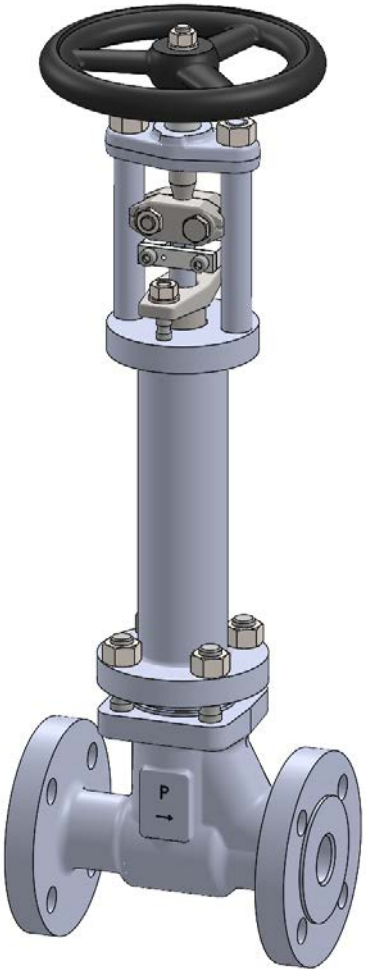
PHÖNIX STRACK DAUME REGELARMATUREN S+P Solent & Pratt Phönix Ltd



Globe Valve

Type 142

PN 40

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PHÖNIX VALVE GROUP

Model 142

Straight Way / Exposed Bellows

Applications & Design Features

Applications

Model 142 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

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

- two-piece stem protects the bellows against torque stress
- design eliminates stem bearings along with their maintenance needs
- guided stem on top and bottom

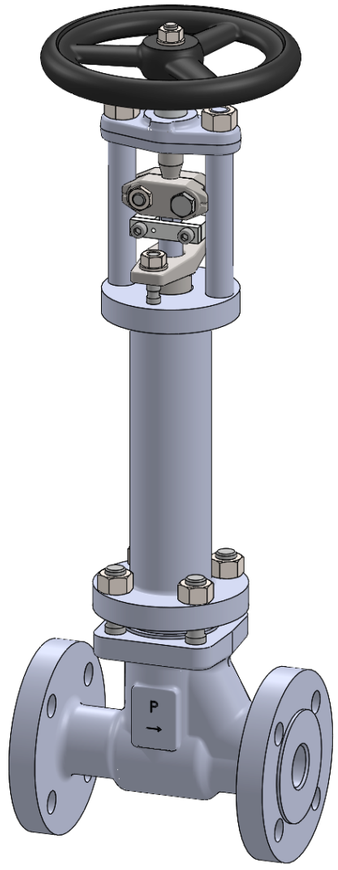
Body and Bonnet

- 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



Pressure Relief Valve *Bellows Sealed*

Model 142

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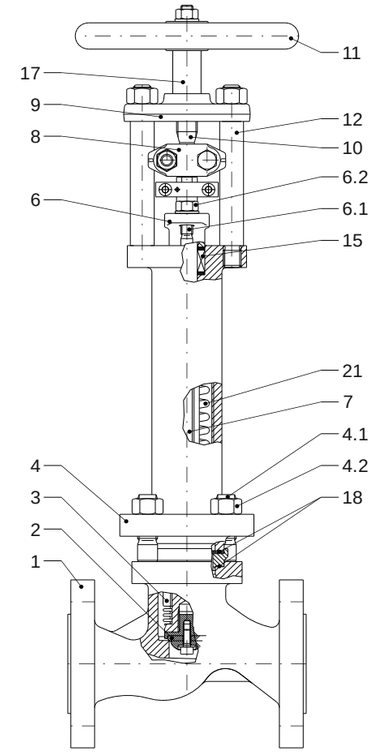
Standard Materials of Construction

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 142C** up to 450°C	Stainless steel **Model 142V** -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
4	Bonnet	1.0460 / 1.0619	1.4404 / 1.4408
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	Lower stem	1.4571	1.4571
8	Coupling	1.4408	1.4408
9	Bridge	1.0460, QPQ-nitrided	1.0460, QPQ-nitrided
10	Upper stem	1.4057	1.4057
11	Handwheel	Cast iron	Cast iron
12	Pillar	1.0501	1.4057
15	Packing	Graphite	Graphite
17	Bushing	1.4057	1.4057
18	Gasket	Stainless steel / graphite	Stainless steel / graphite
21	Spring	1.4310	1.4310
22	Spring support	1.4021	1.4021

Pressure Relief Valve *Bellows Sealed*

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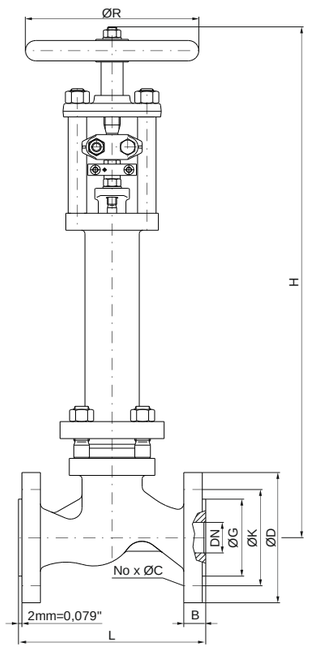
PN40 Sizes DN15 - DN50



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	

Dimensions & Weights & Flow Coefficients

DN	Unit	Globe			Flage facing type B1						Kv [m³/h]
		L	H	ØR	ØG	ØK	No x ØC	ØD	B	Weight	cv *[USGal/min]*
15	[mm]	130	350	150	45	65	4 x 14	95	16	10 kg	3.4
	[in]	*5.12*	*13.78*	*5.91*	*1.77*	*2.56*	*4 x 0.55*	*3.74*	*0.63*	*22 lbs*	*3.95*
20	[mm]	150	350	150	58	75	4 x 14	105	18	11 kg	7
	[in]	*5.91*	*13.78*	*5.91*	*2.28*	*2.95*	*4 x 0.55*	*4.13*	*0.71*	*24 lbs*	*8.14*
25	[mm]	160	350	150	68	85	4 x 14	115	18	11 kg	8.3
	[in]	*6.30*	*13.78*	*5.91*	*2.68*	*3.35*	*4 x 0.55*	*4.53*	*0.71*	*24 lbs*	*9.65*
32	[mm]	180	515	200	78	100	4 x 18	140	18	20 kg	18
	[in]	*7.09*	*20.28*	*7.87*	*3.07*	*3.94*	*4 x 0.71*	*5.51*	*0.71*	*44 lbs*	*20.93*
40	[mm]	200	515	200	88	110	4 x 18	150	18	24 kg	21
	[in]	*7.87*	*20.28*	*7.87*	*3.46*	*4.33*	*4 x 0.71*	*5.91*	*0.71*	*53 lbs*	*24*
50	[mm]	230	515	200	102	125	4 x 18	165	20	25 kg	31
	[in]	*9.06*	*20.28*	*7.87*	*4.02*	*4.92*	*4 x 0.71*	*6.50*	*0.79*	*55 lbs*	*36*

Pressure Relief Valve *Bellows Sealed*

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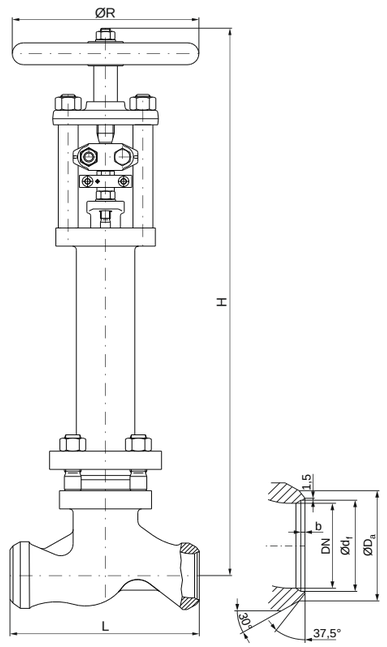
PN40 Sizes DN15 - DN50



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

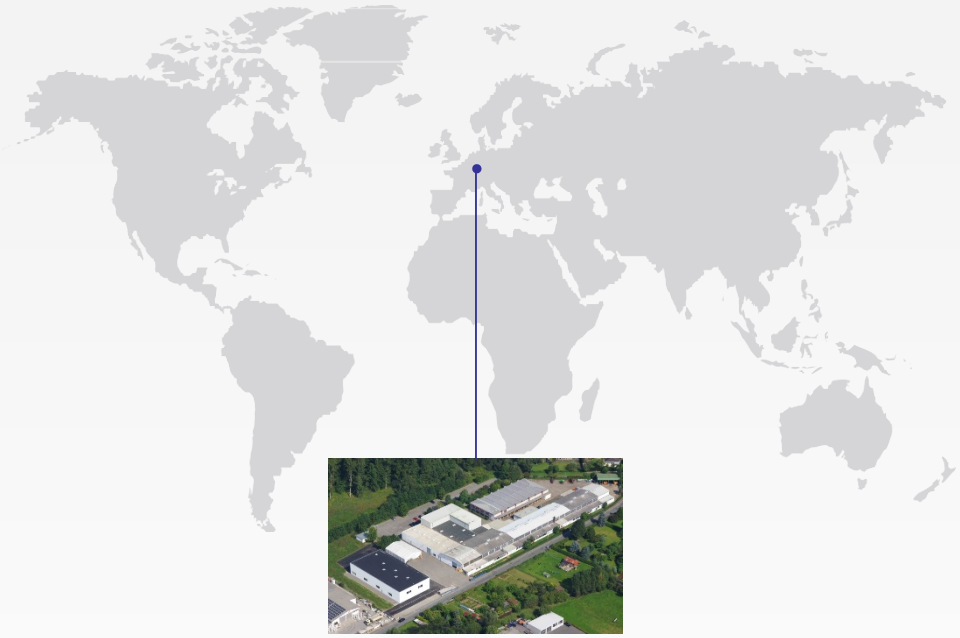
Common Spring Adjustment Ranges

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	

Dimensions & Weights & Flow Coefficients

DN	Unit	Globe			Butt Weld Ends					Kv [m³/h]
		L	H	ØR	$ØD_a$	$Ød_f$	b	for pipe	Weight	cv *[USGal/min]*
15	[mm]	130	350	150	22	17	3	Ø21.3 x 2.0	8.5 kg	3.4
	[in]	*5.12*	*13.78*	*5.91*	*0.87*	*0.67*	*0.12*	*Ø0.84 x 0.08*	*18.7 lbs*	*3.95*
20	[mm]	150	350	150	28	22	4	Ø26.9 x 2.3	9 kg	7
	[in]	*5.91*	*13.78*	*5.91*	*1.10*	*0.87*	*0.16*	*Ø1.06 x 0.09*	*19.8 lbs*	*8.14*
25	[mm]	160	350	150	35	28.5	4	Ø33.7 x 2.6	9 kg	9.5
	[in]	*6.30*	*13.78*	*5.91*	*1.38*	*1.12*	*0.16*	*Ø1.33 x 0.10*	*19.8 lbs*	*11.05*
32	[mm]	180	515	200	44	ON REQUEST			17 kg	18
	[in]	*7.09*	*20.28*	*7.87*	*1.73*				*37 lbs*	*20.93*
40	[mm]	200	515	200	50	43	4	Ø48.3 x 2.6	20 kg	27
	[in]	*7.87*	*20.28*	*7.87*	*1.97*	*1.69*	*0.16*	*Ø1.90 x 0.10*	*44 lbs*	*31*
50	[mm]	230	515	200	62	53.5	5	Ø60.3 x 3.2	20 kg	40
	[in]	*9.06*	*20.28*	*7.87*	*2.44*	*2.11*	*0.20*	*Ø2.37 x 0.13*	*44 lbs*	*47*

Contact us



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