

---

# NORDSTROM POLY-WATER® VALVES

---

## POLYETHYLENE VALVES FOR

---

## WATER AND WASTEWATER

---

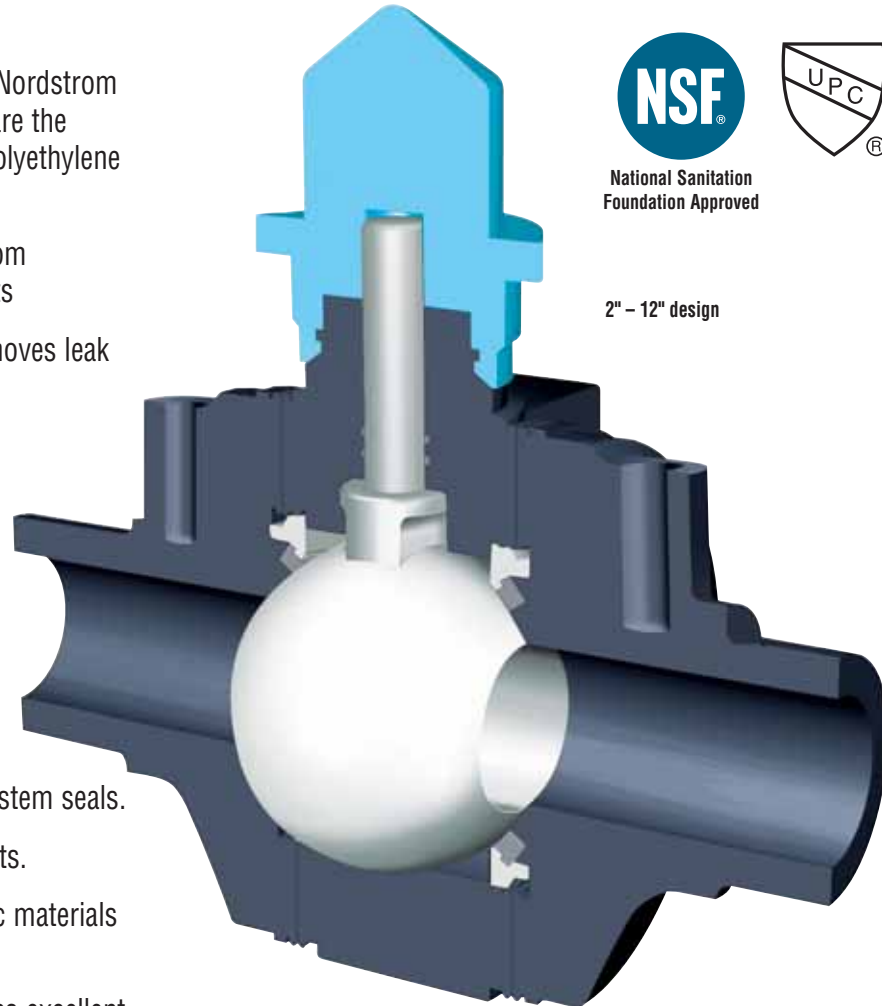


# Why use Nordstrom Poly-Water® Valves?

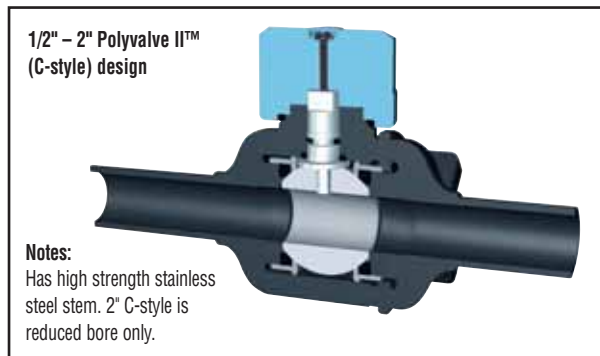
**Nordstrom Poly-Water® valves are everything you'd expect from the company that invented polyethylene valves.**

More than **two million** Polyvalves have been sold since 1976 and are in use throughout the world. Here's why:

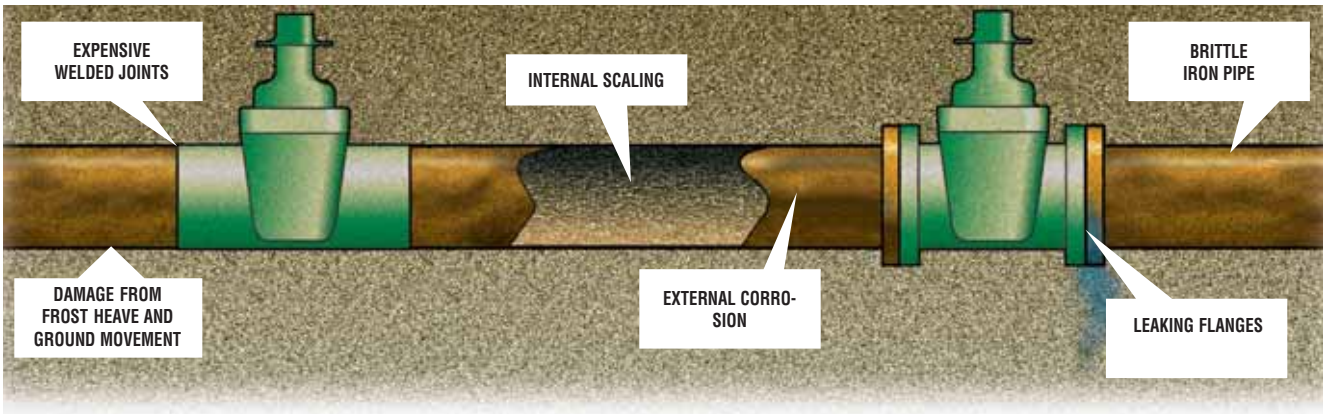
- Rugged and reliable Nordstrom Poly-Water® valves are the strongest part of a polyethylene piping system.
- Drop-tight shutoff from dual elastomeric seats
- Fused body shell removes leak paths to atmosphere.



- Multiple elastomeric stem seals.
- No metal internal parts.
- High-grade polymeric materials eliminate corrosion.
- Smooth full bore gives excellent flow characteristics in both full and reduced port designs.
- Wide variety of trim for your specific application.
- Flanged end configuration available.

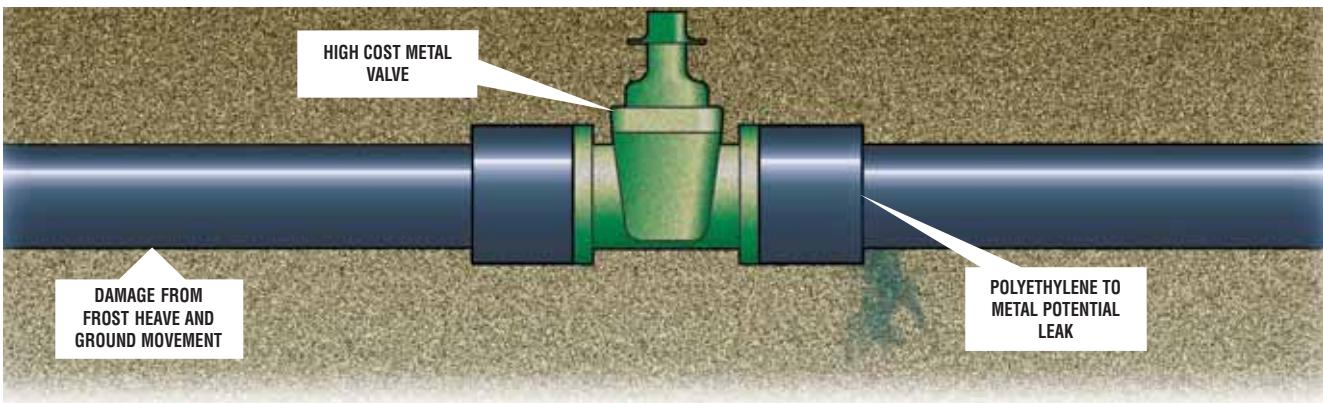


# Why use polyethylene valves?



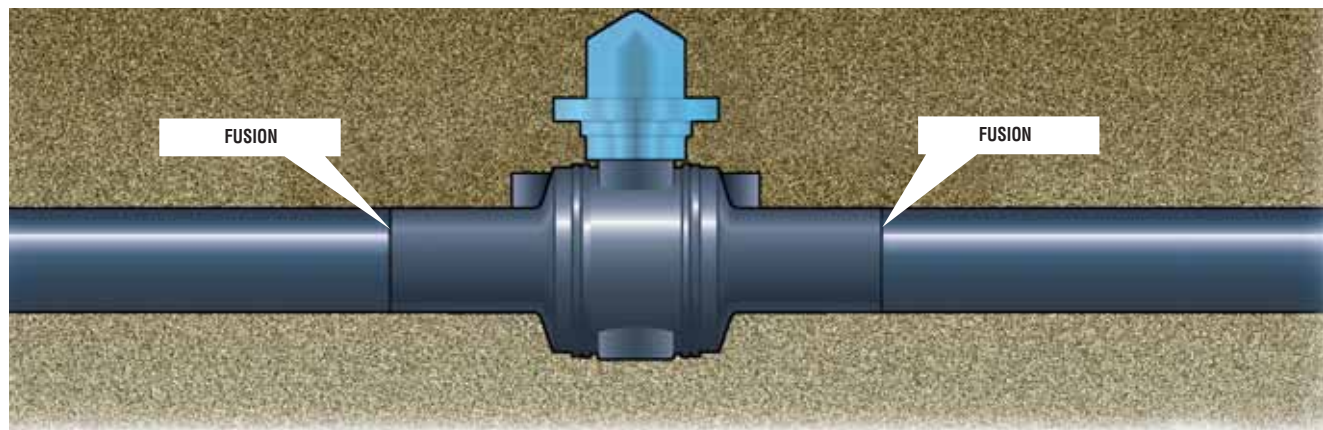
## All Metal System (Welded or Bolted):

- Subject to external corrosion, internal scaling and damage from ground movement.
- Too-rigid pipe can rupture during frost heave or heavy pressure in hot weather.
- 30% of all system water is lost to leaks.



## Polyethylene Pipe-to-Metal Valve Installation:

- Subject to the inherent weakness of combining incompatible materials.
- Vulnerable to ground movement during extremes of cold or heat.
- 30% of all systems water is lost to leaks.



## All-Polyethylene Systems:

- Intrinsicly safe—the valve is an integral part of the pipe.
- No leak points.
- No chance of corrosion.
- Flexible polyethylene systems less susceptible to ground movement.

# Poly-Water® Valve Availability

## MATERIALS

### Materials of Construction

Item	1/2" through 2" Polyvalve II	2" through 12"
<b>Body</b>	Polyethylene	Polyethylene
<b>Ball</b>	Acetal	Polypropylene
<b>Seat</b>	EPDM	EPDM
<b>Seat Retainer</b>	Acetal	Polypropylene
<b>Stem</b>	Stainless Steel	Modified Phenylene Oxide
<b>Stem Seal</b>	EPDM	EPDM
<b>Ground Water Seal</b>	Neoprene	Neoprene
<b>Adapter</b>	Polypropylene	Polypropylene

### Body and End Resin Chart

Nordstrom Poly-Water® valves are available in HDPE only.

Resin Supplier	Material Designation	Color	ASTM Material Designation	Material Density
CP Chem	TR-480 (D4000/4100)	Black	PE 3408	High
CP Chem	H-516 (D8700)	Black	PE 3408	High

*Note: On 8" full bore and 12" full bore only the main body section is available in TR-480 material but different pipe ends are fused on to suit customer's requirements.*

*\*Note: 12" has gear box and cast iron 2" square nut adaptor.  
8" will have a choice of either gearing or wrench.  
Wrench adaptor material is Acetal.*



### Maximum Allowable Service Pressures for Nordstrom Poly-Water® Valves

#### TR-480 / H-516

	SDR 9		SDR 11		SDR 13.5		SDR 17	
	psig	bar	psig	bar	psig	bar	psig	bar
<b>PE 3408 Material</b>								
@74°F	200	13.8	160	11	128	8.8	100	6.9
@23°C	200	13.8	160	11	128	8.8	100	6.9

# Poly-Water® Valve Availability

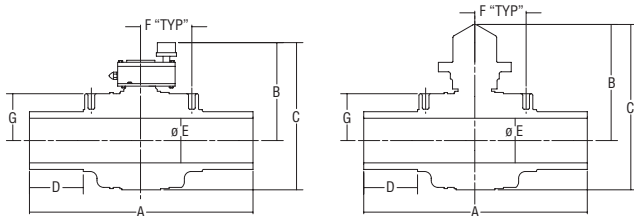
## Poly-Water® Valve Availability Chart (Ball Valves for Water and Wastewater)

Size (Inches)	Size (Metric)	Body Pieces	Bore	Vent Pipe Size (IPS)		End Config.	C <sub>v</sub>	K <sub>v</sub>	Equiv. Feet of Pipe	Available SDRs
				Min	Max					
½	16-20	2	full †			BF* or SF**	18	260	2	9.3
¾	25	2	full †			BF	25	361	3.2	9.3, 10, 11
1	32	2	reduced †			BF	40	577	3.8	9.3, 11, 12.5
1¼	40	2	reduced †			BF	45	649	9.6	9.3, 11, 12.5
2	55-63	3	full	½"	¾"	BF	175	2528	3.8	9.3, 11
	50-63	2	reduced †			BF	110	1586	9.6	9.3, 11
3	90	3	full	½"	¾"	BF	390	5624	5.3	9.3, 11, 13.5
	90	3	reduced			BF	240	3461	14.1	9.3, 11, 13.5
4	100-110	3	full	¾"	1"	BF	700	10094	5.8	9.3, 11, 13.5
	100-110	3	reduced			BF	400	5768	17.8	9.3, 11, 13.5
6	150-160-180	3	full	1"	1¼"	BF	1800	25957	6.1	9.3, 11, 13.5
	125-160	3	reduced			BF	900	12978	24.3	9.3, 11, 13.5
8	225	2	full	1"	1¼"	BF	3650	52633	5.5	11, 13.5
	225	3	reduced			BF	1350	19467	40.3	9.3, 11, 13.5
12	315	3	full			BF	7000	73542	10.6	11, 13.5

Note: C<sub>v</sub> in US gal/min @ 1 psi Δ P  
K<sub>v</sub> in litres/min @ 1 bar Δ P

\* Butt Fusion  
\*\* Socket Fusion  
† Polyvalve II (C-Style) Valves

### Dimension Data



\* Available with flanged ends.  
Contact the factory for dimensions and pricing.

### ANSI Valve Dimensions

Size	Bore	A	B	C	D	E	F cl of body to cl of vent hole	G to top of vent pad	Weight (lb.)
½	full	10.0	3.4	4.8	2.8	0.50			1.2
¾	full	10.0	3.4	4.8	2.8	0.75			1.2
1	reduced	10.0	3.4	4.8	2.8	0.90			1.2
1¼	reduced	10.0	3.4	4.8	2.8	0.90			1.2
2	full	14.7	6.4	9.1	3.6	1.85	2.7*	2.4*	3.8
	reduced	13.0	4.5	6.5	3.7	1.35			3.1
3	full	15.0	8.0	11.4	4.0	2.50			8.9
	reduced	12.8	6.4	9.1	3.6	1.85			4.5
4	full	20.0	10.4	15.0	4.5	3.62	5.0*	3.75*	19.5
	reduced	15.0	8.0	11.4	4.0	2.50			8.9
6	full	25.0	12.6	18.6	5.0	5.20	6.6*	5.1*	38.0
	reduced	20.0	10.4	15.0	5.3	3.62			23.0
8	full	69.5	12.5	19.9	24.0	6.66	7.7	7.00	98.0
	reduced	20.0	12.6	18.6	5.0	4.78			42.5
<b>Gear Operated</b>									
8	full	69.5	14.3	22.1	25.7	6.66	7.7	7.0	134.0
12	full	83.8	17.5	27.7	30.0	9.91			305.0

### Metric Valve Dimensions

Size	Bore	A	B	C	D	E	F cl of body to cl of vent hole	G to top of vent pad	Weight (kg)
16-20	full	254	86	122	71	12.7			0.5
25	full	254	86	122	71	19.1			0.5
32	reduced	254	86	122	71	22.9			0.5
40	reduced	254	86	122	71	22.9			0.5
55-63	full	373	164	231	91	47.0	69*	61*	1.7
50-63	reduced	330	115	165	94	34.3			1.4
90	full	381	203	290	102	63.5			4.0
	reduced	325	164	231	91	47.0			2.0
100-110	full	508	264	381	114	91.9	127*	95*	8.8
	reduced	381	203	290	102	63.5			4.0
150-160 & 180	full	635	320	472	127	132.1	168*	130*	17.2
125-160	reduced	508	263	381	133	91.9			10.4
225	full	1765	318	504	610	169.2	196	177.8	44.5
	reduced	508	320	472	127	121.4			19.3
<b>Gear Operated</b>									
225	full	1765	363	561	653	169.2	196	178	60.8
315	full	2129	443	704	762	251.7			138.3

\*Optional vent holes. Contact factory for other vent options.

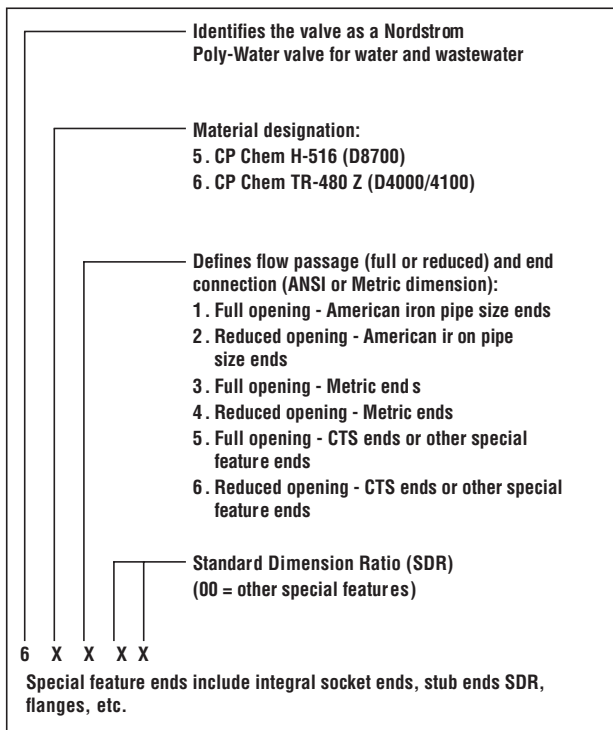
Note: Valves are generally available in these metric sizes and may be available in other metric dimensions. Due to wall thickness considerations, all SDRs in some sizes may not be available. Contact your Nordstrom representative for exact availability.

# How to Order

Please provide the following information when you order:

- Valve size
- Valve body material
- Full or reduced bore
- Standard Dimension Ratio (SDR) number
- Butt fusion end configuration is standard
- Flanged end configuration available

## Nordstrom Poly-Water® Valve Figure Number System



With sizes up to 12" Nordstrom Poly-Water® valves come in the widest range of sizes on the market. They're shipped in cartons to shield them from ultraviolet light and protect the valve ends from damage.

### NSF Standard 61 Drinking Water System Components - Health Effects

#### FOR USE IN:

- POTABLE WATER
- WATER AND WASTEWATER\*

### IAPMO IGC 151-99 HDPE Plastic Valves for Cold Water Distribution Systems Outside a Building

There are currently no AWWA standards relating to PE valves. However: 1/2" – 3" Nordstrom Poly-Water® valves are suitable for use with PE pipe and tubing complying with AWWA C901.

4" – 12" Nordstrom Poly-Water® valves for potable water comply with the relevant fittings clauses of AWWA C906.

Flowserve Nordstrom Valves is an ISO 9001 certified company.

\* For 1/2" - 2" Polyvalve II (C-style), Poly-Water valves are recommended for wastewater only within a very restricted pH range of 6 to 8. For applications with pH outside of this range refer to the Poly-Chem brochure.

## Authorized Distributors

For detailed information on these and other Nordstrom products, call your customer service representative for the name and number of the nearest authorized Nordstrom distributor.

### Flowserve Corporation

1-800-225-6989

Email: nmkt@flowserve.com

or visit www.flowserve.com



### Flowserve Nordstrom Valves

1511 Jefferson Street  
 Sulphur Springs, Texas 75482  
 USA

### United States:

Telephone: 903-885-4691 or 4693  
 FAX: 903-439-3411

### Latin America:

Telephone: 903-439-3407  
 Fax: 903-439-3411

### Other Countries:

Telephone: 903-885-4692  
 Fax: 903-439-3404

Flowserve Corporation has established industry leadership in the design and manufacture of its products. When properly selected, this Flowserve product is designed to perform its intended function safely during its useful life. However, the purchaser or user of Flowserve products should be aware that Flowserve products might be used in numerous applications under a wide variety of industrial service conditions. Although Flowserve can (and often does) provide general guidelines, it cannot provide specific data and warnings for all possible applications. The purchaser/user must therefore assume the ultimate responsibility for the proper sizing and selection, installation, operation, and maintenance of Flowserve products. The purchaser/user should read and understand the Installation Operation Maintenance (IOM) instructions included with the product, and train its employees and contractors in the safe use of Flowserve products in connection with the specific application.

While the information and specifications contained in this literature are believed to be accurate, they are supplied for informative purposes only and should not be considered certified or as a guarantee of satisfactory results by reliance thereon. Nothing contained herein is to be construed as a warranty or guarantee, express or implied, regarding any matter with respect to this product. Because Flowserve is continually improving and upgrading its product design, the specifications, dimensions and information contained herein are subject to change without notice. Should any question arise concerning these provisions, the purchaser/user should contact Flowserve Corporation at any one of its worldwide operations or offices.