
NORDSTROM POLY-WATER® VALVES

POLYETHYLENE VALVES FOR

WATER AND WASTEWATER

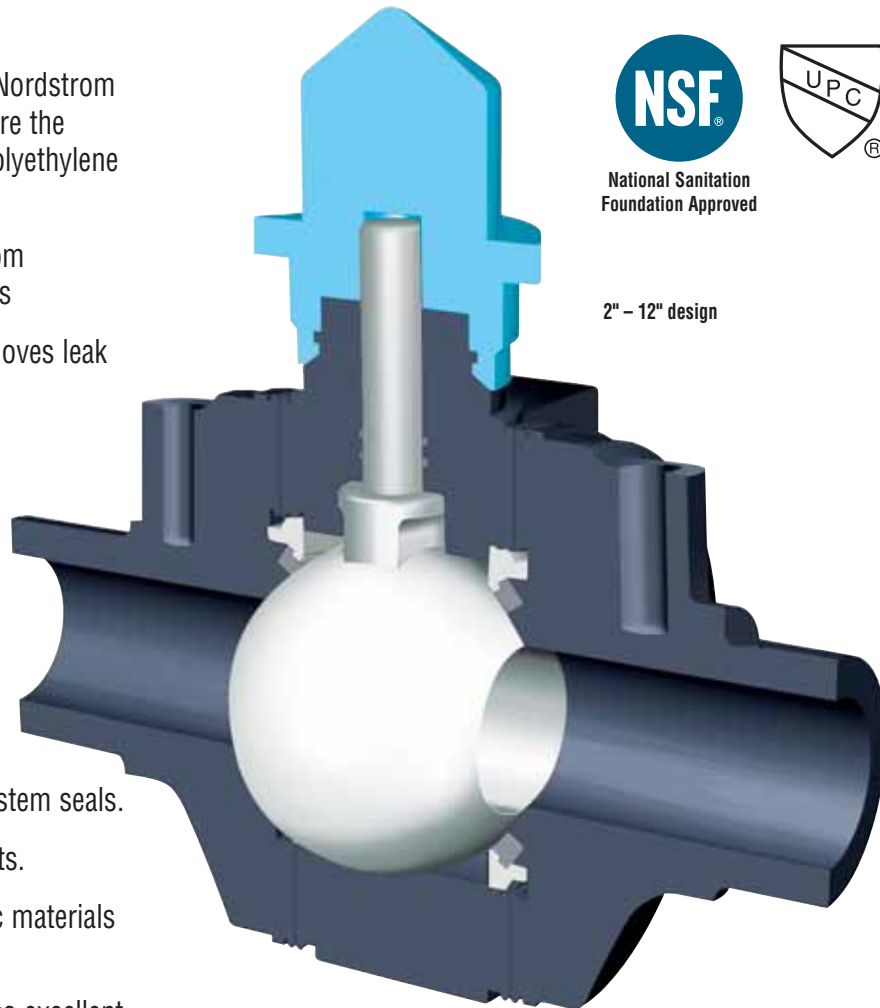


Why use Nordstrom Poly-Water® Valves?

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.



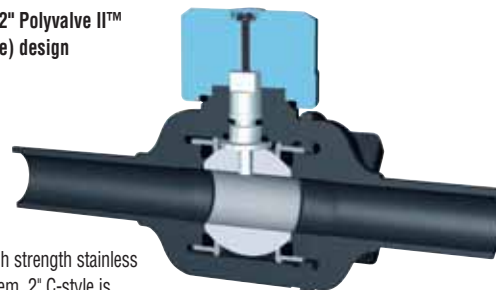
National Sanitation Foundation Approved



2" - 12" design

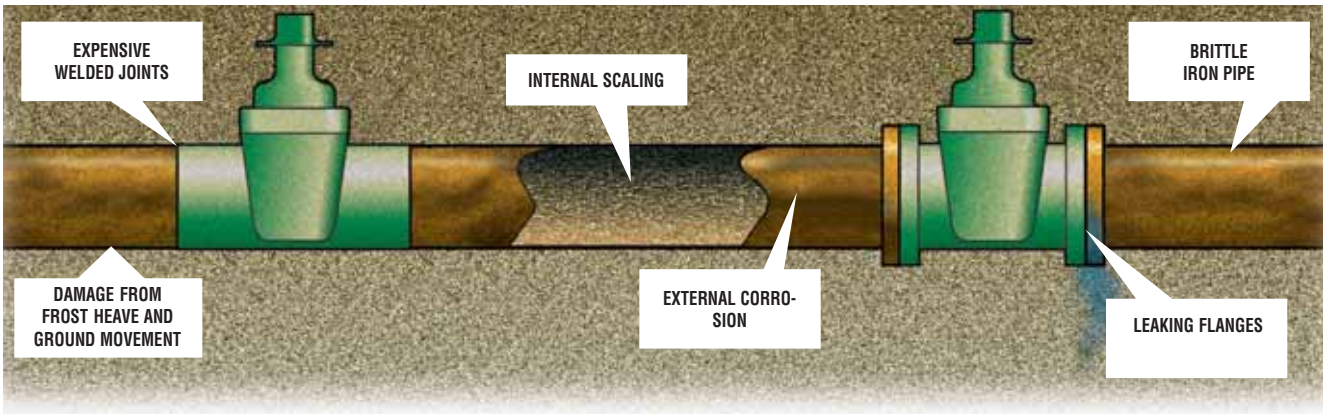
- Multiple elastomeric stem seals.
- No metal internal parts.
- High-grade polymeric materials eliminate corrosion.
- Smooth full bore gives excellent flow characteristics in both full and reduced port designs.
- Wide variety of trim for your specific application.
- Flanged end configuration available.

1/2" - 2" Polyvalve II™ (C-style) design



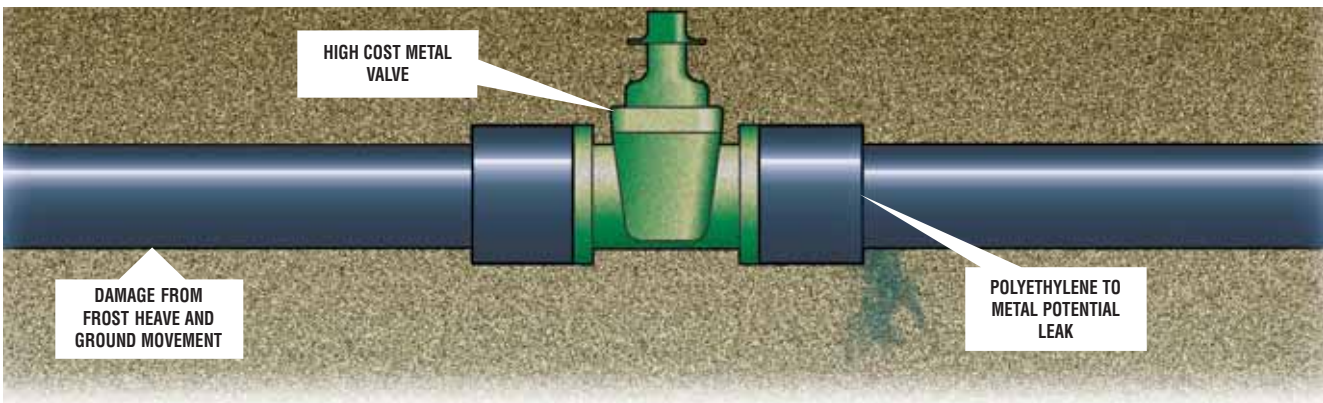
Notes:
Has high strength stainless steel stem. 2" C-style is reduced bore only.

Why use polyethylene valves?



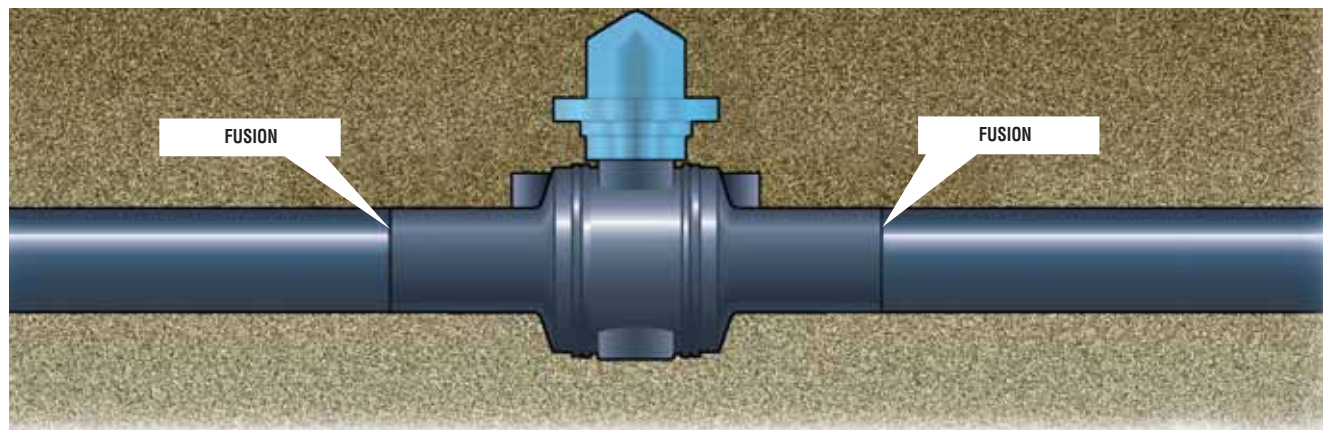
All Metal System (Welded or Bolted):

- 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"
Body	Polyethylene	Polyethylene
Ball	Acetal	Polypropylene
Seat	EPDM	EPDM
Seat Retainer	Acetal	Polypropylene
Stem	Stainless Steel	Modified Phenylene Oxide
Stem Seal	EPDM	EPDM
Ground Water Seal	Neoprene	Neoprene
Adapter	Polypropylene	Polypropylene

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

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.



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
PE 3408 Material								
@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

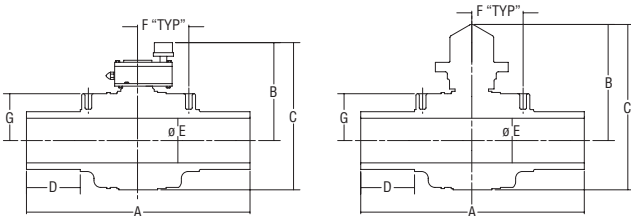
Poly-Water® Valve Availability Chart (Ball Valves for Water and Wastewater)

Size (Inches)	Size (Metric)	Body Pieces	Bore	Vent Pipe Size (IPS)		End Config.	C _v	K _v	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_v in US gal/min @ 1 psi Δ P
K_v 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
Gear Operated									
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
Gear Operated									
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.

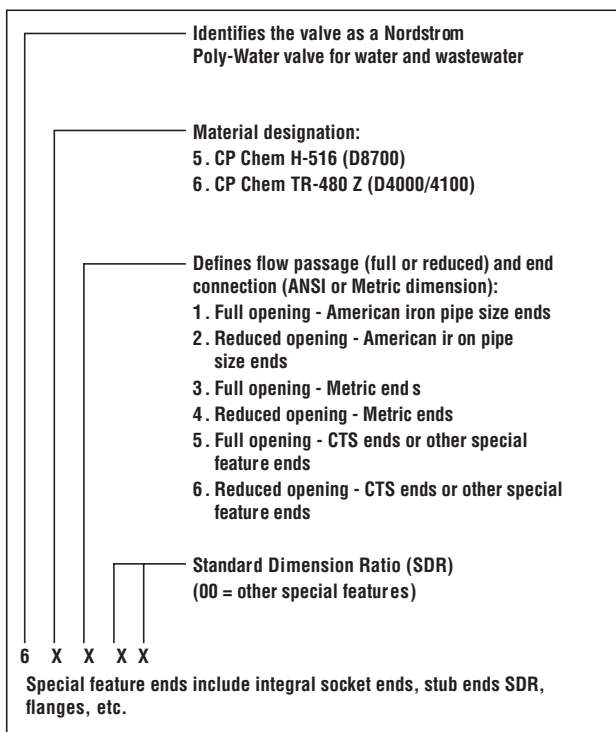
Contact your Nordstrom representative for exact availability.

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.



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