

ARI-STEVI® 448/449 (DN15-100)

Control valve in straightway form with screwed seat ring



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Technical data

Figure	Nominal pressure	Material	Nominal diameter	
12.448	PN16	EN-JL1040	DN15-100	
22.448 / 22.449	PN16	EN-JS1049	DN15-100	
23.448 / 23.449	PN25	EN-JS1049	DN15-100	
25.448	PN40	EN-JS1049	DN15-50	
32.448 / 32.449	PN16	1.0619+N	DN15-100	
34.448 / 34.449	PN25	1.0619+N	DN15-100	
35.448 / 35.449	PN40	1.0619+N	DN15-100	
52.448 / 52.449	PN16	1.4408	DN15-100	
54.448 / 54.449	PN25	1.4408	DN15-100	
55.448 / 55.449	PN40	1.4408	DN15-100	
Other materials and versions on request.				Information / restriction of technical rules need to be observed! A production permission acc. to TRB 801 No. 45 is available. (acc. to TRB 801 No. 45 EN-JL1040 is not allowed.) The engineer, designing a system or a plant, is responsible for the selection of the correct valve. Resistance and fitness must be verified, contact manufacturer for information (refer to Product overview and Resistance list).

Stem sealing

Fig. 448

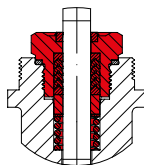
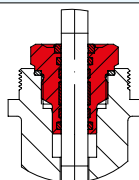
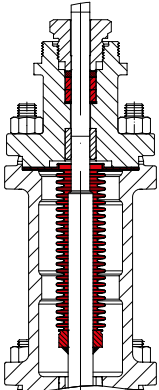
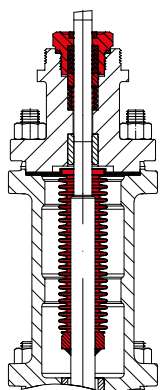
standard	optional
	
I. PTFE-V-ring unit -10°C to 220°C	I. EPDM-sealing -10°C to 150°C (allowed for water and steam up to 180°C)

Fig. 449

standard	optional
	
III. Stainless steel-bellow with pure graphite-packing -60°C to 400°C	III. Stainless steel-bellow with V-ring unit -60°C to 220°C

Pressure-temperature-ratings

Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.

acc. to DIN EN 1092-2			-60°C to <-10°C ¹⁾	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C	400°C
EN-JL1040	PN16	(bar)	--	16	14,4	12,8	11,2	9,6	--	--
EN-JS1049	PN16	(bar)	--	16	15,5	14,7	13,9	12,8	11,2	--
EN-JS1049	PN25	(bar)	--	25	24,3	23	21,8	20	17,5	--
EN-JS1049	PN40	(bar)	--	40	38,5	36,8	34,8	32	28	--

acc. to manufacturers standard			-60°C to <-10°C ¹⁾	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C	400°C
1.0619+N	PN25	(bar)	18,7	25	23,9	22	20	17,2	16	14,8
1.0619+N	PN40	(bar)	30	40	38,1	35	32	28	25,7	23,8

acc. to DIN EN 1092-1			-60°C to <-10°C ¹⁾	-10°C to 100°C	150°C	200°C	250°C	300°C	350°C	400°C
1.4408	PN40	(bar)	40	40	36,3	33,7	31,8	29,7	28,5	27,4

¹⁾ Valve with extended bonnet, screws and nuts made of A4-70 (at temperatures below -10°C)



ARI-STEVI® 448/449 (DN15-100)

Pneumatic actuator ARI-DP



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Control valve in straightway form with pneumatic actuator ARI-DP



Fig. 448

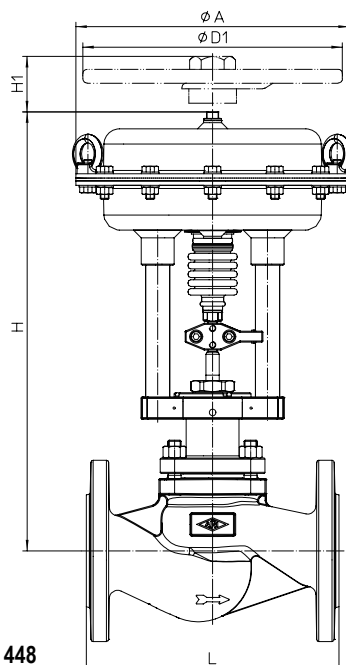
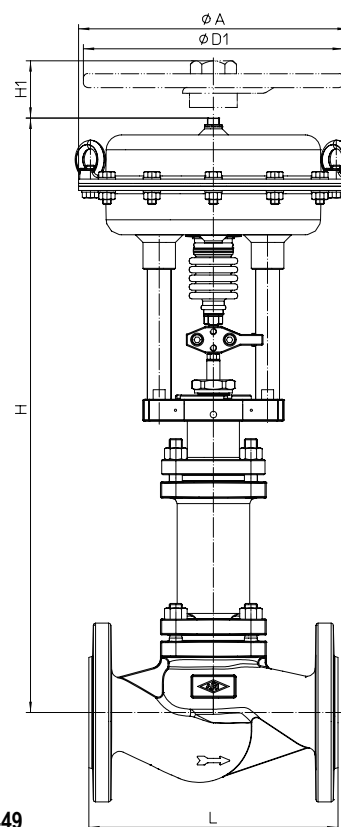


Fig. 449



Technical data			DP30	DP32	DP33	DP34
Actuator	Ø A	(mm)	168	250	300	405
	Effective diaphragm area	(cm ²)	80	250	400	800
Top mounted handwheel	Ø D1	(mm)	225	225	300	397
	H1	(mm)	284	284	297	458
	Weight	(kg)	5	5	5	17
Technical data for actuator			refer to data sheet ARI-DP.			

Dimensions and weights

Dimensions and weights

DN				15	20	25	32	40	50	65	80	100
L		(mm)		130	150	160	180	200	230	290	310	350

Fig. 448	DP30	H	(mm)	354	354	369	369	384	391			
		PN16-40	(kg)	8	9	10	12	14	17			
	DP32	H	(mm)				378	393	400	407	429	445
		PN16-40	(kg)				17	19	22	28	35	47
	DP33	H	(mm)							458	480	496
		PN16-40	(kg)							34	41	53
	DP34	H	(mm)							527	549	565
		PN16-40	(kg)							64	71	83

Fig. 449	DP30	H	(mm)	539	539	547	547	538	540			
		PN16-40	(kg)	14	15	18	20	27	30			
	DP32	H	(mm)				556	547	549	633	646	662
		PN16-40	(kg)				25	32	35	41	52	68
	DP33	H	(mm)							684	697	713
		PN16-40	(kg)							47	58	74
	DP34	H	(mm)							753	766	782
		PN16-40	(kg)							77	88	104



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ARI-STEVI® 448/449 (DN15-100)

Closing pressure: pneumatic actuator ARI-DP



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Spring closes on air failure
(stem extended by spring)

max. permissible closing pressures on flow-to-open P2 = 0.
Observe pressure-temperature-limits, refer to page 2.

DN					15			20				25				
Parabolic plug	Kvs-value			(m³/h)	0,25 / 0,16 / 0,1	0,63 / 0,4	4 / 2,5 / 1,6 / 1	0,25 / 0,16 / 0,1	0,63 / 0,4	4 / 2,5 / 1,6 / 1	6,3	0,25 / 0,16 / 0,1	0,63 / 0,4	4 / 2,5 / 1,6 / 1	6,3	10
	max. diff. pressure ¹⁾			(bar)	40			40				40				
Perforated plug	Kvs-value			(m³/h)	--	--	2,5 / 1,6 / 1	--	--	2,5 / 1,6 / 1	4	--	--	2,5 / 1,6 / 1	4	6,3
	max. diff. pressure ¹⁾			(bar)	--	--	40	--	--	40		--	--	40		
Seat-Ø				(mm)	3	5	12	3	5	12	16	3	5	12	16	22
Travel				(mm)	10			10				10				
DP30 80 cm² (Air supply pressure max.: 6 bar)	Air supply pressure min. (bar)	4	I.	(bar)	40	40	40	40	40	40	40	40	40	40	40	40
			III.	(bar)	32	32	31	32	32	31	30	32	32	31	30	30

DN					32			40				50				
Parabolic plug	Kvs-value			(m³/h)	4 / 2,5 / 1,6 / 1	6,3	10	16	6,3	10	16	25	10	16	25	40
	max. diff. pressure ¹⁾			(bar)	40			40			30	40		30		
Perforated plug	Kvs-value			(m³/h)	2,5 / 1,6 / 1	4	6,3	10	4	6,3	10	16	6,3	10	16	25
	max. diff. pressure ¹⁾			(bar)	40			40			40					
Seat-Ø				(mm)	12	16	22	28	16	22	28	35	22	28	35	43
Travel				(mm)	10			15	10		15		10	15		
DP30 80 cm² (Air supply pressure max.: 6 bar)	Air supply pressure min. (bar)	4	I.	(bar)	40	40	40		40	40			40			
			III.	(bar)	31	30	30		30	30		30				
DP32 250 cm² (Air supply pressure max.: 6 bar)	Air supply pressure min. (bar)	4	I.	(bar)				40			40	40		40	40	28
			III.	(bar)				40			40	39		40	39	26

DN					65				80				100			
Parabolic plug	Kvs-value			(m³/h)	16	25	40	63	25	40	63	100	40	63	100	160
	max. diff. pressure ¹⁾			(bar)	40	30	30	10	30	30	10	8	30	10	8	3
Perforated plug	Kvs-value			(m³/h)	10	16	25	40	16	25	40	63	25	40	63	100
	max. diff. pressure ¹⁾			(bar)	40			40			40					
Seat-Ø				(mm)	28	35	43	56	35	43	56	70	43	56	70	95
Travel				(mm)	15			20	15		20	25	15	20	25	30
DP32 250 cm² (Air supply pressure max.: 6 bar)	Air supply pressure min. (bar)	4	I.	(bar)	40	40	28		40	28			28			
			III.	(bar)	40	39	26		39	26		26				
DP33 400 cm² (Air supply pressure max.: 6 bar)	Air supply pressure min. (bar)	4	I.	(bar)			40	25		40	25	16	40	25	16	8
			III.	(bar)			40	24		40	24	15	40	24	15	8
DP34 800 cm² (Air supply pressure max.: 4 bar)	Air supply pressure min. (bar)	4	I.	(bar)				40			40	32		40	32	17
			III.	(bar)				40			40	31		40	31	16

I. Fig. 448: PTFE-V-ring unit / EPDM-sealing

III. Fig. 449: Bellows seal

¹⁾ max. differential pressure drop



ARI-STEVI® 448/449 (DN15-100)

Closing pressure: pneumatic actuator ARI-DP



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Spring opens on air failure (stem retracting by spring)

max. permissible closing pressures on flow-to-open P2 = 0.
Observe pressure-temperature-limits, refer to page 2.

DN					15			20				25					
Parabolic plug	Kvs-value			(m³/h)	0,25 / 0,16 / 0,1	0,63 / 0,4	4 / 2,5 / 1,6 / 1	0,25 / 0,16 / 0,1	0,63 / 0,4	4 / 2,5 / 1,6 / 1	6,3	0,25 / 0,16 / 0,1	0,63 / 0,4	4 / 2,5 / 1,6 / 1	6,3	10	
	max. diff. pressure ¹⁾			(bar)	40			40				40					
Perforated plug	Kvs-value			(m³/h)	--	--	2,5 / 1,6 / 1	--	--	2,5 / 1,6 / 1	4	--	--	2,5 / 1,6 / 1	4	6,3	
	max. diff. pressure ¹⁾			(bar)	--	--	40	--	--	40		--	--	40			
Seat-Ø				(mm)	3	5	12	3	5	12	16	3	5	12	16	22	
Travel				(mm)	10			10				10					
DP30 80 cm² (Air supply pressure max.: 6 bar)	Air supply pressure min. (bar)	2	I.	(bar)	40	40	33	40	40	33	18	40	40	33	18	8	
			III.	(bar)	5	4	3	5	4	3	3	5	4	3	3	2	
		3	I.	(bar)			40			40	40			40	40	28	
			III.	(bar)	19	19	18	19	19	18	17	19	19	18	17	16	
		4	I.	(bar)													40
			III.	(bar)	33	33	32	33	33	32	31	33	33	32	31	31	

DN				32				40				50				
Parabolic plug	Kvs-value		(m³/h)	4 / 2,5 / 1,6 / 1	6,3	10	16	6,3	10	16	25	10	16	25	40	
	max. diff. pressure ¹⁾		(bar)	40				40			30	40		30		
Perforated plug	Kvs-value		(m³/h)	2,5 / 1,6 / 1	4	6,3	10	4	6,3	10	16	6,3	10	16	25	
	max. diff. pressure ¹⁾		(bar)	40				40			40					
Seat-Ø			(mm)	12	16	22	28	16	22	28	35	22	28	35	43	
Travel			(mm)	10			15	10		15		10	15			
DP30 80 cm² (Air supply pressure max.: 6 bar)	Air supply pressure min. (bar)	2	I.	(bar)	33	18	8		18	8			8			
			III.	(bar)	3	3	2		3	2			2			
		3	I.	(bar)	40	40	28		40	28			28			
			III.	(bar)	18	17	16		17	16			16			
		4	I.	(bar)			40			40			40			
			III.	(bar)	32	31	31		31	31			31			
DP32 250 cm² (Air supply pressure max.: 4 bar)		2	I.	(bar)	40	40	38	23	40	38	23	14	38	23	14	9
			III.	(bar)	25	25	24	19	25	24	19	11	24	19	11	7
		3	I.	(bar)			40	40		40	40	36	40	40	36	23
			III.	(bar)			40	40		40	40	33	40	40	33	21
		4	I.	(bar)								40			40	38
			III.	(bar)								40			40	36

DN					65				80				100			
Parabolic plug	Kvs-value		(m³/h)	16	25	40	63	25	40	63	100	40	63	100	160	
	max. diff. pressure ¹⁾		(bar)	40	30	30	10	30	30	10	8	30	10	8	3	
Perforated plug	Kvs-value		(m³/h)	10	16	25	40	16	25	40	63	25	40	63	100	
	max. diff. pressure ¹⁾		(bar)	40				40				40				
Seat-Ø			(mm)	28	35	43	56	35	43	56	70	43	56	70	95	
Travel			(mm)	15			20	15		20	25	15	20	25	30	
DP32 250 cm² (Air supply pressure max.: 6 bar)	Air supply pressure min. (bar)	2	I.	(bar)	22	14	8		14	8			8			
			III.	(bar)	18	11	7		11	7			7			
		3	I.	(bar)	40	36	23		36	23			23			
			III.	(bar)	40	33	21		33	21			21			
		4	I.	(bar)		40	38		40	38			38			
			III.	(bar)		40	36		40	36			36			
5		I.	(bar)			40			40			40				
		III.	(bar)			40			40			40				
DP33 400 cm² (Air supply pressure max.: 5 bar)		2	I.	(bar)	40	30	20	11	30	20	11	7	20	11	7	3
			III.	(bar)	40	28	18	10	28	18	10	6	18	10	6	3
		3	I.	(bar)		40	40	26	40	40	26	17	40	26	17	9
			III.	(bar)		40	40	25	40	40	25	16	40	25	16	8
	4	I.	(bar)				40			40	26		40	26	14	
		III.	(bar)				40			40	26		40	26	14	
	5	I.	(bar)								36			36	19	
		III.	(bar)								36			36	19	

I. Fig. 448: PTFE-V-ring unit / EPDM-sealing

III. Fig. 449: Bellows seal

¹⁾ max. differential pressure drop



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ARI-STEVI® 448/449 (DN15-100)

Electric actuator ARI-PREMIO-Plus 2G



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Control valve in straightway form with electric actuator PREMIO-Plus 2G



Fig. 448

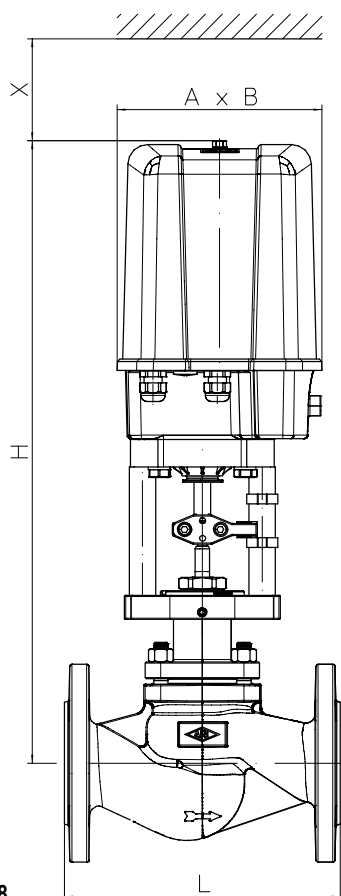
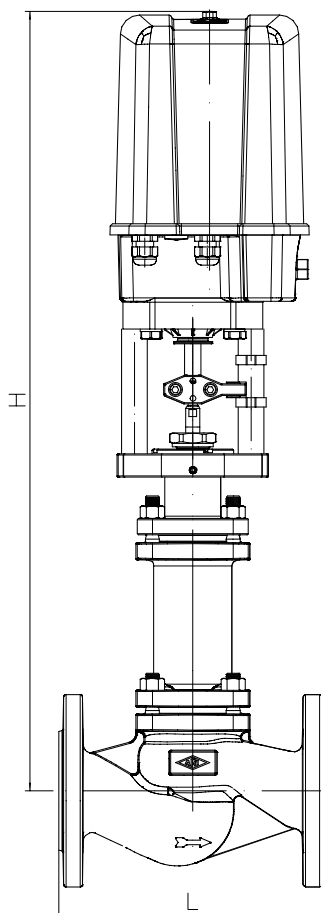


Fig. 449



Actuator data		2,2 - 5 kN	15 kN
A	(mm)	171	210
B	(mm)	156	184
X	(mm)	150	200

Technical data for actuator refer to data sheet PREMIO-Plus 2G

Dimensions and weights

DN		15	20	25	32	40	50	65	80	100
L	(mm)	130	150	160	180	200	230	290	310	350
Fig. 448	2,2 kN	H	(mm)	496	496	511	511	526	533	
		PN16-40	(kg)	10	11	12	14	16	19	
	5 kN	H	(mm)	496	496	511	511	526	533	550
		PN16-40	(kg)	10	11	12	14	16	19	25
	15 kN	H	(mm)						667	689
		PN16-40	(kg)						29	36
Fig. 449	2,2 kN	H	(mm)	681	681	689	689	680	682	
		PN16-40	(kg)	16	17	20	22	29	32	
	5 kN	H	(mm)	681	681	689	689	680	682	776
		PN16-40	(kg)	16	17	20	22	29	32	38
	15 kN	H	(mm)							893
		PN16-40	(kg)							42



ARI-STEVI® 448/449 (DN15-100)

Closing pressure: electric actuator ARI-PREMIO-Plus 2G



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max. permissible closing pressures on flow-to-open P2 = 0.
Observe pressure-temperature-limits, refer to page 2.

DN			15			20				25					
Parabolic plug	Kvs-value	(m³/h)	0,25 / 0,16 / 0,1	0,63 / 0,4	4 / 2,5 / 1,6 / 1	0,25 / 0,16 / 0,1	0,63 / 0,4	4 / 2,5 / 1,6 / 1	6,3	0,25 / 0,16 / 0,1	0,63 / 0,4	4 / 2,5 / 1,6 / 1	6,3	10	
	max. diff. pressure ¹⁾	(bar)	40			40				40					
Perforated plug	Kvs-value	(m³/h)	--	--	2,5 / 1,6 / 1	--	--	2,5 / 1,6 / 1	4	--	--	2,5 / 1,6 / 1	4	6,3	
	max. diff. pressure ¹⁾	(bar)	--	--	40	--	--	40		--	--	40			
Seat-Ø		(mm)	3	5	12	3	5	12	16	3	5	12	16	22	
Travel		(mm)	10			10				10					
2,2 kN	Closing pressure	I.	(bar)	40	40	40	40	40	40	40	40	40	40	40	
		III.	(bar)	33	32	31	33	32	31	31	33	32	31	31	30
	Operating time		(s)	40			40				40				
	Operating speed		(mm/s)	0,25			0,25				0,25				

DN				32				40				50			
Parabolic plug	Kvs-value		(m³/h)	4 / 2,5 / 1,6 / 1	6,3	10	16	6,3	10	16	25	10	16	25	40
	max. diff. pressure ¹⁾		(bar)	40				40			30	40		30	
Perforated plug	Kvs-value		(m³/h)	2,5 / 1,6 / 1	4	6,3	10	4	6,3	10	16	6,3	10	16	25
	max. diff. pressure ¹⁾		(bar)	40				40			40				
Seat-Ø			(mm)	12	16	22	28	16	22	28	35	22	28	35	43
Travel			(mm)	10			15	10		15		10	15		
2,2 kN	Closing pressure	I.	(bar)	40	40	40	28	40	40	28	17	40	28	17	11
		III.	(bar)	31	31	30	25	31	30	25	14	30	25	14	9
	Operating time		(s)	40			60	40		60		40	60		
	Operating speed		(mm/s)	0,25				0,25			0,25				
5 kN	Closing pressure	I.	(bar)				40			40	40		40	40	30
		III.	(bar)				40			40	40		40	40	28
	Operating time		(s)				60			60		60			
	Operating speed		(mm/s)				0,25			0,25		0,25			

DN			65				80				100				
Parabolic plug	Kvs-value		(m³/h)	16	25	40	63	25	40	63	100	40	63	100	160
	max. diff. pressure ¹⁾		(bar)	40	30	30	10	30	30	10	8	30	10	8	3
Perforated plug	Kvs-value		(m³/h)	10	16	25	40	16	25	40	63	25	40	63	100
	max. diff. pressure ¹⁾		(bar)	40				40				40			
Seat-Ø			(mm)	28	35	43	56	35	43	56	70	43	56	70	95
Travel			(mm)	15			20	15		20	25	15	20	25	30
5 kN	Closing pressure	I.	(bar)	40	40	29	17	40	29	17	10	29	17	10	5
		III.	(bar)	40	40	28	16	40	28	16	10	28	16	10	5
	Operating time		(s)	39			53	39		53	66	39	53	66	79
	Operating speed		(mm/s)	0,38				0,38				0,38			
15 kN	Closing pressure	I.	(bar)			40	40		40	40	36	40	40	36	19
		III.	(bar)			40	40		40	40	35	40	40	35	19
	Operating time		(s)			39	53		39	53	66	39	53	66	79
	Operating speed		(mm/s)			0,38			0,38			0,38			

Further operating speeds : refer to data sheet PREMIO-Plus 2G

Operating time [s]=	Travel [mm]
	Operating speed [mm/s]

I. Fig. 448: PTFE-V-ring unit / EPDM-sealing
III. Fig. 449: Bellows seal

¹⁾ max. differential pressure drop



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ARI-STEVI® 448 (DN15-100)

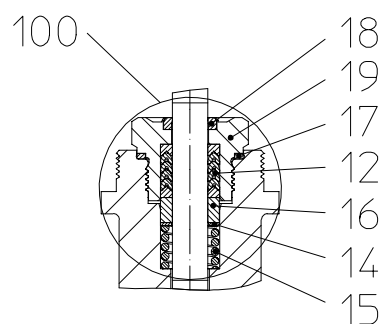
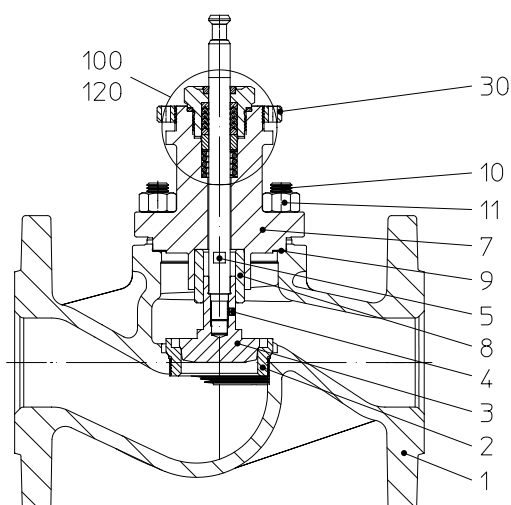
Valve: Standard design



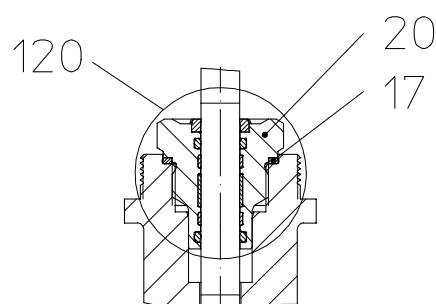
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Fig. 448



I. PTFE-V-ring unit



I. EPDM-sealing

Pos.	Sp.p..	Description	Fig. 12.448	Fig. 22./23./25.448	Fig. 34./35.448	Fig. 55.448
1		Body	EN-GJL-250 , EN-JL1040	EN-GJS-400-18U-LT, EN-JS1049	GP240GH+N, 1.0619+N	GX5CrNiMo19-11-2, 1.4408
2	x	Seat ring	X20Cr13+QT, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
3	x	Plug	X20Cr13+QT, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
4	x	Thread pin	A4			
5	x	Stem	X20Cr13+QT, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
7		Bonnet	GP240GH+N, 1.0619+N			GX5CrNiMo19-11-2, 1.4408
8		Guide bushing	X20Cr13+QT, 1.4021+QT (hardened)			X6CrNiMoTi17-12-2, 1.4571 (hardened)
9	x	Gasket	pure graphite (CrNi laminated with graphite)			
10		Stud	25CrMo4, 1.7218			A4 - 70
11		Hexagon nuts	C35E, 1.1181			A4
12	Set: refer to Pos. 100	V-ring unit	PTFE / Graphite			
14		Washer	X5CrNi18-10, 1.4301			
15		Compression spring	X10CrNi18-8, 1.4310			
16		Bush	PTFE (strengthened)			
17		Gasket	X6CrNiMoTi17-12-2, 1.4571			
18		Scraper	PTFE (strengthened)			
19		Screw joint	X8CrNiS18-9, 1.4305			
20		Screw joint	X8CrNiS18-9, 1.4305 / EPDM			
30	x	Central nut	X8CrNiS18-9, 1.4305			

Stem sealing Fig. 448

100	x	V-ring unit set	Set aus: Pos. 12, 14, 15, 16, 17, 18, 19
120	x	EPDM-sealing set	Set aus: Pos. 17, 20

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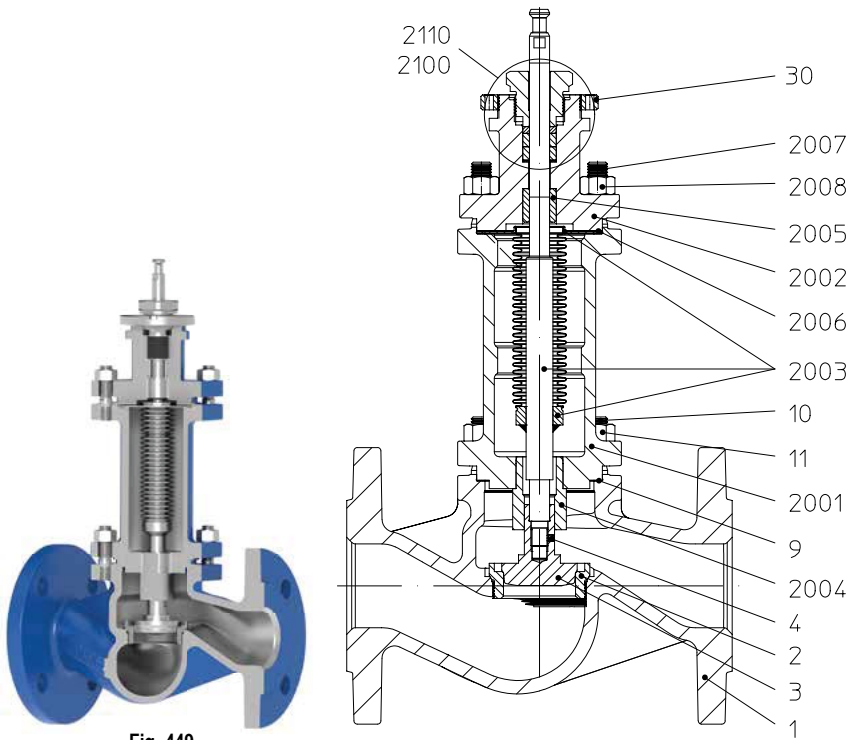
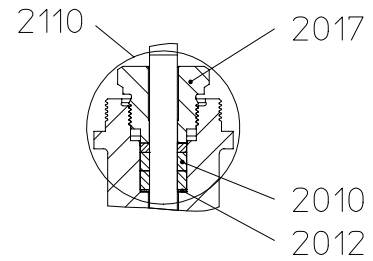
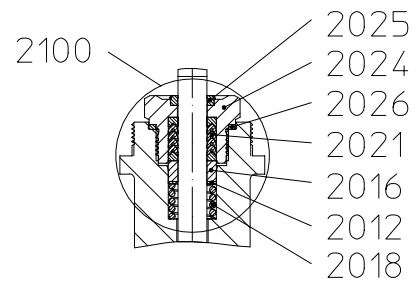


Fig. 449



III. Stainless steel-bellow with pure graphite-packing



III. Stainless steel-bellow with V-ring unit

Pos.	Sp.p.	Description	Fig. 22./23.449	Fig. 34./35.449	Fig. 55.449
1		Body	EN-GJS-400-18U-LT, EN-JS1049	GP240GH+N, 1.0619+N	GX5CrNiMo19-11-2, 1.4408
2	x	Seat ring	X20Cr13+QT, 1.4021+QT		X6CrNiMoTi17-12-2, 1.4571
3	x	Plug	X20Cr13+QT, 1.4021+QT		X6CrNiMoTi17-12-2, 1.4571
4	x	Thread pin	A4		
9	x	Gasket	Pure graphite (CrNi laminated with graphite)		
10		Stud	25CrMo4, 1.7218		A4 - 70
11		Hexagon nuts	C35E, 1.1181		A4
30	x	Central nut	X8CrNiS18-9, 1.4305		
2001		Bellows housing	EN-GJS-400-18U-LT, EN-JS1049	GP240GH+N, 1.0619+N	GX5CrNiMo19-11-2, 1.4408
2002		Bonnet	GP240GH+N, 1.0619+N		GX5CrNiMo19-11-2, 1.4408
2003	x	Stem- / Bellows unit	X20Cr13+QT, 1.4021+QT / X6CrNiTi18-10, 1.4541		X6CrNiMoTi17-12-2, 1.4571
2004		Guide bushing	X20Cr13+QT, 1.4021+QT (hardened)		X6CrNiMoTi17-12-2, 1.4571 (hardened)
2005		Guide bushing	X20Cr13+QT, 1.4021+QT (hardened)		X6CrNiMoTi17-12-2, 1.4571 (hardened)
2006	x	Gasket	Pure graphite (CrNi laminated with graphite)		
2007		Stud	25CrMo4, 1.7218		A4 - 70
2008		Hexagon nuts	C35E, 1.1181		A4
2010	Set refer to Pos. 2110	Packing ring	Pure graphite		
2012		Washer	X5CrNi18-10, 1.4301		
2017		Screw joint	X8CrNiS18-9, 1.4305		
2016	Set refer to Pos. 2100	Bush	PTFE (strengthened (only for DN15-50))		
2018		Compression spring	X10CrNi18-8, 1.4310		
2021		V-ring unit	PTFE / Graphite		
2024		Screw joint	X8CrNiS18-9, 1.4305		
2025		Scraper	PTFE		
2026		Gasket	X6CrNiMoTi17-12-2, 1.4571		

Stem sealings Fig. 449

2110	x	Packing rings set	Set of: Pos. 2010, 2012, 2017
2100	x	V-ring unit set	Set of: Pos. 2012, 2016, 2018, 2021, 2024, 2025, 2026
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