



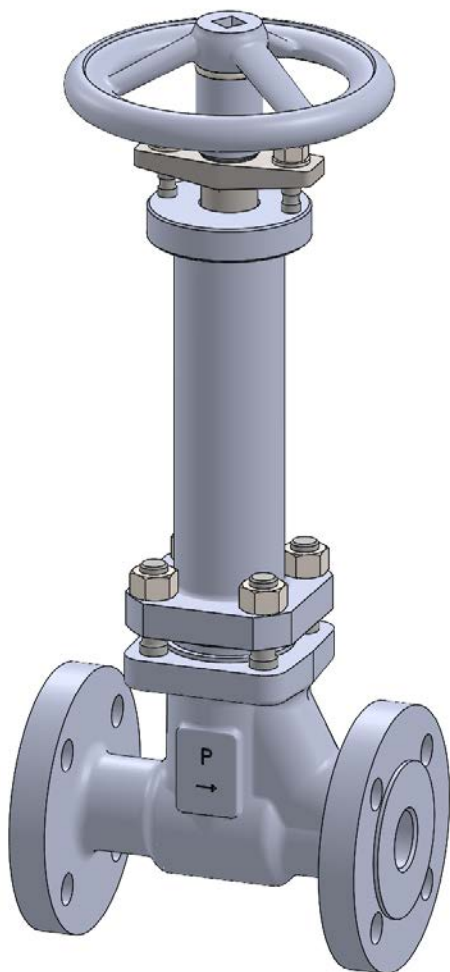
PHÖNIX

STRACK

DAUME
REGELARMATUREN



Solent & Pratt
Phoenix Ltd



Globe Valve

Type 141

PN 40

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Model 141

Straight Way / Exposed Bellows

Applications & Design Features

Applications

Model 141 is designed for critical service applications involving lethal, toxic, corrosive, inflammable, volatile, radiating, or expensive fluids.

The most common applications are

- Anhydrous Hydrogen Chloride (HCl)
- Vinyl Chloride Monomer (VCM)
- Ethylene Dichloride (EDC)
- Isocyanites (MDI, TDI, HDI, etc.)
- Heat transfer fluid application (steam, hot oil, molten Sodium, etc.)
- fluids of similar nature
- and other

The unique valve design guarantees reliable and excellent protection against leaks or fugitive emissions and combines the Pressure Relief Valve function with the option of an on/off valve.

Design features

Bellows and Packing

- exposed to product flow for self cleaning
- multiple walls and hydroformed bellows
- up to 10.000 bellows operations guaranteed

Stem

- design eliminates stem bearings along with their maintenance needs
- guided stem on top and bottom

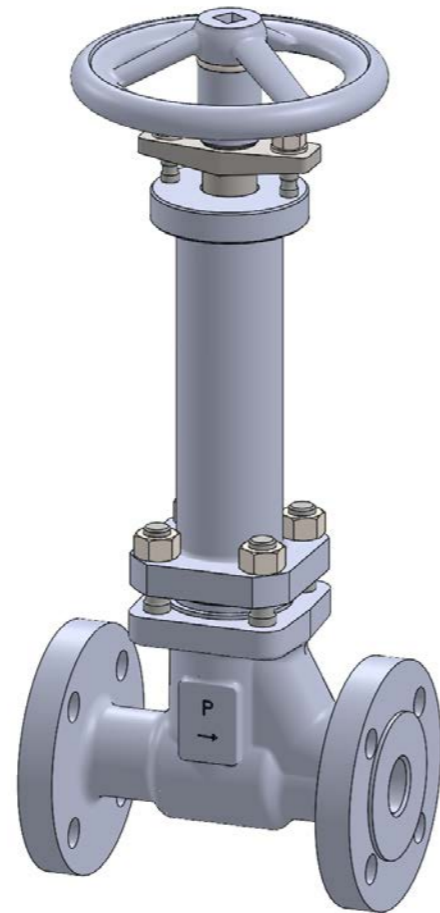
Body and Bonnet

- bodies are forgings or castings with larger than required wall thickness and integral flanges
- extended bonnet provides for good thermal insulation
- body bonnet joint gasket is fully confined to prevent gasket flow or blowout

Disc and Seats

- solid hardfacings for outstanding corrosion and wear resistance
- replaceable disc and sealing device for inexpensive maintenance

= zero emissions, zero seat leakage, low maintenance



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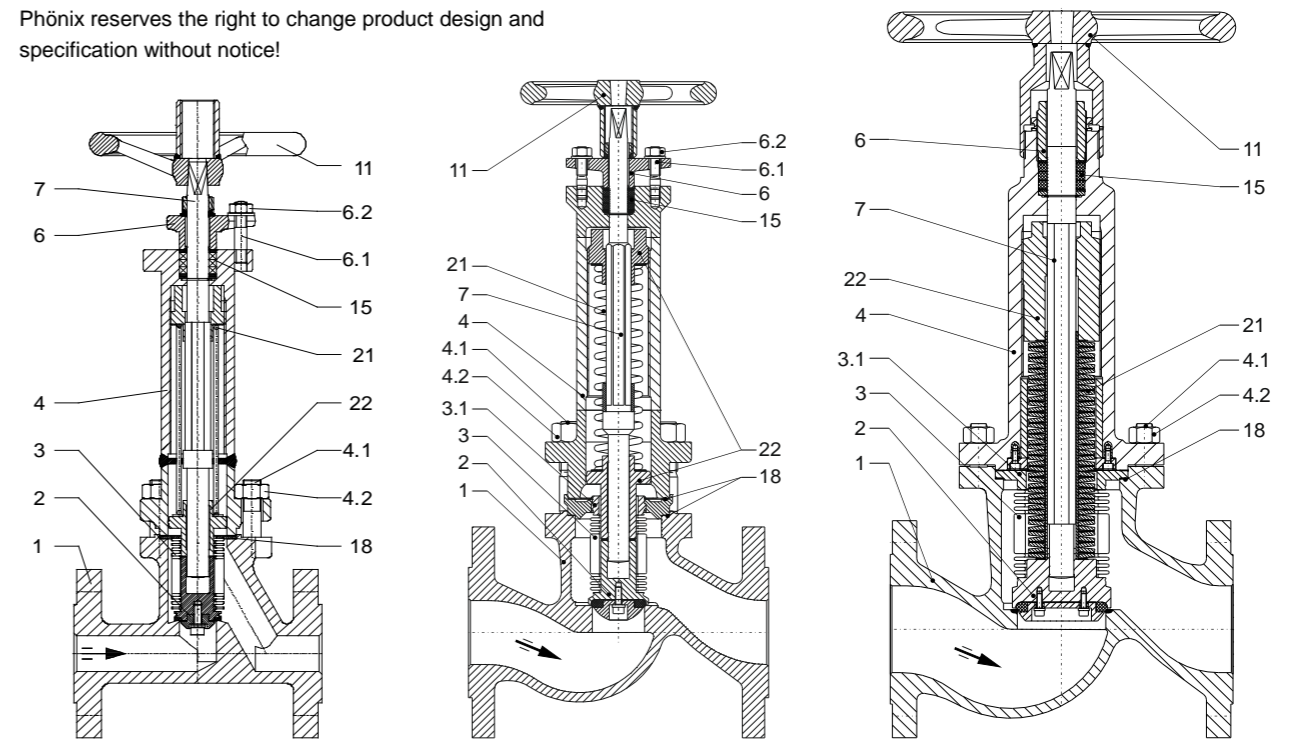
Standard Materials of Construction

Options

Other materials per customer requirements are available!

Notes

Phönix reserves the right to change product design and specification without notice!



Materials

Item	Part Name	Carbon steel Model 141C up to 450°C	Stainless steel Model 141V -200°C up to 400°C
1	Body	1.0460 / 1.0619	1.4404 / 1.4408
	Seat overlay	1.4370 (≈ 200HRB)	like body (≈ 200HRB)
2	Disc guiding	1.4571	1.4571
	Disc	Graphite compound	Graphite compound
3	Bellows	1.4571	1.4571
3.1	Ring	1.4571	1.4571
4	Bonnet	1.0460 / 1.0619	1.4404 / 1.4408 / 1.4571
4.1	Stud bolt	1.7709	A4-70
4.2	Hex. nut	1.7218	A4-70
6	Gland follower	1.0619	1.4408
6.1	Stud bolt	Steel 5.6	A4-70
6.2	Hex. nut	Steel 5	A4-70
7	Stem	1.4057	1.4057
11	Handwheel	Cast iron	Cast iron
15	Packing	Graphite	Graphite
18	Gasket	Stainless steel / graphite	Stainless steel / graphite
21	Spring	1.1200	1.1200
≥DN80	Pring package	1.8159	1.8159
22	Spring support	1.4021	1.4021



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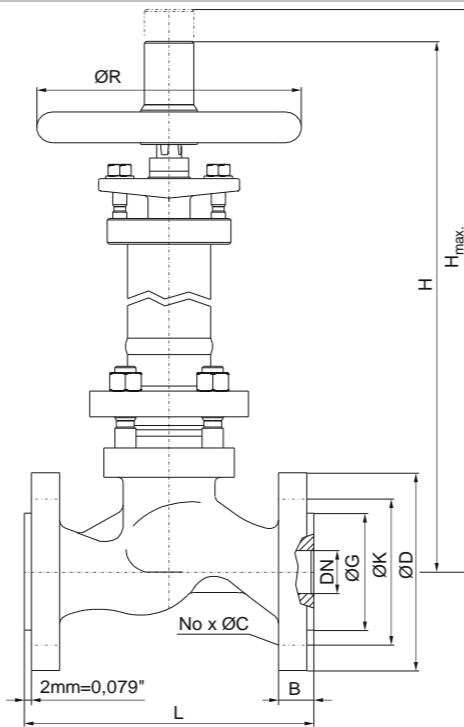
PN40 Sizes DN15 - DN100

Options

- Other customer specific designs on request

Notes

- Design acc. PED 2014/68/EU and harmonized standards
- Standard tests acc. to DIN EN 12266, ISO 5208
- Preservation acc. to manufacturer standard
- Connections:
 - Flanges acc. to DIN EN 1092-1
 - Butt Weld Ends acc. to DIN EN 12627
 - Socket Weld Ends acc. to DIN EN 12760
- F-T-F Dimensions:
 - Flanges acc. to DIN EN 558-1
 - Butt Weld Ends acc. to DIN EN 12982
 - Socket Weld Ends acc. to manufacturer standard

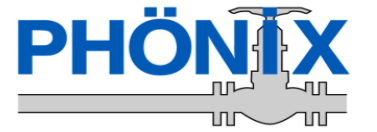


Common Spring Adjustment Ranges

DN	Adjustment range [bar]									
	0.5-1.5	1.5-2.5	1.5-3.0	2.5-9.0	3.0-5.0	5.0-10	9.0-19	10-17	17-22	19-33
15	X	X		X			X			X
20	X	X		X			X			X
25	X	X		X			X			X
32	X		X		X	X		X	X	
40	X		X		X	X		X	X	
50	X		X		X	X		X	X	
80						X	X	X	X	
100						X	X	X	X	

Dimensions & Weights & Flow Coefficients

DN	Unit	Globe		Hmax.	ØR	Flange facing type B1					Weight	Kv [m³/h]	cv [USGal/min]
		L	H			ØG	ØK	No x ØC	ØD	B			
15	[mm]	130	380	395	150	45	65	4 x 14	95	16	8 kg	3.4	
15	[in]	5.12	14.96	15.55	5.91	1.77	2.56	4 x 0.55	3.74	0.63	17.6 lbs	3.95	
20	[mm]	150	380	395	150	58	75	4 x 14	105	18	8 kg	7	
20	[in]	5.91	14.96	15.55	5.91	2.28	2.95	4 x 0.55	4.13	0.71	17.6 lbs	8.14	
25	[mm]	160	380	395	150	68	85	4 x 14	115	18	9 kg	8.3	
25	[in]	6.30	14.96	15.55	5.91	2.68	3.35	4 x 0.55	4.53	0.71	19.8 lbs	9.65	
32	[mm]	180	440	455	200	78	100	4 x 18	140	18	18 kg	18	
32	[in]	7.09	17.32	17.91	7.87	3.07	3.94	4 x 0.71	5.51	0.71	40 lbs	20.93	
40	[mm]	200	440	455	200	88	110	4 x 18	150	18	20 kg	21	
40	[in]	7.87	17.32	17.91	7.87	3.46	4.33	4 x 0.71	5.91	0.71	44 lbs	24	
50	[mm]	230	455	470	200	102	125	4 x 18	165	20	22 kg	31	
50	[in]	9.06	17.91	18.50	7.87	4.02	4.92	4 x 0.71	6.50	0.79	49 lbs	36	
80	[mm]	310	655	685	315	138	160	8 x 18	200	24	56 kg		
80	[in]	12.20	25.79	26.97	12.40	5.43	6.30	8 x 0.71	7.87	0.94	123 lbs		
100	[mm]	350	685	715	315	162	190	8 x 22	235	24	71 kg		
100	[in]	13.78	26.97	28.15	12.40	6.38	7.48	8 x 0.87	9.25	0.94	157 lbs		



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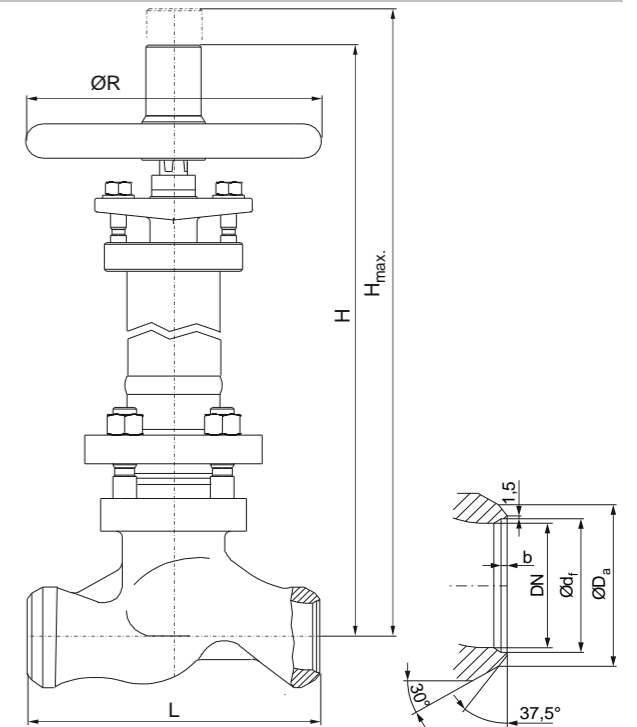
PN40 Sizes DN15 - DN100

Options

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Notes

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- Standard tests acc. to DIN EN 12266, ISO 5208
- Preservation acc. to manufacturer standard
- Connections:
 - Flanges acc. to DIN EN 1092-1
 - Butt Weld Ends acc. to DIN EN 12627
 - Socket Weld Ends acc. to DIN EN 12760
- F-T-F Dimensions:
 - Flanges acc. to DIN EN 558-1
 - Butt Weld Ends acc. to DIN EN 12982
 - Socket Weld Ends acc. to manufacturer standard



Common Spring Adjustment Ranges

DN	Adjustment range [bar]									
	0.5-1.5	1.5-2.5	1.5-3.0	2.5-9.0	3.0-5.0	5.0-10	9.0-19	10-17	17-22	19-33
15	X	X		X			X			X
20	X	X		X			X			X
25	X	X		X			X			X
32	X		X		X	X		X	X	
40	X		X		X	X		X	X	
50	X		X		X	X		X	X	
80						X	X	X	X	
100						X	X	X	X	

Dimensions & Weights & Flow Coefficients

DN	Unit	Globe		Hmax.	ØR	Butt Weld Ends				Weight	Kv [m³/h]	cv [USGal/min]
		L	H			ØDa	Ød1	b	for pipe			
15	[mm]	130	380	395	150	22	17	3	Ø21.3 x 2.0	7 kg	3.4	
15	[in]	5.12	14.96	15.55	5.91	0.87	0.67	0.12	Ø0.84 x 0.08	15.4 lbs	3.95	
20	[mm]	150	380	395	150	28	22	4	Ø26.9 x 2.3	6 kg	7	
20	[in]	5.91	14.96	15.55	5.91	1.10	0.87	0.16	Ø1.06 x 0.09	13.2 lbs	8.14	
25	[mm]	160	380	395	150	35	28.5	4	Ø33.7 x 2.6	7 kg	9.5	
25	[in]	6.30	14.96	15.55	5.91	1.38	1.12	0.16	Ø1.33 x 0.10	15.4 lbs	11.05	
32	[mm]	180	440	455	200	44	ON REQUEST			15 kg	18	
32	[in]	7.09	17.32	17.91	7.87	1.73	ON REQUEST			33 lbs	20.93	
40	[mm]	200	440	455	200	50	43	4	Ø48.3 x 2.6	16 kg	27	
40	[in]	7.87	17.32	17.91	7.87	1.97	1.69	0.16	Ø1.90 x 0.10	35 lbs	31	
50	[mm]	230	455	470	200	62	53.5	5	Ø60.3 x 3.2	17 kg	40	
50	[in]	9.06	17.91	18.50	7.87	2.44	2.11	0.20	Ø2.37 x 0.13	37 lbs	47	
80	[mm]	310	655	685	315	91	80.5	6	Ø88.9 x 4.0	48 kg	113	
80	[in]	12.20	25.79	26.97	12.40	3.58	3.17	0.24	Ø3.50 x 0.16	106 lbs	131	
100	[mm]	350	685	715	315	117	104.3	8	Ø114.3 x 5.0	61 kg	179	
100	[in]	13.78	26.97	28.15	12.40	4.61	4.11	0.31	Ø4.50 x 0.20	134 lbs	208	

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