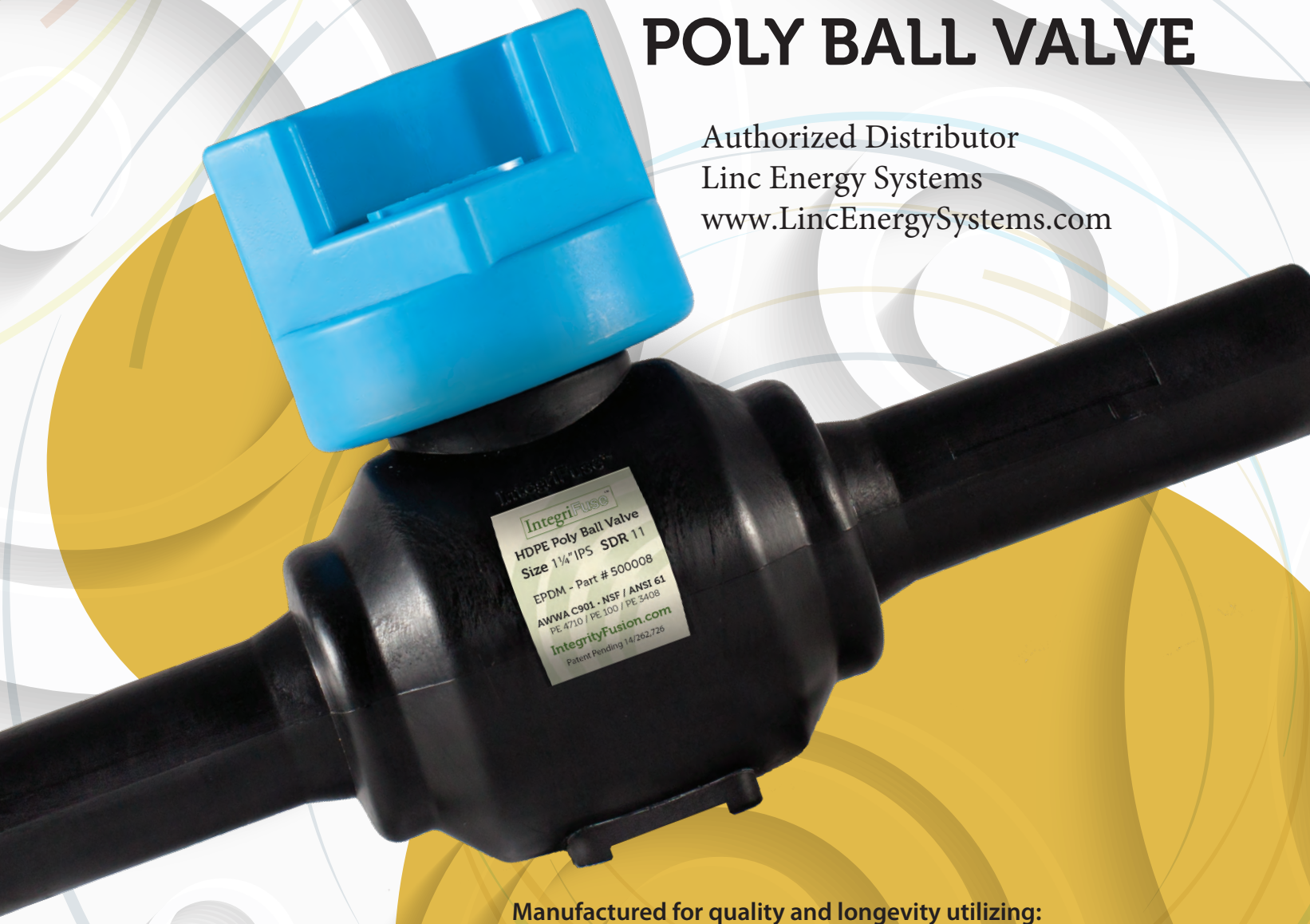
IntegriFuse™

INTEGRITY
Fusion Products, Inc.

POLY BALL VALVE

Authorized Distributor
Linc Energy Systems
www.LincEnergySystems.com



Manufactured for quality and longevity utilizing:

- Polyethylene body
- Nitrile (HNBR) or EPDM seats
- Polypropylene ball and Op Nut
- Stainless steel stems
- ¼ turn 2" operating nut
- All valves are Full Port
- Available in ¾" to 4" SDR 11
- NSF/ANSI 61, AWWA C901/906 & ASME 16.40 approved

Integrity Fusion Products, Inc.
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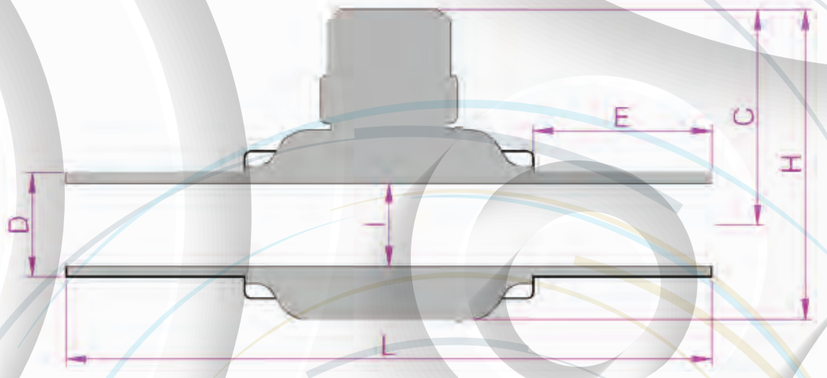
IntegriFuse Poly Ball Valves

IntegriFuse Poly Ball Valves are offered in sizes from ¾" to 4". Our full port black valves are approved for both gas and water applications. All valves are equipped with a 1/4 turn 2" square operating nut.

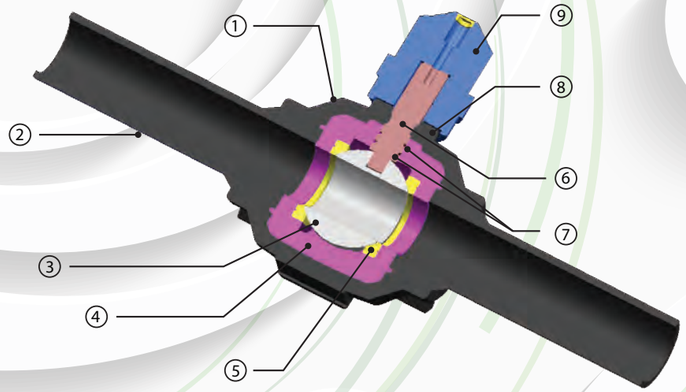
Poly Ball Valves with 2" Operating Nut - IPS - SDR 11

Nominal Size	Port	SDR	D	MinW/T	L	H	C	I	E	CV	Weight
¾" IPS	Full	11	1.050"	.095	11.50"	5.12"	3.70"	1.06"	3.62"	32	1.1 lbs.
1" IPS	Full	11	1.315"	.119	11.50"	5.12"	3.70"	1.06"	3.62"	50	1.1 lbs.
1 ¼" IPS	Full	11	1.660"	.151	11.50"	5.12"	3.70"	1.06"	3.62"	79	1.1 lbs.
1 ½" IPS	Full	11	1.900"	.173	11.81"	5.51"	3.78"	1.26"	3.15"	104	1.7 lbs.
2" IPS	Full	11	2.375"	.216	19.53"	9.65"	7.01"	1.77"	6.69"	164	4.6 lbs.
3" IPS	Full	11	3.500"	.318	21.18"	11.81"	8.50"	2.52"	6.69"	375	8.8 lbs.
4" IPS	Full	11	4.500"	.409	24.02"	14.92"	10.39"	3.58"	6.69"	591	18.7 lbs.



Poly Ball Valves - Features

No.	Component	Material	Features
1	Body	Polyethylene	PE3408/PE4710/PE100
2	End	Polyethylene	PE3408/PE4710/PE100
3	Ball	Polypropylene	Excellent Strength & Thermal Resistance
4	Retainer	Polypropylene	Positive seal under any condition. Retains seat under high differential pressure
5	Ball Seat	Nitrile (NBR) or EPDM	Reliable sealing from –20˚ F to 140˚ F
6	Stem	Stainless Steel	Excellent durability & strength
7	Stem Seal	Nitrile (NBR) or EPDM	Redundant sealing with multiple O-rings
8	Weather Seal	Nitrile (NBR) or EPDM	Protects from ground water and dirt
9	Operating Nut	Polypropylene	1/4 turn 2 inch (50mm) square



Full Port

EPDM

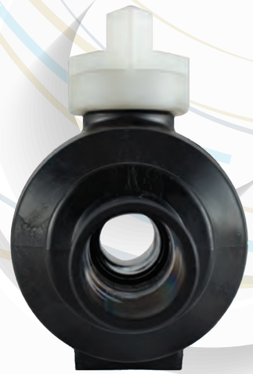
Certified to NSF / ANSI 61, AWWA C901 / 906 Requirements

Most commonly used in potable water applications

–IPS Sizes–

SDR 11

¾" to 4"



Full Port

Nitrile(NBR)

Meets ASME 16.40 Requirements

Most commonly used in Gas, Industrial, Landfill, Golf Courses, and other non-potable water applications

–IPS Sizes–

SDR 11

¾" to 4"

Poly Ball Valve Specifications

IntegriFuse fittings are manufactured from 0% recycled materials with black high density bimodal polyethylene copolymer designed for use in, but not limited to, potable water, golf courses, natural gas, industrial, landfill, oil & gas, and mining applications.

Valves meet NSF/ANSI 61, AWWA C901/906, ASTM-D2513, ASTM D3261 and ASME16.40 requirements

Item	Operating Feature
Designed/Tested	Valves meet ASTM D 2513 requirements and ISO 9001.
Materials	PE4710/PE100 Black SDR 11 rated @ 100 PSI for gas & 200 PSI for water
Temperature	From –20˚ F to 140˚ F (-20° C to 60° C)
Bore	Full Port
Pipe Connection	Butt Fusion
Valve Boxes	IntegriFuse valves are supported by all the leading valve box manufacturers

Hydrostatic Strength Test

TEMP: 74° F	TEMP 100° F	TEMP: 176° F
1000 Hours	1000 Hours	170 Hours
265 PSI	214 PSI	136 PSI

Physical Properties	Metric	English	Comments
Density	.959 g/cm3	0.0346 lb/in	Black: ASTM D4883
Environmental Stress Crack Resistance	>= 5000 hour	>= 5000 hour	Condition C; ASTM D1693
Carbon Black Loading	2.30%	2.30%	ASTM D1603
Melt Flow	8.00 g/10 min @Load 21.6 kg, Temperature 190 °C	8.00 g/10 min @Load 47.6 lb, Temperature 374 °F	ASTM D1238
Mechanical Properties	**Metric**	**English**	**Comments**
PENT	>= 10000 hour	>= 10000 hour	Notched Tensile; ASTM F1473
Hardness, Shore D	66.0	66.0	ASTM D2240
Tensile Strength at Break	37.9 MPa	5500 PSI	2 in/min; ASTM D638
Tensile Strength Yield	24.99 MPa	3625 PSI	2 in/min; ASTM D638
Elongation at Break	>= 600%	>= 600%	2 in/min; ASTM D638
Flexural Modulus	1.03 GPa	150 KSI	2% Secant-Method; ASTM D790
Izod Impact, Notched	4.81 J/cm	9.00 ft-lb/in	ASTM D256
Hydrostatic Design Basis	6.89 MPa	1000 PSI	At 60 °C; ASTM D2837
	11.0 MPa	1600 PSI	Room Temp; ASTM D2837
Thermal Properties	**Metric**	**English**	**Comments**
Vicat Softening Point	126 °C	259 °F	ASTM D1525
Brittleness Temperature	= -118 °C	<= -180 °F	ASTM D746
Decomposition Temperature	>= 220 °C	>= 428 °F	Thermal Stability; ASTM D2513
Descriptive Properties	**Metric**	**English**	**Comments**
Cell Classification		445574C	ASTM D3350
Process		Injection Molding	