

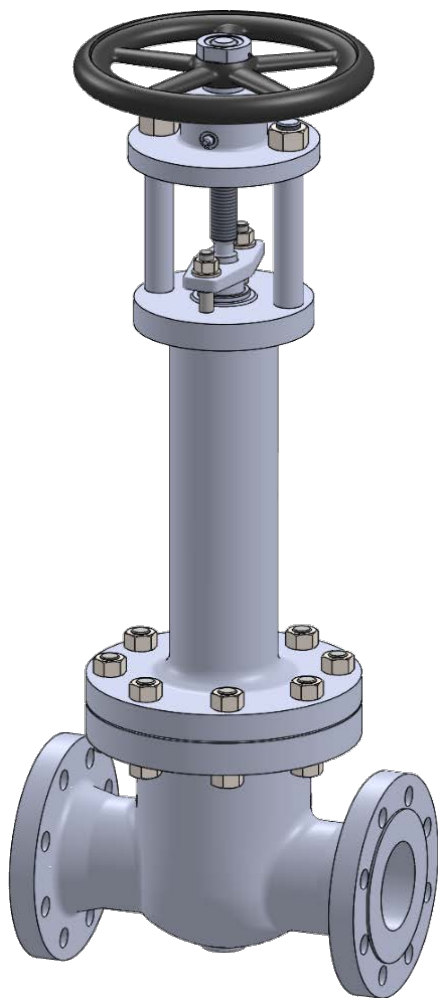


PHÖNIX

STRACK

DAUME
REGELARMATUREN

SIP Solent & Pratt
Phönix Ltd



Gate Valve Type 834 PN 63

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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

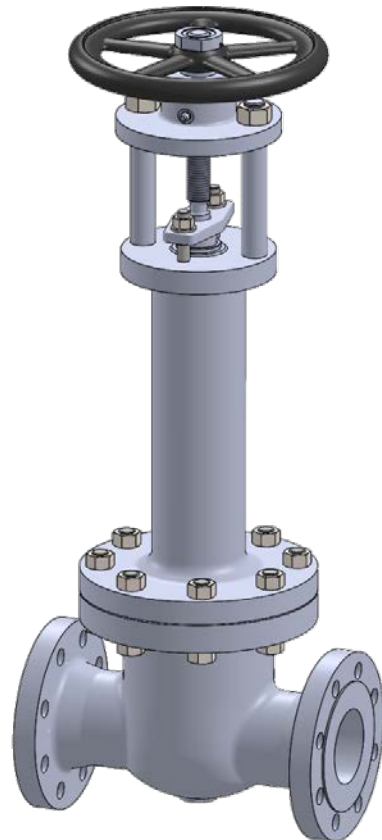
Body and Bonnet

- 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



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Standard Materials of Construction

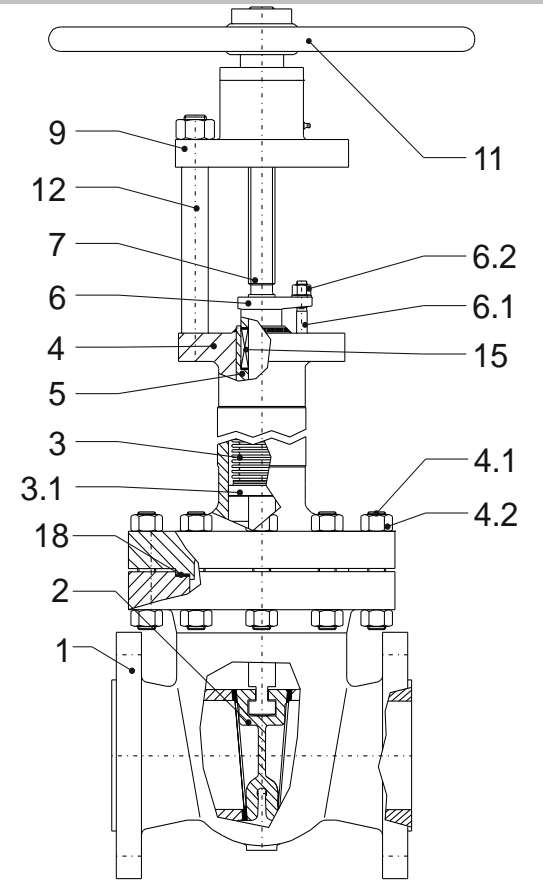
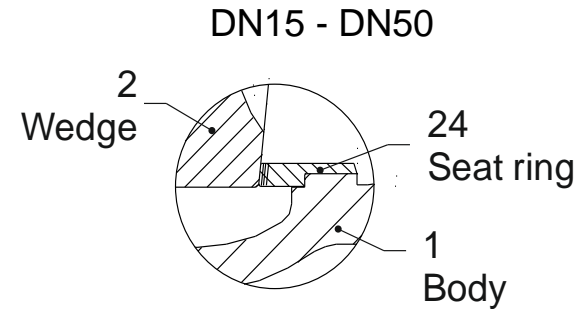
834 / D ...

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	1.6220	
		1.4009 ** (≈ 300HRB)	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)



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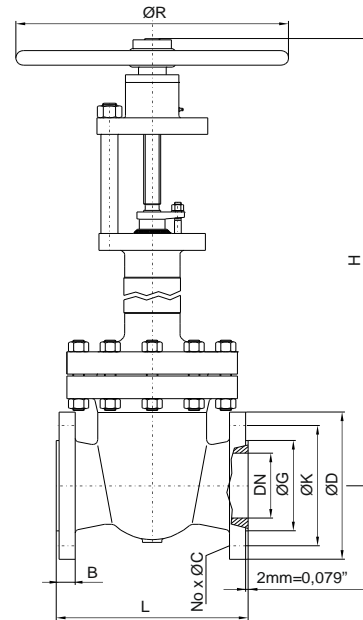
PN63 Sizes DN15 - DN200

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 H	ØR	Flange facing type B1					Weight	Kv [m³/h]	
						ØG	ØK	No x ØC	ØD	B		cv [USGal/min]	cv [USGal/min]
15	[mm]	130	25	360	150	45	75	4 x 14	105	20	9 kg	18	
	[in]	5.12	0.98	14.17	5.91	1.77	2.95	4 x 0.55	4.13	0.79	19.8 lbs	20.93	
20	[mm]	150	25	360	150	58	90	4 x 18	130	22	9 kg	32	
	[in]	5.91	0.98	14.17	5.91	2.28	3.54	4 x 0.71	5.12	0.87	19.8 lbs	37	
25	[mm]	160	27	360	150	68	100	4 x 18	140	24	10 kg	50	
	[in]	6.30	1.06	14.17	5.91	2.68	3.94	4 x 0.71	5.51	0.94	22 lbs	58	
40	[mm]	240	54	615	200	88	125	4 x 22	170	28	18 kg	127	
	[in]	9.45	2.13	24.21	7.87	3.46	4.92	4 x 0.87	6.69	1.10	40 lbs	148	
50	[mm]	250	54	615	200	102	135	4 x 22	180	26	22 kg	199	
	[in]	9.84	2.13	24.21	7.87	4.02	5.31	4 x 0.87	7.09	1.02	49 lbs	231	
80	[mm]	310	93	900	400	138	170	8 x 22	215	28	75 kg	511	
	[in]	12.20	3.66	35.43	15.75	5.43	6.69	8 x 0.87	8.46	1.10	165 lbs	594	
100	[mm] [in]	on request											
150	[mm] [in]	on request											
200	[mm]	550	230	1700	600	285	345	12 x 36	415	42	355 kg	3200	
	[in]	21.65	9.06	66.93	23.62	11.22	13.58	12 x 1.42	16.34	1.65	783 lbs	3721	



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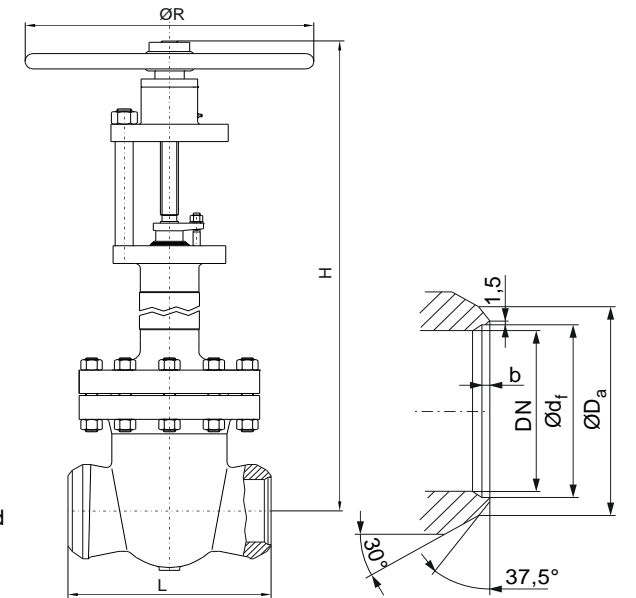
PN63 Sizes DN15 - DN200

Options

- Other customer specific designs on request

Notes

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Socket Weld Ends acc. to manufacturer standard

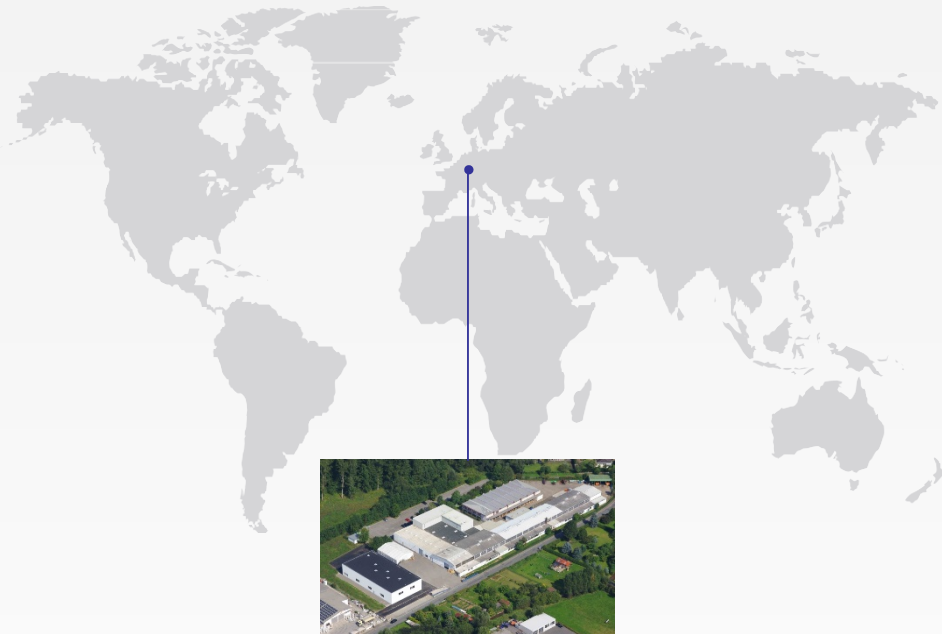


Dimensions & Weights & Flow Coefficients

DN	Unit	L	Lift	closed H	ØR	Butt Weld Ends			for pipe	Weight	Kv [m³/h]	
						ØD _a	Ød _t	b			cv [USGal/min]	cv [USGal/min]
15	[mm]	130	25	360	150	22	17	3	Ø21.3 x 2.0	7 kg	18	
	[in]	5.12	0.98	14.17	5.91	0.87	0.67	0.12	Ø0.84 x 0.08	15.4 lbs	20.93	
20	[mm]	150	25	360	150	28	*	*	*	6 kg	32	
	[in]	5.91	0.98	14.17	5.91	1.10				13.2 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	10 kg	127	
	[in]	9.45	2.13	24.21	7.87	1.97	1.69	0.16	Ø1.90 x 0.10	22 lbs	148	
50	[mm]	250	54	615	200	62	53.5	5	Ø60.3 x 3.2	14 kg	199	
	[in]	9.84	2.13	24.21	7.87	2.44	2.11	0.20	Ø2.37 x 0.13	31 lbs	231	
80	[mm]	310	93	900	400	91	80.5	6	Ø88.9 x 4.0	65 kg	511	
	[in]	12.20	3.66	35.43	15.75	3.58	3.17	0.24	Ø3.50 x 0.16	143 lbs	594	
100	[mm] [in]	on request										
150	[mm] [in]	on request										
200	[mm]	550	230	1700	600	223	204.5	11	Ø219.1 x 7.1	305 kg	3200	
	[in]	21.65	9.06	66.93	23.62	8.78	8.05	0.43	Ø8.63 x 0.28	672 lbs	3721	

* per customer requirements

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