

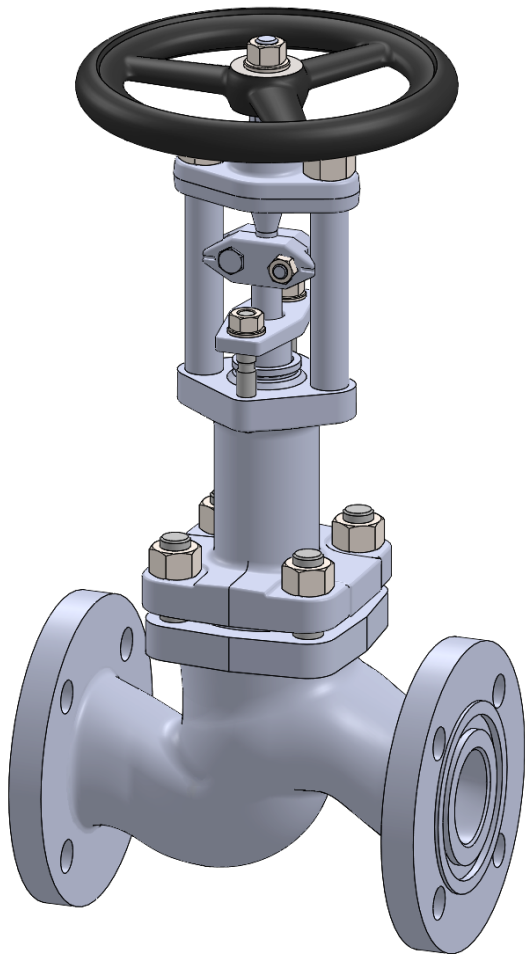


**PHÖNIX**  
VALVE GROUP

**STRACK**  
VALVE GROUP

**DAUME**  
REGELARMATUREN

**SIP** Solent & Pratt  
Phönix Ltd



# Globe Valve

## Type 350

### PN 250

Phönix Valve Group  
Am Stadtbruch 6  
34471 Volkmarsen

Phone:  
web:  
eMail:

+49 5693 988 0  
[www.phoenix-valvegroup.com](http://www.phoenix-valvegroup.com)  
[info@phoenix-valvegroup.com](mailto:info@phoenix-valvegroup.com)



## Model 350

Straight Way / Protected Bellows

### Applications & Design Features

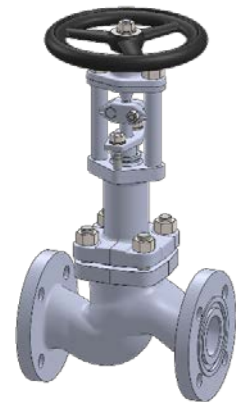
#### Applications

Model 350 is designed for critical service applications involving lethal, toxic, corrosive, inflammable, volatile, radiating, or expensive fluids. A Fire-Safe approved design per DIN EN 10497 is available for applications that have to comply with fire security standards.

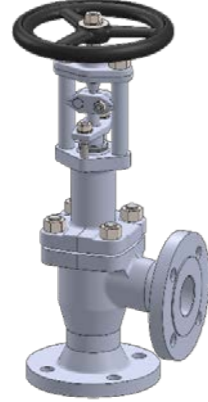
High vacuum resistant design 10<sup>-3</sup> to 10<sup>-8</sup> mbar, helium leakage test is possible if required  
the most common applications are

- Dry Chlorine (Cl<sub>2</sub>)
- Anhydrous Hydrogen Chloride (HCl)
- Vinyl Chloride Monomer (VCM)
- Ethylene Dichloride (EDC)
- Anhydrous Hydrofluoric Acid (HF)
- Isocyanates (MDI, TDI, HDI, etc.)
- heat transfer fluid application (steam, hot oil, molten Sodium, etc.) and
- fluids of similar nature.

The unique valve design guarantees reliable and excellent protection against leaks or fugitive emissions. The stem seal requires virtually no maintenance due to leak free weld connections of the bellows with bonnet and stem. Constant packing monitoring and re-packing is eliminated. In the unlikely event of a bellows failure the backup packing guarantees safe valve performance until the next scheduled shutdown.



*Straight*



*Angle*



*Y-Pattern*

#### Design Features

##### Bellows and Packing

- bellows protected in extended bonnet against direct impingement from product flow
- multiple walls and hydroformed bellows
- up to 50.000 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
- one-piece stem design upon request

##### 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

##### Seats

- solid hardfacings for outstanding corrosion and wear resistance
- knife edge metal-to-metal seat for bubble-tight shutoff
- replaceable disc for inexpensive maintenance

**= zero emissions, zero seat leakage, low maintenance**

## Model 350

Straight Way / Protected Bellows

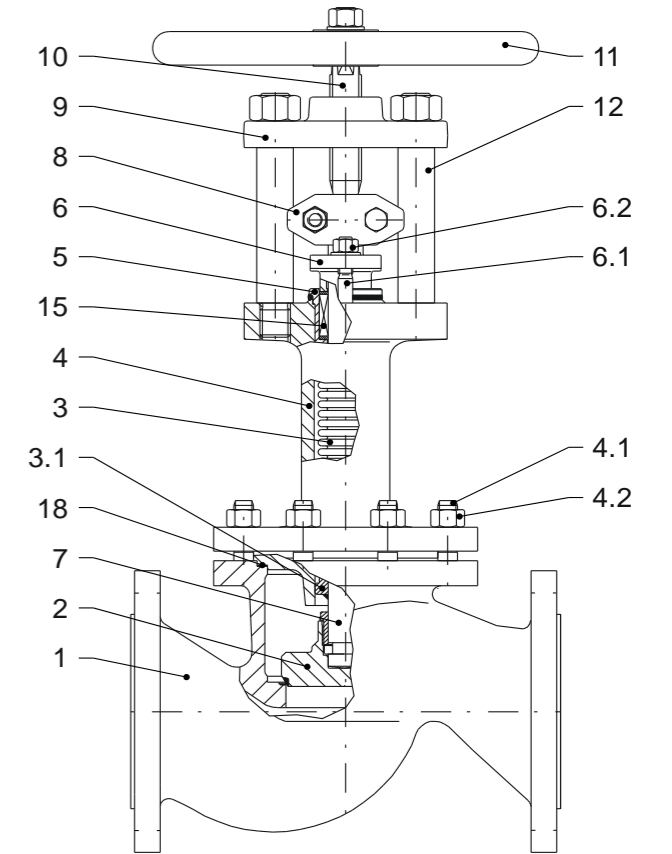
### Standard Materials of Construction

#### 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 350C up to 450°C	low temp. Carbon steel Model 350T -50°C up to 300°C	Stainless steel Model 350V -200°C up to 400°C
1	Body Seat overlay	1.0460 / 1.0619 1.4370 (≈ 200HRB)	1.0566 / 1.6220 1.4370 (≈ 200HRB)	1.4404 / 1.4408 like body (≈ 200HRB)
2	Disc Overlay	1.4021 hardened / 1.0460 1.4009 (≈ 300HRB)	1.4571 / 1.0566 Stellite 6 (≈ 42HRC)	1.4571 Stellite 6 (≈ 42HRC)
3	Bellows	1.4571	1.4571	1.4571
3.1	Guide ring	1.4571	1.4571	1.4571
4	Bonnet	1.0460 / 1.0619	1.0566 / 1.6220	1.4404 / 1.4408
4.1	Stud bolt	1.7709	A4-70	A4-70
4.2	Hex. nut	1.7218	A4-70	A4-70
5	Stuffing box body	1.4571	1.4571	1.4571
6	Gland follower	1.0619	1.5638	1.4408
6.1	Stud bolt	Steel 5.6	A4-70	A4-70
6.2	Hex. nut	Steel 5	A4-70	A4-70
7	Lower stem	1.4571	1.4571	1.4571
8	Coupling	1.4408	1.4408	1.4408
9	Bridge	1.0460, QPQ-nitrided	1.0460, QPQ-nitrided	1.0460, QPQ-nitrided
10	Upper stem	1.4057	1.4057	1.4057
11	Handwheel	Cast iron	Cast iron	Cast iron
12	Pillar	1.0501	1.4057	1.4057
15	Packing	Graphite	PTFE-silk *	Graphite
18	Gasket	Grooved SS / graphite	Grooved SS / graphite	Grooved SS / graphite

\* ≥ 220°C Packing of pure graphite



Model 350

Straight Way / Protected Bellows

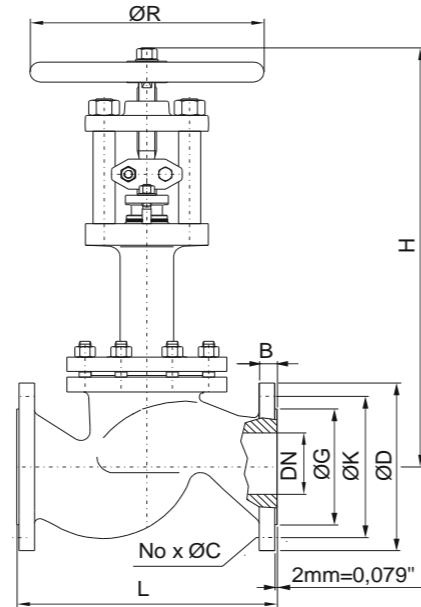
PN250 Sizes DN15 - DN100

Options

- Other customer specific designs on request

Notes

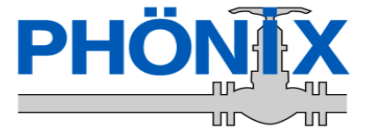
- Design acc. PED 2014/68/EU and harmonized standards
- Marking acc. to EN 19, AD-A4, PED 2014/68/EU, CE
- Standard tests acc. to DIN EN 12266, ISO 5208
- Preservation acc. to manufacturer standard
- Connections:
  - Flanges acc. to DIN EN 1092-1
  - Butt Weld Ends acc. to DIN EN 12627
  - Socket Weld 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



Dimensions & Weights & Flow Coefficients

DN	Unit	Globe		Flange facing type B1						Kv [m³/h]		
		L	H	ØR	ØG	ØK	No x ØC	ØD	B	Weight	cv [USGal/min]	
15	[mm]	230	400	315	45	90	4 x 18	130	26	31 kg	3.4	
	[in]	9.06	15.75	12.40	1.77	3.54	4 x 0.71	5.12	1.02	68 lbs	3.95	
20	[mm]	260	450	315	ON REQUEST						33 kg	7
	[in]	10.24	17.72	12.40	ON REQUEST						73 lbs	8.14
25	[mm]	260	450	315	68	105	4 x 22	150	28	35 kg	9.5	
	[in]	10.24	17.72	12.40	2.68	4.13	4 x 0.87	5.91	1.10	77 lbs	11.05	
32	[mm]	ON REQUEST										
	[in]	ON REQUEST										
40	[mm]	300	550	400	88	135	4 x 26	185	34	45 kg	27	
	[in]	11.81	21.65	15.75	3.46	5.31	4 x 1.02	7.28	1.34	99 lbs	31	
50	[mm]	350	600	400	102	150	8 x 26	200	38	50 kg	40	
	[in]	13.78	23.62	15.75	4.02	5.91	8 x 1.02	7.87	1.50	110 lbs	47	
65	[mm]	ON REQUEST										
	[in]	ON REQUEST										
80*	[mm]	450	980	400	138	200	8 x 30	255	46	85 kg	113	
	[in]	17.72	38.58	15.75	5.43	7.87	8 x 1.18	10.04	1.81	187 lbs	131	
100*	[mm]	520	1100	500	162	235	8 x 33	300	54	135 kg	179	
	[in]	20.47	43.31	19.69	6.38	9.25	8 x 1.30	11.81	2.13	298 lbs	208	

\* Nominal Sizes with Equilibrating Disc



Model 350

Straight Way / Protected Bellows

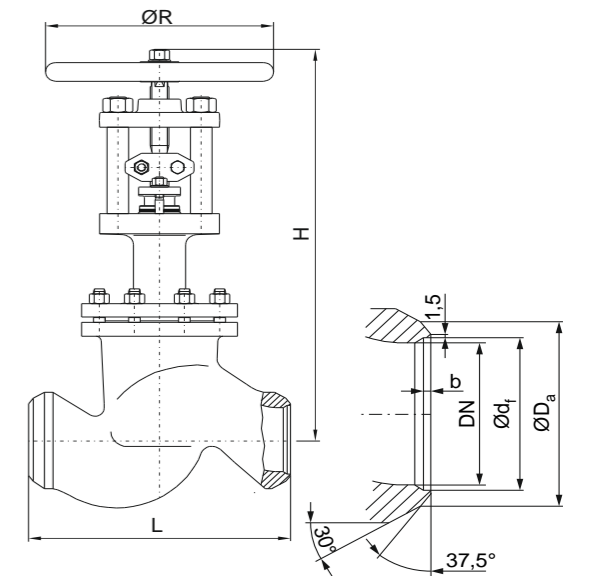
PN250 Sizes DN15 - DN100

Options

- Other customer specific designs on request

Notes

- Design acc. PED 2014/68/EU and harmonized standards
- Marking acc. to EN 19, AD-A4, PED 2014/68/EU, CE
- 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



Dimensions & Weights & Flow Coefficients

DN	Unit	Globe		Butt Weld Ends							Kv [m³/h]	
		L	H	ØR	ØD <sub>a</sub>	Ød <sub>f</sub>	b	for pipe	Weight	cv [USGal/min]		
15	[mm]	230	400	315	22	16	4	Ø21.3 x 2.6	26 kg	3.4		
	[in]	9.06	15.75	12.40	0.87	0.63	0.16	Ø0.84 x 0.10	57 lbs	3.95		
20	[mm]	ON REQUEST										
	[in]	ON REQUEST										
25	[mm]	260	450	315	35	26.5	6	Ø33.7 x 3.6	29 kg	9.5		
	[in]	10.24	17.72	12.40	1.38	1.04	0.24	Ø1.33 x 0.14	64 lbs	11.05		
32	[mm]	ON REQUEST										
	[in]	ON REQUEST										
40	[mm]	300	550	400	50	38	8	Ø48.3 x 5.0	34 kg	27		
	[in]	11.81	21.65	15.75	1.97	1.50	0.31	Ø1.90 x 0.20	75 lbs	31		
50	[mm]	350	600	400	62	44	12	Ø60.3 x 8.0	37 kg	40		
	[in]	13.78	23.62	15.75	2.44	1.73	0.47	Ø2.37 x 0.31	82 lbs	47		
65	[mm]	ON REQUEST										
	[in]	ON REQUEST										
80*	[mm]	450	980	400	91	66.9	14	Ø88.9 x 11.0	59 kg	113		
	[in]	17.72	38.58	15.75	3.58	2.63	0.55	Ø3.50 x 0.43	130 lbs	131		
100*	[mm]	520	1100	500	ON REQUEST				93 kg	179		
	[in]	20.47	43.31	19.69	ON REQUEST				205 lbs	208		

\* Nominal Sizes with Equilibrating Disc

# Contact us



Volkmarsen, Germany

## Sales and Operations

### Phönix Valve Group GmbH

Volkmarsen, Germany  
Phone: +49 5693 988 0  
Email: [info@phoenix-valvegroup.com](mailto:info@phoenix-valvegroup.com)  
Website: [www.phoenix-valvegroup.com](http://www.phoenix-valvegroup.com)

### Phönix Armaturen Werke-Bregel GmbH

Volkmarsen, Germany  
Phone: +49 5693 988 0  
Email: [info@phoenix-valvegroup.com](mailto:info@phoenix-valvegroup.com)  
Website: [www.phoenix-valvegroup.com](http://www.phoenix-valvegroup.com)

### Strack GmbH

Volkmarsen, Germany  
Phone: +49 5693 988 0  
Email: [info@phoenix-valvegroup.com](mailto:info@phoenix-valvegroup.com)  
Website: [www.phoenix-valvegroup.com](http://www.phoenix-valvegroup.com)

### PAW SARL

Genay Cedex, France  
Phone: +33 437 408 195  
Email: [commercial@phoenix-valvegroup.com](mailto:commercial@phoenix-valvegroup.com)  
Website: [www.phoenix-valvegroup.com](http://www.phoenix-valvegroup.com)

### Daume Regelarmaturen GmbH

Volkmarsen, Germany  
Phone: +49 5693 988 0  
Email: [info@phoenix-valvegroup.com](mailto:info@phoenix-valvegroup.com)  
Website: [www.phoenix-valvegroup.com](http://www.phoenix-valvegroup.com)

### Solent & Pratt Phönix Ltd.

Volkmarsen, Germany  
Phone: +49 5693 988 0  
Email: [info@phoenix-valvegroup.com](mailto:info@phoenix-valvegroup.com)  
Website: [www.phoenix-valvegroup.com](http://www.phoenix-valvegroup.com)



While this information is presented in good faith and believed to be accurate, Phönix Valve Group GmbH, does not guarantee satisfactory results from reliance on such information. Nothing contained herein is to be construed as a warranty or guarantee, expressed or implied, regarding the performance, merchantability, fitness or any other matter with respect to the products, nor as a recommendation to use any product or process in conflict with any patent. Phönix Valve Group GmbH, reserves the right, without notice, to alter or improve the designs or specifications of the products described herein.

© 2022 Phönix Valve Group. All rights reserved. Specifications are subject to change without notice. All trademarks are property of their respective owners

Printed in Germany  
09/22-R0