



With pneumatic and electric actuators

**ARI-STEVI® 470**

**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



Page 4

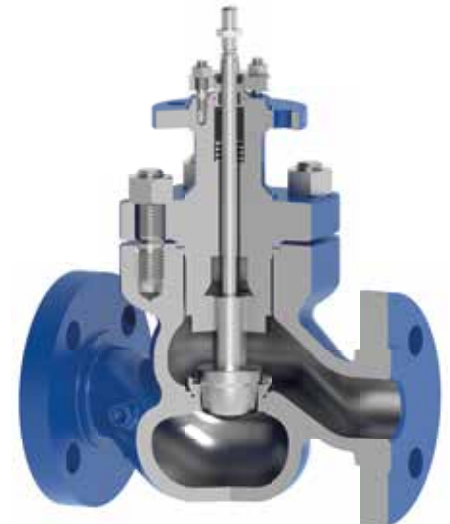


Fig. 470

**ARI-STEVI® 470**

**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



Page 10



Fig. 470....4

**ARI-STEVI® 470**

**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



Page 12

**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	
36.470	with flanges	PN63	1.0619+N	DN25-150	Information / restriction of technical rules need to be observed! A production permission acc. to TRB 801 No. 45 is available. 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	with flanges	PN100	1.0619+N	DN25-150	
38.470	with flanges	PN160	1.0619+N	DN25-150	
38.470....4	with butt weld ends	PN160	1.0619+N	DN25-150	
56.470	with flanges	PN63	1.4408	DN25-150	
57.470	with flanges	PN100	1.4408	DN25-150	
58.470	with flanges	PN160	1.4408	DN25-150	
88.470....4	with butt weld ends	PN160	1.7357	DN25-150	
Other materials and versions on request.					

Stem sealing			
Fig. 470	standard	optional	
	DN25- 150	DN25- 150	DN25- 150
	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 <sup>1)</sup> -10°C to 530°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 manufacturers standard			-60°C to <-10°C <sup>2)</sup>	-10°C to 50°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C
1.0619+N	PN63	(bar)	on request	63	59	56	53	48	44	41	38
1.0619+N	PN100	(bar)		100	93	88	83	76	69	64	60
1.0619+N	PN160	(bar)		160	149	141	133	122	110	103	95

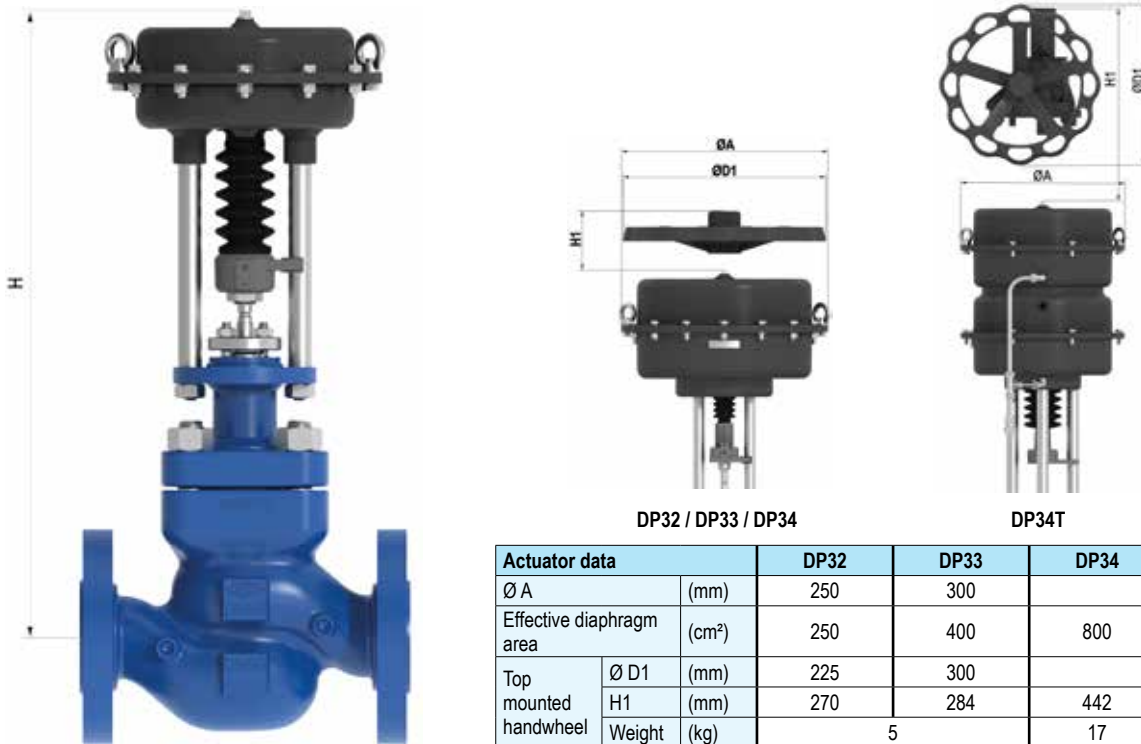
acc. to DIN EN 1092-1			-60°C to <-10°C <sup>2)</sup>	-10°C to 100°C	150°C	200°C	250°C	300°C	350°C	400°C
1.4408	PN63	(bar)	on request	63	57,3	53,1	50,1	46,8	45,0	43,2
1.4408	PN100	(bar)		100	90,9	84,2	79,5	74,2	71,4	68,5
1.4408	PN160	(bar)		160	145,5	134,8	127,2	118,8	114,2	109,7

acc. to manufacturers standard			-60°C to <-10°C <sup>2)</sup>	-10°C to 300°C	350°C	400°C	450°C	500°C	520°C	530°C
1.7357	PN63	(bar)	on request	63	60	57	53	41	28	23
1.7357.	PN100	(bar)		100	95	90	84	65	45	37
1.7357	PN160	(bar)		160	152	144	135	104	72	59

<sup>1)</sup> Standard for high temperature version  
<sup>2)</sup> Studs and nuts made of A4-70 (at temperatures below -10°C)

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

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

Fig. 470

Heights and weights

DN			25	40	50	80	100	150		
Fig. 470	DP32	without pressure balanced plug								
		H	(mm)	530	585	585				
		H <sup>1)</sup>	(mm)	630	685	685				
		PN63-160	(kg)	31	48	55				
	PN63-160 <sup>1)</sup>	(kg)	32	51	58					
	DP33	H	(mm)	585	640	640	680	725	790	
		H <sup>1)</sup>	(mm)	685	740	740	780	845	910	
		PN63-160	(kg)	37	54	61	103	155	325	
		PN63-160 <sup>1)</sup>	(kg)	38	57	64	105	156	327	
	DP34	H	(mm)	700	755	755	795	840	905	
		H <sup>1)</sup>	(mm)	800	855	855	895	960	1025	
		PN63-160	(kg)	67	84	91	133	185	355	
		PN63-160 <sup>1)</sup>	(kg)	68	87	94	135	186	357	
	DP34T	H	(mm)				1035	1080	1145	
		H <sup>1)</sup>	(mm)				1135	1200	1265	
		PN63-160	(kg)				204	256	426	
		PN63-160 <sup>1)</sup>	(kg)				206	257	428	
	DP33	with pressure balanced plug								
		H	(mm)		660	660	700	745	810	
		H <sup>1)</sup>	(mm)		760	760	800	865	930	
		PN63-160	(kg)		54	61	103	155	325	
		PN63-160 <sup>1)</sup>	(kg)		57	64	105	156	327	
		DP34	H	(mm)		775	775	815	860	925
			H <sup>1)</sup>	(mm)		875	875	915	980	1045
PN63-160			(kg)		84	91	133	185	355	
PN63-160 <sup>1)</sup>			(kg)		87	94	135	186	357	
DP34T		H	(mm)				1055	1100	1165	
		H <sup>1)</sup>	(mm)				1155	1220	1285	
		PN63-160	(kg)				204	256	426	
	PN63-160 <sup>1)</sup>	(kg)				206	257	428		

<sup>1)</sup> 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								
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			
			<b>without pressure balanced plug</b>																	
DP32 250 cm²	1,5-2,9	4,4	I. (bar)	160	104	70	54	160	98	66	51	31		160	98	66	51	31		
			II. (bar)	86	38	25		27							27					
DP33 400 cm²	2,0-3,8	5,3	I. (bar)	160	146	98	76	160	140	95	73	45		160	140	95	73	45		
			II. (bar)	160	80	54	41	118	53	35	27		118	53	35	27				
	1,7-2,7	3,7	I. (bar)		160f)	139f)	108f)	160	160	135	105	64		160	160	135	105	64		
			II. (bar)		139f)	94f)	73f)	160	112	75	58	35		160	112	75	58	35		
2,3-3,7	4,7	I. (bar)		160	160	150		160	160	147	90			160	160	147	90			
		II. (bar)		160	148	115		160	130	101	61			160	130	101	61			
2,0-4,0	5,0	I. (bar)										49						49	31	
		II. (bar)										31						31		
DP34 800 cm²	1,5-2,1	2,6	I. (bar)			160e)	160e)			160a)	160a)	122a)			160a)	160a)	122a)			
			II. (bar)			160e)	160e)			160a)	152a)	93a)			160a)	152a)	93a)			
	2,4-3,2	3,7	I. (bar)							160	160				160	160				
			II. (bar)							160	160				160	160				
2,8-4,0	4,5	I. (bar)										152						152	98	
		II. (bar)										134						134	86	
			<b>with pressure balanced plug</b>																	
DP33 400 cm²	1,5-3,0	4,5	I. (bar)											160					160	160
			II. (bar)											160					160	160

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					
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			
<b>without pressure balanced plug</b>																		
DP33 400 cm²	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)	121													
				II. (bar)	89													
	2,4-3,2		3,7	I. (bar)	160													
				II. (bar)	160													
2,8-4,0	4,5		I. (bar)		152	97	57	38	152	97	57	38		57	38			
			II. (bar)		131	84	49	32	131	84	49	32		49	32			
DP34T 1600 cm²	1,7-2,6	3,1	I. (bar)		160a)	119a)	71a)	46a)	160a)	119a)	71a)	46a)	29a)	71a)	46a)	29a)		
			II. (bar)		160a)	106a)	63a)	41a)	160a)	106a)	63a)	41a)	26a)	63a)	41a)	26a)		
	2,4-3,6	4,1	I. (bar)			160	101	67		160	101	67	43	101	67	43		
			II. (bar)			157	93	61		157	93	61	39	93	61	39		
<b>with pressure balanced plug</b>																		
DP34 800 cm²	2,1-3,0	Air supply pressure min. (bar) ¹)	5,1	I. (bar)		160	160	160	160	160	160	160	160	160	160	160		
				II. (bar)		160	160	160	160	160	160	160	160	160	160	160		
1,5-3,0	6,0		I. (bar)													160	160	
			II. (bar)														160	
DP34T 1600 cm²	2,0-4,0		6,0	I. (bar)													160	160
				II. (bar)														160

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												
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) <sup>1)</sup>	0,8-2,4	5,0	I. (bar)	160	160	133	103	160	160	129	100	61	39	160	160	129	100	61	39			
				II. (bar)																				
			6,0	I. (bar)			160	147	160	160	160	144	89	57				160	144	89	57	36		
				II. (bar)																				
DP33 400 cm2	Spring range (bar)	Air supply pressure min. (bar) <sup>1)</sup>	1,5-2,9	5,0	I. (bar)	160	154	104	81	160	149	100	78	47		160	149	100	78	47				
				II. (bar)	160	88	59	46	136	61	41	31		136	61	41	31							
			6,0	I. (bar)		160	161	125	160	160	157	122	75		160	160	157	122	75					
				II. (bar)		160	116	90	160	145	98	76	46		160	145	98	76	46					
DP34 800 cm2	Spring range (bar)	Air supply pressure min. (bar) <sup>1)</sup>	1,5-2,5	4,0	I. (bar)	160f)	120f)	93f)		160	117	91	55			160	117	91	55					
				II. (bar)	112f)	76f)	59f)		85	57	44	26		85	57	44	26							
			5,0	I. (bar)	160f)	160f)	160f)		160	160	160	99		160	160	160	99							
				II. (bar)	160f)	160f)	129f)		160	148	115	70		160	148	115	70							
6,0	I. (bar)					160	160	143			160	160	143			160	160	143						
	II. (bar)						160	160	114			160	160	114			160	160	114					
DP34 800 cm2	Spring range (bar)	Air supply pressure min. (bar) <sup>1)</sup>	2,0-3,0	6,0	I. (bar)			160																
				II. (bar)			160																	
			1,5-3,0	5,0	I. (bar)										49						49	31		
				II. (bar)											31						31			
6,0	I. (bar)												78						78	49				
	II. (bar)												59						59	37				
DP34 800 cm2	Spring range (bar)	Air supply pressure min. (bar) <sup>1)</sup>	0,67-1,2	3,5	I. (bar)								102c)						102c)					
				II. (bar)										102c)					102c)					
			4,0	I. (bar)												84f)					84f)	53f)		
				II. (bar)												65f)					65f)	41f)		
0,8-2,4	5,0	I. (bar)											141f)						141f)	90f)				
	II. (bar)												122f)						122f)	78f)				
5,5	I. (bar)												160f)						160f)	109f)				
	II. (bar)												151f)						151f)	97f)				
			with pressure balanced plug																					
DP33 400 cm2	Spring range (bar)	2,0-4,0	6,0	I. (bar)											160					160	160			
				II. (bar)											160					160				
DP34 800 cm2	Spring range (bar)	2,1-3,0	5,1	I. (bar)											160					160	160			
				II. (bar)											160					160	160			

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

II. Fig. 470: Pure graphite-packing

<sup>1)</sup> 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

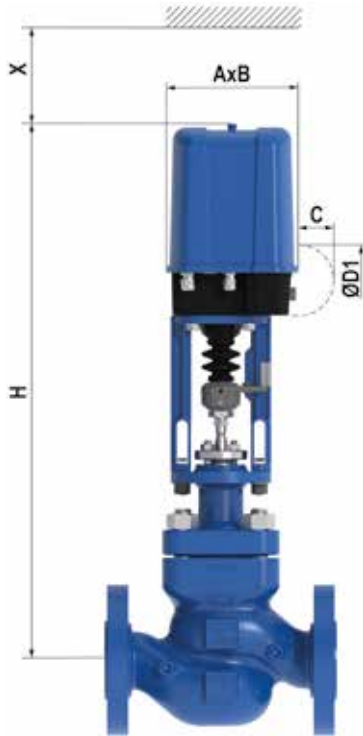
max. permissible closing pressures on flow-to-open P2 = 0.  
Observe pressure-temperature-limits, refer to page 2.

DN			80					100					150							
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	1,5-2,5	Air supply pressure min. (bar) <sup>1)</sup>	4,0	I. (bar)	54															
				II. (bar)																
			5,0	I. (bar)	98															
				II. (bar)	66															
			6,0	I. (bar)	142															
				II. (bar)	110															
	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								
			4,0	I. (bar)	160															
				II. (bar)	160															
DP34 800 cm2	0,8-2,4	Air supply pressure min. (bar) <sup>1)</sup>	4,0	I. (bar)		83	53	31												
				II. (bar)		62	40			62	40									
			5,0	I. (bar)		140	90	53	35	140	90	53	35		53	35				
				II. (bar)		119	76	45	29	119	76	45	29		45	29				
			6,0	I. (bar)		160	127	75	49	160	127	75	49	31	75	49	31			
				II. (bar)		160	113	67	44	160	113	67	44		67	44				
DP34T 1600 cm2	2,1-3,0		Air supply pressure min. (bar) <sup>1)</sup>	4,0	I. (bar)		106a)	68a)	40a)	26a)	106a)	68a)	40a)	26a)		40a)	26a)			
					II. (bar)		85a)	54a)	32a)		85a)	54a)	32a)			32a)				
				5,0	I. (bar)		160a)	141a)	84a)	55a)	160a)	141a)	84a)	55a)	35a)	84a)	55a)	35a)		
					II. (bar)		160a)	128a)	76a)	50a)	160a)	128a)	76a)	50a)	32a)	76a)	50a)	32a)		
				with pressure balanced plug																
DP34 800 cm2	2,1-3,0			Air supply pressure min. (bar) <sup>1)</sup>	5,1	I. (bar)		160	160	160	160	160	160	160	160	160	160	160	160	
		II. (bar)					160	160	160	160	160	160	160	160	160	160	160	160	160	
DP34T 1600 cm2	2,0-4,0	6,0			I. (bar)												160	160		
					II. (bar)													160	160	

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

<sup>1)</sup> 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

Heights and weights

DN	25	40	50	80	100	150
----	----	----	----	----	-----	-----

Fig. 470	5 kN			without pressure balanced plug						
		H	(mm)	640	695	695				
	H <sup>1)</sup>	(mm)	740	795	795					
	PN63-160	(kg)	29	46	53					
	PN63-160 <sup>1)</sup>	(kg)	30	49	56					
	12 kN 15 kN 25 kN	H	(mm)	810	870	870	910	955	1020	
		H <sup>1)</sup>	(mm)	910	970	970	1010	1075	1140	
		PN63-160	(kg)	32	50	57	99	151	321	
		PN63-160 <sup>1)</sup>	(kg)	33	53	60	101	152	323	
	15 kN 25 kN			with pressure balanced plug						
		H	(mm)		890	890	930	975	1040	
		H <sup>1)</sup>	(mm)		990	990	1030	1095	1160	
		PN63-160	(kg)		50	57	99	151	321	
	PN63-160 <sup>1)</sup>	(kg)		53	60	101	152	323		

<sup>1)</sup> 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							
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)	160	149	101	78	160	144	97	75	46	29	160	144	97	75	46	29			
		II. (bar)	160	83	56	43	125	56	37	29									125	56	37
	Operating time (s)	53				53				79	53				79						
12 kN	Closing pressure	I. (bar)		160	160	160		160	160	160	124	80		160	160	160	124	80	51		
		II. (bar)		160	160	160		160	160	156	96	61		160	160	156	96	61	39		
	Operating time (s)	53				53				79	53				79						
15 kN	Closing pressure	I. (bar)								160	158	102				160	158	102	65		
		II. (bar)								160	129	83				160	129	83	53		
	Operating time (s)								53	79				53	79						
25 kN	Closing pressure	I. (bar)								160	160					160	160	112			
		II. (bar)								160	156					160	156	100			
	Operating time (s)								53	79					53	79					
			with pressure balanced plug																		
15 kN	Closing pressure	I. (bar)										160						160	160		
		II. (bar)										160						160	160		
	Operating time (s)										79						79				

DN			80					100					150				
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	

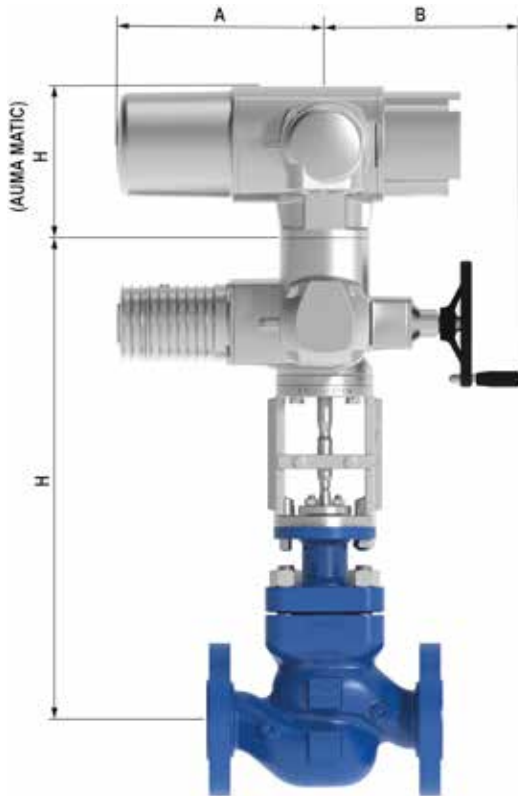
			without pressure balanced plug																
15 kN	Closing pressure	I. (bar)	157	101	65	38	25	101	65	38	25			38	25				
		II. (bar)	125	80	51	30	80	51	30					30					
	Operating time (s)	53	79				79				79								
25 kN	Closing pressure	I. (bar)	160	160	111	66	43	160	111	66	43	27	66	43	27				
		II. (bar)	160	153	98	58	38	153	98	58	38		58	38					
	Operating time (s)	53	79				79				79								
			with pressure balanced plug																
15 kN	Closing pressure	I. (bar)	160	160	160	160	160	160	160	160	160	100	160	160	100				
		II. (bar)	160	160	160	160	160	160	160	160	160	100	160	160	100				
	Operating time (s)	53	79				79				79								
25 kN	Closing pressure	I. (bar)									160				160	160	160		
		II. (bar)									160				160	160	160		
	Operating time (s)									79				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		
<b>Supply voltage:</b> 400V 50Hz 3~ (Other voltages on request)				
Technical data for actuator refer to price list.				

Fig. 470

Heights and weights

DN	25	40	50	80	100	150
----	----	----	----	----	-----	-----

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

<sup>1)</sup> 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										
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			
<b>without pressure balanced plug</b>																						
<b>SAR 07.2</b> Output drive Form A TR 20 x 4 - LH	Closing pressure	I./II.	shut off controlling ¹)	(bar)	160	160	160	154	160	160	160	160	148	95	160	160	160	160	95	61		
				(bar)	160	160	134	104	160	160	115	89	54	34	160	160	115	89	54	34		
	Torque			(Nm)	15	15	20	20	15	15	20	25	30	30	15	15	20	25	30	30		
	Operating time (50 Hz)			(s)	54					54					56	54					56	
Output drive			(min <sup>-1</sup> )	5,6					5,6					8	5,6					8		
<b>SAR 07.6</b> Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off controlling ¹)	(bar)			160	160			160	160	160	142			160	160	160	142		
				(bar)			160	160			160	147	90	58			160	147	90	58		
	Torque (Nm)			(Nm)	30					30					35	50	60	30				
	Operating time (50 Hz)			(s)	43					43					64	43					64	
Output drive			(min <sup>-1</sup> )	5,6					5,6						5,6							
<b>SAR 10.2</b> Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off controlling ¹)	(bar)									160	142					160	142		
				(bar)									160	142					160	142		
	Torque			(Nm)											60	60	60					
	Operating time (50 Hz)			(s)											43	64	43					64
Output drive			(min <sup>-1</sup> )											5,6	5,6							
<b>with pressure balanced plug</b>																						
<b>SAR 7.6</b> Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off controlling ¹)	(bar)										160					160	160		
				(bar)																		
	Torque			(Nm)											30	30					30	
	Operating time (50 Hz)			(s)											64	64					64	
Output drive			(min <sup>-1</sup> )											5,6	5,6					5,6		

DN		80					100					150								
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	
<b>without pressure balanced plug</b>																				
<b>SAR 07.6</b> Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off controlling ¹)	(bar)	160	139	89	52	34	139	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 <sup>-1</sup> )	5,6					5,6					5,6						
<b>SAR 10.2</b> Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off controlling ¹)	(bar)	160	160	143	85	56	160	143	85	56	35	85	56	35			
				(bar)	160	139	89	52	34	139	89	52	34	22	52	34	22			
	Torque (Nm)			(Nm)	60	70	90	90	90	70	90	90	90	90	90	90				
	Operating time (50 Hz)			(s)	42,9	64					64					64				
Output drive			(min <sup>-1</sup> )	5,6					5,6					5,6						
<b>with pressure balanced plug</b>																				
<b>SAR 07.6</b> Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off controlling ¹)	(bar)		160	160	160	100	160	160	100	63	160	100	63	63	40		
				(bar)																
	Torque			(Nm)	30					30					30					
	Operating time (50 Hz)			(s)	64					64					64					55
Output drive			(min <sup>-1</sup> )	5,6					5,6					5,6					11	
<b>SAR 10.2</b> Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off controlling ¹)	(bar)					160				160	160			160	160		
				(bar)																
	Torque			(Nm)											60	60				
	Operating time (50 Hz)			(s)											64	64				
Output drive			(min <sup>-1</sup> )											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

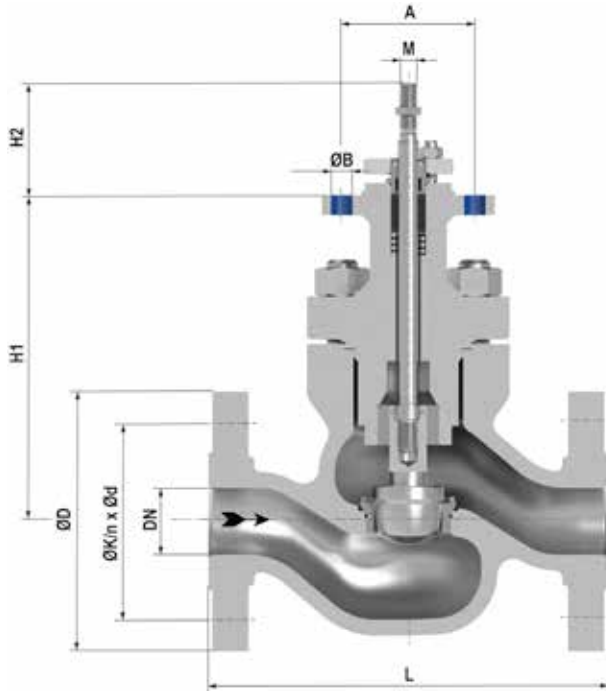


Fig. 470

DN25-150

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

DN	25	40	50	80	100	150
----	----	----	----	----	-----	-----

Dimensions								
M	(mm)	M10	M14 x 1,5		M16 x 1,5			
H1	(mm)	187	245	245	284	331	396	
H1 <sup>1)</sup>	(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			

<sup>1)</sup> Design with pressure balanced plug

Face-to-face dimension FTF series 2 acc. to DIN EN 558							
L	(mm)	230	260	300	380	430	550

Flanges acc. to DIN EN 1092-1/-2								
ØD	PN63	(mm)	140	170	180	215	250	345
	PN100/160	(mm)			195	230	265	355
ØK	PN63	(mm)	100	125	135	170	200	280
	PN100/160	(mm)			145	180	210	290
n x Ød	PN63	(mm)	4 x 18	4 x 22		8 x 22	8 x 26	8 x 33
	PN100/160	(mm)		4 x 22	4 x 26	8 x 26	8 x 30	12 x 33

Weights								
Fig. 470	PN63-160	(kg)	22	39	46	88	140	310

max. permissible thrust								
Fig. 470	PN63-160	(kN)	12	25		40		

Control valve in straightway form with butt weld ends

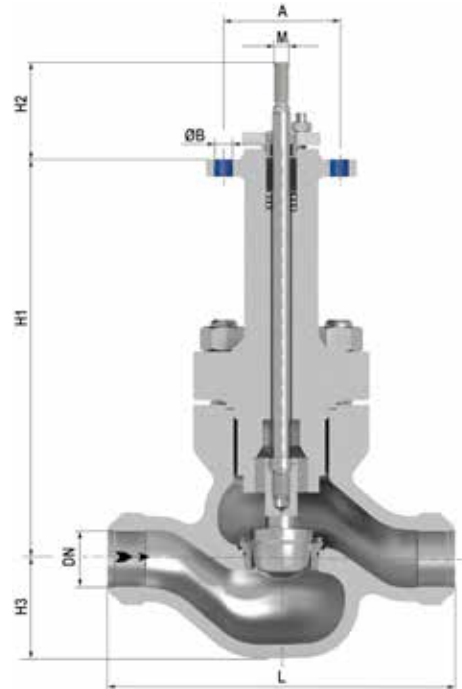
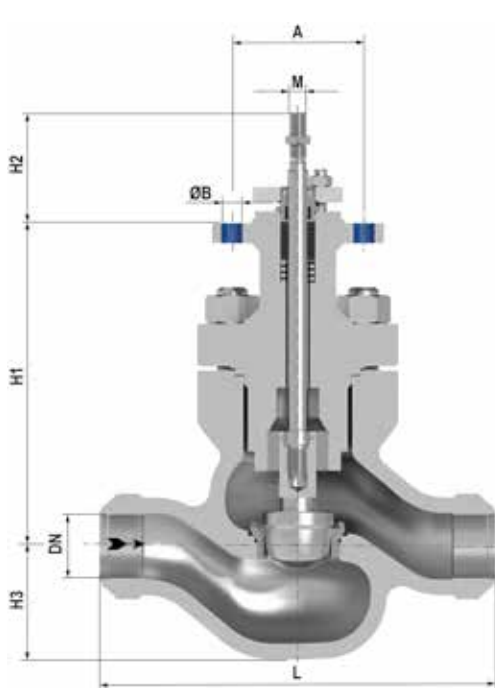


Fig. 470...4

DN25-150

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

DN		25	40	50	80	100	150
<b>Dimensions</b>							
M	(mm)	M10	M14 x 1,5		M16 x 1,5		
H1	(mm)	187	245	245	284	331	396
H1 <sup>1)</sup>	(mm)	-	265	265	304	351	416
H1 <sup>2)</sup>	(mm)	287	345	345	384	451	516
H1 <sup>1)2)</sup>	(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		

<b>Face-to-face dimension ETE series 2 acc. to DIN EN 12982</b>							
L	(mm)	230	260	300	380	430	550

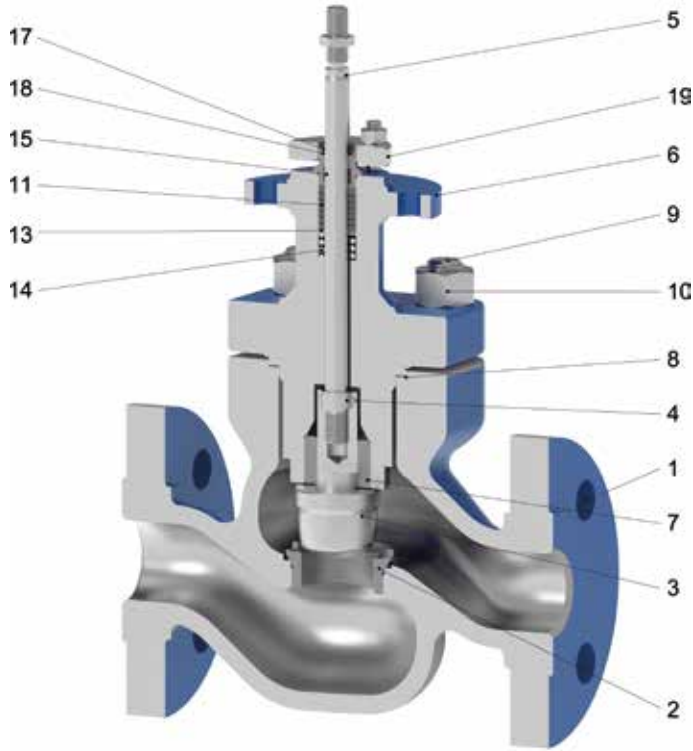
Butt weld ends acc. to DIN EN 12627 (see page 17)

<b>Weights</b>								
Fig. 470	PN63-160	(kg)	22	39	46	88	140	310
	PN63-160 <sup>2)</sup>	(kg)	23	42	49	90	141	312

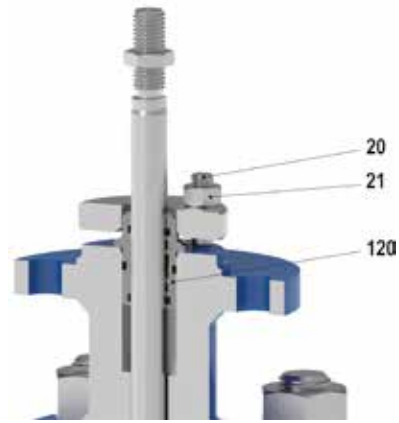
<b>max. permissible thrust</b>							
Fig. 470	PN63-160	(kN)	12	25		40	

<sup>1)</sup> Version with pressure balanced

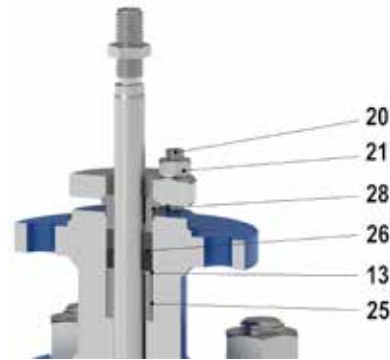
<sup>2)</sup> High temperature version with extended bonnet



I. PTFE-V-ring unit



I. EPDM-sealing



II. Pure graphite-packing

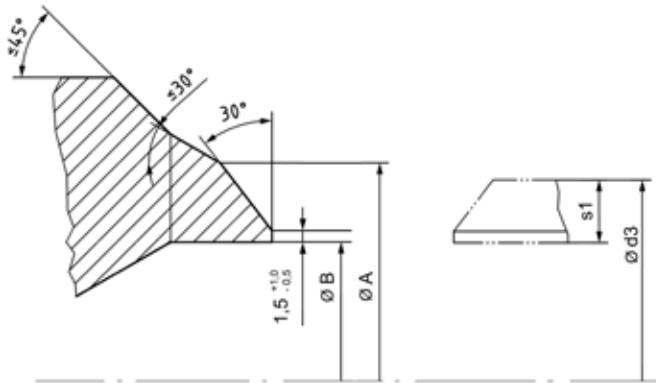
Pos.	Sp.p.	Description	Fig. 36.470 / 37.470 / 38.470	Fig. 56.470 / 57.470 / 58.470	Fig. 88.470
1		Body	1.0619+N	1.4408	1.7357
2	x	Seat ring	1.4021+QT	1.4571	
3	x	Plug	1.4021+QT	1.4571	
4	x	Clamping sleeve	1.4310		
5	x	Stem	1.4021+QT	1.4980	
6		Mounting bonnet	1.0619+QT	1.4408	1.7357
7		Guide bushing	1.4021+QT (hardened)	1.4571 (hardened)	
8	x	Gasket	Pure graphite (CrNi laminated with graphite)		Pure graphite 99,85% (with Cr-Ni-grooved)
9		Stud	1.7218	A4-70 (DN150: 1.4908)	1.4980
10		Hexagon nuts	1.1181	A4 (DN150: 1.4908)	1.4980
11	Set: refer to Pos. 100	V-ring unit	PTFE / Graphite		
13		Washer	1.4301		
14		Compression spring	1.4310		
15		Guide bush	PTFE25%C		
17		Scraper	PTFE (reinforced)		
18		Stem guiding	1.4305		
19		Packing box flange	1.4980		
20		Stud	1.4980		
21		Hexagon nuts	1.4980		
25	x	Distance bush	1.4021+QT	1.4571	
26	x	Packing ring	Pure graphite		
28	x	Packing follower	1.4021+QT	1.4571	

Stem sealings Fig. 470					
100	x	V-ring unit (set)	Set of Pos. 11, 13, 14, 15, 17, 18		
120	x	EPDM-sealing, cpl.	EPDM / 1.4305		
26	x	Packing ring	Pure graphite		
		L Spare parts			



L = Face-to-face dimension

Edge shaping acc. to DIN EN ISO 5817



DN		25	40	50	80	100	150
<b>Butt weld ends acc. to DIN EN 12627</b>							
L	(mm)	230	260	300	380	430	550
ØA	(mm)	35	50	62	91	117	172
ØB	(mm)	24,7	38,3	49,1	72,9	96,7	139,9
Ød3	(mm)	33,7	48,3	60,3	88,9	114	168
s1	(mm)	4	5	5,6	8	8,8	14,2

Face-to-face dimension ETE series 2 acc. to DIN EN 12982

Butt weld ends acc. to DIN EN 12627

Weld joint acc. to DIN EN 29692 code number 1.3.3

Other dimensions and shoe ends upon request

The material used for ARI valves with butt weld ends are: 1.0619+QT acc. to EN 10213-2 and 1.7357+QT acc. to EN 10213-2

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.

