



With pneumatic and electric actuators

ARI-STEVI® 470 - ANSI

**Pneumatic actuator
ARI-DP 32 - 34T**

- Reversible pneumatic actuator
- Actuator with rolling diaphragm
- 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



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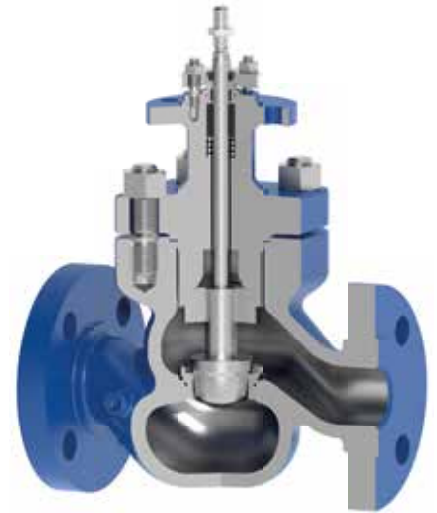


Fig. 470....90

ARI-STEVI® 470 - ANSI

**Electric actuator
ARI-PREMIO-Plus 2G 5 - 25kN**

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



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Fig. 470....4....90

ARI-STEVI® 470 - ANSI

**Electric actuator
AUMA SAR 07.2 - 10.2**

- Enclosure IP 67
- 2 torque switches
- 2 travel switches
- Handwheel
- Overheating protection for motor as standard
- Additional devices available, e.g. potentiometer
- Explosion proof version available

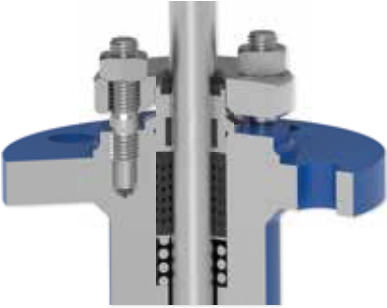
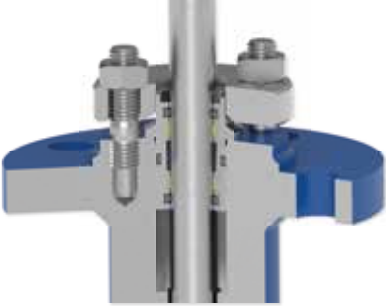
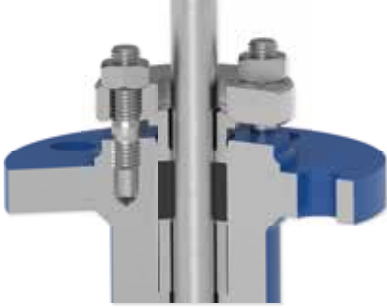


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Features:

- High performance control valve
- Large volume body
- Robust bonnets with traverse for 4x90° actuator assembly
- Blow-out proof stem
- Solid plug guiding
- Replaceable trim
- Optional multistage trim for critical operating conditions
- Optional flow divider for noise reduction

Figure	Version	Nominal pressure	Material	Nominal diameter	
37.470....90	with flanges	ANSI600	216WCB	DN25-150 / NPS 1"-6"	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).
37.470....4....90	with butt weld ends	ANSI600	216WCB	DN25-150 / NPS 1"-6"	
57.470....90	with flanges	ANSI600	351F8M	DN25-150 / NPS 1"-6"	
87.470....4....90	with butt weld ends	ANSI600	217WC6	DN25-150 / NPS 1"-6"	
Other materials and versions on request.					

Stem sealing			
Fig. 470....90	standard	optional	
	DN25- 150 / NPS 1"-6"	DN25- 150 / NPS 1"-6"	DN25- 150 / NPS 1"-6"
			
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)	II. Pure graphite-packing ¹⁾ -10°C to 538°C	

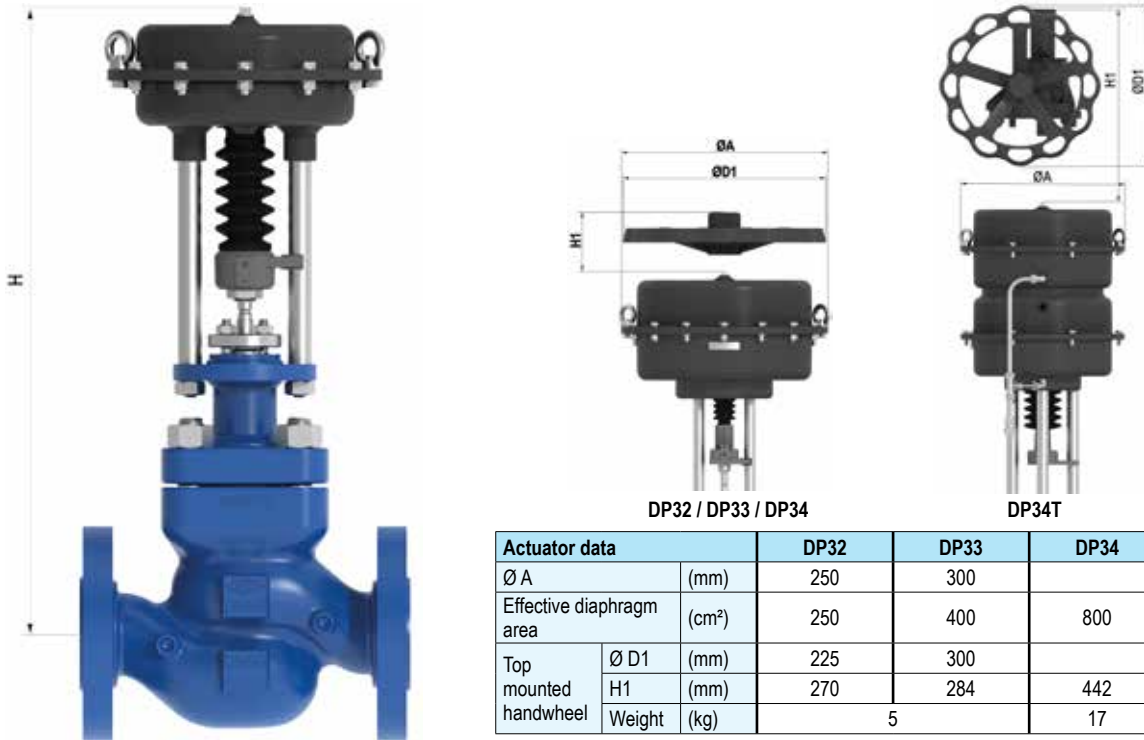
Pressure-temperature-ratings Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.

acc. to ASME B16.5			-29°C to 38°C	50°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C	425°C
216WCB	ANSI600	(bar)	102,1	100,2	93,2	90,2	87,6	83,9	79,6	75,1	69,4	57,5
acc. to ASME B16.5			-29°C to 38°C	50°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C	425°C
351CF8M	ANSI600	(bar)	99,3	96,2	84,4	77,0	71,3	66,8	63,2	60,7	58,9	58,3
acc. to ASME B16.5			-29°C to 50°C	100°C	200°C	250°C	300°C	350°C	400°C	450°C	500°C	538°C
217WC6	ANSI600	(bar)	103,4	103,0	95,9	92,7	85,7	80,4	73,3	67,7	51,5	29,8

¹⁾ Standard for high temperature version

Plug design																																							
	<p>Parabolic plug, metal seat (Standard)</p> <ul style="list-style-type: none"> - from Kvs 0,1 - Flow characteristic glp (from Kvs 100 modified) linear - Rangeability 50/1 - Leakage class: <ul style="list-style-type: none"> • IV acc. to IEC 60534-4 (Standard) • IV-S1 acc. to IEC 60534-4 (Optional) - Stable shaft guide - Medium liquids, gases, steam - Incoming flow against closing direction 		<p>Parabolic plug with armoured sealing edge</p> <ul style="list-style-type: none"> - from Kvs 0,1 - Flow characteristic glp (from Kvs 100 modified) linear - Rangeability 50/1 - Leakage class: <ul style="list-style-type: none"> • IV acc. to IEC 60534-4 - Stable shaft guide - Medium liquids, gases, steam - Incoming flow against closing direction 																																				
	<p>Parabolic plug with PTFE-soft seal (max. 200°C)</p> <ul style="list-style-type: none"> - from Kvs 0,1 - Flow characteristic glp (from Kvs 100 modified) linear - Rangeability 50/1 - Leakage class: <ul style="list-style-type: none"> • VI acc. to IEC 60534-4 - Stable shaft guide - Medium liquids, gases, steam - Incoming flow against closing direction 		<p>V-port plug metal seat</p> <ul style="list-style-type: none"> - ab Kvs 40 - Flow characteristic glp (from Kvs 100 modified) linear - Rangeability 30/1 - Leakage class: <ul style="list-style-type: none"> • IV acc. to IEC 60534-4 (Standard) • IV-S1 acc. to IEC 60534-4 (Optional) - double guide (shaft/seat ring) - Medium liquids, gases, steam - Incoming flow against closing direction 																																				
	<p>Perforated plug metal seat</p> <ul style="list-style-type: none"> - from Kvs 0,1 - Flow characteristic glp (from Kvs 100 modified) linear - Rangeability 30/1 - Leakage class IV acc. to IEC 60534-4 - double guide (shaft/seat ring) - Medium liquids, gases, steam - Flow against or in closing direction - Noise reduction up to -15 dB(A) 		<p>Perforated plug two-stage, metal seat</p> <ul style="list-style-type: none"> - fully regulated - ab Kvs 1,3 - Flow characteristic glp (from Kvs 100 modified) linear - Rangeability 30/1 - Leakage class IV acc. to IEC 60534-4 - double guide (shaft/seat ring) - Medium gases, steam - Incoming flow against closing direction - Noise reduction up to -25 dB(A) 																																				
	<p>Perforated plug three-stage, metal seat</p> <ul style="list-style-type: none"> - fully regulated - ab Kvs 0,8 - Flow characteristic glp (from Kvs 100 modified) linear - Rangeability 30/1 - Leakage class IV acc. to IEC 60534-4 - double guide (shaft/seat ring) - Medium gases, steam - Incoming flow against closing direction - Noise reduction up to -30 dB(A) 																																						
Pressure balanced plug design																																							
	<p>PTFE-V-ring with stainless steel spring (max. 220°C)</p> <ul style="list-style-type: none"> - from seat diameter 40 mm - can be combined with parabolic and perforated plug - Leakage class IV acc. to IEC 60534-4 - Medium liquids, gases, steam 		<p>Metal multi-plate rings</p> <ul style="list-style-type: none"> - from seat diameter 40 mm - can be combined with parabolic and perforated plug - Leakage class III acc. to IEC 60534-4 - Medium liquids, gases, steam 																																				
Flow divider																																							
	<p>Flow divider</p> <ul style="list-style-type: none"> - can be combined with single-stage Plug design - consists of two-wall perforated plates - Medium gases, steam - Deviations of the characteristic curve in the stroke range > 80 % - Noise reduction up to -17,5 dB(A) 	<table border="1"> <thead> <tr> <th colspan="5">Deviating Kvs values for execution with flow divider</th> </tr> <tr> <th>DN</th> <th colspan="2"></th> <th>80</th> <th>100</th> <th>150</th> </tr> <tr> <th>Seat-Ø</th> <th colspan="2"></th> <th>80</th> <th>100</th> <th>150</th> </tr> </thead> <tbody> <tr> <td>Parabolic plug + Flow divider</td> <td>Kvs-value</td> <td>(m³/h)</td> <td>80</td> <td>128</td> <td>320</td> </tr> <tr> <td>Perforated plug+ Flow divider</td> <td>Kvs-value</td> <td>(m³/h)</td> <td>57</td> <td>90</td> <td>225</td> </tr> <tr> <td colspan="5">Alle sonstigen Kombinationen unverändert</td> </tr> </tbody> </table>			Deviating Kvs values for execution with flow divider					DN			80	100	150	Seat-Ø			80	100	150	Parabolic plug + Flow divider	Kvs-value	(m³/h)	80	128	320	Perforated plug+ Flow divider	Kvs-value	(m³/h)	57	90	225	Alle sonstigen Kombinationen unverändert					
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			<p>Flow characteristic glp.: Characteristic curves equal percentage mod. glp.: modified equal percentage</p>																																				

Control valve in straightway form with pneumatic actuator ARI-DP



Actuator data		DP32	DP33	DP34	DP34T	
Ø A	(mm)	250	300	405		
Effective diaphragm area	(cm²)	250	400	800	1600	
Top mounted handwheel	Ø D1	(mm)	225	300	400	
	H1	(mm)	270	284	442	635
	Weight	(kg)	5		17	41

Fig. 470....90

Further technical data of the actuator: refer to data sheet ARI-DP.

Heights and weights

DN	25	40	50	80	100	150
NPS	1"	1 1/2"	2"	3"	4"	6"

Fig. 470			without pressure balanced plug						
DP32	H	(mm)	530	585	585				
	H1 ¹⁾	(mm)	630	685	685				
	ANSI600	(kg)	31	48	55				
	ANSI600 ¹⁾	(kg)	32	51	58				
DP33	H	(mm)	585	640	640	680	725	790	
	H1 ¹⁾	(mm)	685	740	740	780	845	910	
	ANSI600	(kg)	37	54	61	103	155	325	
	ANSI600 ¹⁾	(kg)	38	57	64	105	156	327	
DP34	H	(mm)	700	755	755	795	840	905	
	H1 ¹⁾	(mm)	800	855	855	895	960	1025	
	ANSI600	(kg)	67	84	91	133	185	355	
	ANSI600 ¹⁾	(kg)	68	87	94	135	186	357	
DP34T	H	(mm)				1035	1080	1145	
	H1 ¹⁾	(mm)				1135	1200	1265	
	ANSI600	(kg)				204	256	426	
	ANSI600 ¹⁾	(kg)				206	257	428	
			with pressure balanced plug						
DP33	H	(mm)		660	660	700	745	810	
	H1 ¹⁾	(mm)		760	760	800	865	930	
	ANSI600	(kg)		54	61	103	155	325	
	ANSI600 ¹⁾	(kg)		57	64	105	156	327	
DP34	H	(mm)		775	775	815	860	925	
	H1 ¹⁾	(mm)		875	875	915	980	1045	
	ANSI600	(kg)		84	91	133	185	355	
	ANSI600 ¹⁾	(kg)		87	94	135	186	357	
DP34T	H	(mm)				1055	1100	1165	
	H1 ¹⁾	(mm)				1155	1220	1285	
	ANSI600	(kg)				204	256	426	
	ANSI600 ¹⁾	(kg)				206	257	428	

¹⁾ High temperature version with extended bonnet
Further dimensions refer to page 14.





Spring closes on air failure

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

DN			25				40					50										
NPS			1"				1 1/2"					2"										
Parabolic plug	Kvs-value	(m³/h)	2,5/ 1,6/ 1	4	6,3	10	2,5/ 1,6/ 1	4	6,3	10	16	25	2,5/ 1,6/ 1	4	6,3	10	16	25	40			
Perforated plug	Kvs-value	(m³/h)	1,6/ 1	2,5	4	6,3	1,6/ 1	2,5	4	6,3	10	16	1,6/ 1	2,5	4	6,3	10	16	25			
Perforated plug two-stage	Kvs-value	(m³/h)	1,3	2,1	3,3	5,3	1,3	2,1	3,3	5,3	8,4	13	1,3	2,1	3,3	5,3	8,4	13	21			
Perforated plug three-stage	Kvs-value	(m³/h)	0,8	1,2	2	3,2	0,8	1,2	2	3,2	5	8	0,8	1,2	2	3,2	5	8	12			
Seat-Ø		(mm)	12	18	22	25	12	18	22	25	32	40	12	18	22	25	32	40	50			
Travel		(mm)	20				20					30	20					30				
			without pressure balanced plug																			
DP32 250 cm²	Spring range (bar)	Air supply pressure min. (bar) ¹⁾	4,4	I. (bar)	102	102	70	54	102	98	66	51	31		102	98	66	51	31			
				II. (bar)	86	38	25		27								27					
			5,3	I. (bar)	102	102	98	76	102	140	95	73	45		102	102	95	73	45			
				II. (bar)	102	80	54	41	102	53	35	27		102	53	35	27					
DP33 400 cm²	Spring range (bar)	Air supply pressure min. (bar) ¹⁾	3,7	I. (bar)		102f)	102f)	102f)		102	102	102	64			102	102	102	64			
				II. (bar)		102f)	94f)	73f)		102	75	58	35			102	75	58	35			
			4,7	I. (bar)			102	102			102	102	90				102	102	90			
				II. (bar)			102	102			102	101	61				102	101	61			
			5,0	I. (bar)									49						49	31		
				II. (bar)											31						31	
DP34 800 cm²	Spring range (bar)	Air supply pressure min. (bar) ¹⁾	2,6	I. (bar)								102a)	102a)				102a)	102a)				
				II. (bar)									102a)	93a)			102a)	93a)				
			3,7	I. (bar)									102	102					102	102		
				II. (bar)									102	102					102	102		
			4,5	I. (bar)									102						102	98		
				II. (bar)											102						102	86
			with pressure balanced plug																			
DP33 400 cm²	Spring range (bar)	Air supply pressure min. (bar) ¹⁾	4,5	I. (bar)																102		
				II. (bar)																		102

I. Fig. 470: PTFE-V-ring unit / EPDM-sealing
II. Fig. 470: Pure graphite-packing

¹⁾ max. differential pressure drop: 6 bar Restriction: a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar f) 5,5 bar



Spring closes on air failure

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

DN			80					100					150						
NPS			3"					4"					6"						
Parabolic plug	Kvs-value	(m³/h)	16	25	40	63	100	25	40	63	100	160	63	100	160	250	400		
V-port plug	Kvs-value	(m³/h)			40	63	100		40	63	100	160	63	100	160	250	400		
Perforated plug	Kvs-value	(m³/h)	10	16	25	40	63	16	25	40	63	100	40	63	100	160	250		
Perforated plug two-stage	Kvs-value	(m³/h)	8,4	13	21	34	53	13	21	34	53	85	34	53	85	135	212		
Perforated plug three-stage	Kvs-value	(m³/h)	5	8	12	20	32	8	12	20	32	50	20	32	50	80	127		
Seat-Ø		(mm)	32	40	50	65	80	40	50	65	80	100	65	80	100	125	150		
Travel		(mm)	20	30				30				30			50				
without pressure balanced plug																			
DP33 400 cm²	Spring range (bar) 2,3-3,7	Air supply pressure min. (bar) ¹⁾	4,7	I. (bar)	89														
				II. (bar)	57														
2,0-4,0	5,0		I. (bar)		49	31			49	31									
			II. (bar)		28				28										
DP34 800 cm²	1,5-2,1		2,6	I. (bar)	102														
				II. (bar)	89														
	2,4-3,2		3,7	I. (bar)	102														
				II. (bar)	102														
	2,8-4,0		4,5	I. (bar)		102	97	57	38	102	97	57	38		57	38			
				II. (bar)		102	84	49	32	131	84	49	32		49	32			
DP34T 1600 cm²	1,7-2,6	3,1	I. (bar)		102a)	102a)	71a)	46a)	102a)	102a)	71a)	46a)	29a)	71a)	46a)	29a)			
			II. (bar)		102a)	102a)	63a)	41a)	102a)	102a)	63a)	41a)	26a)	63a)	41a)	26a)			
	2,4-3,6	4,1	I. (bar)			102	101	67		102	101	67	43	101	67	43			
			II. (bar)			102	93	61		102	93	61	39	93	61	39			
with pressure balanced plug																			
DP34 800 cm²	Spring range (bar) 2,1-3,0	Air supply pressure min. (bar) ¹⁾	5,1	I. (bar)				102	102			102	102	102	102	102	102		
				II. (bar)				102	102			102	102	102	102	102	102	102	
6,0			I. (bar)															102	102
			II. (bar)															102	102
DP34T 1600 cm²	2,0-4,0	6,0	I. (bar)													102	102		
			II. (bar)														102	102	

I. Fig. 470: PTFE-V-ring unit / EPDM-sealing
II. Fig. 470: Pure graphite-packing

¹⁾ max. differential pressure drop: 6 bar Restriction: a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar f) 5,5 bar



Spring opens on air failure

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

DN			25				40					50												
NPS			1"				1 1/2"					2"												
Parabolic plug	Kvs-value	(m3/h)	2,5/ 1,6/ 1	4	6,3	10	2,5/ 1,6/ 1	4	6,3	10	16	25	2,5/ 1,6/ 1	4	6,3	10	16	25	40					
Perforated plug	Kvs-value	(m3/h)	1,6/ 1	2,5	4	6,3	1,6/ 1	2,5	4	6,3	10	16	1,6/ 1	2,5	4	6,3	10	16	25					
Perforated plug two-stage	Kvs-value	(m3/h)	1,3	2,1	3,3	5,3	1,3	2,1	3,3	5,3	8,4	13	1,3	2,1	3,3	5,3	8,4	13	21					
Perforated plug three-stage	Kvs-value	(m3/h)	0,8	1,2	2	3,2	0,8	1,2	2	3,2	5	8	0,8	1,2	2	3,2	5	8	12					
Seat-Ø		(mm)	12	18	22	25	12	18	22	25	32	40	12	18	22	25	32	40	50					
Travel		(mm)	20				20					30	20				30							
			without pressure balanced plug																					
DP32 250 cm ²	Spring range (bar)	0,8-2,4	Air supply pressure min. (bar) ¹⁾	5,0	I. (bar)	102	102	102	102	102	102	102	100	61	39	102	102	102	100	61	39			
					II. (bar)																			
				6,0	I. (bar)			102	102	102	102	102	102	102	102	89	57			102	102	89	57	36
					II. (bar)																			
				5,0	I. (bar)	102	102	102	81	102	102	100	78	47			102	102	100	78	47			
					II. (bar)	102	88	59	46	102	61	41	31				102	61	41	31				
6,0	I. (bar)		102	102	102	102	102	102	102	75			102	102	102	102	75							
	II. (bar)		102	102	90	102	102	98	76	46			102	102	98	76	46							
DP33 400 cm ²	Spring range (bar)	1,5-2,5	Air supply pressure min. (bar) ¹⁾	4,0	I. (bar)			102f)	93f)		102	102	91	55		102	102	91	55					
					II. (bar)			76f)	59f)		85	57	44	26		85	57	44	26					
				5,0	I. (bar)			102f)	102f)		102	102	102	99			102	102	102	99				
					II. (bar)			102f)	102f)		102	102	102	70			102	102	102	70				
				6,0	I. (bar)									102							102			
					II. (bar)									102							102			
6,0	I. (bar)				102																			
	II. (bar)				102																			
DP34 800 cm ²	Spring range (bar)	0,67-1,2	Air supply pressure min. (bar) ¹⁾	5,0	I. (bar)								49						49	31				
					II. (bar)																31			
				6,0	I. (bar)											78						78	49	
					II. (bar)											59							59	37
				3,5	I. (bar)											102c)						102c)		
					II. (bar)											102c)						102c)		
4,0	I. (bar)												84f)						84f)	53f)				
	II. (bar)												65f)						65f)	41f)				
5,0	I. (bar)												102f)						102f)	90f)				
	II. (bar)												102f)						102f)	78f)				
5,5	I. (bar)												102f)						102f)	102f)				
	II. (bar)												102f)						102f)	97f)				
			with pressure balanced plug																					
DP33 400 cm ²	Spring range (bar)	2,0-4,0	Air supply pressure min. (bar) ¹⁾	6,0	I. (bar)										102					102	102			
					II. (bar)										102						102			
DP34 800 cm ²	Spring range (bar)	2,1-3,0	Air supply pressure min. (bar) ¹⁾	5,1	I. (bar)																102			
					II. (bar)																	102		

I. Fig. 470: PTFE-V-ring unit / EPDM-sealing

II. Fig. 470: Pure graphite-packing

¹⁾ max. differential pressure drop: 6 bar Restriction: a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar f) 5,5 bar



Spring opens on air failure

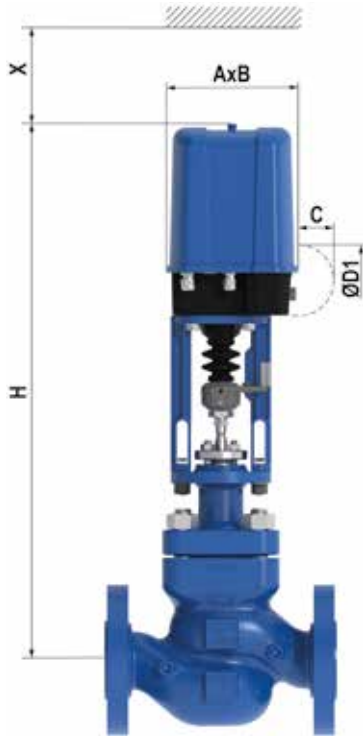
max. permissible closing pressures on flow-to-open P2 = 0.
Observe pressure-temperature-limits, refer to page 2.

DN			80					100					150							
NPS			3"					4"					6"							
Parabolic plug	Kvs-value	(m3/h)	16	25	40	63	100	25	40	63	100	160	63	100	160	250	400			
V-port plug	Kvs-value	(m3/h)			40	63	100		40	63	100	160	63	100	160	250	400			
Perforated plug	Kvs-value	(m3/h)	10	16	25	40	63	16	25	40	63	100	40	63	100	160	250			
Perforated plug two-stage	Kvs-value	(m3/h)	8,4	13	21	34	53	13	21	34	53	85	34	53	85	135	212			
Perforated plug three-stage	Kvs-value	(m3/h)	5	8	12	20	32	8	12	20	32	50	20	32	50	80	127			
Seat-Ø		(mm)	32	40	50	65	80	40	50	65	80	100	65	80	100	125	150			
Travel		(mm)	20	30				30				30			50					
without pressure balanced plug																				
DP33 400 cm2	Spring range (bar)	1,5-2,5	Air supply pressure min. (bar) ¹⁾	4,0	I. (bar)	54														
					II. (bar)															
				5,0	I. (bar)	98														
					II. (bar)	66														
				6,0	I. (bar)	102														
					II. (bar)	102														
	1,5-3,0	5,0	I. (bar)		49	31			49	31										
			II. (bar)		28				28											
		6,0	I. (bar)		77	49	29			77	49	29				29				
			II. (bar)		56	36				56	36									
		0,67-1,2	4,0	I. (bar)	102															
				II. (bar)	102															
0,8-2,4	4,0	I. (bar)		83	53	31														
		II. (bar)		62	40				62	40										
	5,0	I. (bar)		102	90	53	35			102	90	53	35		53	35				
		II. (bar)		102	76	45	29			102	76	45	29		45	29				
	6,0	I. (bar)		102	102	64	42			102	102	64	42	27	64	42	27			
		II. (bar)		102	95	56	37			102	95	56	37		56	37				
DP34T 1600 cm2	2,1-3,0	4,0	I. (bar)			68a)	40a)	26a)			68a)	40a)	26a)		40a)	26a)				
			II. (bar)			54a)	32a)				54a)	32a)			32a)					
		5,0	I. (bar)			102a)	84a)	55a)				102a)	84a)	55a)	35a)	84a)	55a)	35a)		
			II. (bar)			102a)	76a)	50a)					102a)	76a)	50a)	32a)	76a)	50a)	32a)	
with pressure balanced plug																				
DP34 800 cm2	Spring range (bar)	2,1-3,0	Air supply pressure min. (bar) ¹⁾	5,1	I. (bar)			102	102	102			102	102	102	102	102			
					II. (bar)			102	102	102			102	102	102	102	102	102	102	
DP34T 1600 cm2	2,0-4,0	6,0	I. (bar)													102	102			
			II. (bar)														102	102		

I. Fig. 470: PTFE-V-ring unit / EPDM-sealing
II. Fig. 470: Pure graphite-packing

¹⁾ max. differential pressure drop: 6 bar Restriction: a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar f) 5,5 bar

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



Actuator data		5 kN	12 - 25 kN
A	(mm)	171	210
B	(mm)	156	184
C	(mm)	50	90
Ø D1	(mm)	90	130
X	(mm)	150	200

Further technical data of the actuator: refer to data sheet PREMIO-Plus 2G

Fig. 470....90

Heights and weights

DN	25	40	50	80	100	150
NPS	1"	1 1/2"	2"	3"	4"	6"

Fig. 470....90	5 kN	without pressure balanced plug							
		H	(mm)	640	695	695			
	H1 ¹⁾	(mm)	740	795	795				
	ANSI600	(kg)	29	46	53				
	ANSI600 ¹⁾	(kg)	30	49	56				
	12 kN 15 kN 25 kN	H	(mm)	810	870	870	910	955	1020
		H1 ¹⁾	(mm)	910	970	970	1010	1075	1140
		ANSI600	(kg)	32	50	57	99	151	321
		ANSI600 ¹⁾	(kg)	33	53	60	101	152	323
	15 kN 25 kN	with pressure balanced plug							
		H	(mm)		890	890	930	975	1040
		H1 ¹⁾	(mm)		990	990	1030	1095	1160
		ANSI600	(kg)		50	57	99	151	321
		ANSI600 ¹⁾	(kg)		53	60	101	152	323

¹⁾ High temperature version with extended bonnet
Further dimensions refer to page 14.



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

DN			25				40						50									
NPS			1"				1 1/2"						2"									
Parabolic plug	Kvs-value	(m³/h)	2,5/ 1,6/ 1	4	6,3	10	2,5/ 1,6/ 1	4	6,3	10	16	25	2,5/ 1,6/ 1	4	6,3	10	16	25	40			
Perforated plug	Kvs-value	(m³/h)	1,6/ 1	2,5	4	6,3	1,6/ 1	2,5	4	6,3	10	16	1,6/ 1	2,5	4	6,3	10	16	25			
Perforated plug two-stage	Kvs-value	(m³/h)	1,3	2,1	3,3	5,3	1,3	2,1	3,3	5,3	8,4	13	1,3	2,1	3,3	5,3	8,4	13	21			
Perforated plug three-stage	Kvs-value	(m³/h)	0,8	1,2	2	3,2	0,8	1,2	2	3,2	5	8	0,8	1,2	2	3,2	5	8	12			
Seat-Ø		(mm)	12	18	22	25	12	18	22	25	32	40	12	18	22	25	32	40	50			
Travel		(mm)	20				20						30		20						30	
			without pressure balanced plug																			
5 kN	Closing pressure	I. (bar)	102	102	101	78	102	102	97	75	46	29	102	102	97	75	46	29				
		II. (bar)	102	83	56	43	102	56	37	29			102	56	37	29						
	Operating time (s)		53				53						79		53						79	
12 kN	Closing pressure	I. (bar)		102	102	102		102	102	102	102	80		102	102	102	102	80		51		
		II. (bar)		102	102	102		102	102	102	96	61		102	102	102	96	61		39		
	Operating time (s)		53				53						79		53						79	
15 kN	Closing pressure	I. (bar)									102	102					102	102		65		
		II. (bar)									102	83					102	83		53		
	Operating time (s)						53						79		53						79	
25 kN	Closing pressure	I. (bar)										102						102		102		
		II. (bar)										102						102		100		
	Operating time (s)												79								79	
			with pressure balanced plug																			
15 kN	Closing pressure	I. (bar)																		102		
		II. (bar)																		102		
	Operating time (s)																				79	

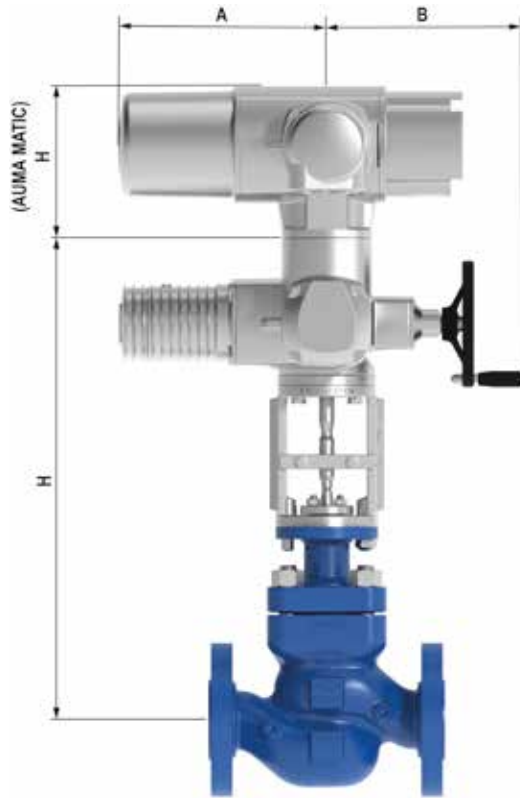
DN			80					100					150						
NPS			3"					4"					6"						
Parabolic plug	Kvs-value	(m³/h)	16	25	40	63	100	25	40	63	100	160	63	100	160	250	400		
V-port plug	Kvs-value	(m³/h)	16	25	40	63	100	25	40	63	100	160	63	100	160	250	400		
Perforated plug	Kvs-value	(m³/h)	10	16	25	40	63	16	25	40	63	100	40	63	100	160	250		
Perforated plug two-stage	Kvs-value	(m³/h)	8,4	13	21	34	53	13	21	34	53	85	34	53	85	135	212		
Perforated plug three-stage	Kvs-value	(m³/h)	5	8	12	20	32	8	12	20	32	50	20	32	50	80	127		
Seat-Ø		(mm)	32	40	50	65	80	40	50	65	80	100	65	80	100	125	150		
Travel		(mm)	20	30				30					30					50	
			without pressure balanced plug																
15 kN	Closing pressure	I. (bar)	102	101	65	38	25	101	65	38	25			38	25				
		II. (bar)	102	80	51	30	80	51	30			30							
	Operating time (s)		53	79				79					79						
25 kN	Closing pressure	I. (bar)		102	102	66	43	102	102	66	43	27	66	43	27				
		II. (bar)		102	98	58	38	102	98	58	38		58	38					
	Operating time (s)			79				79					79						
			with pressure balanced plug																
15 kN	Closing pressure	I. (bar)			102	102	102		102	102	102	102	102	102	100				
		II. (bar)			102	102	102		102	102	102	102	102	102	100				
	Operating time (s)			79				79					79						
25 kN	Closing pressure	I. (bar)												102	102	102			
		II. (bar)												102	102	102			
	Operating time (s)												79					132	

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

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

- I. Fig. 470: PTFE-V-ring unit / EPDM-sealing
- II. Fig. 470: Pure graphite-packing

Control valve in straightway form with electric actuator AUMA



Actuator data		SAR 07.2	SAR 07.6	SAR 10.2
A	(mm)	265		283
B	(mm)	249		254
H1 (AUMATIC AC)	(mm)	130		
Supply voltage: 400V 50Hz 3~ (Other voltages on request)				
Technical data for actuator refer to price list.				

Fig. 470....90

Heights and weights

DN	25	40	50	80	100	150
NPS	1"	1 1/2"	2"	3"	4"	6"

Fig. 470....90			without pressure balanced plug						
	SAR 07.2	H	(mm)	710	765	765	805	855	920
SAR 07.6	H ¹⁾	(mm)	810	865	865	905	975	1040	
SAR 10.2	Weight	(kg)	51	70	77	119	171	341	
	Weight ¹⁾	(kg)	52	73	80	121	172	343	
				with pressure balanced plug					
SAR 07.2	H	(mm)		785	785	825	875	940	
SAR 07.6	H ¹⁾	(mm)		885	885	925	995	1060	
SAR 10.2	Weight	(kg)		70	77	119	171	341	
	Weight ¹⁾	(kg)		73	80	121	172	343	

¹⁾ High temperature version with extended bonnet

For version with AUMA SAR Ex other heights.
Further dimensions refer to page 14.



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

DN				25					40					50							
NPS				1"					1 1/2"					2"							
Parabolic plug	Kvs-value	(m³/h)		2,5/ 1,6/ 1	4	6,3	10	2,5/ 1,6/ 1	4	6,3	10	16	25	2,5/ 1,6/ 1	4	6,3	10	16	25	40	
Perforated plug	Kvs-value	(m³/h)		1,6/ 1	2,5	4	6,3	1,6/ 1	2,5	4	6,3	10	16	1,6/ 1	2,5	4	6,3	10	16	25	
Perforated plug two-stage	Kvs-value	(m³/h)		1,3	2,1	3,3	5,3	1,3	2,1	3,3	5,3	8,4	13	1,3	2,1	3,3	5,3	8,4	13	21	
Perforated plug three-stage	Kvs-value	(m³/h)		0,8	1,2	2	3,2	0,8	1,2	2	3,2	5	8	0,8	1,2	2	3,2	5	8	12	
Seat-Ø		(mm)		12	18	22	25	12	18	22	25	32	40	12	18	22	25	32	40	50	
Travel		(mm)		20					20					30		20				30	
without pressure balanced plug																					
SAR 07.2 Output drive Form A TR 20 x 4 - LH	Closing pressure	I./II.	shut off controlling ¹)	(bar)	102	102	102	102	102	102	102	102	95	102	102	102	102	102	95	61	
				(bar)	102	102	102	102	102	102	89	54	34	102	102	102	89	54	34	22	
	Torque			(Nm)	15	15	20	20	15	15	20	25	30	30	15	15	20	25	30	30	30
	Operating time (50 Hz)			(s)	54					54					56		54				56
Output drive			(min ⁻¹)	5,6					5,6					8		5,6				8	
SAR 07.6 Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off controlling ¹)	(bar)								102	102	102			102	102	102	91	
				(bar)								102	90	58			102	90	58	37	
	Torque (Nm)			(Nm)								35	50	60			35	50	60	60	
	Operating time (50 Hz)			(s)								43		64				43		64	
Output drive			(min ⁻¹)								5,6							5,6			
SAR 10.2 Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off controlling ¹)	(bar)								102	102				102	102	91		
				(bar)								102	102				102	102	91		
	Torque			(Nm)								60	60				60	60	60		
	Operating time (50 Hz)			(s)								43		64				43		64	
Output drive			(min ⁻¹)								5,6							5,6			
with pressure balanced plug																					
SAR 7.6 Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off controlling ¹)	(bar)																102	
				(bar)																	
	Torque			(Nm)																30	
	Operating time (50 Hz)			(s)																64	
Output drive			(min ⁻¹)																	5,6	

DN				80					100					150							
NPS				3"					4"					6"							
Parabolic plug	Kvs-value	(m³/h)		16	25	40	63	100	25	40	63	100	160	63	100	160	250	400			
V-port plug	Kvs-value	(m³/h)		16	25	40	63	100	25	40	63	100	160	63	100	160	250	400			
Perforated plug	Kvs-value	(m³/h)		10	16	25	40	63	16	25	40	63	100	40	63	100	160	250			
Perforated plug two-stage	Kvs-value	(m³/h)		8,4	13	21	34	53	13	21	34	53	85	34	53	85	135	212			
Perforated plug three-stage	Kvs-value	(m³/h)		5	8	12	20	32	8	12	20	32	50	20	32	50	80	127			
Seat-Ø		(mm)		32	40	50	65	80	40	50	65	80	100	65	80	100	125	150			
Travel		(mm)		20					30					30		30				50	
without pressure balanced plug																					
SAR 07.6 Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off controlling ¹)	(bar)	102	102	89	52	34	102	89	52	34		52	34					
				(bar)	86	55	35	20	13	55	35	20	13		20	13					
	Torque			(Nm)	50	60	60	60	60	60	60	60	60		60	60					
	Operating time (50 Hz)			(s)	42,9	64					64						64				
Output drive			(min ⁻¹)	5,6					5,6						5,6						
SAR 10.2 Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off controlling ¹)	(bar)	102	102	102	85	56	102	102	85	56	35	85	56	35				
				(bar)	102	102	89	52	34	102	89	52	34	22	52	34	22				
	Torque (Nm)			(Nm)	60	70	90	90	90	70	90	90	90	90	90	90	90				
	Operating time (50 Hz)			(s)	42,9	64					64						64				
Output drive			(min ⁻¹)	5,6					5,6						5,6						
with pressure balanced plug																					
SAR 07.6 Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off controlling ¹)	(bar)			102	102	100			102	102	100	63	102	100	63	63	40	
				(bar)																	
	Torque			(Nm)			30					30				30					
	Operating time (50 Hz)			(s)			64					64				64				55	
Output drive			(min ⁻¹)			5,6					5,6				5,6				11		
SAR 10.2 Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off controlling ¹)	(bar)					102				102	102			102	102	102	102	
				(bar)																	
	Torque			(Nm)					60				60				60				
	Operating time (50 Hz)			(s)					64				64				64		55		
Output drive			(min ⁻¹)					5,6				5,6				5,6		11			

I. Fig. 470: PTFE-V-ring unit / EPDM-sealing

II. Fig. 470: Pure graphite-packing

¹) Restrictions through max. permissible torque of the actuator at controlling operation

Control valve in straightway form with flanges

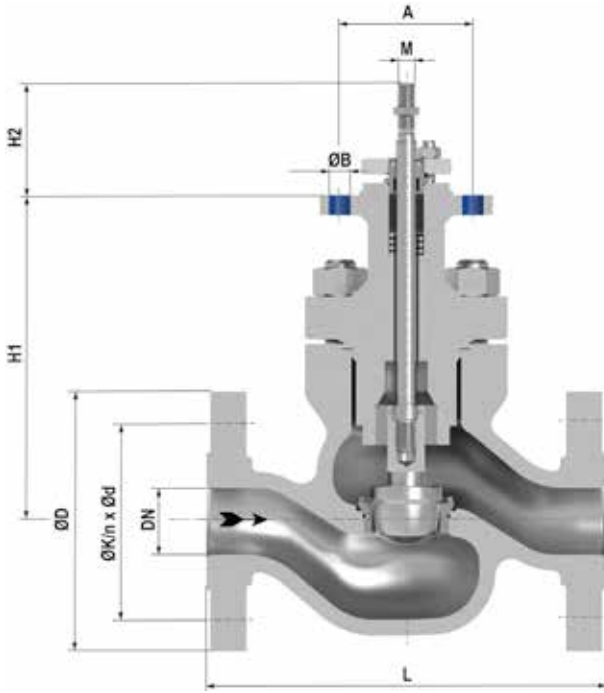


Fig. 470...90

DN25-150 / NPS 1"-6"
(z.B.: DP32-34; PREMIO 5-25kN; AUMA 07.2-10.2)

DN	25	40	50	80	100	150
NPS	1"	1 1/2"	2"	3"	4"	6"

Dimensions							
M	(mm)	M10	M14 x 1,5		M16 x 1,5		
H1	(mm)	187	245	245	284	331	396
H1 ¹⁾	(mm)	-	265	265	304	351	416
H2	(mm)	83					
A	(mm)	100			100 / 150		
ØB	(mm)	4 x ø16	4 x ø16		4 x ø16 / 8 x ø16		

¹⁾ Design with pressure balanced plug

Face-to-face dimension FTF series 2 acc. to ANSI/ISA-75.08.01							
L	(mm)	210	251	286	337	394	508

Flanges acc. to ASME B16.5								
ØD	ANSI600	(mm)	125	155	165	210	275	355
ØK	ANSI600	(mm)	88,9	114,3	127,0	168,3	215,9	292,1
n x Ød	ANSI600	(mm)	4 x 19	4 x 22	8 x 19	8 x 22	8 x 25	8 x 28

Weights								
Fig. 470...90	ANSI600	(kg)	22	39	46	88	140	310

max. permissible thrust								
Fig. 470...90	ANSI600	(kN)	12	25		40		

Control valve in straightway form with butt weld ends

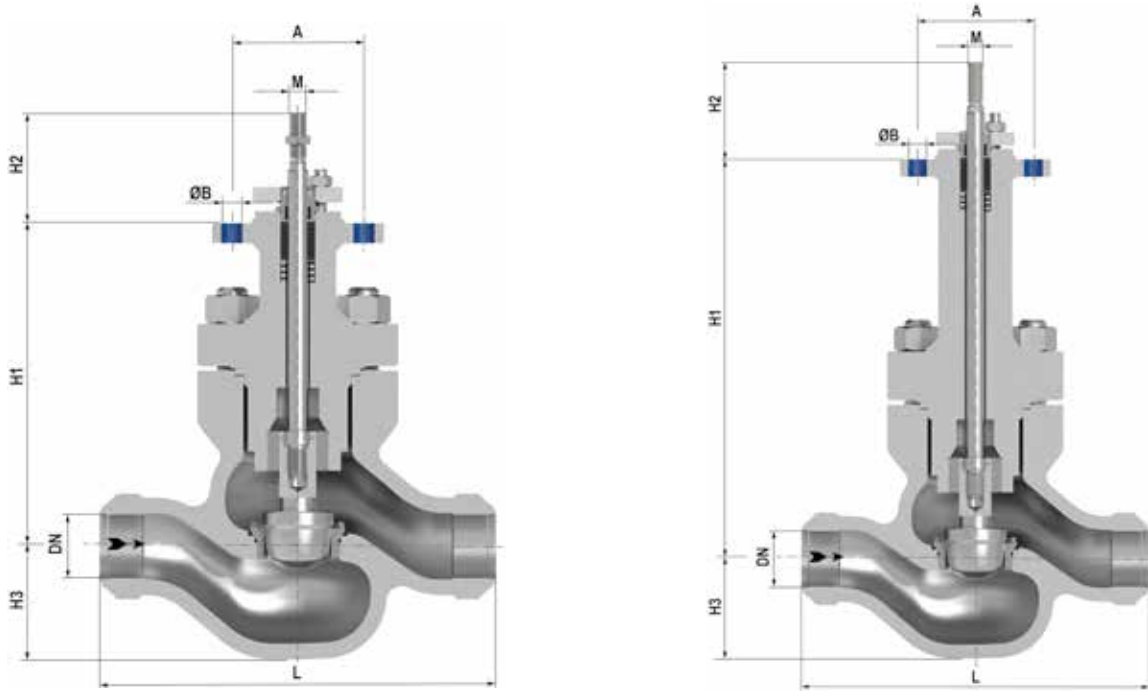


Fig. 470...4...90

DN25-150

(z.B.: DP32-34; PREMIO 5-25kN; AUMA 07.2-10.2)

DN	25	40	50	80	100	150
NPS	1"	1 1/2"	2"	3"	4"	6"

Dimensions							
M	(mm)	M10	M14 x 1,5		M16 x 1,5		
H1	(mm)	187	245	245	284	331	396
H1 ¹⁾	(mm)	-	265	265	304	351	416
H1 ²⁾	(mm)	287	345	345	384	451	516
H1 ¹⁾²⁾	(mm)	-	365	365	404	471	536
H2	(mm)	83					
H3	(mm)	54	86	86	105	124	178
A	(mm)	100			100 / 150		
ØB	(mm)	4 x Ø16	4 x Ø16		4 x Ø16 / 8 x Ø16		

Face-to-face dimension acc. to ANSI/ISA - S75.15-1994							
L	(mm)	210	251	286	337	394	508

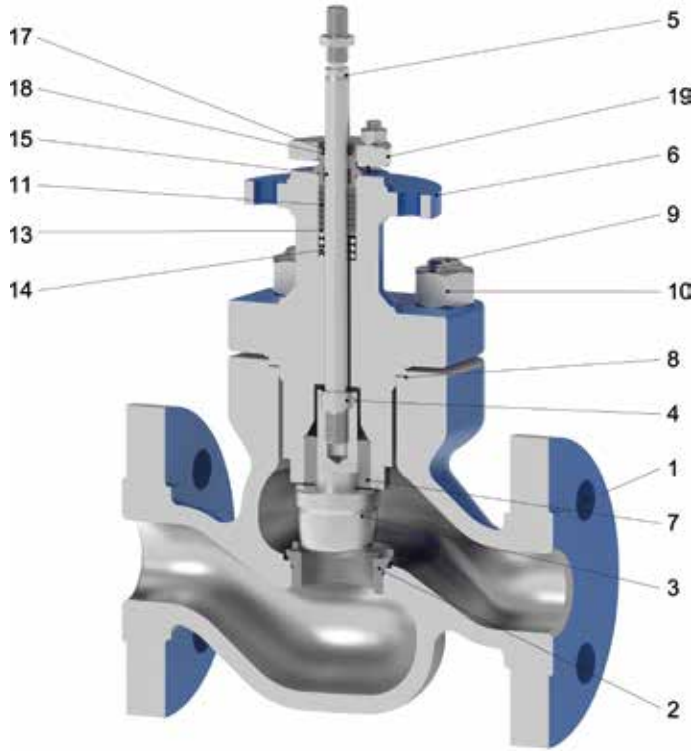
Butt weld ends acc. to ASME B16 25 (see page 17)

Weights								
Fig. 470...90	ANSI600	(kg)	22	39	46	88	140	310
	ANSI600 ²⁾	(kg)	23	42	49	90	141	312

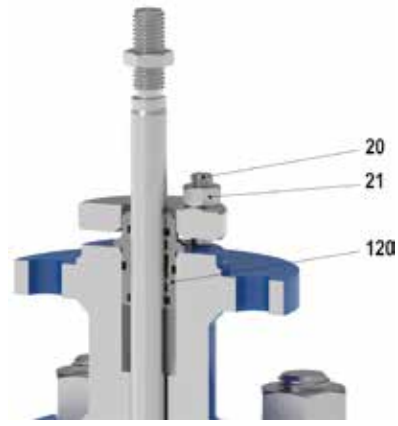
max. permissible thrust							
Fig. 470...90	ANSI600	(kN)	12	25		40	

¹⁾ Version with pressure balanced

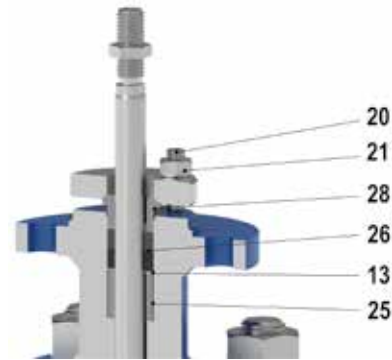
²⁾ High temperature version with extended bonnet



I. PTFE-V-ring unit



I. EPDM-sealing

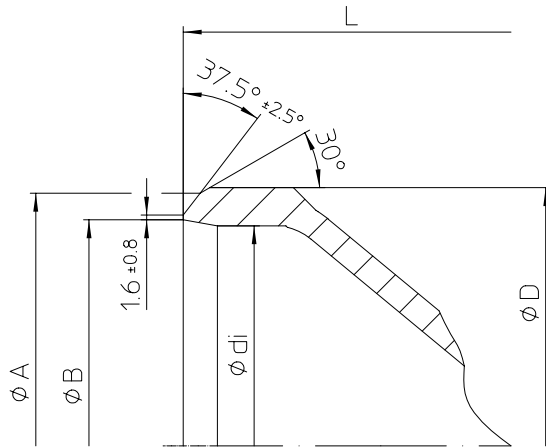


II. Pure graphite-packing

Pos.	Sp.p.	Description	Fig. 37.470....90	Fig. 57.470....90	Fig. 87.470....90
1		Body	216WCB	351CF8M	217WC6
2	x	Seat ring	276Gr.420	479Gr.316Ti	
3	x	Plug	420	479Gr.316Ti	
4	x	Clamping sleeve	A2		
5	x	Stem	420	638Gr.660-2	
6		Mounting bonnet	216WCB	351CF8M	217WC6
7		Guide bushing	276Gr.420 (hardened)	479Gr.316Ti	
8	x	Gasket	Pure graphite (CrNi laminated with graphite)		Pure graphite 99,85% (with Cr-Ni-grooved)
9		Stud	193B7	193B8M2 (DN150: 638Gr.660-2)	453Gr.660-B
10		Hexagon nuts	1942H	1948M (DN150: 638Gr.660-2)	453Gr.660-B
11	Set. refer to Pos. 100	V-ring unit	PTFE / Graphite		
13		Washer	240Gr.304		
14		Compression spring	313Gr.301		
15		Guide bush	PTFE25%C		
17		Scraper	PTFE (reinforced)		
18		Stem guiding	303		
19		Packing box flange	638Gr.660-2		
20		Stud	638Gr.660-2		
21		Hexagon nuts	638Gr.660-2		
25	x	Distance bush	276Gr.420	479Gr.316Ti	
26	x	Packing ring	Pure graphite		
28	x	Packing follower	276Gr.420	479Gr.316Ti	

Stem sealings Fig. 470....90					
100	x	V-ring unit (set)	Set of Pos. 11, 13, 14, 15, 17, 18		
120	x	EPDM-sealing, cpl.	EPDM / 303		
26	x	Packing ring	Pure graphite		
		L Spare parts			

L = Face-to-face dimension



DN	25	40	50	80	100	150
NPS	1"	1 1/2"	2"	3"	4"	6"

Butt weld ends acc. to ASME 16.25 Schedule 40							
L	(mm)	210	251	286	337	394	508
ØA	(mm)	35	50	62	91	117	172
ØB	(mm)	26,6	40,9	52,5	78	102	154
Ødi	(mm)	24,6	40	50	78	100	150
D	(mm)	44	66	76	114	137	210

Butt weld ends acc. to ASME 16.25 Schedule 80							
L	(mm)	210	251	286	337	394	508
ØA	(mm)	35	50	62	91	117	172
ØB	(mm)	24,3	38,1	49,2	73,6	97	146,5
Ødi	(mm)	24,3	38,1	49,2	73,6	97	146,5
D	(mm)	44	66	76	114	137	210

Butt weld ends acc. to ASME 16.25 Schedule 160							
L	(mm)	210	251	286	337	394	508
ØA	(mm)	35	50	62	91	117	172
ØB	(mm)	20,7	34	42,8	66,5	87,5	132
Ødi	(mm)	20,7	34	42,8	66,5	87,5	132
D	(mm)	44	66	76	114	137	210

Face-to-face dimension acc. to ANSI / ISA - S75.15-1994
 Butt weld ends acc. to ASME 16.25 (Schedule 40, Schedule 80 or Schedule 160)
 Shoe ends upon request
 The material used for ARI valves with butt weld ends are: SA216WCB and SA217WC6

Based on our experience we recommend electric welding process for connecting valves or strainers with tubes or with each other.
 Lime based electrodes with an appropriate composite material should be used as filler material for welding.
 Gas welding should be avoided.
 Because of the different material compositions and wall thickness of the steam traps and the pipe gas welding shall not be applied. Quenching cracks and coarse grain structure may develop.

