With pneumatic and electric actuators

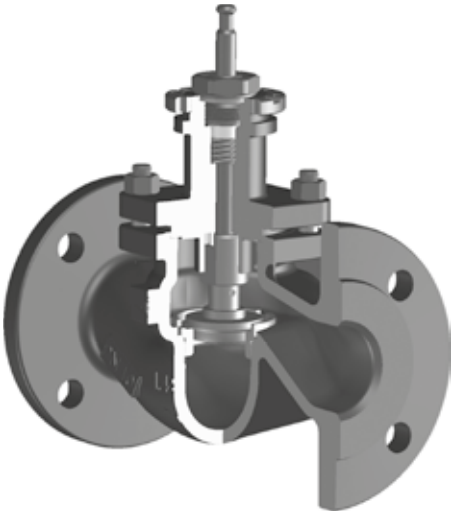
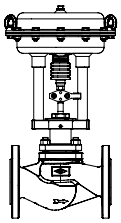


Fig. 448

ARI-STEVI® 448

Pneumatic actuator
ARI-DP 30-34

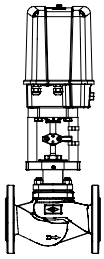


- Reversible pneumatic actuator
- Actuator with rolling diaphragm
- Air supply pressure min. 4 bar
- Air supply pressure max. 6 bar
- Stem protection by bellow
- Maintenance-free O-ring sealing
- Assembly of additional devices acc. to DIN IEC 60534-6

Page 4

ARI-STEVI® 448

Electric actuator
ARI-PREMIO®-Plus 2G 2,2-15kN



- Digital actuator control
- BLDC-Engine technology
- Energy-efficient
- Enclosure IP 65
- 2 torque switches
- Handwheel
- Additional devices available, e.g. potentiometer

Page 8

Features:

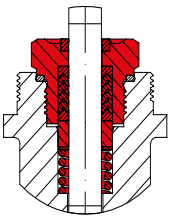
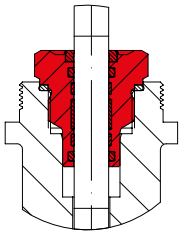
- Compact design
- Bonnet with rotable traverse
- Optional: Perforated plug for noise reduction
- Replaceable seat
- Reduceable Kvs-values
- Shaft plug guide

Figur	Nominal pressure	Material	Nominal diameter
32.448....90	ANSI150	SA216WCB	DN15-100 / NPS 1/2"-4"
52.448....90	ANSI150	SA351CF8M	DN15-100 / NPS 1/2"-4"
Other materials and versions on request.			

Information / restriction of technical rules need to be observed!

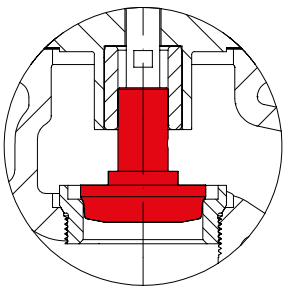
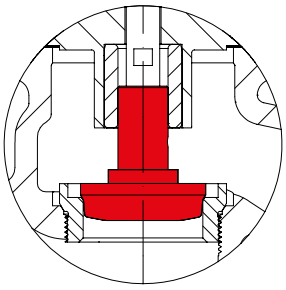
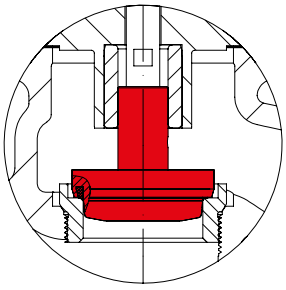
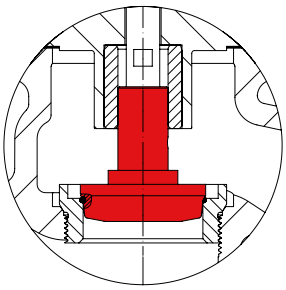
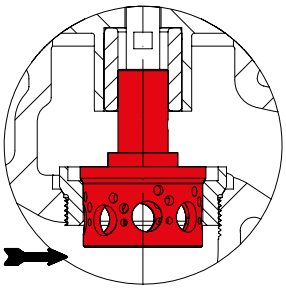
The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

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)

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

acc. to ANSI B16.34			-29°C to 38°C	50°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C	425°C
SA216WCB	ANSI150	(bar)	19,6	19,2	17,7	15,8	13,8	12,1	10,2	8,4	6,5	5,5
SA351CF8M			19	18,4	16,2	14,8	13,7	12,1	10,2	8,4	6,5	5,5

Plug design standard			Guiding	Rangeability
Parabolic plug, metal seat	- Leakage class IV acc. to IEC 60534-4 / ANSI FCI 70-2 - from Kvs 0,1 - Flow characteristic: - modified equal percentage (glp) - linear (lin)		Shaft	50 : 1
Plug design optional			**Guiding**	**Rangeability**
Parabolic plug, increased sealing thightness in the seat	- Leakage class IV-S1 acc. to IEC 60534-4 - metallic polished - from Kvs 0,1 - Flow characteristic: - modified equal percentage (glp) - linear (lin) (special actuator forces necessary, closing pressures on request)		Shaft	50 : 1
Parabolic plug with PTFE-soft seal (max. 200°C)	- Leakage class VI acc. to IEC 60534-4 / ANSI FCI 70-2 - Flow characteristic: - modified equal percentage (glp) - linear (lin)		Shaft	50 : 1
Parabolic plug with armoured sealing edge	- Leakage class IV acc. to IEC 60534-4 / ANSI FCI 70-2 - from Kvs 1 - Flow characteristic: - modified equal percentage (glp) - linear (lin)		Shaft	50 : 1
Perforated plug metal-seated	- Leakage class IV aac. to IEC 60534-4 / ANSI FCI 70-2 - from Kvs 1 - Flow characteristic: - modified equal percentage (glp) - linear (lin) Flow direction for gases and steam for reduction of the acoustic level		Shaft / Seat ring	30 : 1

Control valve in straightway form with pneumatic actuator ARI-DP

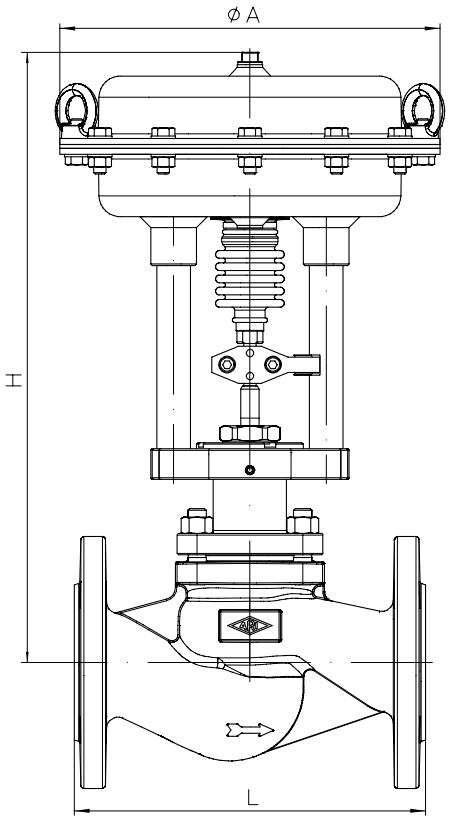


Fig. 448

Actuator data		DP30	DP32	DP33	DP34
Ø A	(mm)	168	250	300	405
Effective diaphragm area	(cm^2)	80	250	400	800
Technical data for actuator refer to data sheet ARI-DP.					

Dimensions and weights

DN				15	20	25	40	50	65	80	100
NPS				1/2"	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"
L			(mm)	184	184	184	222	254	276	298	352
Fig. 448	DP30	H	(mm)	354	354	369	384	391			
		PN16-40	(kg)	8	9	10	14	17			
	DP32	H	(mm)				393	400	407	429	445
		PN16-40	(kg)				19	22	28	35	47
	DP33	H	(mm)						458	480	496
		PN16-40	(kg)						34	41	53
	DP34	H	(mm)							549	565
		PN16-40	(kg)							71	83

Other dimensions refer to pages 10.

Technical data for actuator refer to data sheet ARI-DP.

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				
NPS					1/2"			3/4"				1"				
Parabolic plug	Kvs-value			(m^3/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)	19,6			19,6				19,6				
Perforated plug	Kvs-value			(m^3/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)	--	--	19,6	--	--	19,6		--	--	19,6		
Seat-Ø				(mm)	3	5	12	3	5	12	16	3	5	12	16	22
Travel				(mm)	10			10				10				
DP30 80 cm^2 (Air supply pressure max.: 6 bar)	Air supply pressure min. (bar)	4	I.	(bar)	19,6	19,6	19,6	19,6	19,6	19,6	19,6	19,6	19,6	19,6	19,6	19,6

DN					40				50			
NPS					1 1/2"				2"			
Parabolic plug	Kvs-value			(m^3/h)	6,3	10	16	**25**	10	16	25	**40**
	max. diff. pressure [1]			(bar)	19,6				19,6			
Perforated plug	Kvs-Wert			(m^3/h)	4	6,3	10	**16**	6,3	10	16	**25**
	max. diff. pressure [1]			(bar)	19,6				19,6			
Seat-Ø				(mm)	16	22	28	35	22	28	35	43
Travel				(mm)	10		15		10	15		
DP30 80 cm^2 (Air supply pressure max.: 6 bar)	Air supply pressure min. (bar)	4	I.	(bar)	19,6	19,6			19,6			
DP32 250 cm^2 (Air supply pressure max.: 6 bar)		4	I.	(bar)			19,6	19,6		19,6	19,6	19,6

DN					65				80				100			
NPS					2 1/2"				3"				4"			
Parabolic plug	Kvs-value			(m^3/h)	16	25	40	**63**	25	40	63	**100**	40	63	100	**160**
	max. diff. pressure [1]			(bar)	19,6			10	19,6		10	8	19,6	10	8	3
Perforated plug	Kvs-value			(m^3/h)	10	16	25	**40**	16	25	40	**63**	25	40	63	**100**
	max. diff. pressure [1]			(bar)	19,6				19,6				19,6			
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 cm^2 (Air supply pressure max.: 6 bar)	Air supply pressure min. (bar)	4	I.	(bar)	19,6	19,6	19,6		19,6	19,6			19,6			
DP33 400 cm^2 (Air supply pressure max.: 6 bar)		4	I.	(bar)				19,6			19,6	16		19,6	16	8
DP34 800 cm^2 (Air supply pressure max.: 4 bar)		4	I.	(bar)								19,6			19,6	17

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

[1] max. differential pressure drop

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				
NPS					1/2"			3/4"				1"				
Parabolic plug	Kvs-value			(m^3/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)	19,6			19,6				19,6				
Perforated plug	Kvs-value			(m^3/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)	--	--	19,6	--	--	19,6		--	--	19,6		
Seat-Ø				(mm)	3	5	12	3	5	12	16	3	5	12	16	22
Travel				(mm)	10			10				10				
DP30 80 cm^2 (Air supply pressure max.: 6 bar)	Air supply pressure min. (bar)	2	I.	(bar)	19,6	19,6	19,6	19,6	19,6	19,6	18	19,6	19,6	19,6	18	8
		3	I.	(bar)							19,6				19,6	19,6

DN					40				50			
NPS					1 1/2"				2"			
Parabolic plug	Kvs-value			(m^3/h)	6,3	10	16	**25**	10	16	25	**40**
	max. diff. pressure [1]			(bar)	19,6				19,6			
Perforated plug	Kvs-value			(m^3/h)	4	6,3	10	**16**	6,3	10	16	**25**
	max. diff. pressure [1]			(bar)	19,6				19,6			
Seat-Ø				(mm)	16	22	28	35	22	28	35	43
Travel				(mm)	10		15		10	15		
DP30 80 cm^2 (Air supply pressure max.: 6 bar)	Air supply pressure min. (bar)	2	I.	(bar)	18	8			8			
		3	I.	(bar)	19,6	19,6			19,6			
DP32 250 cm^2 (Air supply pressure max.: 4 bar)		2	I.	(bar)			19,6	14		19,6	14	9
		3	I.	(bar)				19,6			19,6	19,6

DN					65				80				100			
NPS					2 1/2"				3"				4"			
Parabolic plug	Kvs-value			(m^3/h)	16	25	40	**63**	25	40	63	**100**	40	63	100	**160**
	max. diff. pressure [1]			(bar)	19,6			10	19,6		10	8	19,6	10	8	3
Perforated plug	Kvs-value			(m^3/h)	10	16	25	**40**	16	25	40	**63**	25	40	63	**100**
	max. diff. pressure [1]			(bar)	19,6				19,6				19,6			
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 cm^2 (Air supply pressure max.: 6 bar)	Air supply pressure min. (bar)	2	I.	(bar)	19,6	14	8		14	8			8			
		3	I.	(bar)		19,6	19,6		19,6	19,6			19,6			
DP33 400 cm^2 (Air supply pressure max.: 5 bar)		2	I.	(bar)				11			11	7		11	7	3
		3	I.	(bar)				19,6			19,6	17		19,6	17	9
		4	I.	(bar)								19,6			19,6	14
		5	I.	(bar)												19

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

[1] max. differential pressure drop

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

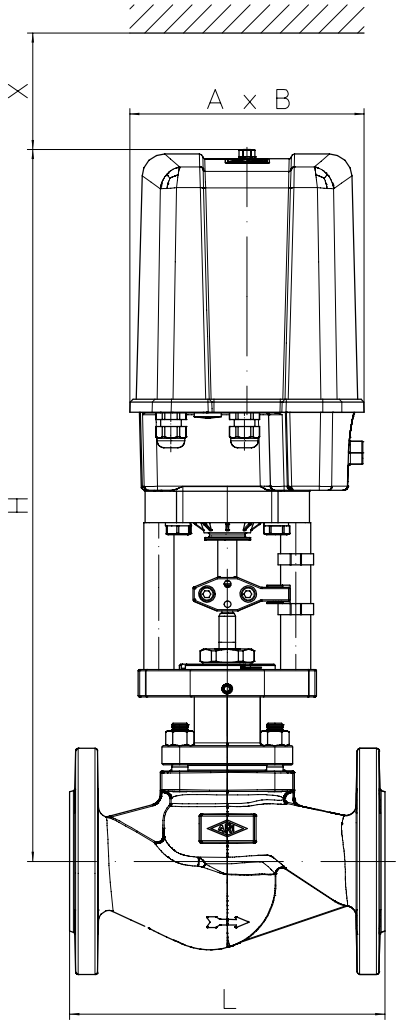


Fig. 448

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	40	50	65	80	100
NPS			1/2"	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"
L		(mm)	184	184	184	222	254	276	298	352
2,2 kN	H	(mm)	496	496	511	526	533			
	PN16-40	(kg)	10	11	12	16	19			
5 kN	H	(mm)	496	496	511	526	533	550	572	588
	PN16-40	(kg)	10	11	12	16	19	25	32	44
15 kN	H	(mm)						667	689	705
	PN16-40	(kg)						29	36	48

Other dimensions refer to pages 10.

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

DN				15			20				25				
NPS				1/2"			3/4"				1"				
Parabolic plug	Kvs-value		(m^3/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)	19,6			19,6				19,6				
Perforated plug	Kvs-value		(m^3/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)	--	--	19,6	--	--	19,6		--	--	19,6		
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)	19,6	19,6	19,6	19,6	19,6	19,6	19,6	19,6	19,6	19,6	19,6	19,6
	Operating time		(s)	40			40				40				
	Operating speed		(mm/s)	0,25			0,25				0,25				

DN				40				50			
NPS				1 1/2"				2"			
Parabolic plug	Kvs-value		(m^3/h)	6,3	10	16	**25**	10	16	25	**40**
	max. diff. pressure [1]		(bar)	19,6				19,6			
Perforated plug	Kvs-value		(m^3/h)	4	6,3	10	**16**	6,3	10	16	**25**
	max. diff. pressure [1]		(bar)	19,6				19,6			
Seat-Ø			(mm)	16	22	28	35	22	28	35	43
Travel			(mm)	10		15		10	15		
2,2 kN	Closing pressure	I.	(bar)	19,6	19,6	19,6	17	19,6	19,6	17	11
	Operating time		(s)	40		60		40	60		
	Operating speed		(mm/s)	0,25				0,25			
5 kN	Closing pressure	I.	(bar)				19,6			19,6	19,6
	Operating time		(s)				60			60	
	Operating speed		(mm/s)				0,25			0,25	

DN				65				80				100			
NPS				2 1/2"				3"				4"			
Parabolic plug	Kvs-value		(m^3/h)	16	25	40	**63**	25	40	63	**100**	40	63	100	**160**
	max. diff. pressure [1]		(bar)	19,6			10	19,6		10	8	19,6	10	8	3
Perforated plug	Kvs-value		(m^3/h)	10	16	25	**40**	16	25	40	**63**	25	40	63	**100**
	max. diff. pressure [1]		(bar)	19,6				19,6				19,6			
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)	19,6	19,6	19,6	17	19,6	19,6	17	10	19,6	17	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)				19,6			19,6	19,6		19,6	19,6	19
	Operating time		(s)				53			53	66		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**

[1] max. differential pressure drop

Control valve in straightway form

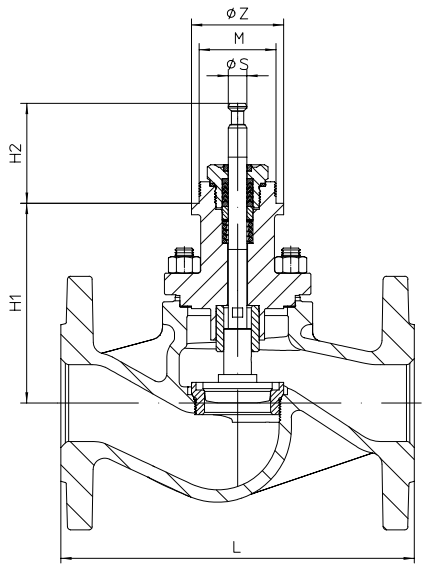
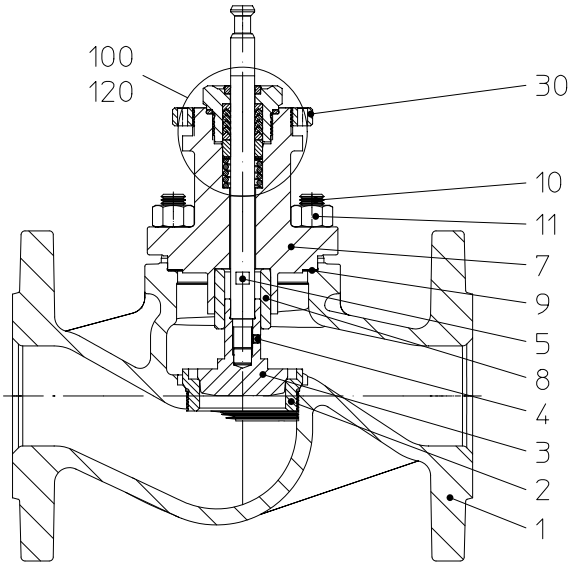
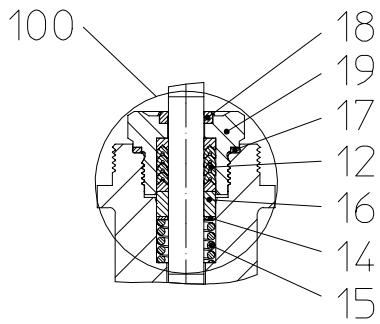


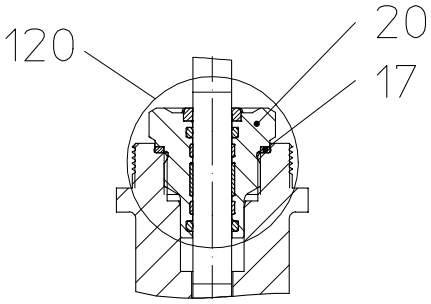
Fig. 448

DN			15	20	25	40	50	65	80	100
NPS			1/2"	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"
Dimensions										
M		(mm)	M50 x 1,5							
ØZ		(mm)	60							
ØS		(mm)	12					16		
H1		(mm)	93		108	123	130	137	159	175
H2		(mm)	65							
Face-to-face dimension acc. to ANSI / ISA - 75.08.01 (formerly ISA-75.03)										
L		(mm)	184	184	184	222	254	276	298	352
Flanges acc. to ANSI B16.5										
ØD	ANSI150	(mm)	90	100	110	125	150	180	190	230
ØK	ANSI150	(mm)	60	70	79	98	121	140	152	191
n x Ød	ANSI150	(mm)	4 x 16				4 X 19			8 x 19
Weight										
Fig. 448	ANSI150	(kg)	4	5	6	10	13	19	26	38
max. permissible thrust										
Fig. 448	ANSI150	(kN)	5			7,5		15		





I. PTFE-V-ring unit



I. EPDM-sealing

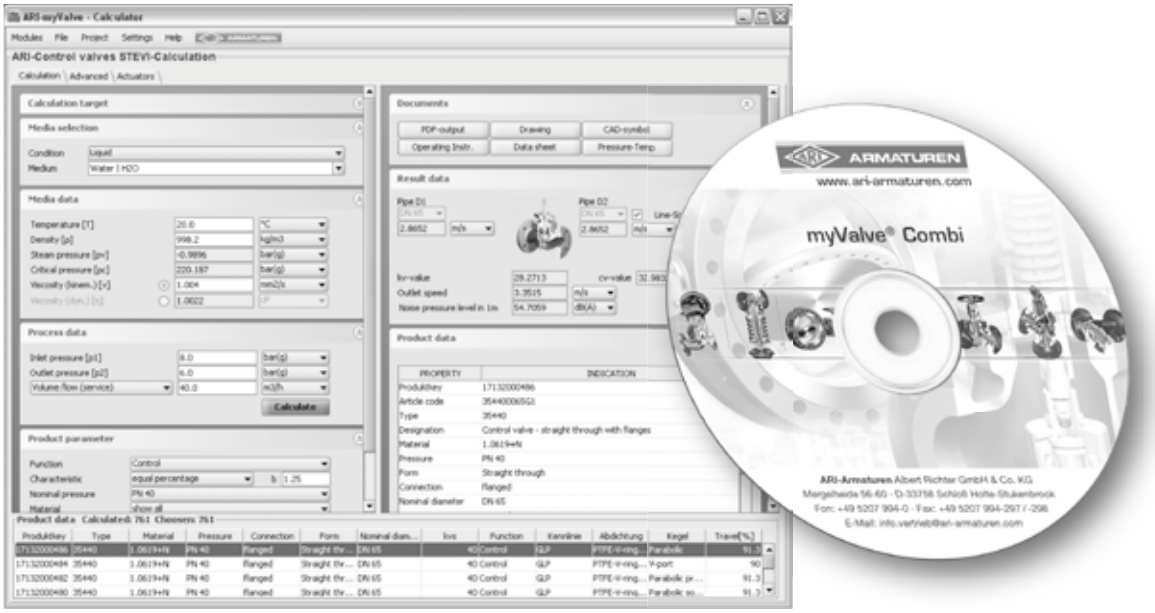
Pos.	Sp.p.	Description	Fig. 32.448	Fig. 52.448
1		Body	SA216WCB	SA351CF8M
2	x	Seat ring	SA276Gr.420 [1]	SA479Gr.316Ti
3	x	Plug	SA276Gr.420 [1]	SA479Gr.316Ti
4	x	Thread pin	A4	
5	x	Stem	SA276Gr.420 [1]	SA479Gr.316Ti
7		Bonnet	SA216WCB	SA351CF8M
8		Giude bushing	SA276Gr.420 [1] (hardened)	SA479Gr.316Ti
9	x	Gasket	pure graphite (CrNi laminated with graphite)	
10		Stud	SA193-B7	SA193-B8M2
11		Hexagon nuts	SA194-2H	SA194-8M
12	Set: refer to Pos. 100	V-ring unit	PTFE / Graphite	
14		Washer	SA240Gr.304	
15		Compression spring	AISI301 / A313Gr.301	
16		Bush	PTFE (strengthened)	
17		Gasket	SA479Gr.316Ti	
18		Scraper	PTFE (strengthened)	
19		Screw joint	AISI303	
20	x	Screw joint	AISI303 / EPDM	
30	x	Central nut	AISI303	

Stem sealing Fig. 448			
100	x	V-ring unit set	
120	x	EPDM-sealing set	
	└ Spare parts		

[1] Heat treatment acc. to EN

myValve® - Your Valve Sizing-Program.

myValve® is a powerful software tool that not only helps you size your system components; it also gives you instant access to all other data about the selected product, such as order information, spare parts drawings, operating instructions, data sheets, etc., whenever you need it.



Contents:

Module ARI-control valves STEVI-calculation

- Sizing (calculation of flow quantity Kv, volume flow Q, pressure drop Δp, sound level and selecting the valve.)

Media:

Integrated media-databank (more than 160 media) with conditions:

- Vapours / gases
- Steam (saturated and superheated)
- Liquids

Special features:

- Project administration of the calculation and product data incl. spare part drawings concerning to project and tag number.
- Direct output or calculation and product data in PDF format.
- Product data could be taken for a direct order.
- SI- and ANSI-units with direct conversion to another datank.
- Settings with over pressure or absolute pressure.
- All ARI valves are integrated in a databank.
- Direct access concerning to the product on data sheets, operating instructions, pressure-temperature-diagram and spare part drawings
- Operation in company networks possible (no complex installations on individually PC's necessary).
- Extensive catalogue extending over several product groups.

System Requirements:

Windows operating systems, Linux, etc.

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