



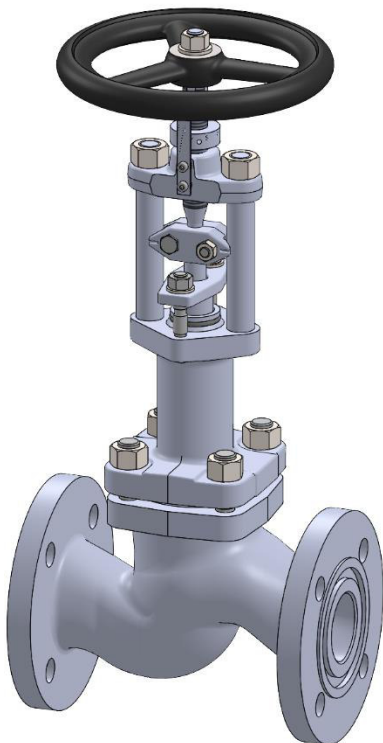
PHÖNIX

STRACK

DAUME
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Solent & Pratt
Phönix Ltd



Control Valve Type 359 PN 16 – PN 40

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Bellows Sealed Fine Setting Valve / Type 359

DN 15 - 350
PN 16 / 25 / 40



Design

- Bellows highly protected against erosion, abrasion and water hammers
- Up to 50.000 operations guaranteed
- Multiple-wall bellows, protected against torquing
- Additional emergency stuffing box as secondary sealing element
- Coupled stem, lower stem with polished shaft
- Rising handwheel
- Rotating needle disc with conic metal- to-metal seat, easy to replace, renewable seat
- Easy reproducibility of former setting points with the calibrated ring and indicating scale

CE 0525

Dimensions

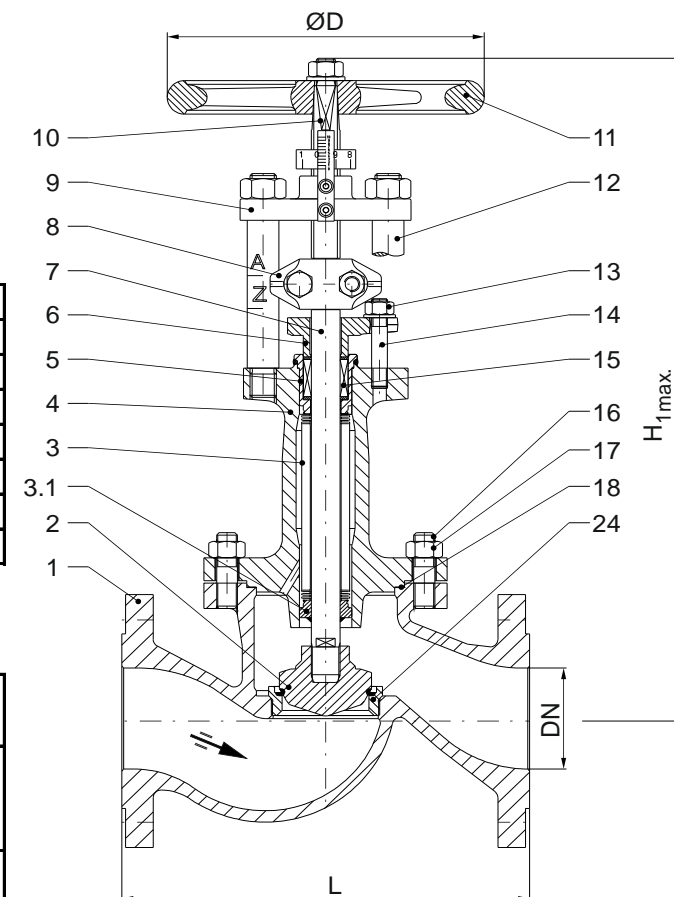
≤ PN 40	Size / DN	15				25			50			80		100		150		200		250		300		350		
	L	130				160			230			310		350		480		600		730		850		980		
	Lift h ¹⁾	11				11			18			27		31		46		58		70		80		96		
	H	360				365			455			555		670		855		1000		1150		1250		1500		
	D _{Seat}	3,2	5	8	13	8	13	20	25	40	50	63	63	80	100	125	150	250	290	325						
	k _{VS} [m ³ /h]	0,3	0,9	2	3,2	2,2	4,9	8,3	17	31	75	90	105	155	225	350	550	1047	1460	1780						
	ζ _v [-]	900	100	20	7,9	129	26	8,9	35	10	12	8,1	15	6,7	16	6,6	8,5	5,7	6,1	7,6						
	Weight [kg]	6,5				8			19			38		60		125		200		320		450		550		

¹⁾ other lifts on request

Coefficients

Coefficient for:	flow limitation x _T ²⁾	0,58										
	pressure recovery factor F _L ^{2 2)}	0,65										
	start of cavitation z ²⁾	0,42	0,42	0,42	0,35	0,33	0,29	0,24	0,2	0,16	0,16	

²⁾ only for standard parabolic disc



PHÖNIX reserves the right to change product design and specification without notice.

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Bellows Sealed Fine Setting Valve / Type 359

PN 16 / 25 / 40 DN 15 - 350

Materials



Item	Part name	Heat resistant carbon steel / Type 359 C		Low temperature steel / Type 359 T		Stainless steel / Type 359 V	
		Material ¹⁾ up to 450°C	DIN	Material ¹⁾ from -50°C up to 300°C	DIN	Material ¹⁾ from -200°C up to 400°C	DIN
1	Body	P250GH	1.0460	P355NL1	1.0566	X 2CrNiMo17-12-2	1.4404
		GP240GH	1.0619	G21Mn 5	1.1138	GX5CrNiMo19-11-2	1.4408
2	Disc Overlay	X20Cr13	1.4021	X 6CrNiMoTi17-12-2	1.4571	X 6CrNiMoTi17-12-2	1.4571
3	Bellows	X 6CrNiMoTi17-12-2	1.4571	X 6CrNiMoTi17-12-2	1.4571	X 6CrNiMoTi17-12-2	1.4571
3.1	Guide ring	X 6CrNiMoTi17-12-2	1.4571	X 6CrNiMoTi17-12-2	1.4571	X 6CrNiMoTi17-12-2	1.4571
4	Bonnet	P250GH	1.0460	P355NL1	1.0566	X 2CrNiMo17-12-2	1.4404
		GP240GH	1.0619	G21Mn 5	1.1138	GX5CrNiMo19-11-2	1.4408
5	Stuffing box body	X 6CrNiMoTi17-12-2	1.4571	X 6CrNiMoTi17-12-2	1.4571	X 6CrNiMoTi17-12-2	1.4571
6	Gland follower	GP240GH	1.0619	G9Ni14	1.5638	GX5CrNiMo19-11-2	1.4408
7	Lower Stem	X 6CrNiMoTi17-12-2	1.4571	X 6CrNiMoTi17-12-2	1.4571	X 6CrNiMoTi17-12-2	1.4571
8	Coupling	GX5CrNiMo19-11-2	1.4408	GX5CrNiMo19-11-2	1.4408	GX5CrNiMo19-11-2	1.4408
9	Bridge	P250GH / QPQ-nitrited	1.0460	P250GH / QPQ-nitrited	1.0460	P250GH / QPQ-nitrited	1.0460
10	upper Stem	X17CrNi16-2	1.4057	X17CrNi16-2	1.4057	X17CrNi16-2	1.4057
11	Handwheel	EN-GJS-400-15	0.7040	EN-GJS-400-15	0.7040	EN-GJS-400-15	0.7040
12	Pillar	C35	1.0501	X17CrNi16-2	1.4057	X17CrNi16-2	1.4057
13	Hex.nut	Steel	5	A4-70		A4-70	
14	Stud bolt	Steel	5.6	A4-70		A4-70	
15	Packing	Graphite		PTFE ²⁾		Graphite	
16	Stud bolt	21CrMoV5-7	1.7709	A4-70		A4-70	
17	Hex.nut	25CrMo4	1.7218	A4-70		A4-70	
18	Bonnet gasket	Kammprofil / Graphite + S.S.		Kammprofil / Graphite + S.S.		Kammprofil / Graphite + S.S.	
24	Seat	X 6CrNiMoTi17-12-2	1.4571	X 6CrNiMoTi17-12-2	1.4571	X 6CrNiMoTi17-12-2	1.4571

Special materials on request.

Specification

Marking	EN19, AD-A4, CE	
Face-to-face dimensions:	Flanged option	DIN EN 558-1
	Butt weld ends	DIN EN 12982 up to PN100
	Socket weld ends	
Connections:	Flanged option	DIN EN 1092-1 up to PN100 / DIN 2512 PN160
	Butt weld ends	DIN EN 12627
	Socket weld ends	DIN EN 12760
Testing standard:	AD-2000, DIN 3230 section 3, DIN EN 12266	

¹⁾ Pressure-temperature-rating see appendix

²⁾ ≥ 220°C Packing of pure graphite

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