

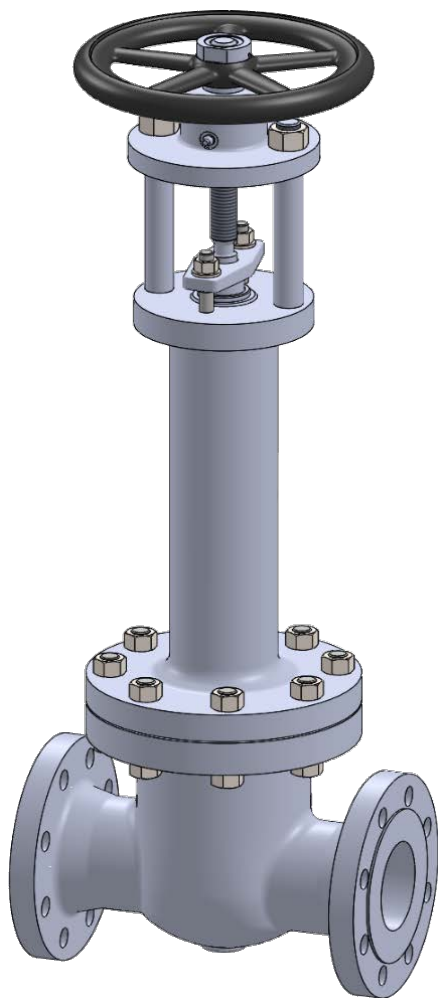


PHÖNIX

STRACK

DAUME
REGELARMATUREN

SIP Solent & Pratt
Phönix Ltd



Gate Valve Type 834 PN 16

Phönix Valve Group
Am Stadtbruch 6
34471 Volkmarsen

Phone:
web:
eMail:

+49 5693 988 0
www.phoenix-valvegroup.com
info@phoenix-valvegroup.com





Model 834

Superlong Protected Bellows

Applications & Design Features

Applications

Model 834 is designed for critical service applications involving lethal, toxic, corrosive, inflammable, volatile, radiating, or expensive fluids. Common applications are refineries as well as chemical plants to eliminate constant emissions monitoring involved with conventional packed gland valves.

The most common applications are:

- Benzene
- Ammonia
- Ethylene
- Dry Chlorine (Cl₂)
- Fuel / petrol
- heat transfer fluid application (steam, hot oil, 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 valve monitoring and re-adjustment of the packing is eliminated. In the unlikely event of a bellows failure the backup packing guarantees safe valve performance until the next scheduled shutdown.

Design Features

Bellows and Packing

- bellows protected in extended bonnet against direct impingement from product flow
- multiple walls and hydroformed bellows
- large sizes with multiple stage, telescopic bellows assembly for long cycle life

Stem

- non-rotating stem prevents bellows torsion
- back seat for added safety
- guided stem on top and bottom

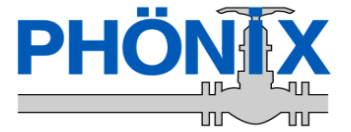
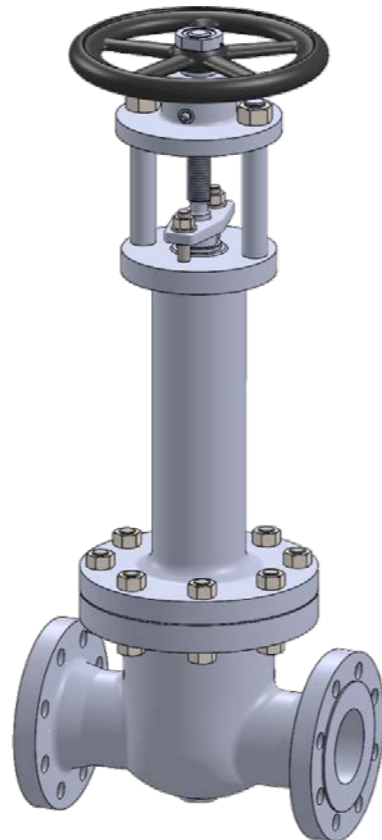
Body and Bonnet

- full-port bodies
- bolted body-bonnet joint for ease of maintenance and quick servicablilty, seal welded design optional
- body bonnet joint gasket is fully confined to prevent gasket flow or blowout

Seats

- solid hardfacings for outstanding corrosion and wear resistance
- flexible, solid, or split wedge design
- replaceable wedge for inexpensive maintenance

= zero emissions, zero seat leakage, low maintenance



Model 834

Superlong Protected Bellows

Standard Materials of Construction

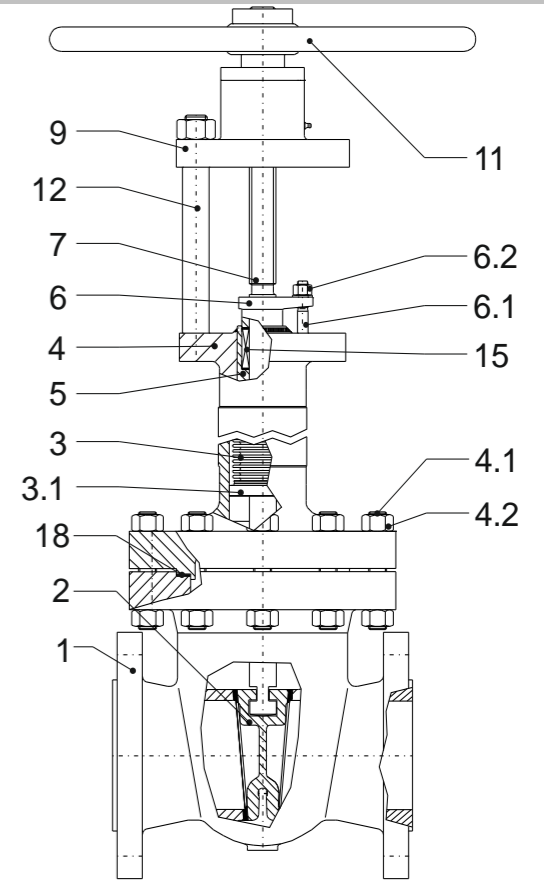
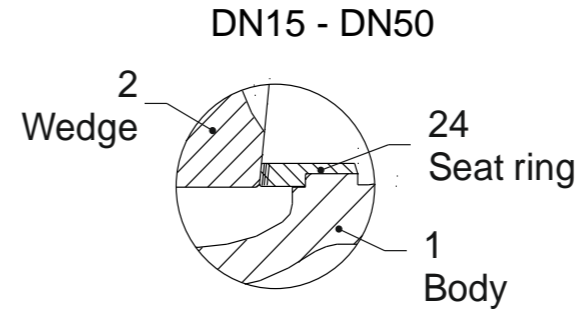
834 / D ...

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 834C up to 450°C	low temp. Carbon steel Model 834T -50°C up to 300°C	Stainless steel Model 834V -200°C up to 400°C
1	Body	1.0460 / 1.0619	1.0566 / 1.6220 / 1.1138	1.4404 / 1.4408
	Seat overlay	1.4370** (≈ 200HRB)	1.4370** (≈ 200HRB)	like body** (≈ 200HRB)
2	Disc	1.4027	1.4408	1.4408
	Overlay	1.0619 with overlay 1.4009 ** (≈ 300HRB)	1.6220 Stellite 6 (≈ 42HRC)	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 / 1.1138	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
9	Bridge	1.0460	1.0460	1.0460
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
24	Seat	1.4571	1.4571	1.4571
	Overlay	**	**	**

* 220°C Packing of pure graphite

** Stellite or Antinit Dur 300 on request, Stellite 6 (42HRC) or Stellite 21 (32HRC)



Model 834

Superlong Protected Bellows

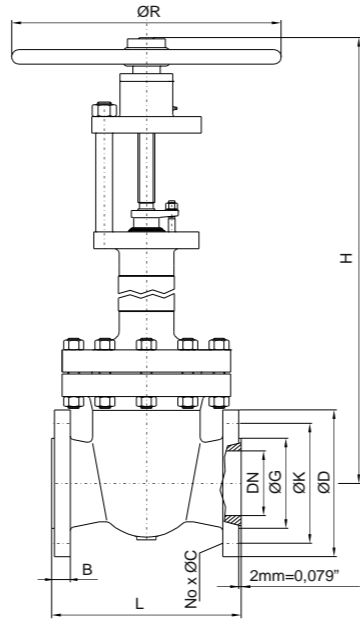
PN16 Sizes DN15 - DN800

Options

- Other customer specific designs on request

Notes

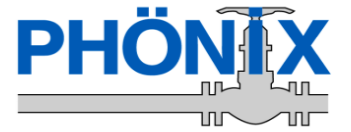
- Design acc. PED 2014/68/EU and harmonized standards
- Marking acc. to EN 19, AD-A4, PED 2014/68/EU, CE
- Standard tests acc. to DIN EN 12266, ISO 5208
- Preservation acc. to manufacturer standard
- Connections: Flanges acc. to DIN EN 1092-1
Butt Weld Ends acc. to DIN EN 12627
Socket Weld Ends acc. 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	L	Lift	closed		Flange facing type B1					Kv [m³/h]	cv [USGal/min]
				H	ØR	ØG	ØK	No x ØC	ØD	B		
15	[mm]	130	25	360	150	45	65	4 x 14	95	16	7 kg	18
	[in]	5.12	0.98	14.17	5.91	1.77	2.56	4 x 0.55	3.74	0.63	15.4 lbs	20.93
20	[mm]	150	25	360	150	58	75	4 x 14	105	18	7 kg	32
	[in]	5.91	0.98	14.17	5.91	2.28	2.95	4 x 0.55	4.13	0.71	15.4 lbs	37
25	[mm]	160	27	360	150	68	85	4 x 14	115	18	8 kg	50
	[in]	6.30	1.06	14.17	5.91	2.68	3.35	4 x 0.55	4.53	0.71	17.6 lbs	58
40	[mm]	240	54	615	200	88	110	4 x 18	150	18	16 kg	127
	[in]	9.45	2.13	24.21	7.87	3.46	4.33	4 x 0.71	5.91	0.71	35 lbs	148
50	[mm]	250	54	615	200	102	125	4 x 18	165	18	20 kg	199
	[in]	9.84	2.13	24.21	7.87	4.02	4.92	4 x 0.71	6.50	0.71	44 lbs	231
80	[mm]	280	93	790	250	138	160	8 x 18	200	20	38 kg	511
	[in]	11.02	3.66	31.10	9.84	5.43	6.30	8 x 0.71	7.87	0.79	84 lbs	594
100	[mm]	300	120	1000	315	158	180	8 x 18	220	20	55 kg	799
	[in]	11.81	4.72	39.37	12.40	6.22	7.09	8 x 0.71	8.66	0.79	121 lbs	929
150	[mm]	350	168	1235	400	212	240	8 x 22	285	22	91 kg	1799
	[in]	13.78	6.61	48.62	15.75	8.35	9.45	8 x 0.87	11.22	0.87	201 lbs	2092
200	[mm]	400	230	1600	400	268	295	12 x 22	340	24	142 kg	3200
	[in]	15.75	9.06	62.99	15.75	10.55	11.61	12 x 0.87	13.39	0.94	313 lbs	3721
250	[mm]	450	276	2094	500	320	355	12 x 26	405	26	219 kg	5000
	[in]	17.72	10.87	82.44	19.69	12.60	13.98	12 x 1.02	15.94	1.02	483 lbs	5814
300	[mm]	500	330	2100	630	378	410	12 x 26	460	28	316 kg	7200
	[in]	19.69	12.99	82.68	24.80	14.88	16.14	12 x 1.02	18.11	1.10	697 lbs	8372
350	[mm]	550	390	2450	630	438	470	16 x 26	520	30	389 kg	9800
	[in]	21.65	15.35	96.46	24.80	17.24	18.50	16 x 1.02	20.47	1.18	858 lbs	11395
400	[mm]	600	444	2700	720	490	525	16 x 30	580	32	551 kg	12800
	[in]	23.62	17.48	106.30	28.35	19.29	20.67	16 x 1.18	22.83	1.26	1215 lbs	14884
450	[mm]	650	506	2850	720	550	585	20 x 30	640	40	695 kg	16200
	[in]	25.59	19.92	112.20	28.35	21.65	23.03	20 x 1.18	25.20	1.57	1532 lbs	18837
500	[mm]	700	556	3000	720	610	650	20 x 33	715	44	853 kg	20000
	[in]	27.56	21.89	118.11	28.35	24.02	25.59	20 x 1.30	28.15	1.73	1881 lbs	23256
600	[mm]	800	650	4500	Gear	725	770	20 x 36	840	54	1588 kg	28800
	[in]	31.50	25.59	177.17		28.54	30.31	20 x 1.42	33.07	2.13	3501 lbs	33488
700	[mm]	900	750	5000	Gear	795	840	24 x 36	910	*	1900 kg	39200
	[in]	35.43	29.53	196.85		31.30	33.07	24 x 1.42	35.83		4189 lbs	45581
800	[mm]	1000	900	5200	Gear	900	950	24 x 39	1025	*	2200 kg	51200
	[in]	39.37	35.43	204.72		35.43	37.40	24 x 1.54	40.35		4850 lbs	59535

* per customer requirements



Model 834

Superlong Protected Bellows

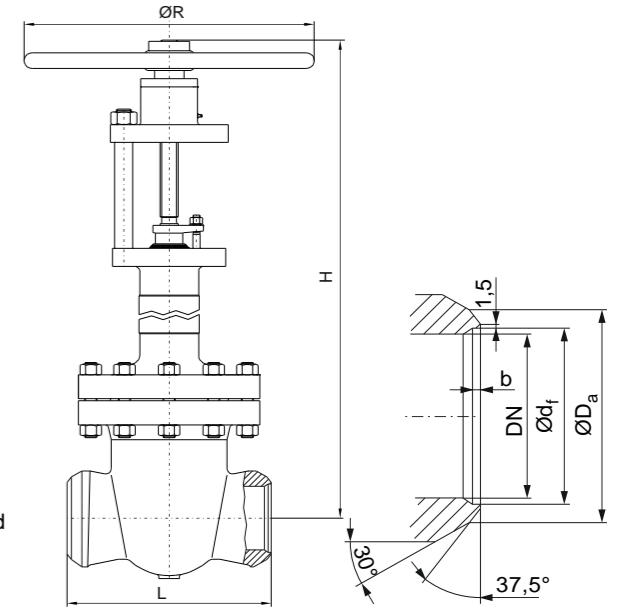
PN16 Sizes DN15 - DN800

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

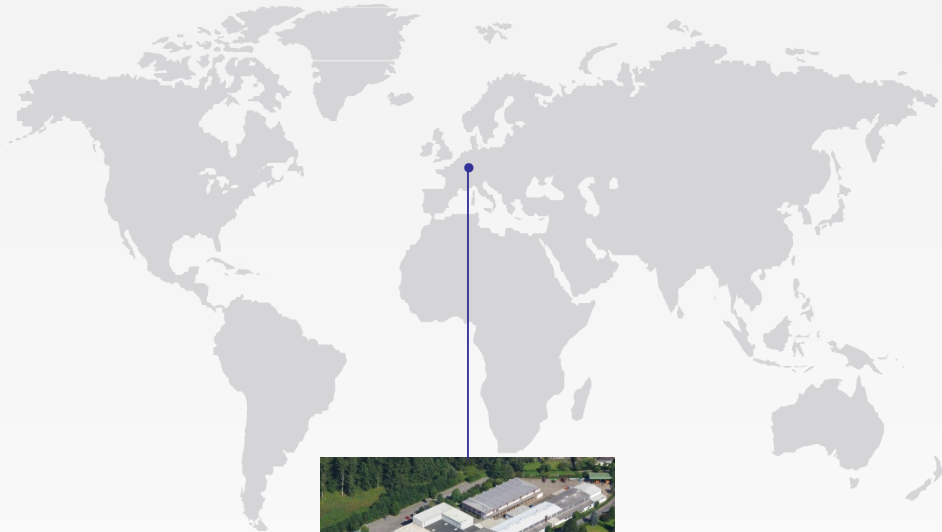


Dimensions & Weights & Flow Coefficients

DN	Unit	L	Lift	closed		Butt Weld Ends				Weight	Kv [m³/h]	cv [USGal/min]
				H	ØR	ØD _a	Ød _t	b	for pipe			
15	[mm]	130	25	360	150	22	17	3	Ø21.3 x 2.0	6 kg	18	
	[in]	5.12	0.98	14.17	5.91	0.87	0.67	0.12	Ø0.84 x 0.08	13.2 lbs	20.93	
20	[mm]	150	25	360	150	28	22	4	Ø26.9 x 2.3	5 kg	32	
	[in]	5.91	0.98	14.17	5.91	1.10	0.87	0.16	Ø1.06 x 0.09	11 lbs	37	
25	[mm]	160	27	360	150	35	28.5	4	Ø33.7 x 2.6	6 kg	50	
	[in]	6.30	1.06	14.17	5.91	1.38	1.12	0.16	Ø1.33 x 0.10	13.2 lbs	58	
40	[mm]	240	54	615	200	50	43	4	Ø48.3 x 2.6	13 kg	127	
	[in]	9.45	2.13	24.21	7.87	1.97	1.69	0.16	Ø1.90 x 0.10	29 lbs	148	
50	[mm]	250	54	615	200	62	53.5	5	Ø60.3 x 3.2	16 kg	199	
	[in]	9.84	2.13	24.21	7.87	2.44	2.11	0.20	Ø2.37 x 0.13	35 lbs	231	
80	[mm]	280	93	790	250	91	80.5	6	Ø88.9 x 4.0	32 kg	511	
	[in]	11.02	3.66	31.10	9.84	3.58	3.17	0.24	Ø3.50 x 0.16	71 lbs	594	
100	[mm]	300	120	1000	315	117	104.3	8	Ø114.3 x 5.0	48 kg	799	
	[in]	11.81	4.72	39.37	12.40	4.61	4.11	0.31	Ø4.50 x 0.20	106 lbs	929	
150	[mm]	350	168	1235	400	172	157	9	Ø168.3 x 5.6	79 kg	1799	
	[in]	13.78	6.61	48.62	15.75	6.77	6.18	0.35	Ø6.63 x 0.22	174 lbs	2092	
200	[mm]	400	230	1600	400	223	204.5	11	Ø219.1 x 7.1	126 kg	3200	
	[in]	15.75	9.06	62.99	15.75	8.78	8.05	0.43	Ø8.63 x 0.28	278 lbs	3721	
250	[mm]	450	276	2094	500	278	257	12	Ø273.0 x 8.0	195 kg	5000	
	[in]	17.72	10.87	82.44	19.69	10.94	10.12	0.47	Ø10.75 x 0.31	430 lbs	5814	
300	[mm]	500	330	2100	630	329	307.9	12	Ø323.9 x 8.0	286 kg	7200	
	[in]	19.69	12.99	82.68	24.80	12.95	12.12	0.47	Ø12.75 x 0.31	631 lbs	8372	
350	[mm]	550	390	2450	630	362	338	14	Ø355.6 x 8.8	351 kg	9800	
	[in]	21.65	15.35	96.46	24.80	14.25	13.31	0.55	Ø14.00 x 0.35	774 lbs	11395	
400	[mm]	600	444	2700	720	413	384.4	17	Ø406.4 x 11.0	502 kg	12800	
	[in]	23.62	17.48	106.30	28.35	16.26	15.13	0.67	Ø16.00 x 0.43	1107 lbs	14884	
450	[mm]	650	506	2850	720	464	*	*	*	625 kg	16200	
	[in]	25.59	19.92	112.20	28.35	18.27				1378 lbs	18837	
500	[mm]	700	556	3000	720	516	479.6	22	Ø508.0 x 14.2	755 kg	20000	
	[in]	27.56	21.89	118.11	28.35	20.31	18.88	0.87	Ø20.00 x 0.56	1664 lbs	23256	
600	[mm]	800	650	4500	Gear	619	*	*	*	1428 kg	28800	
	[in]	31.50	25.59	177.17		24.37				3148 lbs	33488	
700	[mm]	900	750	5000	Gear	721	*	*	*	1703 kg	39200	
	[in]	35.43	29.53	196.85		28.39				3754 lbs	45581	
800	[mm]	1000	900	5200	Gear	825	*	*	*	1932 kg	51200	
	[in]	39.37	35.43	204.72		32.48				4259 lbs	59535	

* per customer requirements

Contact us



Volkmarsen, Germany

Sales and Operations

Phönix Valve Group GmbH

Volkmarsen, Germany
Phone: +49 5693 988 0
Email: info@phoenix-valvegroup.com
Website: www.phoenix-valvegroup.com

Phönix Armaturen Werke-Bregel GmbH

Volkmarsen, Germany
Phone: +49 5693 988 0
Email: info@phoenix-valvegroup.com
Website: www.phoenix-valvegroup.com

Strack GmbH

Volkmarsen, Germany
Phone: +49 5693 988 0
Email: info@phoenix-valvegroup.com
Website: www.phoenix-valvegroup.com

PAW SARL

Genay Cedex, France
Phone: +33 437 408 195
Email: commercial@phoenix-valvegroup.com
Website: www.phoenix-valvegroup.com

Daume Regelarmaturen GmbH

Volkmarsen, Germany
Phone: +49 5693 988 0
Email: info@phoenix-valvegroup.com
Website: www.phoenix-valvegroup.com

Solent & Pratt Phönix Ltd.

Volkmarsen, Germany
Phone: +49 5693 988 0
Email: info@phoenix-valvegroup.com
Website: 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