

XOMOX®

XOMOX® SLEEVED PLUG VALVES SERIES FEO



DATASHEET

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XOMOX® Sleeved Plug Valves Series FEO Product Overview

Product Specifications

Materials

- Stainless Steel (EN 1.4408)
- Carbon Steel (EN 1.0619)
- Others on Request

Size Range

- DN 15 to DN 400 ; 1/2" to 16"

Pressure Classes

- PN 10, 16, 25, 40; ASME Class 150 & 300#

Pressure Range

- 40 Bar (580 psi) DIN Valves
- 50 Bar (725 psi) ANSI Valves

Temperature Range

- Standard Temperature Range:
-100°C to 300°C (-148°F to 572°F)
- Certified AH Temperature Range:
-29°C to 260°C (-20°F to 500°F)
- Certified BH Temperature Range:
-60°C to 275°C (-76°F to 527°F)

Body Configurations

- 2-Way
- 3-Way Bottom
- 3-Way Side
- 4-Way

Configurations

- Standard with PTFE Packings
- Firesafe FIS with Graphite Packings
- Standart & Full Port
- Heating jacket
- Control Valve
- Flanged, Welded and Screwed Ends

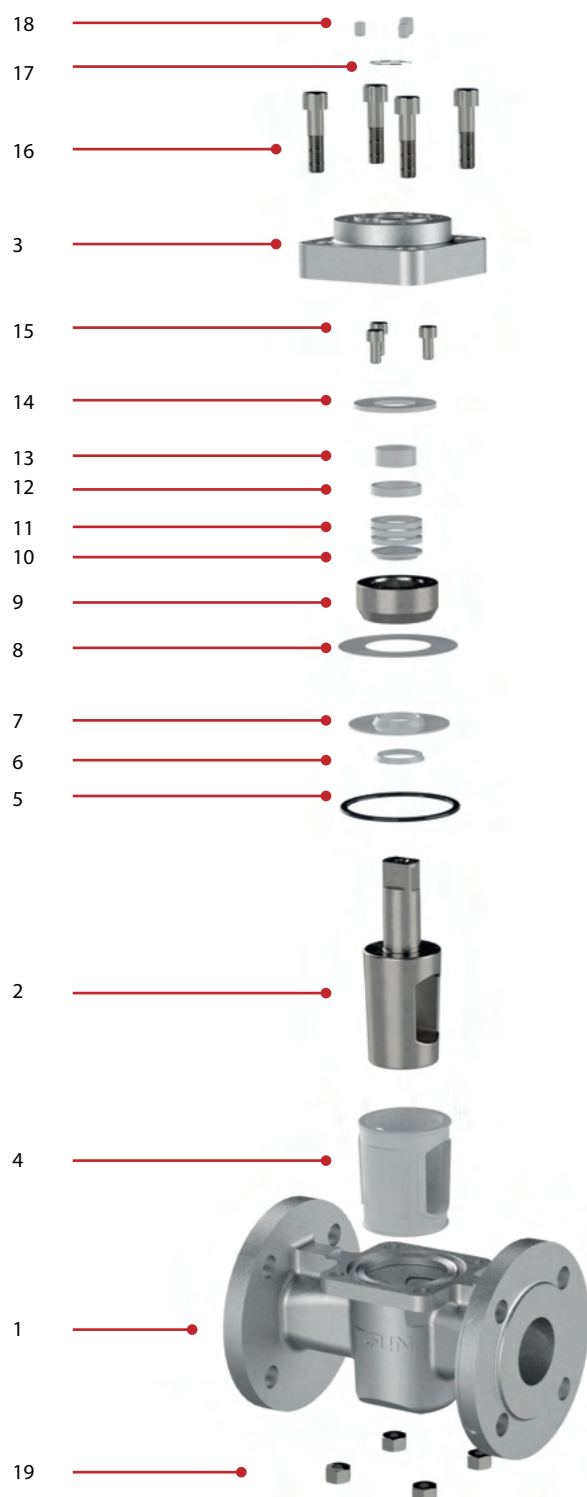
Typical Applications

- MDI/TDI
- Chlor-Alkali
- EDC
- VCM
- Methanol
- Phosgene
- Dry-Chlorine
- Hydrogen Cyanide
- Isocyanate
- Butadiene
- Nitrogen
- Sulfuric Acid
- Phosphoric Acid
- Ethylene Oxide
- Ethylene Glycol

Features and Benefits

- | | |
|---|--|
| <div>1</div> <p>Regulatory compliance to ISO 15848-1:2015/2017 and TA-LUFT 2021 SSA0 Rating</p> | <div>5</div> <p>ISO 5211 top flange</p> |
| <div>2</div> <p>Simplified maintenance & independent adjustment</p> | <div>6</div> <p>Live loaded design & triple sealing system</p> |
| <div>3</div> <p>Certified temperature range from -60°C to 275°C</p> | <div>7</div> <p>No cavities, no contamination</p> |
| <div>4</div> <p>Certified with AH – less than 20 ppm FUGITIVE EMISSIONS</p> | <div>8</div> <p>Superior, longer-lasting in-line sealing</p> |

XOMOX® Sleeved Plug Valves Series FEO Materials of Construction

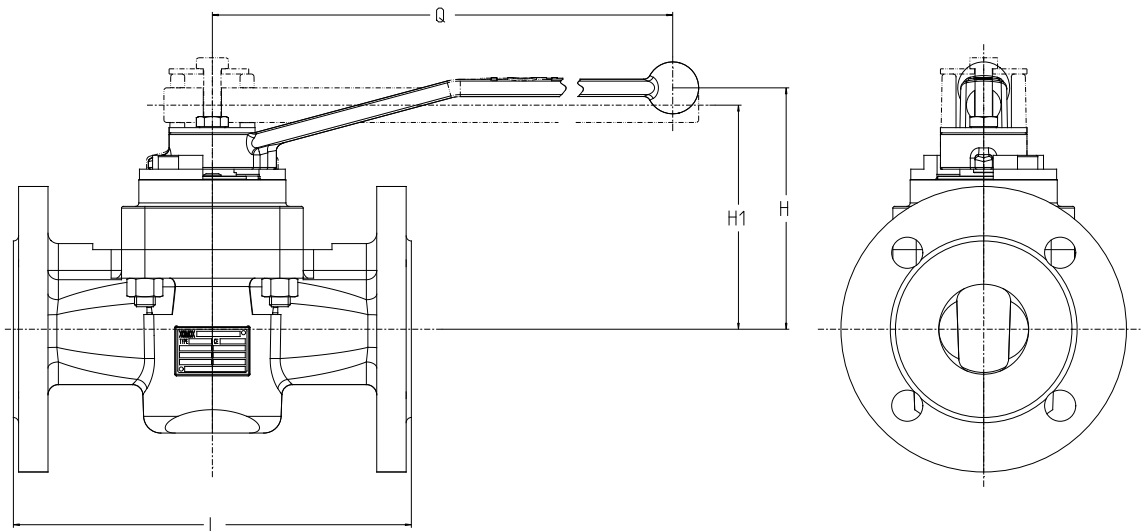


No	Component	SS/SS	WCB/SS
1	Body	1.4408	1.0619
2	Plug	1.4408	1.4408
3	Cover	1.4408	1.4408
4	Sleeve	PTFE	PTFE
5	Cover Gasket	PTFE/SS/Graphite	PTFE/SS/Graphite
6	Wedge Ring	PTFE	PTFE
7	Formed Diaphragm	PTFE	PTFE
8	Metal Diaphragm	1.4301	1.4301
9	Stuffing Box	1.4408	1.4408
10	Peek Ring	PEEK	PEEK
11	Packing Rings	PTFE	PTFE
12	Follower	1.4571	1.4571
13	Stem Bearing	PTFE with Graphite core	PTFE with Graphite core
14	Spring Washer	17-7 PH / 1.4568	17-7 PH / 1.4568
15	Stuffing Box Bolts	A4-70	A4-70
16	Cover Bolts	A4-70	A4-70
17	Anti-Static Ring	SS	SS
18	Adjustment Screws	A4-70	A4-70
19	Cover Nuts	A4	A4

*See "How To Order" section for further material selections.

Xomox® Sleeved Plug Valves Series FEO Standard Port Dimensions

Flanged End / 2-Way / PN10-40 & Class 150, 300, 600 / DN15-100 & NPS 1/2 – 4 Lever Operated



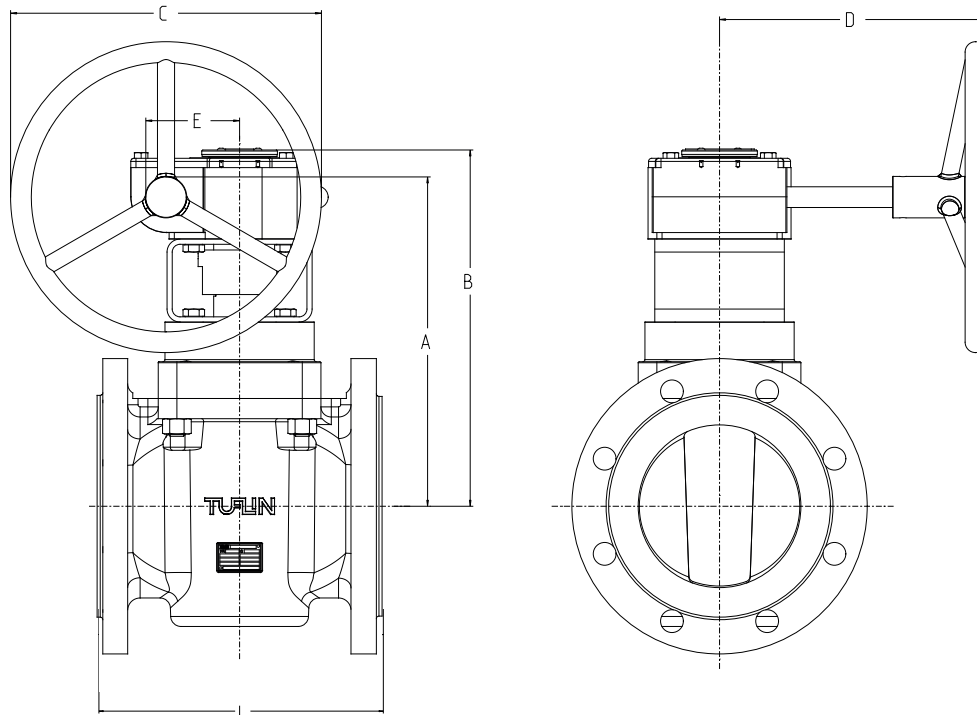
Dimensions in mm

DN	NPS	L			H	Q	Weight in kg		
		127	067	0367			127	067	0367
15	½	130	108	150	76	180	2.5	1.9	2.6
20	¾	150	117	152	76	180	3.1	2.3	3.4
25	1	160	127	159	96	260	4.6	3.5	5.0
32	-	180	-	-	96	260	6.5	-	-
40	1 ½	200	165	190	106	362	7.5	5.6	8.8
50	2	230	178	216	118	435	10.5	9.6	12.4
65	-	290	-	-	112	435	13.4	-	-
80	3	310	203	283	132	435	17.8	14.0	21.4
100	4	350	229	305	151	600	30.7	27.2	38.4

Valves also available as control valve „5...“, partial jacketed valve „...-H“, full port „2...“, „9...“ fully jacketed valve and with welded or threaded ends, dimensions upon request

XOMOX® Sleeved Plug Valves Series FEO Standard Port Dimensions

Flanged End / 2-Way / PN10-40 & Class 150, 300, 600 / DN80-400 & NPS 3 - 16 Gear Operated



DN	NPS	L			A	B	C	D	E	Approx. Weight in kg		
		127	067	0367						127	067	0367
80	3	310	203	283	204	236	200	169	52	34.6	30.8	38.2
100	4	350	229	305	235	267	200	169	52	45.5	42.0	53.2
125	5	267	267	-	308	347	300	223	67	55.0	55.0	84.0
150	6	**267	267	403	308	347	300	223	67	55.2	55.2	104.0
200	8	292	292	419	345	384	300	223	67	89.0	89.0	175.0
250	10	*330	330	457	360	404	457	279	90	146.0	146.0	-
300	12	*356	356	502	478	522	457	279	90	186.0	186.0	-
350	14	*550	550	762	517	594	762	427	154	380.0	380.0	-
400	16	***600	600	-	517	594	762	427	154	400.0	400.0	-

* PN 10 – 25 only

** Also available with face to face according to DIN EN 558-1 –DN 350 = PN 10-16

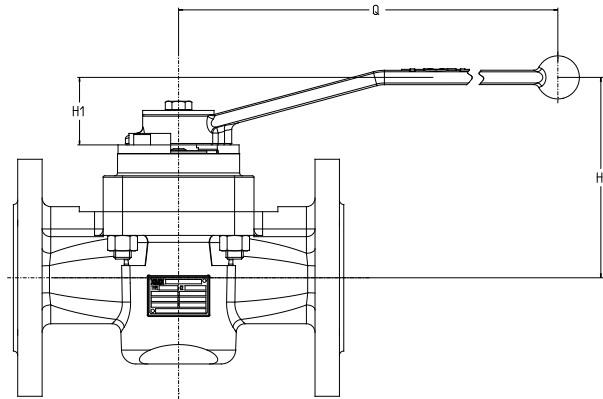
*** PN 10 - 16 only

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XOMOX® Sleeved Plug Valves Series FEO Standard Port Dimensions

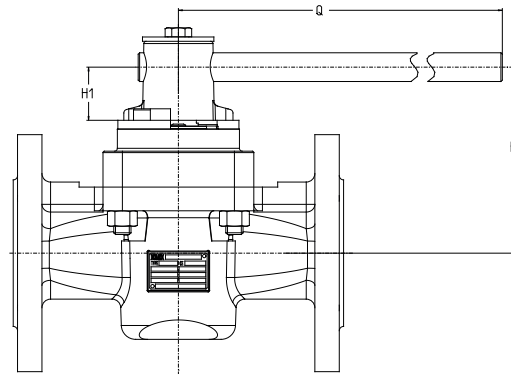
Standard Wrench

DN	NPS	H	H1	Q	Weight
15	½	91.5	45	180	0.1 kg
20	¾	91.5	45	180	0.1 kg
25	1	111.5	46	260	0.2 kg
32		111.5	46	260	0.2 kg
40	1 ½	121.5	45	362	0.3 kg
50	2	133.5	47	435	0.4 kg
65		127.5	47	435	0.4 kg
80	3	147.5	47	435	0.4 kg



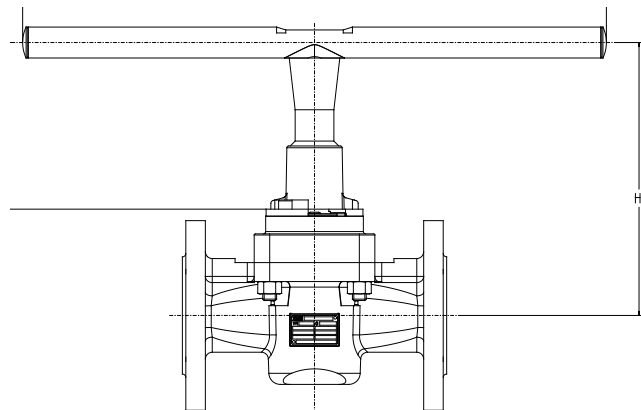
Wrench w/ Hub Cap

DN	NPS	H	H1	Q	Weight
15	½	83.5	36	190	0.3 kg
20	¾	83.5	36	190	0.3 kg
25	1	95.5	30	250	0.7 kg
32		95.5	30	250	0.7 kg
40	1 ½	106.5	30	300	1.1 kg
50	2	123.5	37	450	1.6 kg
65		117.5	37	450	1.6 kg
80	3	137.5	37	450	1.6 kg
100	4	166.5	45	600	3.2 kg



T-Wrench

DN	NPS	H	H1	Q	Weight
15	½	147.5	100	300	0.3 kg
20	¾	147.5	100	300	0.3 kg
25	1	210.5	145	300	0.6 kg
32		210.5	145	300	0.6 kg
40	1 ½	221.5	145	400	0.9 kg
50	2	231.5	145	500	1.3 kg
65		225.5	145	500	1.3 kg
80	3	245.5	145	500	1.3 kg
100	4	271.5	150	600	2.8 kg



XOMOX® Sleeved Plug Valves Series FEO Standard Port Torques and Cv

Valve Torque (Nm)

DN mm	NPS	Break Torque (Nm)
15	½	22
20	¾	22
25	1	43
32		43
40	1 ½	66
50	2	106
65		106
80	3	140
100	4	200
125	5	434
150	6	434
200	8	534
250	10	800
300	12	1066
350	14	2120
400	16	2120

Torque multipliers:

PTFE X Sleeve: 1x

PTFE GF (15% or 25%), PTFE XC & PTFE XXC Sleeve: 1.35x

PFA Sleeve: 2x

Other sleeve materials available upon request

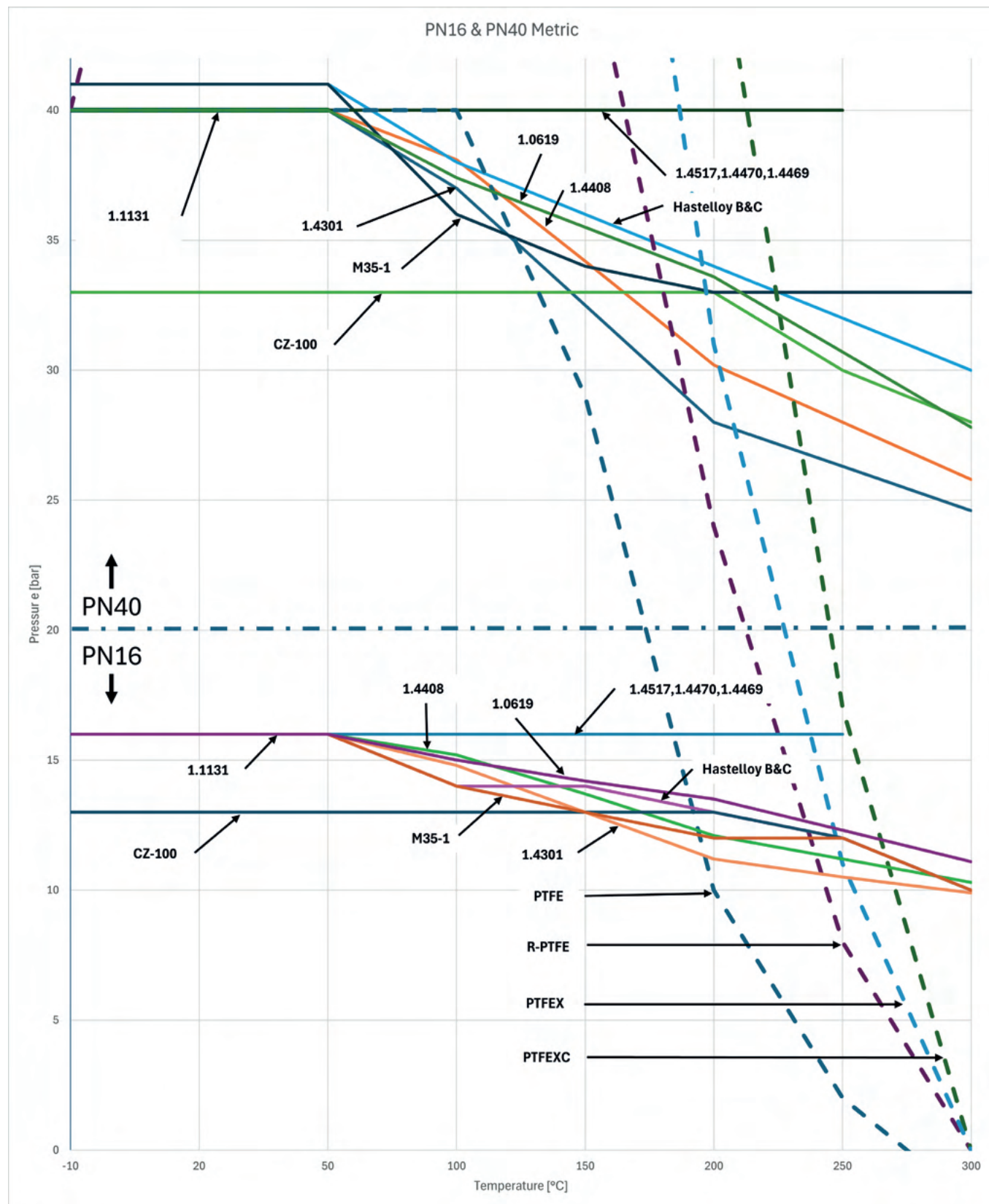
Flow Characteristics

Cross Section, kvs / Cv—Value, Resistance Factor

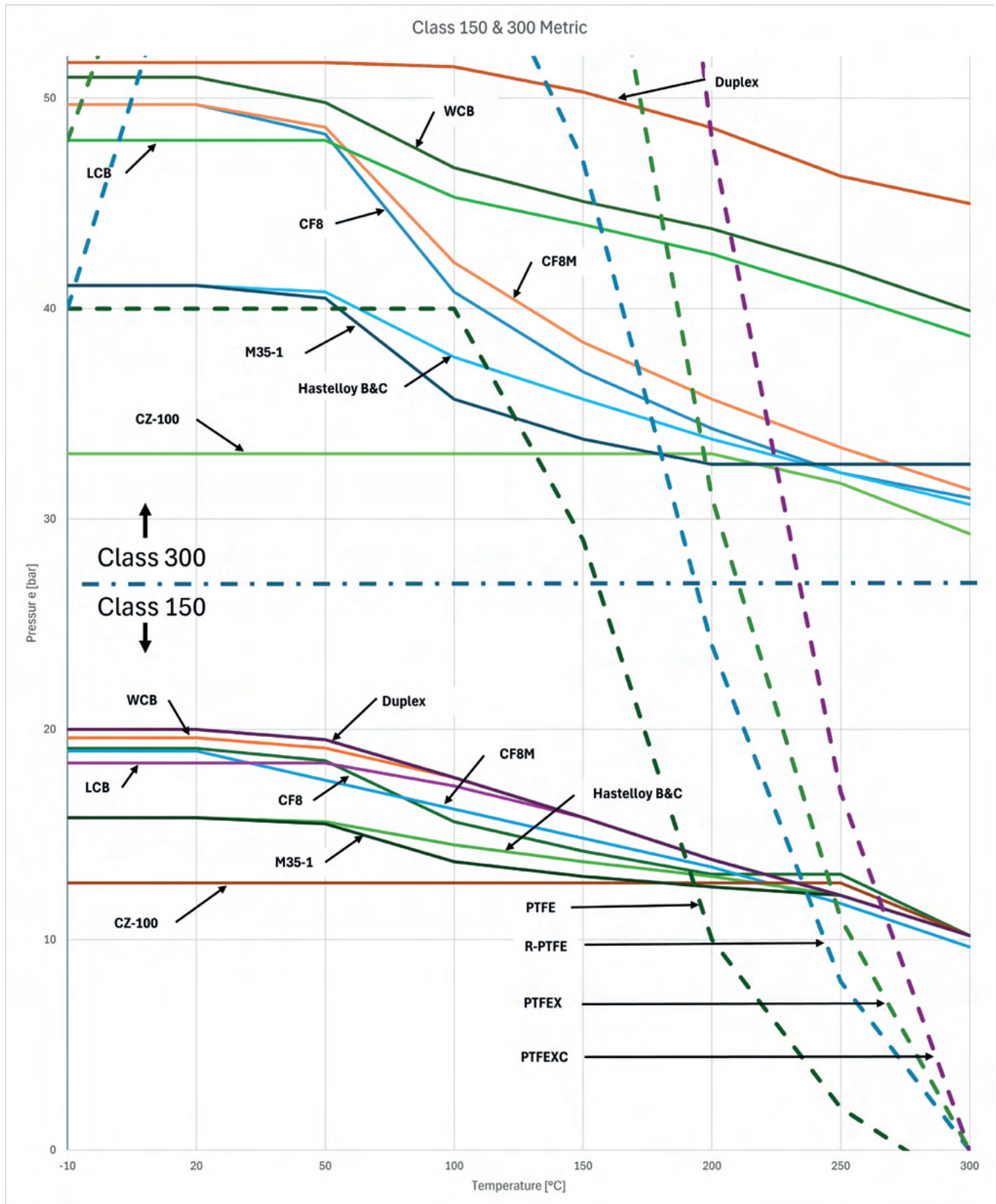
DN mm	NPS	A1cm ²	vs m ³ /h	c _v Gpm
15	½	1.7	8	9.25
20	¾	3.1	8	9.25
25	1	4.9	30	34.68
32		8.0	30	34.68
40	1 ½	12.5	63	72.83
50	2	19.6	125	144.50
65		33.2	125	144.50
80	3	50.2	220	254.32
100	4	78.5	400	462.40
150	6	176.6	800	924.80
200	8	314.0	1196	1382.58
250	10	491.0	1795	2075.02
300	12	706.0	2650	3063.40
350	14	962.1	4466	5162.70
400	16	1256.6	4466	5162.70

XOMOX® Sleeved Plug Valves Series FEO

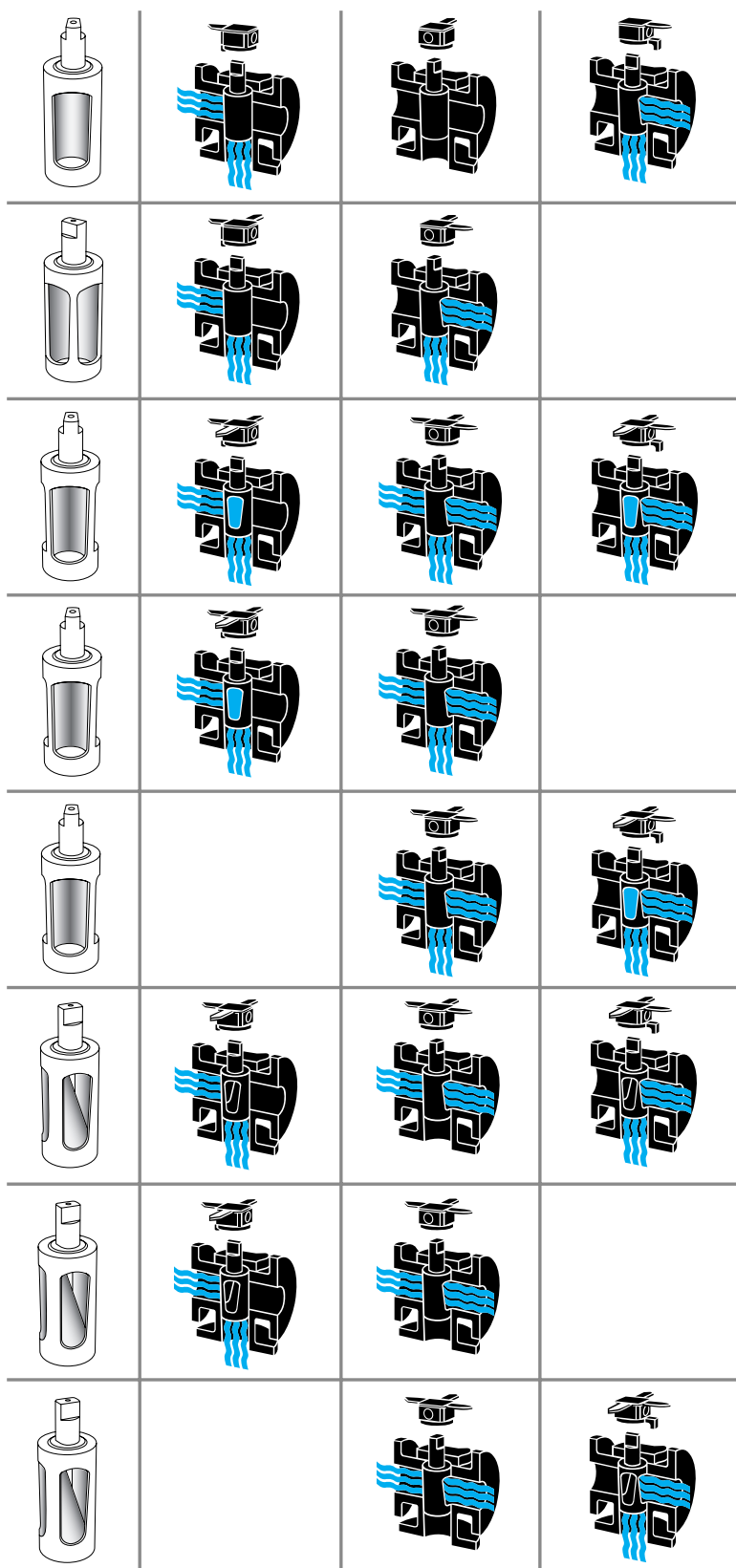
Pressure/Temperature Ratings (DIN Design)



XOMOX® Sleeved Plug Valves Series FE0 Pressure/Temperature Ratings (ASME Design)



XOMOX® Sleeved Plug Valves Series FEO Multiport Configurations



XOMOX® Sleeved Plug Valves Series FE0 How to order

DN25 – PN40		–127	–FE0	– 025	– 025	–P1	–Y																																																																		
Size & Class See Quick Reference Selection Table on the next page Figure Number See reference table for figure number selection Top Seal Configuration <table><tr><td>Standard</td><td>STD</td></tr><tr><td>ISO</td><td>ISO</td></tr><tr><td>FE0</td><td>FE0</td></tr><tr><td>ISO Firesafe</td><td>ISF</td></tr><tr><td>FE0 Firesafe</td><td>FEF</td></tr><tr><td>High Pressure</td><td>HP</td></tr><tr><td>High Pressure Firesafe</td><td>HPF</td></tr></table>		Standard	STD	ISO	ISO	FE0	FE0	ISO Firesafe	ISF	FE0 Firesafe	FEF	High Pressure	HP	High Pressure Firesafe	HPF						Operator <table><tr><td>Less Operator</td><td>N</td></tr><tr><td>Wrench</td><td>W</td></tr><tr><td>Wrench with locking device</td><td>Y</td></tr><tr><td>Gear</td><td>G</td></tr><tr><td>Gear with locking device</td><td>Z</td></tr><tr><td>Actuator</td><td>A</td></tr></table> Sleeve <table><tr><td>PTFE</td><td>P1</td></tr><tr><td>15% RPTFE</td><td>P2</td></tr><tr><td>25% RPTFE</td><td>P3</td></tr><tr><td>PFA</td><td>P6</td></tr><tr><td>UHMWPE</td><td>P8</td></tr><tr><td>PTFE X</td><td>P16</td></tr><tr><td>PTFE XC</td><td>P17</td></tr><tr><td>PTFE XV</td><td>P18</td></tr><tr><td>PTFE XXC</td><td>P20</td></tr><tr><td>Other (Specify)</td><td>PX</td></tr></table> Body / Plug <table><tr><td>Alloy 20 / 1.4451</td><td>038</td></tr><tr><td>Ductile Iron / GGG40.3</td><td>003</td></tr><tr><td>Carbon Steel / 1.0619</td><td>010</td></tr><tr><td>Monel / M35-1</td><td>046</td></tr><tr><td>Nickel / CZ-100</td><td>050</td></tr><tr><td>CF8M / 1.4408</td><td>025</td></tr><tr><td>Hastelloy B / N7M</td><td>145</td></tr><tr><td>CD4MCuN / 1.4507</td><td>146</td></tr><tr><td>Inconel / CY40</td><td>048</td></tr><tr><td>Other (Specify)</td><td>X</td></tr></table>	Less Operator	N	Wrench	W	Wrench with locking device	Y	Gear	G	Gear with locking device	Z	Actuator	A	PTFE	P1	15% RPTFE	P2	25% RPTFE	P3	PFA	P6	UHMWPE	P8	PTFE X	P16	PTFE XC	P17	PTFE XV	P18	PTFE XXC	P20	Other (Specify)	PX	Alloy 20 / 1.4451	038	Ductile Iron / GGG40.3	003	Carbon Steel / 1.0619	010	Monel / M35-1	046	Nickel / CZ-100	050	CF8M / 1.4408	025	Hastelloy B / N7M	145	CD4MCuN / 1.4507	146	Inconel / CY40	048	Other (Specify)	X
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Carbon steel	1.0619
302 stainless steel	EN 1.4310
304 stainless steel	EN 1.4301
304 stainless steel	EN 1.4308
304L stainless steel	EN 1.4306
316 stainless steel	EN 1.4408
316L stainless steel	EN 1.4409
Alloy 20	1.4451
Bronze	EN CC491K
CD4MCuN	EN 1.4507
Ductile Iron	GGG40.3
Hastelloy B	N7M
Hastelloy C	ASTM A494 CW6M
Inconel	CY40
Nickel	CZ-100
CF8M	1.4408
Monel	M35-1
Bronze	ASTM BI 48 Gr.958
Titanium	ASTM B367 Gr. C-3
Zirconium	ASTM B752 Gr. 702

Other ferrous and non-ferrous materials are available upon application.



CRANE CHEMPHARMA & ENERGY

Xomox International GmbH & Co.OHG
Von-Behring-Straße 15
88131 Lindau (Bodensee)
Germany
Tel.: +49 8382 702-0

Xomox Corp.
4444 Cooper Road,
Cincinnati, OH 45242
USA
Tel.: (513) 745-6000

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