

P**LYBALL**[®] **NATURAL GAS VALVES**



**Polyethylene Valves
for Natural Gas.**

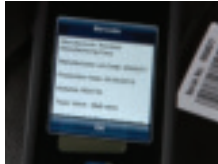


Providing valves and equipment to the
world's energy markets for over 100 years.

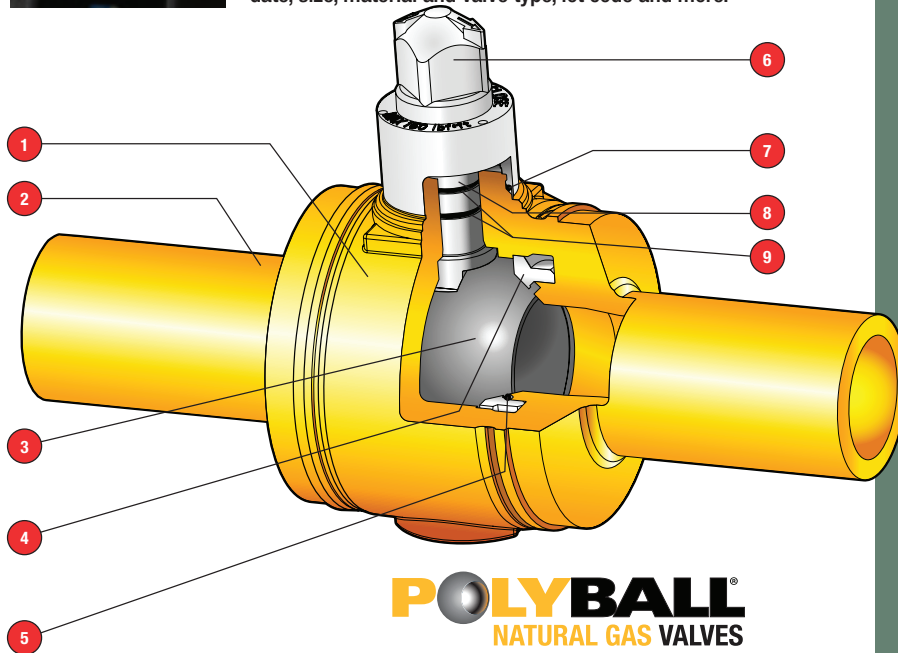
Polyethylene Valves Made in the U.S.A.

The POLYBALL valve is manufactured in Mansura, Louisiana, in a facility certified to ISO 9001:2015 Quality Management System requirements. 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.

At assembly, each valve is assigned a unique serial number that provides complete traceability for critical components. The serial number allows complete traceability from the customer's installation back to the raw material.



All POLYBALL valves feature the industry-standard tracking and traceability code per ASTM F2897 that allows instant access to individual valve specifications. With decoding software, simply scan the bar code to see the production date, size, material and valve type, lot code and more.



MATERIALS OF CONSTRUCTION

NO.	COMPONENT	MATERIAL	FEATURES AND BENEFITS
1	Body	POLYETHYLENE	PE 2708, medium density PE 4710, high density
2	Ends	POLYETHYLENE	PE 2708, various SDRs PE 4710, various SDRs
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 from -20°F to 140°F
6	Actuator	POLYPROPYLENE	2" operating square, positive position indication, over-torque protection
7	Weather Seal	BUNA-N	Protects from groundwater 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.

Polyethylene Valves

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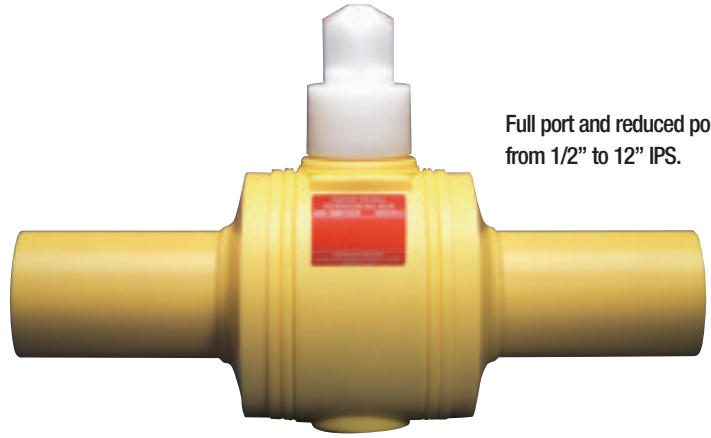
Kerotest Manufacturing Corp. has more than a 100-year commitment to the gas distribution industry. So Polyball will always be American made, supported and distributed, with ample inventory at all times.

Made to perform and comply

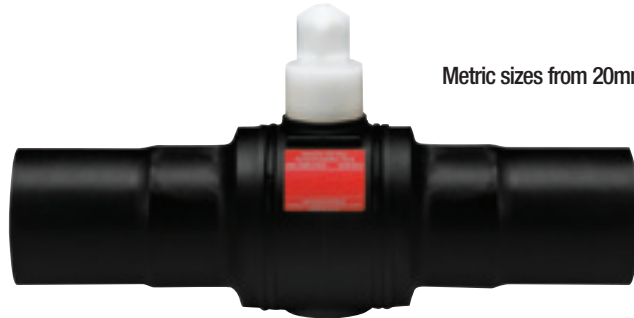
- 49 CFR Part 192
- ASTM D2513
- ASTM F2897
- ASME B16.40
- CSA standard B137.4 - 02
- CSA International certified (Canadian Standard Association)

Made to meet your needs in these applications:

- Natural Gas Distribution
- Natural Gas Gathering
- Landfill Gas (Methane)
- Air
- Gaseous Propane



Full port and reduced port sizes from 1/2" to 12" IPS.



Metric sizes from 20mm to 315mm.



Available with High Head Extensions in varying heights to meet specific installation requirements. These valves meet the same strict standards of all Polyball valves.



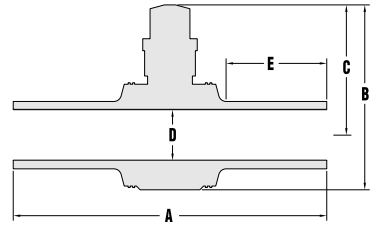
Providing valves and equipment to the world's energy markets for over 100 years.

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GENERAL INFORMATION

ITEM	OPERATING FEATURES
MAXIMUM OPERATING PRESSURE**	PE 2708 : 100 psig (6.9 bar), SDR 11 PE 2708 : 125 psig (8.6 bar), SDR 9.0 PE 4710 : 125 psig (8.6 bar), SDR 7.0, 9.0, 9.3, 11
MATERIALS	Medium Density Polyethylene (PE 2708) High Density Polyethylene (PE 4710)
TEMPERATURE	From -20°F to 140°F (-29°C to 60°C)
PIPE CONNECTION VIA	Butt Fusion, Mechanical Fittings, Electrofusion
BORE	Full Port or Reduced Port
STEM TYPE	Standard or High Head Extended Stem, Length as Required
SDR	SDRs available: 7.0, 9.0, 9.3, 11, 11.5, 12.5, 13.5, 15.5, 17, 21

** For valves manufactured after Jan 2019, using a .40 Design Factor per 49 CFR § 192.121



Polyball®
Full Port

Valve Sizes and Dimensions (Approx. inches) Full Port

SIZE	A	B	C	D	E	Cv	WEIGHT (lbs)
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	7.5	710	20
6"	27	19.6	13.2	5.25	7.0	1290	42
8"	28	25.5	17.2	6.70	5.3	2119	96
12"	82	31.3	19.4	10.10	28	5400	396

12" POLYBALL Full Port features a 10.1" port opening.



Polyball®
Full Port

Body is high-density PE 4710 polyethylene.

Nipple extensions available in PE 4710 or PE 2708.

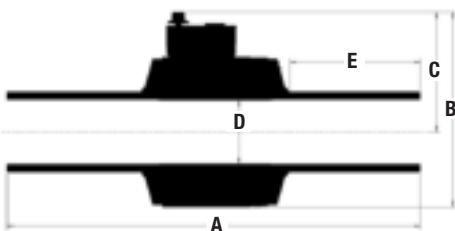
Available SDRs: 9, 11, 13.5, 17

The gearbox features a 6:1 ratio and is also sealed against outside contaminants, making it virtually waterproof.

12" Full Port is also available with bypass option.

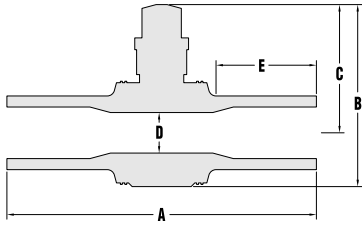


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12" FULL PORT DIMENSIONS (Approx. Inches)

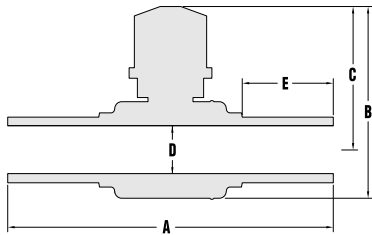
A	B	C	D	E	Weight (lbs)	SDR
82	31.3	19.4	10.10	28	396	9 to 21



Polyball®
Reduced Port

Valve Sizes and Dimensions (Approx. inches) Reduced Port

SIZE	A	B	C	D	E	Cv	WEIGHT (lbs)
3"	19	9.6	6.9	1.90	6.8	180	5.3
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	1290	47
10"	28	25.5	17.2	6.70	5.5	2119	102
12"	28	25.5	17.2	6.70	5.7	2119	110

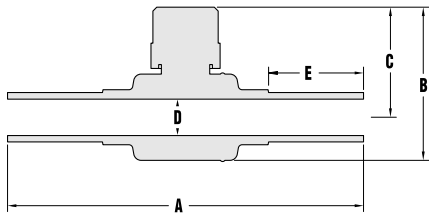


Polyball®

Valve Sizes and Dimensions (Approx. inches)

SIZE	A	B	C	D	E	Cv	WEIGHT (lbs)
F 1.25"	11.8	6.9	5.2	1.38	3.2	100	2
F 1.5"	11.8	6.9	5.2	1.38	3.2	150	2
R 2"	11.8	6.9	5.2	1.38	3.2	150	2

(F) Full Port (R) Reduced Port



Polyball®
Service Valve

Valve Sizes and Dimensions (Approx. inches) Service Port

SIZE	A	B	C	D	E	Cv	WEIGHT (lbs)
1/2" CTS	12	5.2	3.7	1.01	3.0	7	1
1/2" IPS	12	5.2	3.7	1.01	3.0	21	1
3/4" CTS	12	5.2	3.7	1.01	3.0	22	1
3/4" IPS	12	5.2	3.7	1.01	3.0	30	1
1" CTS	12	5.2	3.7	1.01	3.0	33	1
1" IPS	12	5.2	3.7	1.01	3.2	42	2
1.25" CTS	12	5.2	3.7	1.01	3.2	45	2
1.25" IPS	12	5.2	3.7	1.01	3.2	49	2

All dimensions are approximate and subject to change. Consult factory for certified dimensions.

All valves are in full compliance with ASME B16.40.

TEST ITEM	TEST METHOD	SDR 11 MEDIUM DENSITY PE 2708	SDR 9.0 AND 11 HIGH DENSITY PE 4710
SEAT TEST	Air seat test under water, both directions	4 psi (0.3 bar) 150 psi (10.4 bar)	4 psi (0.3 bar) 190 psi (13 bar)
SHELL TEST	Air test under water	4 psi (0.3 bar) 150 psi (10.4 bar)	4 psi (0.3 bar) 190 psi (13 bar)
OPERATIONAL TESTING	Valve operated 10 times at full differential pressure at -20°F and 140°F (-29°C to 60°C)	100 psi (6.9 bar)	125 psi (8.6 bar)
BEND TEST	20 pipe diameters bend radius at differential pressure operation, seat leakage checked	10 psi (0.7 bar) 100 psi (6.9 bar)	10 psi (0.7 bar) 125 psi (8.6 bar)
TORQUE TEST	Operating torque at -20°F and 100°F (-29°C to 38°C)	100 psi (6.9 bar)	125 psi (8.6 bar)
SUSTAINED PRESSURE TEST	Tested at 176°F (80°C)	134 psi (9.2 bar) DR 11	148 psi (10.2 bar) DR 9.0
HIGH PRESSURE TEST	High pressure Shell Test	> 600 psi (41 bar)	> 700 psi (48 bar)



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