

XOMOX[®]

XOMOX[®]
SLEEVED PLUG
VALVES
SERIES FEO



DATASHEET

CRANE[®]



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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

- Up to 40 Bar (580 psi) DIN Valves
- Up to 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

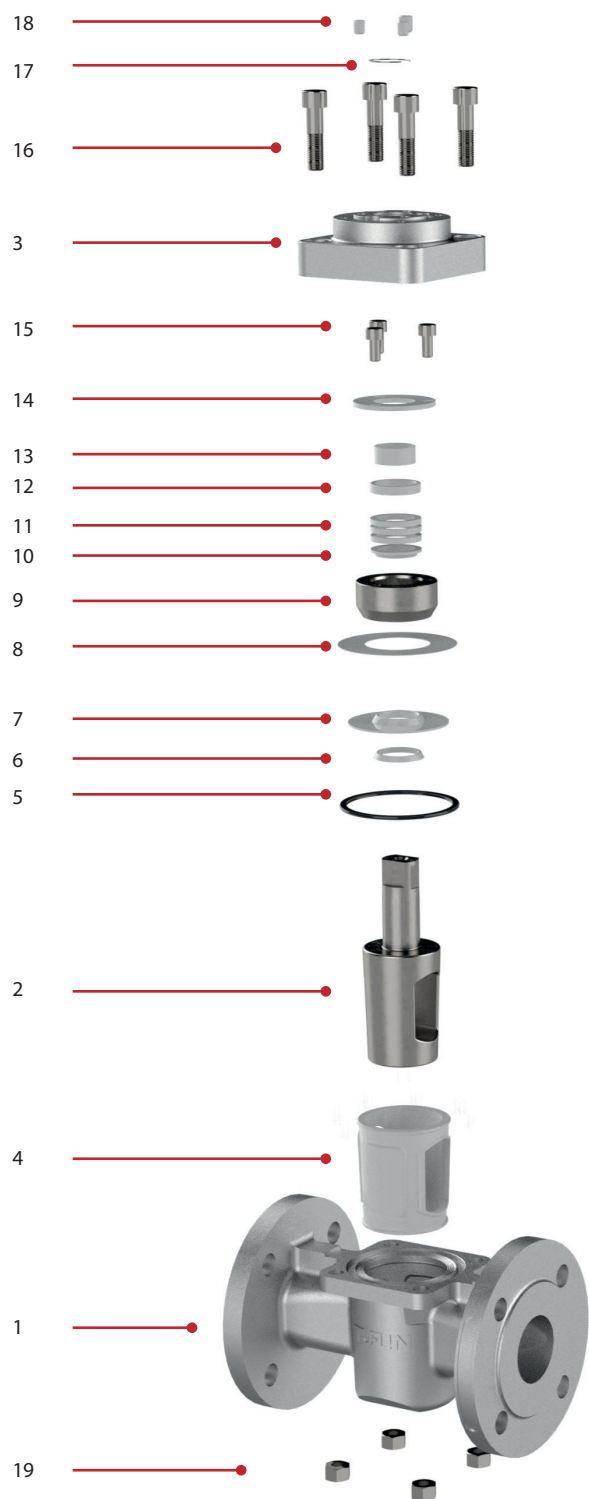
Typical Applications

- 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

- | | |
|---|--|
| <ul style="list-style-type: none"> 1 Regulatory compliance to ISO 15848-1:2015/2017 and TA-LUFT 2021 SSA0 Rating 2 Simplified maintenance & independent adjustment 3 Certified temperature range from -60°C to 275°C 4 Certified with AH – less than 20 ppm FUGITIVE EMISSIONS | <ul style="list-style-type: none"> 5 ISO 5211 top flange 6 Live loaded design & triple sealing system 7 No cavities, no contamination 8 Superior, longer-lasting in-line sealing |
|---|--|

XOMOX® Sleeved Plug Valves Series FE0 Materials of Construction

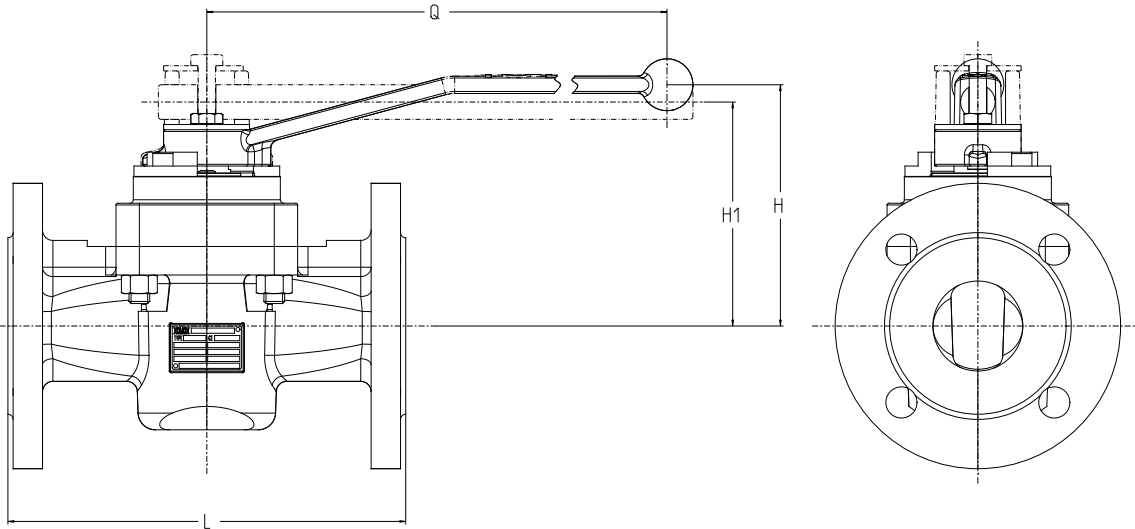


No	Component	SS/SS	WCB/SS
1	Body*	1.4408	1.0619
2	Plug*	1.4408	1.4408
3	Cover	1.4408	1.4408
4	Sleeve*	PTFE	PTFE
5	Cover Gasket	PTFE/SS/Graphite	PTFE/SS/Graphite
6	Wedge Ring	PTFE	PTFE
7	Formed Diaphragm	PTFE	PTFE
8	Metal Diaphragm	1.4301	1.4301
9	Stuffing Box	1.4408	1.4408
10	Peek Ring	PEEK	PEEK
11	Packing Rings	PTFE + Graphite	PTFE + Graphite
12	Follower	1.4571	1.4571
13	Stem Bearing	PTFE	PTFE
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



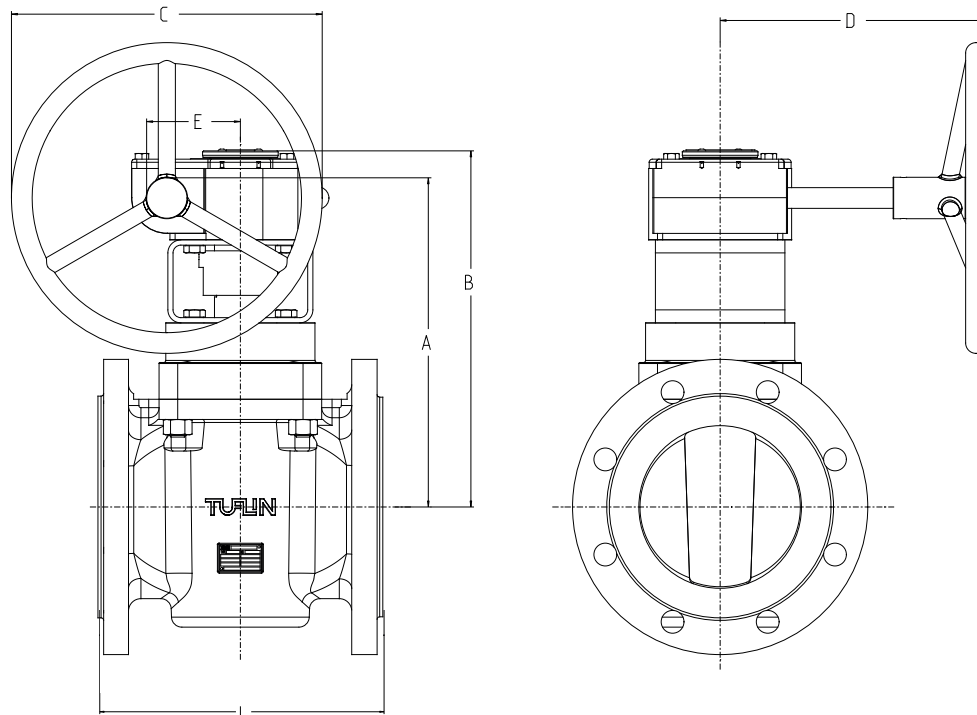
Dimensions in mm

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

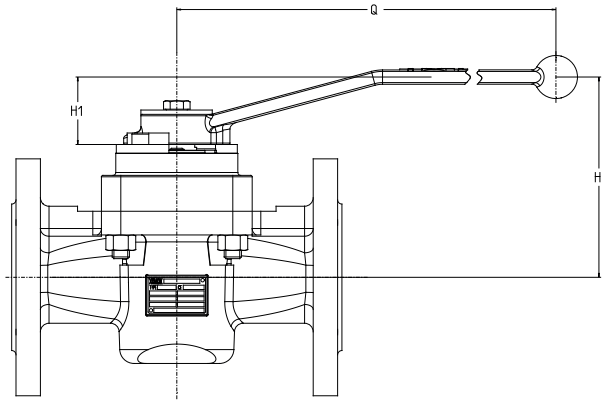
*** PN 10 - 16 only

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

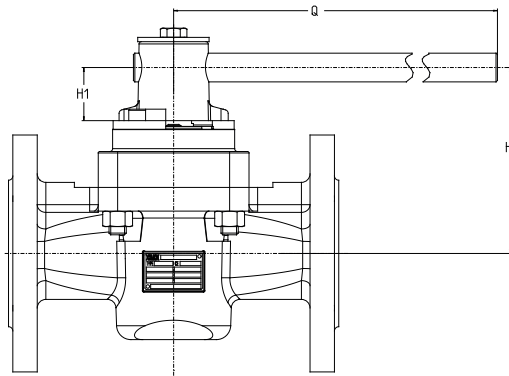
Standard Wrench

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



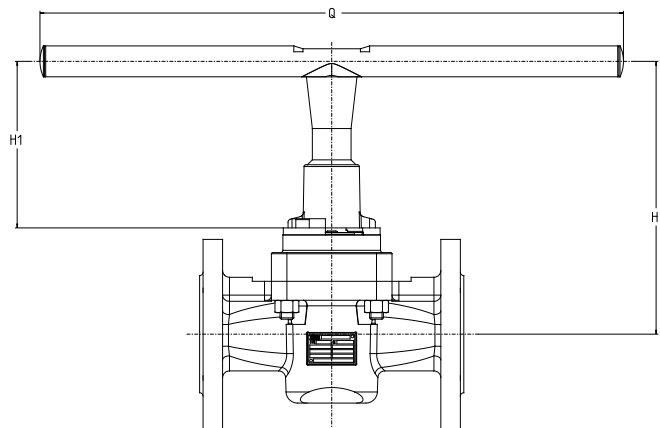
Wrench w/ Hub Cap

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 Kvs/Cv Values

Valve Torque (Nm)

PTFE & PTFE X

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

Following Torque Multipliers are applicable based on material selection:

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

PFA Sleeve: 2x

Other sleeve materials available upon request.

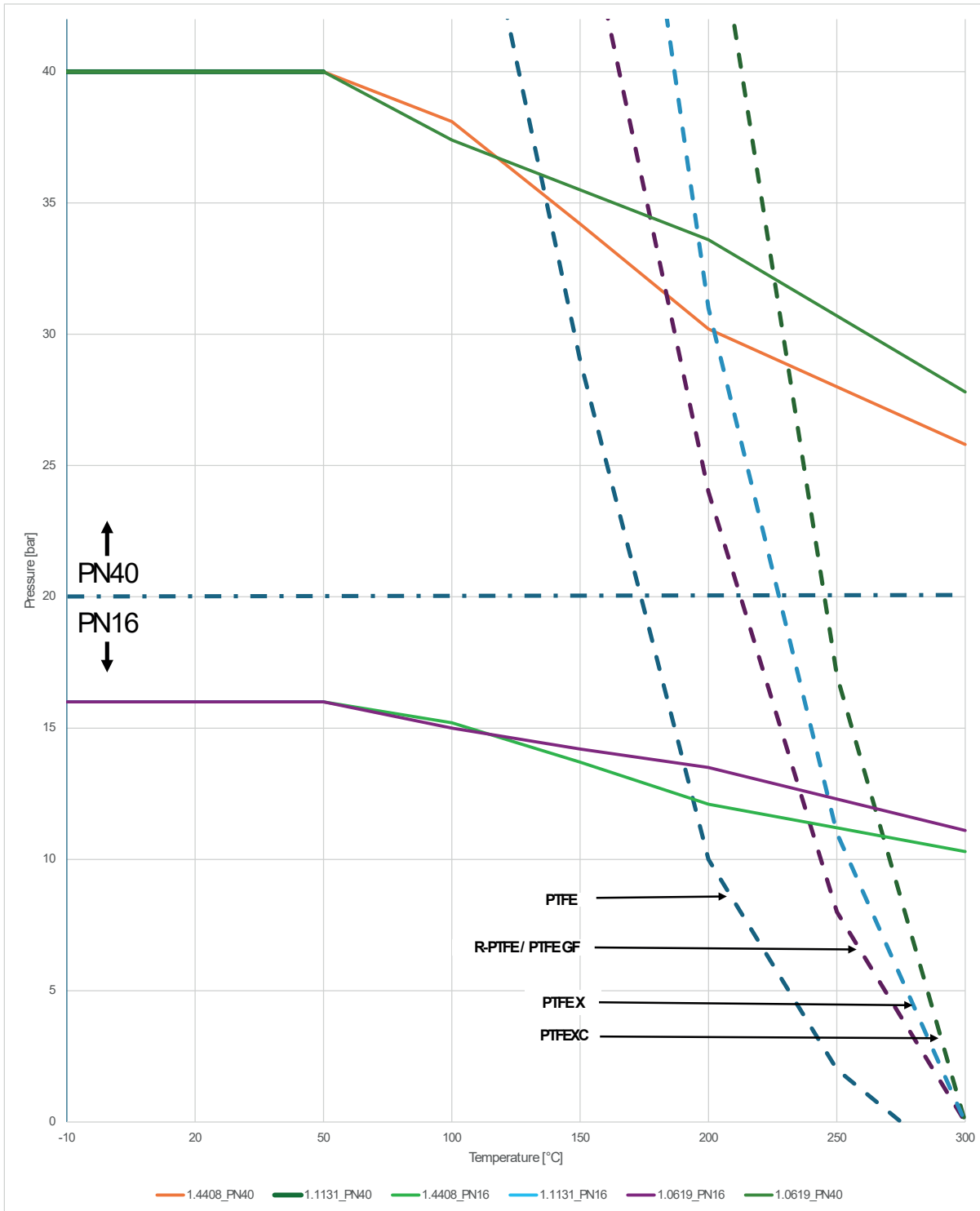
Shown values are for standard assembly using grease. Different Assembly methods, for example oil & grease free are impacting those values. Values upon request.

Flow Characteristics

Kvs / Cv—Values

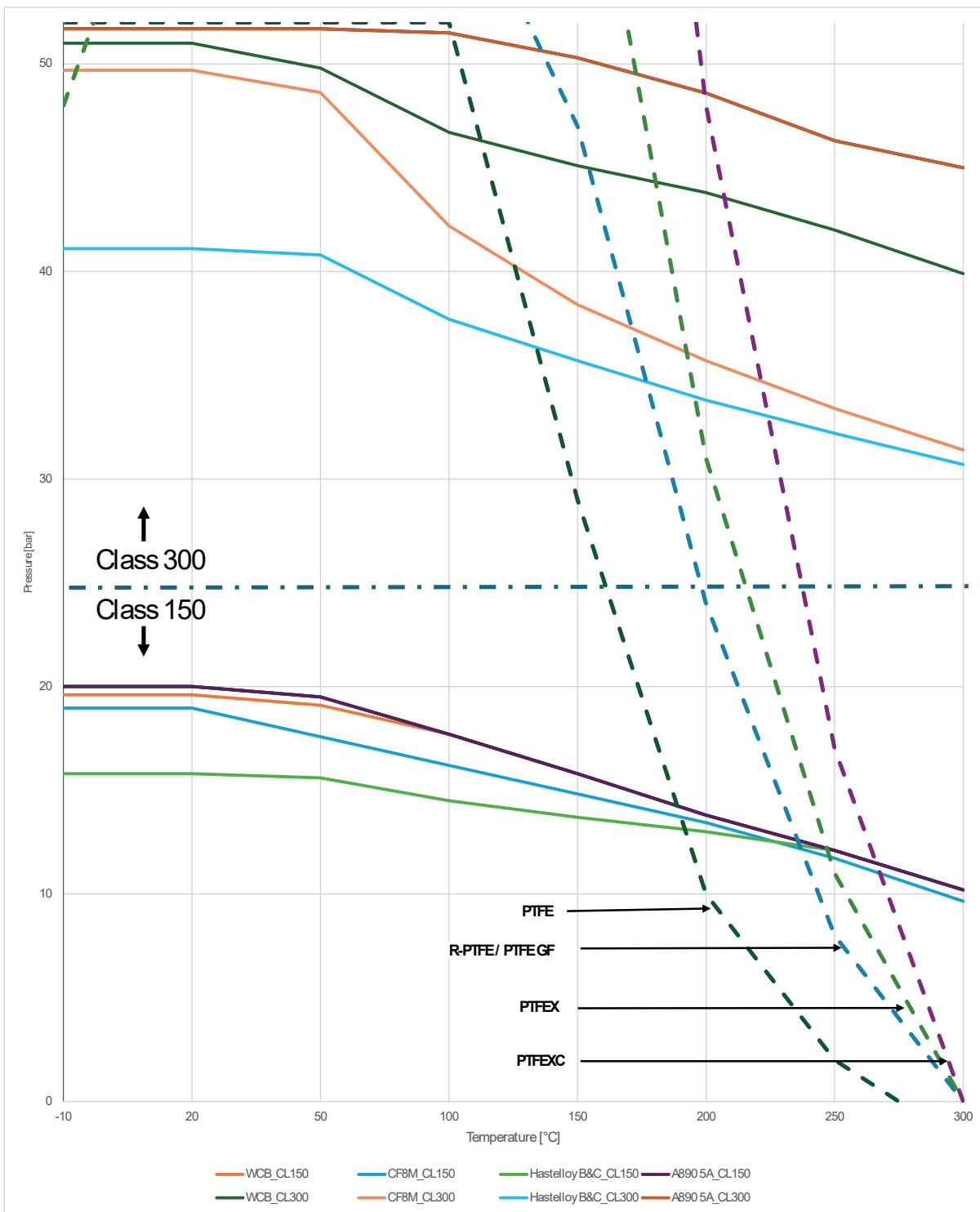
DN mm	NPS	Kvs m ³ /h	Cv Gpm
15	½	8	9.25
20	¾	8	9.25
25	1	30	34.68
32		30	34.68
40	1 ½	63	72.83
50	2	125	144.50
65		125	144.50
80	3	220	254.32
100	4	400	462.40
150	6	800	924.80
200	8	1196	1382.58
250	10	1795	2075.02
300	12	2650	3063.40
350	14	4466	5162.70
400	16	4466	5162.70

XOMOX® Sleeved Plug Valves Series FEO Pressure/Temperature Ratings (DIN Design)



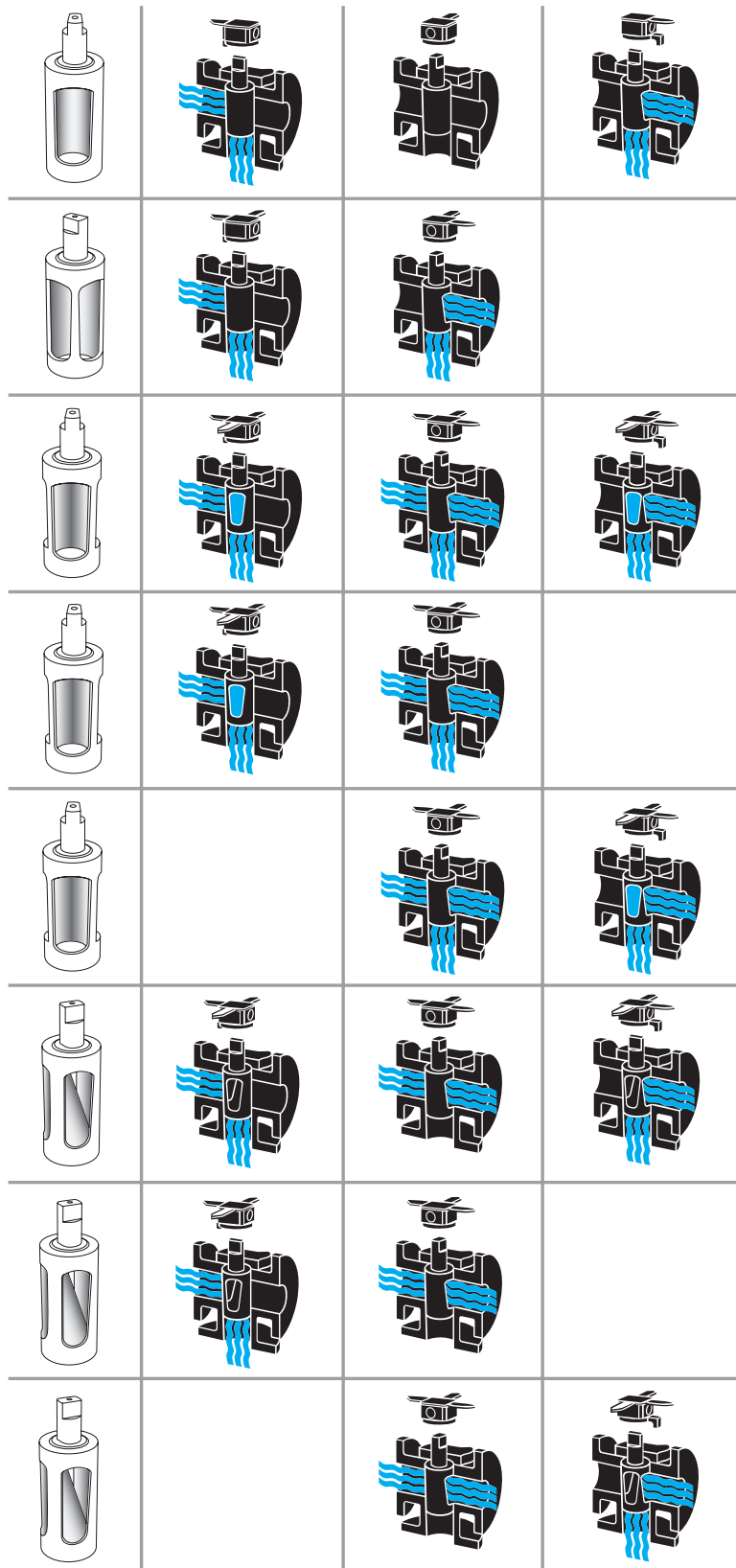
Note: Maximum permissible permanent operating temperature of the sleeve materials: 260°C
The permissible operating pressure for the metallic housing can be found in EN 12516-1 or EN 1092-1.

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

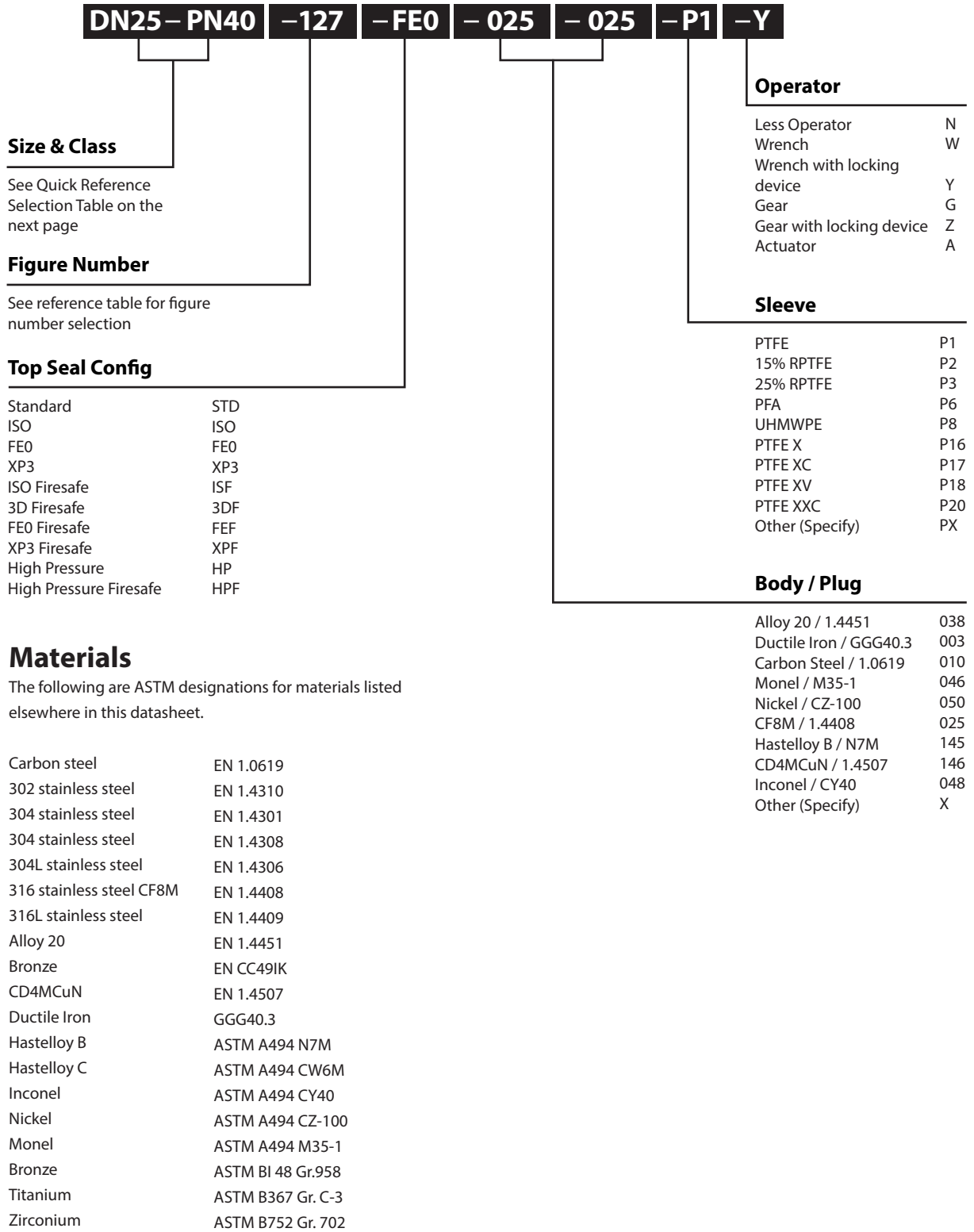


Note: Maximum permissible permanent operating temperature of the sleeve materials: 260°C
The permissible operating pressure for the metallic housing can be found in EN 12516-1 or EN 1092-1.

XOMOX® Sleeved Plug Valves Series FEO Multiport Configurations



XOMOX® Sleeved Plug Valves Series FE0 How to order



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

CRANE®

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