

Formerly known as



**NORDSTROM®**  
**POLYVALVE®**

Nordstrom® is a registered trademark of Flowserve®

**POLYVALVE POLY-CHEM® VALVES**

*POLYETHYLENE VALVES  
FOR CHEMICAL SERVICES*

[www.AndronacoSAS.com](http://www.AndronacoSAS.com)



*The Original Is Still The Best!*  
*Over 3,000,000 Sold!*

**ANDRONACO**<sup>S.A.S.</sup>



**Polyvalve®**

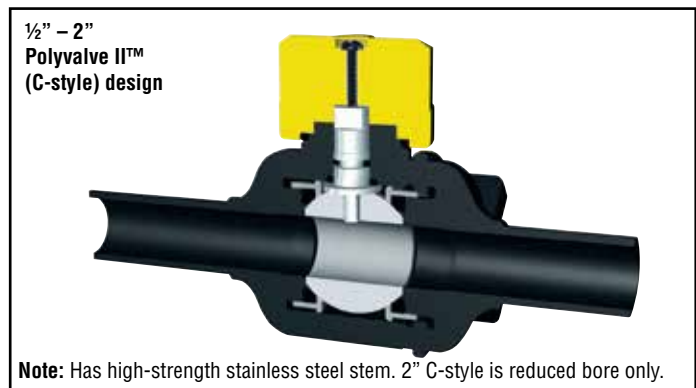
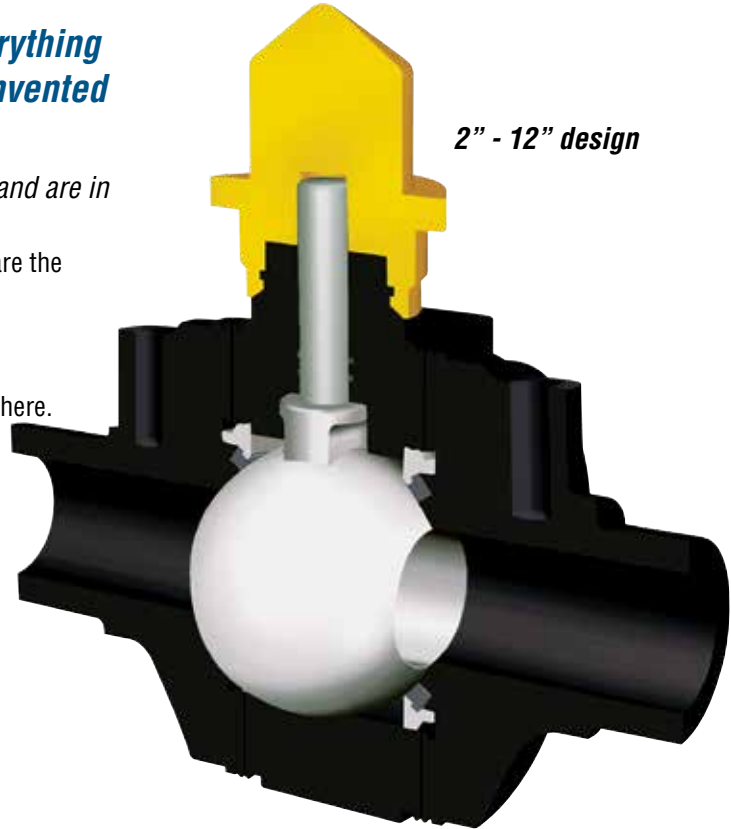


## Why use Polyvalve Poly-Chem<sup>®</sup> valves?

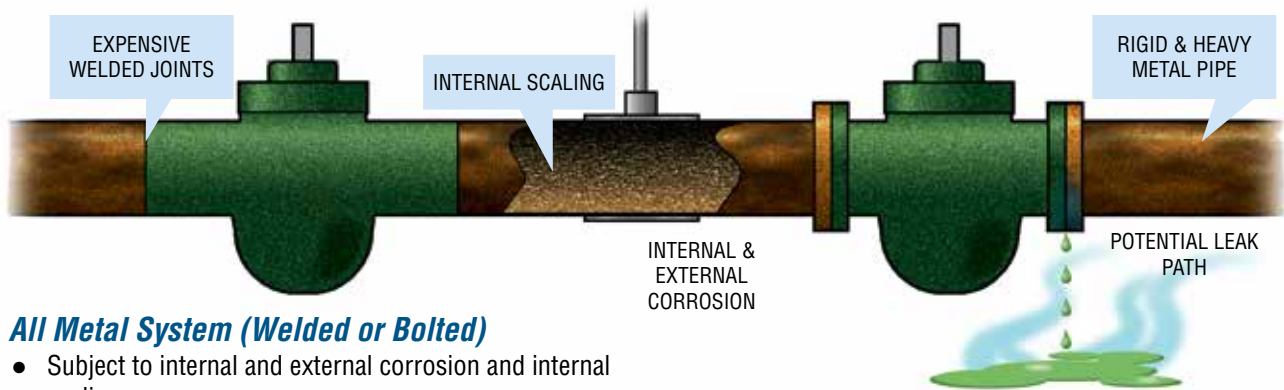
*Polyvalve Poly-Chem<sup>®</sup> valves are everything you'd expect from the company that invented polyethylene valves.*

*Millions of Polyvalves have been sold since 1976 and are in use throughout the world. Here's why:*

- Rugged and reliable Polyvalve Poly-Chem<sup>®</sup> valves are the strongest part of a polyethylene piping system.
- Drop-tight shutoff from dual elastomeric seats.
- Fused body shell removes leak paths to the atmosphere.
- Multiple elastomeric stem seals.
- No metal internal parts.
- Corrosion-free due to high-grade polymeric materials.
- Smooth bore gives excellent flow characteristics in both full and reduced port designs.
- Suitable for buried service or above ground service.
- Wide variety of trim for your specific application.
- Flanged end configuration available (butt fusion end configuration is standard).

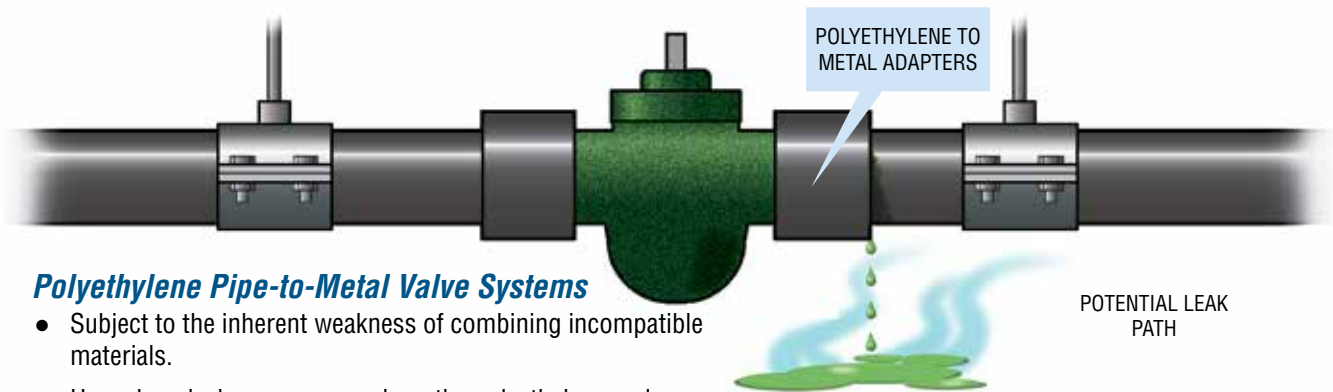


**Note:** Has high-strength stainless steel stem. 2" C-style is reduced bore only.



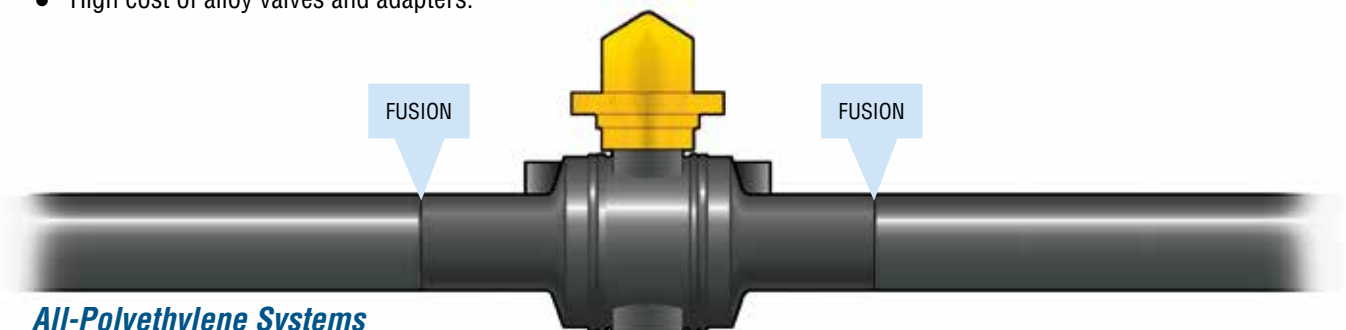
### **All Metal System (Welded or Bolted)**

- Subject to internal and external corrosion and internal scaling.
- Hazardous leaks at pipe connections.
- High cost of alloy pipe, valves, and fittings.
- Rigid metal piping systems expensive to modify.
- Not flexible or adaptable.



### **Polyethylene Pipe-to-Metal Valve Systems**

- Subject to the inherent weakness of combining incompatible materials.
- Hazardous leaks may occur where the polyethylene and metal meet.
- High cost of alloy valves and adapters.



### **All-Polyethylene Systems**

- Intrinsically safe.
- Pipe is fused to the valves so there are no leak points.
- No chance of internal or external corrosion.
- Lightweight and flexible.
- Can rest on ground.

## Poly-Chem<sup>®</sup> Valve Availability

### Body Resin

Resin Supplier	Material Description	Color	ASTM Material Designation	Material Density
Dow	DGDA 2490	Black	PE 4710/3408	High

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



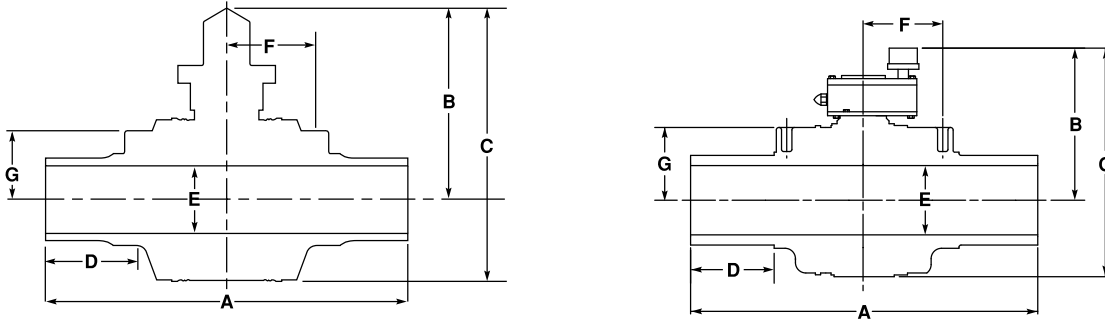
### Maximum Allowable Service Pressures

*Poly-Chem<sup>®</sup> Valves for Chemical Services  
PE 4710/3408 Material*

Temperature	SDR 9	SDR 11	SDR 13.5	SDR 15.5	SDR 17
	psig	psig	psig	psig	psig
	bar	bar	bar	bar	bar
<b>Acids, bases, dry gas gathering, drain water, and salt water</b>					
74°F	200	160	128	110	100
23°C	13.8	11	8.8	7.6	6.9
140°F	100	80	64	55	50
60°C	6.9	5.5	4.4	3.8	3.4
<b>Gaseous Hydrocarbons</b>					
74°F	128	102	82	71	64
23°C	8.8	7.1	5.3	4.9	4.4
140°F	64	51	41	35	32
60°C	4.4	3.5	2.8	2.4	2.2
<b>Liquid Hydrocarbons</b>					
74°F	100	80	64	55	50
23°C	6.9	5.5	4.4	3.8	3.4
140°F	50	40	32	28	25

# Poly-Chem<sup>®</sup> Valve Availability

## Dimensions



### ANSI

Size	Port	A	B	C	D	E	Weight (lb.)
1/2	full	10.0	3.4	4.8	2.8	0.50	1.2
3/4	full	10.0	3.4	4.8	2.8	0.75	1.2
1	standard	10.0	3.4	4.8	2.8	0.90	1.2
1 1/4	standard	10.0	3.4	4.8	2.8	0.90	1.2
2	full	14.7	6.4	9.1	4.2	1.82	3.8
	standard	13.0	4.5	6.5	3.7	1.30	3.1
3	full	15.0	8.0	11.4	3.5	2.50	8.9
	standard	12.8	6.4	9.1	3.6	1.95	4.5
4	full	20.0	10.4	15.0	3.1	3.62	19.5
	standard	15.0	8.0	11.4	3.8	2.50	8.9
6	full	21.0	12.6	18.6	3.9	5.20	38.0
	standard	20.0	10.4	15.0	5.3	3.62	23.0
8	full	69.8	12.5	19.9	24.0	6.30	98.0
<b>Gear Operated</b>							
8	full	69.8	14.8	22.2	24.0	6.30	134.0
12	full	83.8	17.5	27.7	30.0	9.91	305.0

### Metric

Size	Port	A	B	C	D	E	Weight (kg)
16-20	full	254	86	122	71	12.7	0.5
25	full	254	86	122	71	19.1	0.5
32	standard	254	86	122	71	22.9	0.5
40	standard	254	86	122	71	22.9	0.5
55-63	full	373	164	231	106	46.2	1.7
50-63	standard	330	115	165	94	33.0	1.4
90	full	381	203	290	89	63.5	4.0
	standard	325	164	231	91	48.0	2.0
100-110	full	508	264	381	77	91.9	8.8
	standard	381	203	290	95	63.5	4.0
150-160 & 180	full	533	320	472	99	132.1	17.2
125-160	standard	508	263	381	133	91.9	10.4
225	full	1773	318	504	610	160	44.5
	standard	508	320	472	102	121.4	19.3
<b>Gear Operated</b>							
225	full	1773	376	564	610	160	60.8
315	full	2129	443	704	762	251.7	138.3

Note: Polyvalve proudly offers pup lengths to customer specifications.

# Poly-Chem<sup>®</sup> Valve Availability

## Materials of Construction and Trim Selection

Item	Cat A Trim	Cat B Trim	Cat C Trim	Cat D Trim
Body	HDPE	HDPE	HDPE	Special Applications
Ball	Polypropylene	Polypropylene	Polypropylene	
Seat Retainers	Polypropylene	Polypropylene	Polypropylene	
Seats	EPDM	EPDM	Viton A	
Stem	Modified Polyethylene Oxide	Poly-etherimide	Poly-etherimide	
Stem Seals	EPDM	EPDM	Viton A	
Groundwater Seal	Neoprene	Neoprene	Neoprene	
Wrench Adapter	Polypropylene	Polypropylene	Polypropylene	
Primary Applications	Strong bases: Hydroxides, caustics	Alcohols and glycols	Metal salt solutions: Bicarbonates, bromides, carbonates, chlorides, cyanides, ferri-cyanides, fluorides, hypochlorites, nitrates, oxides, phosphates, sulphates, or sulphides, of Aluminum, Barium, Calcium, Copper, Iron, Magnesium, Mercury, Nickel, Potassium, Silver, Sodium, Tin, or Zinc.	
2" Full port through 12" full port	Organic acids: Acetic  Ammonia and ammonium salt solutions  Nonpotable water  Air and inert gases		Other: Crude oil, produced water, carbon dioxide, hydrogen sulphide, landfill methane and leachate, hydrogen peroxide.	

- Poly-Chem<sup>®</sup> Valves are not suitable for use on aromatic hydrocarbons, ketones, ethers, gasoline.
- Poly-Chem<sup>®</sup> Valves are not intended for fuel gas services.
- Please refer to the PE pipe manufacturers recommendations for additional service compatibility information or send full service details to Polyvalve Valves for our advice.
- For applications not listed, please contact Polyvalve for valve recommendations.
- For ½" through 2" standard port consult Polyvalve.

For inorganic acids such as hydrochloric, nitric, sulphuric, phosphoric, hydrofluoric and boric please contact Polyvalve for valve recommendations.

## Ball Valves for Chemical Services

Size		Body Pieces	Port	End Config.	C <sub>v</sub>	K <sub>v</sub>	Equiv Length of Pipe (ft.)	Available SDRs
In.	metric							
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	standard †	BF	40	577	3.8	9.3, 11, 13.5
1¼	40	2	standard †	BF	45	649	9.6	9.3, 11, 13.5
2	55-63	3	full	BF	175	2528	3.8	9.3, 11, 17
3	90	3	full	BF	390	5624	5.3	9.3, 11, 13.5, 17
		3	standard	BF	240	3461	14.1	9.3, 11, 13.5, 17
4	100-110	3	full	BF	700	10094	5.8	9.3, 11, 13.5, 17
		3	standard	BF	400	5768	17.8	9.3, 11, 13.5, 17
6	150-160-180	3	full	BF	1800	25957	6.1	9.3, 11, 13.5, 17
		3	standard	BF	900	12978	24.3	9.3, 11, 13.5, 17
8	225	2	full	BF	3650	52633	5.5	11, 13.5, 17
12	315	3	full	BF	7000	73542	10.6	11, 13.5, 17

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

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

## How to Order

Please provide the following information when you order:

- Valve size
- Valve body material
- Full bore or reduced bore
- Standard Dimension Ratio (SDR) number
- Trim category (A, B, C, or D)
- Wrenches available upon request

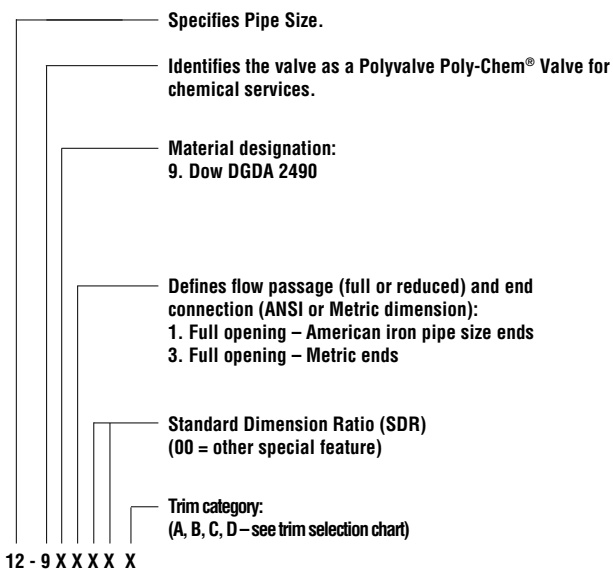
Note: Butt fusion ends are standard, flanged ends available as an option.



*With sizes up to 12" Polyvalve Poly-Chem® valves come in the widest range of sizes on the market. ½" through 8" standard port shipped in cartons to shield them from ultraviolet light and protect the valve ends from damage.*

### Poly-Chem® Valve Figure Number System

The Polyvalve PE valve figure number system utilizes a five digit number which describes the valves as shown below.



### For Use In:

- Acids
- Bases
- Dry gas gathering
- Salt water
- Gaseous hydrocarbons
- Liquid hydrocarbon



**Andronaco S.A.S.**

30 Rue Jean Jaures

42240 Unieux

France

Ph. +33 4 77 40 18 77

Fax +33 4 77 56 30 95

[www.AndronacoSAS.com](http://www.AndronacoSAS.com)



**To find your local Andronaco S.A.S. representative,  
visit [www.AndronacoSAS.com](http://www.AndronacoSAS.com) or call +33 4 77 40 18 77**

Polyvalve has established industry leadership in the design and manufacture of its products. When properly selected, this Polyvalve product is designed to perform its intended function safely during its useful life. However, the purchaser or user of Polyvalve products should be aware that Polyvalve products might be used in numerous applications under a wide variety of industrial service conditions. Although Polyvalve 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 Polyvalve 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 Polyvalve 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 Polyvalve 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 Polyvalve at any one of its worldwide operations or offices.

© 2012 Andronaco S.A.S., France, 42240