactured in accordance with AWWA C901 & C906 and IAMPO IGC 151-99 HDPE Plastic Valves for Cold Water Distribution Systems Outside a Building standards. ASME B16.40 was also used for guidance. Certain additional tests were performed by Kerotest based on our years of experience with polyethylene valves and specific customer requirements. These various tests are summarized as follows (specific reports available upon request):

- Shell Test
- Closure Verification
- Flow Test
- Cycle Test
- Freeze Test
- Seat Test
- Temperature Resistance
- Impact Test
- Blowdown Test
- Cv Flow Capacity
- Pressure Boundary Verification
- Operating Test
- Tensile Test
- Overpressure Burst Test
- Torque Summary

All valves are in compliance with NSF/ANSI 61, AWWA and IAMPO.

TEST ITEM	TEST METHOD	HDPE PE-4710
SEAT TEST	Air seat test under water, both directions	4 psi (0.3 bar), 240 psi (16.5 bar)
SHELL TEST	Air test under water	4 psi (0.3 bar), 320 psi (22 bar)
OPERATIONAL TESTING	Valve operated 10 times at full differential pressure at 32°F and 140°F (0°C to 60°C)	160 psi (11 bar)
1000 HOUR SUSTAINED PRESSURE TEST	Tested at 74°F, 100°F and 176°F (23°C, 38°C and 80°C)	385 psi (26 bar) 320 psi (22 bar) 135 psi (9.3 bar)
HIGH PRESSURE TEST	High Pressure Shell Test	> 800 psi (55 bar)
HIGH PRESSURE TEST	High Pressure Seat Test	> 320 psi (22 bar)



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