



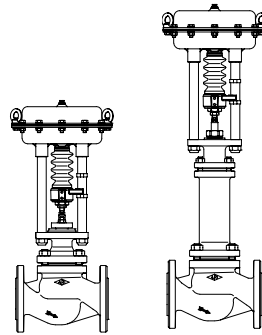
With pneumatic and electric actuators

ARI-STEVI® 470 / 471 - ANSI

Pneumatic actuator

ARI-DP 32 - 35

- Reversible pneumatic actuator
- Actuator with rolling diaphragm
- Air supply pressure max. 87 psi
- Stem protection by bellow
- Maintenance-free O-ring sealing
- Assembly of additional devices acc. to DIN IEC 60534-6



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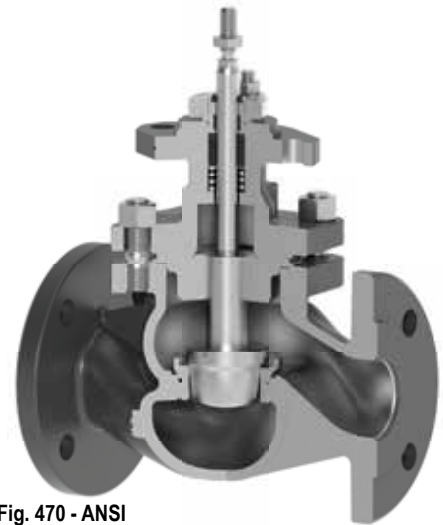


Fig. 470 - ANSI

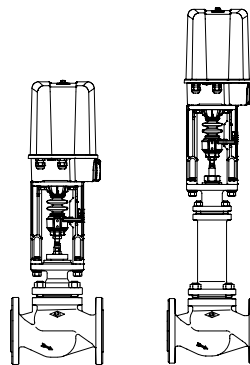
ARI-STEVI® 470 / 471 - ANSI

Electric actuator

ARI-PREMIO 2.2 - 25 kN (495 - 5620 lbf)

ARI-PREMIO-Plus 2G 2.2 - 25kN (495 - 5620 lbf)

- Enclosure IP 65
- 2 torque switches
- Handwheel
- Additional devices available, e.g. potentiometer



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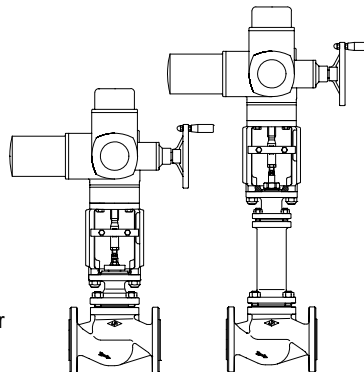
Fig. 470....4 - ANSI

ARI-STEVI® 470 / 471 - ANSI

Electric actuator

AUMA SAR 07.2 - 14.6

- 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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Fig. 471 - ANSI

Figure	Version	Nominal pressure	Material	Nominal diameter	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).
32.470....90	with flanges	ANSI150	SA 216 WCB	NPS 1" - 8"	
32.471....90	with flanges	ANSI150	SA 216 WCB	NPS 1" - 8"	
35.470....90	with flanges	ANSI300	SA 216 WCB	NPS 1" - 8"	
35.470....4....90	with butt weld ends	ANSI300	SA 216 WCB	NPS 1" - 6"	
35.471....90	with flanges	ANSI300 (restricted pressure)	SA 216 WCB	NPS 1" - 8"	
35.471....4....90	with butt weld ends		SA 216 WCB	NPS 1" - 6"	
55.470....90	with flanges	ANSI300	SA351CF8M	NPS 1"-6"	
Other materials and versions on request.					

Stem sealing			
Fig. 470	standard		optional
	NPS 1" - 6"	NPS 8"	NPS 1" - 8"
	I. PTFE-V-ring unit 14°F to 428°F	II. PTFE-packing 14°F to 482°F	I. EPDM-sealing 14°F to 302°F (allowed for water and steam up to 356°F) II. PTFE-packing 14°F to 482°F II. Pure graphite-packing 14°F to 797°F

Fig. 471	standard		optional
	NPS 1" - 8"		NPS 1" - 4" NPS 6" - 8"
	III. Stainless steel-bellow with pure graphite-packing -20°F to 797°F		III. Stainless steel-bellow with V-ring unit -20°F to 428°F III. Stainless steel-bellow with EPDM-sealing -20°F to 302°F (allowed for water and steam up to 356°F)

Pressure-temperature-ratings	Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.
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acc. to ASME B16.5				-20°F to 100°F ¹⁾	200°F	300°F	400°F	500°F	600°F	650°F	700°F	750°F	800°F
Fig. 470 / 471	SA216WCB	ANSI150	(psi)	285	260	230	200	170	140	125	110	95	80
Fig. 470	SA216WCB	ANSI300	(psi)	740	680	655	635	605	570	550	530	505	410
Fig. 470	SA351CF8M	ANSI300	(psi)	49,6	48,1	42,2	38,5	35,7	33,4	31,6	30,9	29,4	29,1

acc. to manufacturers standard				-20°F to 14°F ¹⁾	14°F to 248°F	302°F	392°F	482°F	572°F	662°F	752°F	797°F
Fig. 471-ANSI300	SA216WCB	ANSI300	(psi)	435	580	553	508	464	406	373	345	268
(restricted pressure)												

¹⁾ Valve with extended bonnet, studs and nuts made of B8M (at temperatures below 14°F)

Plug design standard			Guiding	Rangeability
NPS 1" - 6" Parabolic plug, metal seat	- Leakage class IV acc. to ANSI / FCI 70-2 - from Cv 0.117 - Flow characteristic: equal percentage (glp) (from Cv 116.7 modified) - linear (lin) (from Cv 1.17)		Plug shaft	50 : 1
NPS 8" V-port plug metal seat	- Leakage class IV acc. to ANSI / FCI 70-2 - Flow characteristic: equal percentage (glp) (from Cv 116.7 modified) - linear (lin)		Plug shaft / Seat ring	30 : 1
Plug design optional			Guiding	Rangeability
Parabolic plug with PTFE-Soft seal (max. 392°F)	- Leakage class VI acc. to ANSI / FCI 70-2 - from Cv 1.17 - Flow characteristic: equal percentage (glp) (from Cv 116.7 modified) - linear (lin)		Plug shaft	50 : 1
Parabolic plug with armoured sealing edge	- Leakage class IV acc. to ANSI / FCI 70-2 - from Cv 1.17 - Flow characteristic: equal percentage (glp) (from Cv 116.7 modified) - linear (lin)		Plug shaft	50 : 1
Parabolic plug with Pressure balanced plug metal seat Piston seal: PTFE with stainless steel spring (max. 392°F)	- Leakage class IV acc. to ANSI / FCI 70-2 - from Cv 7.35 - Flow characteristic: equal percentage (glp) (from Cv 116.7 modified) - linear (lin)		Plug shaft	50 : 1
V-port plug metal seat	- Leakage class IV acc. to ANSI / FCI 70-2 - from Cv 73.5 - Flow characteristic: equal percentage (glp) (from Cv 116.7 modified) - linear (lin)		Plug shaft / Seat ring	30 : 1
Perforated plug metal seat optional: Pressure balanced perforated plug metal seat Piston seal: PTFE with stainless steel spring (max. 392°F)	- Leakage class IV acc. to ANSI / FCI 70-2 - from Cv 1.17 - Flow characteristic: equal percentage (glp) (from Cv 116.7 modified) - linear (lin) ➡ Flow direction for gas and steam to reduce the sound level ⚡ Flow direction for liquids at critical operating conditions (cavitation / flashing)		Plug shaft / Seat ring	30 : 1
Perforated plug with supporting basket metal seat	- Leakage class IV acc. to ANSI / FCI 70-2 - Flow characteristic: equal percentage (glp) (from Cv 116.7 modified) - linear (lin) - multistage pressure reduction ➡ Flow direction for gas / steam and liquids to reduce the sound level at critical operating conditions		Plug shaft / Seat ring	30 : 1

Control valve in straightway form with pneumatic actuator ARI-DP

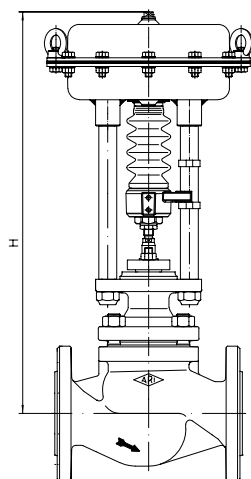


Fig. 470

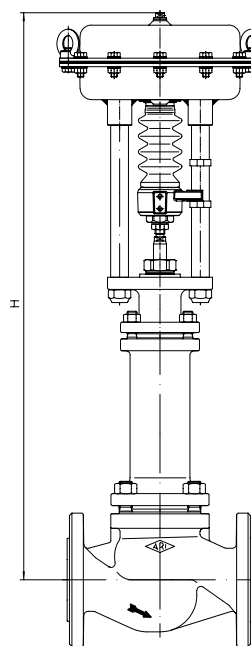
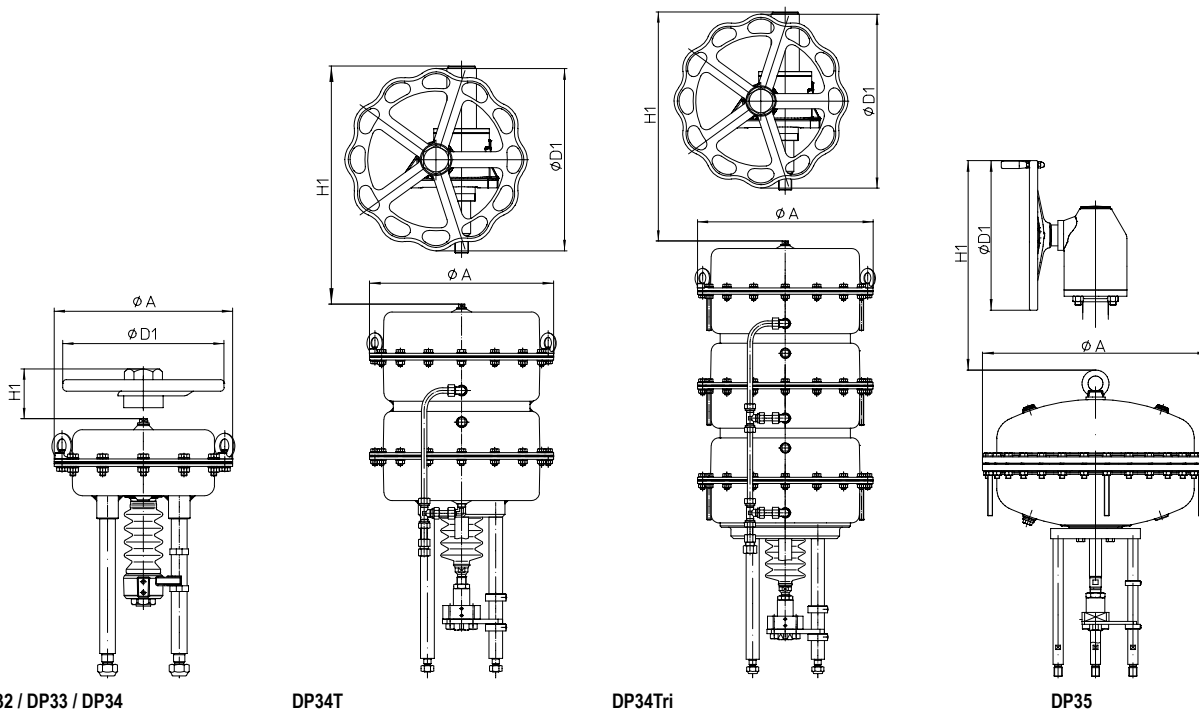


Fig. 471

Heights and weights

NPS				1"	1 1/2"	2"	3"	4"	6"	8"
Fig. 470	DP32	H	(in)	18.62	19.84	19.84	20.55	20.63	22.99	--
		ANSI150	(lbs)	40	55	60	95	134	245	--
		ANSI300	(lbs)	44	62	66	110	165	300	--
	DP33	H	(in)	20.79	22.01	22.01	23.15	23.23	25.59	--
		ANSI150	(lbs)	53	68	73	108	148	258	--
		ANSI300	(lbs)	57	75	79	123	179	313	--
	DP34	H	(in)	--	27.32	27.32	28.46	28.54	30.91	33.23
		ANSI150	(lbs)	--	134	139	174	214	324	547
		ANSI300	(lbs)	--	141	146	190	245	379	582
	DP34T	H	(in)	--	--	--	--	--	41.38	43.07
		ANSI150	(lbs)	--	--	--	--	--	492	703
		ANSI300	(lbs)	--	--	--	--	--	547	739
Fig. 471	DP34Tri	H	(in)	--	--	--	--	--	50.12	51.81
		ANSI150	(lbs)	--	--	--	--	--	567	778
		ANSI300	(lbs)	--	--	--	--	--	622	813
	DP35	H	(in)	--	--	--	--	--	45.43	47.13
		ANSI150	(lbs)	--	--	--	--	--	930	1142
		ANSI300	(lbs)	--	--	--	--	--	985	1177
	DP32	H	(in)	24.8	28.15	28.15	28.43	29.61	35.87	--
		ANSI150	(lbs)	49	57	62	99	143	251	--
		ANSI300	(lbs)	51	64	68	115	161	306	--
	DP33	H	(in)	26.97	30.31	30.31	31.02	32.2	38.46	--
		ANSI150	(lbs)	62	71	75	112	157	265	--
		ANSI300	(lbs)	64	77	82	128	174	320	--
	DP34	H	(in)	--	35.63	35.63	36.34	37.52	43.78	49.25
		ANSI150	(lbs)	--	137	141	179	223	331	514
		ANSI300	(lbs)	--	143	148	194	240	386	547
	DP34T	H	(in)	--	--	--	--	--	61.93	60.67
		ANSI150	(lbs)	--	--	--	--	--	564	670
		ANSI300	(lbs)	--	--	--	--	--	619	703
	DP34Tri	H	(in)	--	--	--	--	--	70.67	69.41
		ANSI150	(lbs)	--	--	--	--	--	639	745
		ANSI300	(lbs)	--	--	--	--	--	694	778
	DP35	H	(in)	--	--	--	--	--	64.69	--
		ANSI150	(lbs)	--	--	--	--	--	1003	--
		ANSI300	(lbs)	--	--	--	--	--	1058	--

Further dimensions refer to pages 18-23.



Actuator data			DP32	DP33	DP34	DP34T	DP34Tri	DP35
Ø A		(in)	9.84	11.81	15.94			29.72
Effective diaphragm area		(in ²)	38.75	62	124	248	372	434
Top mounted handwheel	Ø D1	(in)	8.86	11.81	15.75			19.69
	H1	(in)	10.63	11.18	17.4	25	25	28.78
	Weight	(lbs)	11		38	90		108
Further technical data of the actuator: refer to data sheet ARI-DP.								



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

NPS			1"							1 1/2"			2"			3"			4"			6"
Parabolic plug	Cv-value	(gal/min)	0.3 0.2 0.1	0.7 0.5	2.9 1.9 1.2	4.7	7.4	12		12	19	29	19	29	47	47	74	117	74	117	187	187
	max. diff. pressure ¹⁾	(psi)	580							580			435			435			218			58
V-port plug	Cv-value	(gal/min)	--							--			--			--			74			187
	max. diff. pressure ¹⁾	(psi)	--							--			--			--			435			363
Perforated plug	Cv-value	(gal/min)	--				2.9	4.7	7.4	7.4	12	19	12	19	29	29	47	74	47	74	117	117
	max. diff. pressure ¹⁾	(psi)	--				580			580			580			580			580			580
Seat-Ø			(in)	0.12	0.2	0.47	0.71	0.87	0.98	0.98	1.26	1.57	1.26	1.57	1.97	1.97	2.56	3.15	2.56	3.15	3.94	3.94
Travel			(in)	0.79							0.79			1.18			1.18			1.18		
DP32 38.75 in² Spring closes on air failure  (stem extending by spring)	6-17	20	I. (psi)	740	740	740	374	244	183	173	97	55	97	55	30	29						
			II. (psi)	740	740	724	310	200	149	128	70	38	70	38	19	16						
			III. (psi)	141	136	122	109	102	94	94	52	26	52	26								
	12-35	39	I. (psi)				740	592	455	444	265	164	265	164	100	99	54	32	54	32	17	17
			II. (psi)				740	548	422	399	238	146	238	146	88	86	46	28	46	28	15	15
			III. (psi)	399	395	380	367	358	352	352	220	135	220	135	81	81	44	26	44	26		
	22-42	46	I. (psi)					740	740	740	560		560									
			II. (psi)					740	740	740	532		532									
			III. (psi)	580	580	580	580	580	580	580	515		515									
	29-55	59	I. (psi)								740		740									
			II. (psi)								740		740									
			III. (psi)								580		580									

NPS			1"							1 1/2"			2"			3"			4"			6"
Parabolic plug	Cv-value	(gal/min)	0.3 0.2 0.1	0.7 0.5	2.9 1.9 1.2	4.7	7.4	12		12	19	29	19	29	47	47	74	117	74	117	187	187
	max. diff. pressure ¹⁾	(psi)	580							580			435			435			218			58
V-port plug	Cv-value	(gal/min)	--							--			--			--			74			187
	max. diff. pressure ¹⁾	(psi)	--							--			--			--			435			363
Perforated plug	Cv-value	(gal/min)	--				2.9	4.7	7.4	7.4	12	19	12	19	29	29	47	74	47	74	117	117
	max. diff. pressure ¹⁾	(psi)	--				580			580			580			580			580			580
Seat-Ø			(in)	0.12	0.2	0.47	0.71	0.87	0.98	0.98	1.26	1.57	1.26	1.57	1.97	1.97	2.56	3.15	2.56	3.15	3.94	3.94
Travel			(in)	0.79							0.79			1.18			1.18			1.18		
DP32 38.75 in² Spring opens on air failure  (stem retracting by spring)	20	I. (psi)	740	740	740	374	244	183		173	97	55	97	55	30	29						
		II. (psi)	740	740	724	310	200	149		128	70	38	70	38	19	16						
		III. (psi)	141	136	122	109	102	94		94	52	26	52	26								
		I. (psi)				740	740	590		580	350	219	350	219	135	133	74	46	74	46	26	26
		II. (psi)				740	740	557		535	322	200	322	200	123	120	67	41	67	41	23	23
		III. (psi)	526	524	508	496	487	482		482	305	190	305	190	116	116	64	39	64	39	22	20
	44	I. (psi)						740	740	740	490	740	490	310	309	180	116	180	116	71	71	
		II. (psi)						740	740	740	473	740	473	299	296	171	110	171	110	68	68	
		III. (psi)	580	580	580	580	580	580		580	580	461	580	461	292	292	168	109	168	109	67	64
	58	I. (psi)										740		740	486	484	284	184	284	184	116	116
		II. (psi)										740		740	474	471	276	180	276	180	113	113
		III. (psi)										580		580	467	467	274	178	274	178	112	109
	73	I. (psi)													661	660	389	254	389	254	160	160
		II. (psi)													650	647	380	249	380	249	157	157
		III. (psi)													580	580	379	247	379	247	157	154
	87	I. (psi)														740	740	493	323	493	323	205
		II. (psi)														740	740	484	318	484	318	202
		III. (psi)															483	316	483	316	200	197

- I. Fig. 470: PTFE-V-ring unit / EPDM-sealing
 II. Fig. 470: PTFE- / pure graphite-packing
 III. Fig. 471: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Air supply pressure max. to actuator: 87 psi Restriction: a) 73 psi b) 65 psi c) 58 psi d) 51 psi e) 44 psi



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

NPS			1"							1 1/2"			2"			3"			4"			6"			
Parabolic plug	Cv-value	(gal/min)	0.3 0.2 0.1	0.7 0.5	2.9 1.9 1.2	4.7	7.4	12	12	19	29	19	29	47	47	74	117	74	117	187	187				
	max. diff. pressure ¹⁾	(psi)	580							580	435	580	435	435	218	116	218	116	58	58					
V-port plug	Cv-value	(gal/min)	--							--			--			--	74	117	74	117	187	187			
	max. diff. pressure ¹⁾	(psi)	--							--			--			--	435	435	363	363					
Perforated plug	Cv-value	(gal/min)	--			2.9	4.7	7.4	7.4	12	19	12	19	29	29	47	74	47	74	117	117				
	max. diff. pressure ¹⁾	(psi)	--			580			580			580			580			580							
Seat-Ø			(in)	0.12	0.2	0.47	0.71	0.87	0.98	0.98	1.26	1.57	1.26	1.57	1.97	1.97	2.56	3.15	2.56	3.15	3.94	3.94			
Travel			(in)	0.79							0.79	1.18	0.79	1.18	1.18			1.18			1.18				
DP33 62 in ² Spring closes on air failure  (stem extending by spring)	3-15	Air supply pressure min. (psi) ²⁾	17	I. (psi)	740 c)	740 c)	634 c)	270 c)	173 c)	128 c)	116 a)	62 a)	33 a)	62 a)	33 a)	16 a)	15								
				II. (psi)	661 c)	641 c)	499 c)	206 c)	129 c)	94 c)	73 a)	35 a)	16 a)	35 a)	16 a)										
				III. (psi)	88 a)	84 a)	70 a)	57 a)	48 a)	42 a)	42 a)	17 a)		17 a)											
			20	I. (psi)			740 c)	676 c)	450 c)	344 c)	332 a)	196 a)	120 a)	196 a)	120 a)	71 a)	70	36	20	36	20				
				II. (psi)			740 c)	614 c)	406 c)	310 c)	289 a)	168 a)	102 a)	168 a)	102 a)	59 a)	57	29	16	29	16				
				III. (psi)			293 a)	289 a)	274 a)	261 a)	254 a)	247 a)	247 a)	152 a)	91 a)	152 a)	91 a)	54 a)	54	26	15	26	15		
	12-35		39	I. (psi)				740 a)	740 a)	740 a)	740	464	293	464	293	183	181	103	65	103	65	39	39		
				II. (psi)				740 a)	740 a)	740 a)	721	437	276	437	276	171	168	96	59	96	59	36	36		
				III. (psi)	580	580	580	580	580	580	580	419	264	419	264	164	164	93	58	93	58	35	32		
	22-44		48	I. (psi)										596		596	379	377	219	142	219	142	88	88	
				II. (psi)											579		579	367	364	212	138	212	138	86	86
				III. (psi)											567		567	360	360	209	135	209	135	84	81
	25-39		45	I. (psi)							740			740											
				II. (psi)							740	740		740											
				III. (psi)							580			580											
	29-58		65	I. (psi)								740		740		740	518	516	303	197	303	197	123	123	
				II. (psi)								740		740		740	506	503	296	193	296	193	120	120	
				III. (psi)								580		580	499	499	293	190	293	190	119	117			

NPS			1"							1 1/2"			2"			3"			4"			6"
Parabolic plug	Cv-value	(gal/min)	0.3 0.2 0.1	0.7 0.5	2.9 1.9 1.2	4.7	7.4	12		12	19	29	19	29	47	47	74	117	74	117	187	187
	max. diff. pressure ¹⁾	(psi)	580							580	435	580	435	580	435	435	218	116	218	116	58	58
V-port plug	Cv-value	(gal/min)	--							--			--			--	74	117	74	117	187	187
	max. diff. pressure ¹⁾	(psi)	--							--			--			--	435	435	435	363	363	
Perforated plug	Cv-value	(gal/min)	--			2.9	4.7	7.4		7.4	12	19	12	19	29	29	47	74	47	74	117	117
	max. diff. pressure ¹⁾	(psi)	--			580				580	580	580	580	580	580	580	580	580	580	580	580	
Seat-Ø			(in)	0.12	0.2	0.47	0.71	0.87	0.98	0.98	1.26	1.57	1.26	1.57	1.97	1.97	2.56	3.15	2.56	3.15	3.94	3.94
Travel			(in)	0.79							0.79	1.18	0.79	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	
DP33 62 in² Spring opens on air failure  (stem retracting by spring)	20	I. (psi)	740 d)	740 d)	740 d)	676 d)	450 d)	344 d)	332 d)	196 d)	120 d)	196 d)	120 d)	71 d)	70 d)	36 d)	20 d)	36 d)	20 d)			
			II. (psi)	740 d)	740 d)	740 d)	614 d)	406 d)	310 d)	289 d)	168 d)	102 d)	168 d)	102 d)	59 d)	57 d)	29 d)	16 d)	29 d)	16 d)		
			III. (psi)	293 d)	289 d)	274 d)	261 d)	254 d)	247 d)	247 d)	152 d)	91 d)	152 d)	91 d)	54 d)	54 d)	26 d)	15 d)	26 d)	15 d)		
	29	I. (psi)				740 d)	740 d)	740 d)	740 d)	598 d)	380 d)	598 d)	380 d)	239 d)	238 d)	136 d)	87 d)	136 d)	87 d)	54 d)	54 d)	
			II. (psi)				740 d)	740 d)	740 d)	740 d)	570 d)	361 d)	570 d)	361 d)	228 d)	225 d)	129 d)	83 d)	129 d)	83 d)	49 d)	49 d)
			III. (psi)	580 d)	580 d)	580 d)	580 d)	580 d)	580 d)	580 d)	554 d)	351 d)	554 d)	351 d)	220 d)	220 d)	126 d)	80 d)	126 d)	80 d)	49 d)	46 d)
	44	I. (psi)								740 d)	740 d)	740 d)	740 d)	518 d)	516 d)	303 d)	197 d)	303 d)	197 d)	123 d)	123 d)	
			II. (psi)							740 d)	740 d)	740 d)	740 d)	506 d)	503 d)	296 d)	193 d)	296 d)	193 d)	120 d)	120 d)	
			III. (psi)							580 d)	580 d)	580 d)	580 d)	493 d)	499 d)	293 d)	190 d)	293 d)	190 d)	119 d)	117 d)	
	58	I. (psi)												740 a)	740	470	307	470	307	194	194	
			II. (psi)											740 a)	740	461	303	461	303	191	191	
			III. (psi)											580 a)	580	458	300	458	300	190	187	
	73	I. (psi)														635	418	635	418	265	265	
			II. (psi)													628	413	628	413	263	263	
			III. (psi)													580	412	580	412	261	258	
	87	I. (psi)														740	528	740	528	336	336	
			II. (psi)													740	524	740	524	334	334	
			III. (psi)													522		522		332	329	

- I. Fig. 470: PTFE-V-ring unit / EPDM-sealing
 II. Fig. 470: PTFE- / pure graphite-packing
 III. Fig. 471: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Air supply pressure max. to actuator: 87 psi Restriction: a) 73 psi b) 65 psi c) 58 psi d) 51 psi e) 44 psi



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

NPS			1 1/2"			2"			3"			4"			6"			8"				
Parabolic plug	Cv-value	(gal/min)	12	19	29	19	29	47	47	74	117	74	117	187	187	292	467	--				
	max. diff. pressure ¹⁾	(psi)	580			435			435			218			58			29				
V-port plug	Cv-value	(gal/min)	--			--			--			74			117			292				
	max. diff. pressure ¹⁾	(psi)	--			--			--			435			435			363				
Perforated plug	Cv-value	(gal/min)	7.4	12	19	12	19	29	29	47	74	47	74	117	117	187	292	187	292	467		
	max. diff. pressure ¹⁾	(psi)	580			580			580			580			580			580				
Seat-Ø			(in)	0.98	1.26	1.57	1.26	1.57	1.97	1.97	2.56	3.15	2.56	3.15	3.94	3.94	4.92	5.91	4.92	5.91		
Travel			(in)	0.79	1.18	1.18	0.79	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.97	1.97	1.97	2.56		
DP34 124 in² Spring closes on air failure  (stem extending by spring)	Spring range (psi)	Air supply pressure min. (psi) ²⁾	17	I.	(psi)			120 e)	120 e)	73 e)	71	38	22	38	22							
				II.	(psi)			103 e)	103 e)	61 e)	58	29	16	29	16							
				III.	(psi)			93 e)	93 e)	54 e)	54 b)	28 b)	15 b)	28 b)	15 b)							
			20	I.	(psi)			296 d)	296 d)	184 d)	183	104	65	104	65	39	39	23	15	23		
				II.	(psi)			277 d)	277 d)	173 d)	170	96	61	96	61	36	36	20		17		
				III.	(psi)			267 d)	267 d)	165 b)	165 d)	94 b)	59 b)	94 b)	59 b)	35 b)	32	19		19 a)		
			39	I.	(psi)			644 b)	644 b)	409 b)	408	238	154	238	154	96	96	59	39	59	39	
				II.	(psi)			627 b)	627 b)	397 b)	395	231	149	231	149	93	93	58	38	55	36	
				III.	(psi)			580 b)	580 b)	390 b)	390	228	148	228	148	91	90	55	36	55	36	
			35	I.	(psi)																	28
				II.	(psi)																	26
				III.	(psi)																	26
			48	I.	(psi)														123	84	123	84
				II.	(psi)														122	83	119	81
				III.	(psi)														119	81	119	81
			48	I.	(psi)			740 a)	740 a)	740 a)	740	673	442	673	442	281	281					
				II.	(psi)			740 a)	740 a)	740 a)	740	666	438	666	438	278	278					
				III.	(psi)					580 a)	580	580	437	580	437	277	274					
			65	I.	(psi)														170	116	170	116
				II.	(psi)														167	115	164	113
				III.	(psi)														165	113	165	113
			58	I.	(psi)								740	509	740	509	325	325				
				II.	(psi)								740	505	740	505	322	322				
				III.	(psi)									503		503	321	318				

NPS			1 1/2"			2"			3"			4"			6"			8"				
Parabolic plug	Cv-value	(gal/min)	12	19	29	19	29	47	47	74	117	74	117	187	187	292	467					
	max. diff. pressure ¹⁾	(psi)	580	435	580	435		435	218	116	218	116	58	58	29		--					
V-port plug	Cv-value	(gal/min)	--			--			74 117			74	117	187	187	292	467	292	467	735		
	max. diff. pressure ¹⁾	(psi)	--			--			-- 435			435			363	363	218	218		174		
Perforated plug	Cv-value	(gal/min)	73.5	12	19	12	19	29	29	47	74	47	74	117	117	187	292	187	292	467		
	max. diff. pressure ¹⁾	(psi)	580			580			580			580			580			580		435		
Seat-Ø			(in)	0.98	1.26	1.57	1.26	1.57	1.97	1.97	2.56	3.15	2.56	3.15	3.94	3.94	4.92	5.91	4.92	5.91	7.87	
Travel			(in)	0.79	1.18		0.79	1.18		1.18			1.18			1.18			1.97	1.97	2.56	
DP34 124 in² Spring opens on air failure  (stem retracting by spring)	Air supply pressure min. (psi) ²⁾	20	I. (psi)			296 e)			296 e)	184 e)	183	104	65	104	65	39	39	23	15	23	15	
			II. (psi)			277 e)			277 e)	173 e)	170	96	61	96	61	36	36	20		17		
			III. (psi)			267 e)			267 e)	165 b)	165 e)	94 b)	59 b)	94 b)	59 b)	35 b)	32	19		19 a)		
		29	I. (psi)			740 e)			740 e)	522 e)	521	305	199	305	199	125	125	78	52	77	52	28
			II. (psi)			740 e)			740 e)	511 e)	508	297	194	297	194	122	122	75	51	73	49	26
			III. (psi)			580 e)			580 e)	503 e)	503 b)	294 b)	191 b)	294 b)	191 b)	120 b)	117	74	49	74 a)	49 a)	26 a)
		44	I. (psi)							740 e)	740	640	421	640	421	267	267	170	116	170	116	64
			II. (psi)							740 e)	740	632	416	632	416	264	264	167	115	164	113	62
			III. (psi)							580 e)	580 b)	413 b)	263 b)	413 b)	263 b)	261	261	165	113	165 a)	113 a)	62 a)
		58	I. (psi)								740	643	740	643	410	410	261	180	261	180	100	
			II. (psi)								740	638	740	638	408	408	260	178	257	177	97	
			III. (psi)									580 b)		580 b)	406 b)	403	257	177	257 a)	177 a)	99 a)	
		73	I. (psi)								740		740	553	553	352	244	352	244	352	244	135
			II. (psi)								740		740	550	550	351	242	348	241	348	241	133
			III. (psi)													545	348	241	348 a)	241 a)	133 a)	
		87	I. (psi)													696	696	444	307	444	307	171
			II. (psi)													692	692	442	306	439	305	170
			III. (psi)														580	439	305			

- I. Fig. 470: PTFE-V-ring unit / EPDM-sealing
II. Fig. 470: PTFE- / pure graphite-packing
III. Fig. 471: Bellows seal

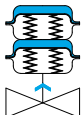
¹⁾ max. differential pressure drop

²⁾ Air supply pressure max. to actuator: 87 psi Restriction: a) 73 psi b) 65 psi c) 58 psi d) 51 psi e) 44 psi



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

NPS				6"			8"		
Parabolic plug	Cv-value	(gal/min)		187	292	467	--		
	max. diff. pressure ¹⁾	(psi)		58	29		--		
V-port plug	Cv-value	(gal/min)		187	292	467	292	467	735
	max. diff. pressure ¹⁾	(psi)		363	218		218		174
Perforated plug	Cv-value	(gal/min)		117	187	292	187	292	467
	max. diff. pressure ¹⁾	(psi)			580		580		435
Seat-Ø				(in)	3.94	4.92	5.91	4.92	5.91
Travel				(in)	1.18	1.97		1.97	
DP34T 248 in² Spring closes on air failure  (stem extending by spring)	3-15	22	I.	(psi)	39	23	15	23	
			II.	(psi)	32	17		17	
			III.	(psi)	29 a)	16 a)		19 e)	
	6-17	25	I.	(psi)	96	59	39	59	39
			II.	(psi)	88	55	36	55	36
			III.	(psi)	87 a)	54 a)	35 a)	55 d)	36 d)
	12-35	42	I.	(psi)	210	132	90	132	90
			II.	(psi)	203	128	87	128	87
			III.	(psi)	200	126	87	128 b)	87 b)
	15-29	36	I.	(psi)					64
			II.	(psi)					62
			III.	(psi)					62 c)
	22-44	51	I.	(psi)		261	180	261	180
			II.	(psi)		257	177	257	177
			III.	(psi)		255	175	257 a)	177 a)
	30-44	51	I.	(psi)	582				
			II.	(psi)	574				
			III.	(psi)	571				
	29-58	65	I.	(psi)		352	244	352	244
			II.	(psi)		348	241	348	241
			III.	(psi)		347	239	348	241
	35-52	59	I.	(psi)	667				
			II.	(psi)	660				
			III.	(psi)	580				

NPS				6"			8"		
Parabolic plug	Cv-value	(gal/min)		187	292	467	--		
	max. diff. pressure ¹⁾	(psi)		58	29		--		
V-port plug	Cv-value	(gal/min)		187	292	467	292	467	735
	max. diff. pressure ¹⁾	(psi)		363	218		218		174
Perforated plug	Cv-value	(gal/min)		117	187	292	187	292	467
	max. diff. pressure ¹⁾	(psi)			580		580		435
Seat-Ø				(in)	3.94	4.92	5.91	4.92	5.91
Travel				(in)	1.18	1.97		1.97	
DP34T 248 in² Spring opens on air failure  (stem retracting by spring)	22		I.	(psi)	125	77	52	77	52
			II.	(psi)	117	73	49	73	49
			III.	(psi)	115 a)	71 a)	48 a)	74 e)	49 e)
	29		I.	(psi)	267	170	116	170	116
			II.	(psi)	260	164	113	164	113
			III.	(psi)	258 a)	162 a)	112 a)	165 e)	113 e)
	44		I.	(psi)	553	352	244	352	244
			II.	(psi)	545	348	241	348	241
			III.	(psi)	542 a)	347 a)	239 a)	348 e)	241 e)
	58		I.	(psi)	740	535	371	535	371
			II.	(psi)	740	531	368	531	368
			III.	(psi)	580 a)	529 a)	367 a)		
	73		I.	(psi)		719	499	719	499
			II.	(psi)		714	496	714	496
			III.	(psi)		580 a)	495 a)		
	87		I.	(psi)		740	627	740	627
			II.	(psi)		740	622	740	622
			III.	(psi)					

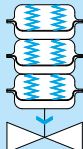
- I. Fig. 470: EPDM-sealing
 II. Fig. 470: PTFE- / pure graphite-packing
 III. Fig. 471: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Air supply pressure max. to actuator: 87 psi Restriction: a) 73 psi b) 65 psi c) 58 psi d) 51 psi e) 44 psi f) 36 psi



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

NPS						6"			8"		
Parabolic plug	Cv-value				(gal/min)	187	292	467	--		
	max. diff. pressure ¹⁾				(psi)	58	29		--		
V-port plug	Cv-value				(gal/min)	160	250	400	250	400	630
	max. diff. pressure ¹⁾				(psi)	363	218		218		174
Perforated plug	Cv-value				(gal/min)	100	160	250	160	250	400
	max. diff. pressure ¹⁾				(psi)	580			580		435
Seat-Ø					(in)	3.94	4.92	5.91	4.92	5.91	7.87
Travel					(in)	1.18	1.97		1.97		2.56
DP34Tri 372 in² Spring closes on air failure  (stem extending by spring)	Spring range (psi)	Air supply pressure min. (psi) ²⁾	22	I.	(psi)	67 a)	41 a)	28 a)	41 a)	28 a)	
				II.	(psi)	59 a)	36 a)	23 a)	36 a)	23 a)	
				III.	(psi)	58 d)	35 d)	23 d)	36 f)	23 f)	
			25	I.	(psi)	154 a)	96 a)	65 a)	96 a)	65 a)	35 a)
				II.	(psi)	146 a)	91 a)	62 a)	91 a)	62 a)	33 a)
				III.	(psi)	144 c)	90 c)	61 c)	91 f)	62 f)	33 f)
			42	I.	(psi)	325 a)	206 a)	142 a)	206 a)	142 a)	78 a)
				II.	(psi)	318 a)	202 a)	138 a)	202 a)	138 a)	77 a)
				III.	(psi)	315 a)	200 a)	138 a)	202 d)	139 d)	77 d)
			36	I.	(psi)						100 a)
				II.	(psi)						97 a)
				III.	(psi)						99 d)
			51	I.	(psi)		399 a)	276 a)	399 a)	276 a)	154 a)
				II.	(psi)		393 a)	273 a)	393 a)	273 a)	152 a)
				III.	(psi)		392 a)	271 a)	395 b)	273 b)	152 b)
			51	I.	(psi)	740 a)					
				II.	(psi)	740 a)					
				III.	(psi)	580 a)					
			65	I.	(psi)		535 a)	371 a)	535 a)	371 a)	207 a)
				II.	(psi)		531 a)	368 a)	531 a)	368 a)	206 a)
				III.	(psi)		529 a)	367 a)			

- I. Fig. 470: EPDM-sealing
 II. Fig. 470: PTFE- / pure graphite-packing
 III. Fig. 471: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Air supply pressure max. to actuator: 73 psi Restriction: a) 73 psi b) 65 psi c) 58 psi d) 51 psi e) 44 psi

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

NPS						6"		8"			
Parabolic plug	Cv-value				(gal/min)	292	467	--			
	max. diff. pressure ¹⁾				(psi)	29		--			
V-port plug	Cv-value				(gal/min)	292	467	291.7	466.7	735	
	max. diff. pressure ¹⁾				(psi)	218		218		174	
Perforated plug	Cv-value				(gal/min)	187	292	186.7	291.7	466.7	
	max. diff. pressure ¹⁾				(psi)	580		580		435	
Seat-Ø					(in)	4.92	5.91	4.92	5.91	7.87	
Travel					(in)	1.97		1.97		2.56	
DP35 434 in² Spring closes on air failure  (stem extending by spring)	Spring range (psi)	36-48	Air supply pressure min. (psi) ²⁾	55	I./II.	(psi)	740	542	740	542	
					III.	(psi)	580 a)	541 a)			
		43-55		62	I./II.	(psi)		660		660	
		39-55		62	I./II.	(psi)					339

NPS					6"		8"		
Parabolic plug	Cv-value			(gal/min)	292	467	--		
	max. diff. pressure ¹⁾			(psi)	29		--		
V-port plug	Cv-value			(gal/min)	292	467	291.7	466.7	735
	max. diff. pressure ¹⁾			(psi)	218		218		174
Perforated plug	Cv-value			(gal/min)	187	292	186.7	291.7	466.7
	max. diff. pressure ¹⁾			(psi)	580		580		435
Seat-Ø				(in)	4.92	5.91	4.92	5.91	7.87
Travel				(in)	1.97		1.97		2.56
DP35 434 in² Spring opens on air failure  (stem retracting by spring)	Air supply pressure min. (psi) ²⁾	22	I./II.	(psi)	184 b)	126 b)	184 b)	126 b)	59 b)
			III.	(psi)	183 e)	125 e)			
		29	I./II.	(psi)	347 b)	241 b)	347 b)	241 b)	123 b)
			III.	(psi)	345 e)	239 e)			
		44	I./II.	(psi)	674 b)	467 b)	674 b)	467 b)	251 b)
			III.	(psi)	580 e)	467 e)			
		58	I./II.	(psi)	740 b)	695 b)	740 b)	695 b)	380 b)
		65	I./II.	(psi)		740 b)		740 b)	444 b)

I. Fig. 470: EPDM-sealing

II. Fig. 470: PTFE- / pure graphite-packing

III. Fig. 471: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Air supply pressure max. to actuator: 87 psi Restriction: a) 73 psi b) 65 psi c) 58 psi d) 51 psi e) 44 psi

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

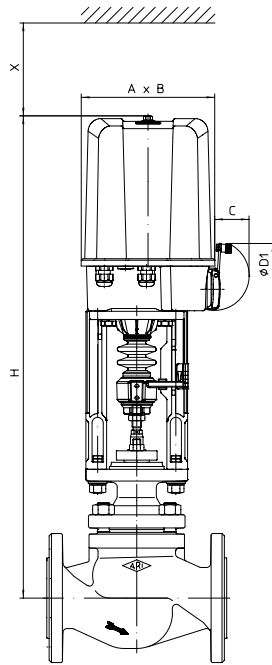


Fig. 470....90

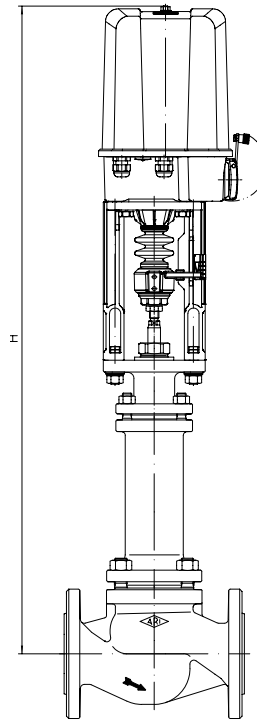


Fig. 471....90

Actuator data		2.2 - 5 kN (495 - 1124 lbf)	12 - 25 kN (2698 - 5620 lbf)
A	(in)	6.73	8.27
B	(in)	6.14	7.24
C	(in)	1.97	3.54
Ø D1	(in)	3.54	5.12
X	(in)	5.91	7.87

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

Heights and weights

NPS				1"	1 1/2"	2"	3"	4"	6"	8"
Fig. 470	2.2 kN (495 lbf)	H	(in)	22.91	24.13	24.13	25.28	25.35	28.5	--
		ANSI150	(lbs)	33	46	51	86	128	238	--
		ANSI300	(lbs)	35	53	57	101	159	293	--
	5 kN (1124 lbf)	H	(in)	22.91	24.13	24.13	25.28	25.35	28.5	33.15
		ANSI150	(lbs)	35	49	53	88	130	240	403
		ANSI300	(lbs)	37	55	60	104	161	295	441
	12 kN (2698 lbf) 15 kN (3372 lbf)	H	(in)	--	30.98	30.98	32.13	32.2	34.57	39.21
		ANSI150	(lbs)	--	57	62	97	139	249	410
		ANSI300	(lbs)	--	64	68	112	170	304	448
	25 kN (5620 lbf)	H	(in)	--	--	--	32.1	32.2	34.6	37.48
		ANSI150	(lbs)	--	--	--	99	141	251	412
		ANSI300	(lbs)	--	--	--	115	172	306	450
Fig. 471	2.2 kN (495 lbf)	H	(in)	29.09	32.44	32.44	33.15	34.33	41.14	--
		ANSI150	(lbs)	40	51	55	90	137	245	--
		ANSI300	(lbs)	42	57	62	106	154	300	--
	5 kN (1124 lbf)	H	(in)	29.09	32.44	32.44	33.15	34.33	41.14	49.76
		ANSI150	(lbs)	42	53	57	93	139	247	461
		ANSI300	(lbs)	44	60	64	108	157	302	498
	12 kN (2698 lbf) 15 kN (3372 lbf)	H	(in)	--	39.29	39.29	40	41.18	47.44	56.4
		ANSI150	(lbs)	--	62	66	101	148	256	467
		ANSI300	(lbs)	--	68	73	117	165	311	505
	25 kN (5620 lbf)	H	(in)	--	--	--	40	41.2	47.4	56.4
		ANSI150	(lbs)	--	--	--	104	150	258	470
		ANSI300	(lbs)	--	--	--	119	168	313	507

Further dimensions refer to pages 18-23.



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

NPS			1"							1 1/2"			2"			3"			4"			6"			8"		
Parabolic plug	Cv-value	(gal/min)	0.3 0.2 0.1	0.7 0.5	2.9 1.9 1.2	4.7	7.4	12	12	19	29	19	29	47	47	74	117	74	117	187	187	292	467	--			
	max. diff. pressure ¹⁾	(psi)	580							580	435	580	435	435	218	116	218	116	58	58	29			--			
V-port plug	Cv-value	(gal/min)	--							--			--			74	117	74	117	117	187	292	467	292	467	735	
	max. diff. pressure ¹⁾	(psi)	--							--			--			435			435			363	363	218		218	174
Perforated plug	Cv-value	(gal/min)	--				2.9 1.9 1.2	4.7	7.4	7.4	12	19	12	19	29	29	47	74	47	74	117	117	187	292	187	292	467
	max. diff. pressure ¹⁾	(psi)	--				580			580			580			580			580			580			580	435	
Seat-Ø			(in)	0.12	0.2	0.47	0.71	0.87	0.98	0.98	1.26	1.57	1.26	1.57	1.97	1.97	2.56	3.15	2.56	3.15	3.94	3.94	4.92	5.91	4.92	5.91	7.87
Travel			(in)	0.79							0.79	1.18	0.79	1.18	1.18			1.18			1.18	1.97	1.97	1.97	1.97	2.56	
2.2 kN (495 lbf)	Closing pressure	I. (psi)	740	740	740	740	677	521	511	306	191	306	191	117	116	64	39	64	39	22	22						
		II. (psi)	740	740	740	740	634	489	466	278	173	278	173	106	103	57	33	57	33	19	19						
		III. (psi)	461	457	442	429	422	415	415	261	162	261	162	99	99	54	32	54	32	17	15						
	Operating time	(s)	53							53	79	53	79	79			79			79							
	Operating speed ²⁾	(in/s)	0.015																								
5 kN (1124 lbf)	Closing pressure	I. (psi)					740	740	740	740	502	740	502	318	316	183	119	183	119	73	73	45	29	45	29	15	
		II. (psi)					740	740	740	740	484	740	484	306	303	175	113	175	113	70	70	42	28	39	26		
		III. (psi)	580	580	580	580	580	580	580	580	473	580	473	299	299	173	112	173	112	68	65	41	26	41	26		
	Operating time	(s)	53							53	79	53	79	79			79			79	132	132					
	Operating speed	(in/s)	0.015																								
12 kN (2698 lbf)	Closing pressure	I. (psi)									740		740	740	740	482	316	482	316	200	200	126	86	126	86	46	
		II. (psi)									740		740	740	740	474	312	474	312	197	197	125	84	122	83	45	
		III. (psi)									580		580	580	580	471	309	471	454	196	193	122	83	122	83	45	
	Operating time	(s)									79		79	79			79			79	132	132		171			
	Operating speed	(in/s)	0.015																								
15 kN (3372 lbf)	Closing pressure	I. (psi)														611	402	611	402	255	255	161	110	161	110	61	
		II. (psi)														602	396	602	396	251	251	160	109	157	107	58	
		III. (psi)														580	395	580	395	251	248	157	107	157	107	59	
	Operating time	(s)														79		79		79	132	132		171			
	Operating speed	(in/s)	0.015																								
25 kN (5620 lbf)	Closing pressure	I. (psi)														740	685	740	685	437	437	277	191	277	191	106	
		II. (psi)														740	679	740	679	434	435	277	189	273	191	104	
		III. (psi)														580	580		580	432	429	273	189	273	189	104	
	Operating time	(s)														79		79		79	132	132		171			
	Operating speed	(in/s)	0.015																								

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

$$\text{Operating time [s]} = \frac{\text{Travel [in]}}{\text{Operating speed [in/s]}}$$

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

II. Fig. 470: PTFE- / pure graphite-packing

III. Fig. 471: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Based on a frequency of 50Hz the control speed and power consumption of the synchronous motors PREMIO 2.2 kN (495 lbf)kN are 20% higher at frequency of 60 Hz.



Control valve in straightway form with electric actuator AUMA

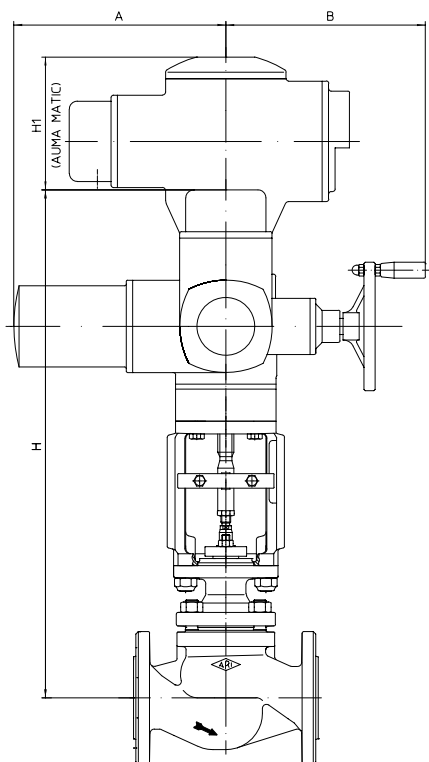


Fig. 470

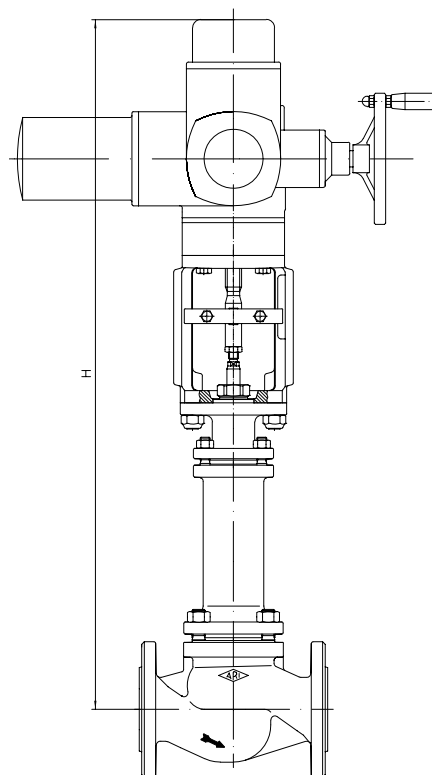


Fig. 471

Actuator data		SAR 07.2	SAR 07.6	SAR 10.2	SAR 14.2	SAR 14.6
A	(in)	10.43		11.14	15.31	
B	(in)	9.8		10	13.23	13.35
H1 (AUMA MATIC)	(in)	5.12			7.17	
Supply voltage: 400V 50Hz 3~ (Other voltages on request)						
Technical data for actuator refer to price list.						

Heights and weights

NPS				1"	1 1/2"	2"	3"	4"	6"	8"
Fig. 470	SAR 07.2 SAR 07.6	H	(in)	25.67	26.89	26.89	28.03	28.11	30.47	34.21
		ANSI150	(lbs)	82	99	104	139	179	289	520
		ANSI300	(lbs)	84	106	110	154	209	344	556
	SAR 10.2	H	(in)	--	--	--	28.11	28.19	30.55	34.29
		ANSI150	(lbs)	--	--	--	143	185	295	518
		ANSI300	(lbs)	--	--	--	159	216	351	553
	SAR 14.2	H	(in)	--	--	--	--	--	34.21	37.17
		ANSI150	(lbs)	--	--	--	--	--	384	595
		ANSI300	(lbs)	--	--	--	--	--	439	631
	SAR 14.6 LE100	H	(in)	--	--	--	--	--	44.37	47.32
		ANSI150	(lbs)	--	--	--	--	--	483	694
		ANSI300	(lbs)	--	--	--	--	--	538	730
Fig. 471	SAR 07.2 SAR 07.6	H	(in)	31.85	35.2	35.2	35.91	37.09	43.35	51.73
		ANSI150	(lbs)	88	99	106	143	187	295	489
		ANSI300	(lbs)	90	106	110	154	209	344	556
	SAR 10.2	H	(in)	--	--	--	35.98	37.17	43.43	51.81
		ANSI150	(lbs)	--	--	--	148	194	302	496
		ANSI300	(lbs)	--	--	--	163	212	351	529
	SAR 14.2	H	(in)	--	--	--	--	--	56.22	--
		ANSI150	(lbs)	--	--	--	--	--	456	--
		ANSI300	(lbs)	--	--	--	--	--	511	--

For version with AUMA SAR Ex other heights.

Further dimensions refer to pages 18-23.



Fig. 470	NPS				1"	1 1/2"			2"			3"			4"			6"			8"				
Parabolic plug	Cv-value				(gal/min)	12	12	19	29	19	29	47	47	74	117	74	117	187	187	292	467	--			
	max. diff. pressure ¹⁾				(psi)	580	580			435	580	435		435	218	116	218	116	58	58	29				
V-port plug	Cv-value				(gal/min)	--	--			--			74			117	74	117	187	187	292	467	292	467	735
	max. diff. pressure ¹⁾				(psi)	--	--			--			435			435			363	363	218		218		174
Perforated plug	Cv-value				(gal/min)	7.4	7.4	12	19	12	19	29	29	47	74	47	74	117	117	187	292	187	292	467	
	max. diff. pressure ¹⁾				(psi)	580	580			580			580			580			580			580		435	
Seat-Ø					(in)	0.98	0.98	1.26	1.57	1.26	1.57	1.97	1.97	2.56	3.15	2.56	3.15	3.94	3.94	4.92	5.91	4.92	5.91	7.87	
Travel					(in)	0.79	0.79		1.18	0.79	1.18		1.18			1.18			1.18	1.97		1.97	1.97	2.56	
SAR 07.2 Output drive Form A TR 20 x 4 - LH	Closing pressure	I./II.	shut off	(psi)	740	740			740	740	740	673	444	673	444	281									
			controlling ²⁾	(psi)	740	740			740	545	542	318	207	318	207	131									
	Torque				(ft lbf)	11	11			11	15	15	22		22										
	Operating time (50 Hz)				(s)	54	54	56	54	56		56			56										
	Output drive				(rpm)	5.6	5.6	8	5.6	8		8			8										
SAR 07.6 Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off	(psi)							740	740		625	740	625	399	399	254	174	251	173	96		
			controlling ²⁾	(psi)						740	740	454	299	454	299	189	189	119	81	116	80	42			
	Torque				(ft lbf)						22	22	37	44	37	44		44			44				
	Operating time (50 Hz)				(s)						64	64			64			64	55		55		71		
	Output drive				(rpm)						5.6	5.6			5.6			5.6	11		11				
SAR 10.2 Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off	(psi)								740	740	740	740	608	608	389	268	519	360	202			
			controlling ²⁾	(psi)							740	625	740	625	399	399	254	174	251	173	96				
	Torque				(ft lbf)							44	59	44	59	66	66			89					
	Operating time (50 Hz)				(s)							64		64			64	55		55		71			
	Output drive				(rpm)							5.6		5.6			5.6	11		11					
SAR 14.2 Output drive Form A TR 30 x 6 - LH	Closing pressure	I./II.	shut off	(psi)													740	740	619	740	619	348			
			controlling ²⁾	(psi)													656	419	290	419	290	161			
	Torque				(ft lbf)												111	166	184	166	184				
	Operating time (50 Hz)				(s)												38	63		63		59			
	Output drive				(rpm)													8		8		11			
SAR 14.6 with LE100.1	Closing pressure	I./II.	shut off	(psi)													740			740		460			
			controlling ²⁾	(psi)												740	580	402	580	402	225				
	Torque				(ft lbf)											184	221	295	221	295	295				
	Operating time (50 Hz)				(s)											46	54		54		51				
	Output drive				(rpm)												5.6	8		8		11			

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

II. Fig. 470: PTFE- / pure graphite-packing

¹⁾ max. differential pressure drop

²⁾ Restrictions through max. permissible torque of the actuator at controlling operation.



Fig. 471	NPS				1"	1 1/2"			2"			3"			4"			6"			8"		
Parabolic plug	Cv-value		(gal/min)	12	12	19	29	47	47	74	117	74	117	187	187	292	467	--					
	max. diff. pressure ¹⁾		(psi)	580	580	435	580	435	435	218	116	218	116	58	58	29		--					
V-port plug	Cv-value		(gal/min)	--	--		--		--	74	117	74	117	187	187	292	467	292	467	735			
	max. diff. pressure ¹⁾		(psi)	--	--		--		--	435		435		363	363	218		218		174			
Perforated plug	Cv-value		(gal/min)	7.4	7.4	12	19	12	19	29	29	47	74	47	74	117	117	187	292	187	292	467	
	max. diff. pressure ¹⁾		(psi)	580	580		580		580		580		580		580		580		580		435		
Seat-Ø			(in)	0.98	0.98	1.26	1.57	1.26	1.57	1.97	1.97	2.56	3.15	2.56	3.15	3.94	3.94	4.92	5.91	4.92	5.91	7.87	
Travel			(in)	0.79	0.79	1.18	0.79	1.18	1.18			1.18			1.18			1.18	1.97	1.97	1.97	2.56	
SAR 07.2 Output drive Form A TR 20 x 4 - LH	Closing pressure	III.	shut off	(psi)	580	580		580	580	580		441	580	441	281								
			controlling ²⁾	(psi)	580	580		580	538	538	315	206	315	206	129								
	Torque			(ft lbf)	11	11		11	15	15	22		22										
	Operating time (50 Hz)			(s)	54	54	56	54	56	56		56											
	Output drive			(rpm)	5.6	5.6	8	5.6	8	8		8											
SAR 07.6 Output drive Form A TR 26 x 5 - LH	Closing pressure	III.	shut off	(psi)					580	580		580		397	395	251	173	251	173	96			
			controlling ²⁾	(psi)					580	580	453	296	453	296	187	184	116	80	116	80	44		
	Torque			(ft lbf)					22	22	30	44	30	44	44		44						
	Operating time (50 Hz)			(s)					64	64		64		64	55	55		71					
	Output drive			(rpm)					5.6	5.6		5.6		5.6	11	11							
SAR 10.2 Output drive Form A TR 26 x 5 - LH	Closing pressure	III.	shut off	(psi)						580		580		467	580	431	297	386	267	148			
			controlling ²⁾	(psi)						580		580		397	395	251	173	251	173	96			
	Torque			(ft lbf)						44		44		52	66	74	66						
	Operating time (50 Hz)			(s)						64		64		64	55	55		71					
	Output drive			(rpm)						5.6		5.6		5.6	11	11							
SAR 14.2 Output drive Form A TR 30 x 6 - LH	Closing pressure	III.	shut off	(psi)										580		492							
			controlling ²⁾	(psi)											580	418	289						
	Torque			(ft lbf)										89	129	148							
	Operating time (50 Hz)			(s)										38	63								
Output drive			(rpm)											8									

III. Fig. 471: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Restrictions through max. permissible torque of the actuator at controlling operation.



Control valve in straightway form with flanges

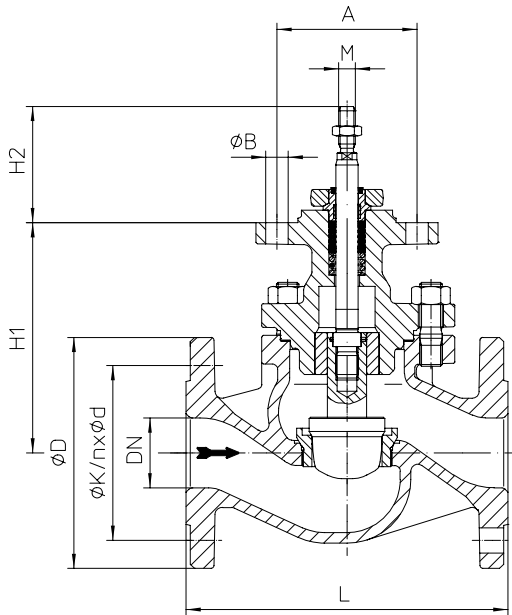


Fig. 470...90

NPS 1"-6"

(e.g.: DP32-34; PREMIO 2.2 kN (495 lbf) - 25 kN (5620 lbf); AUMA 07.2-10.2)

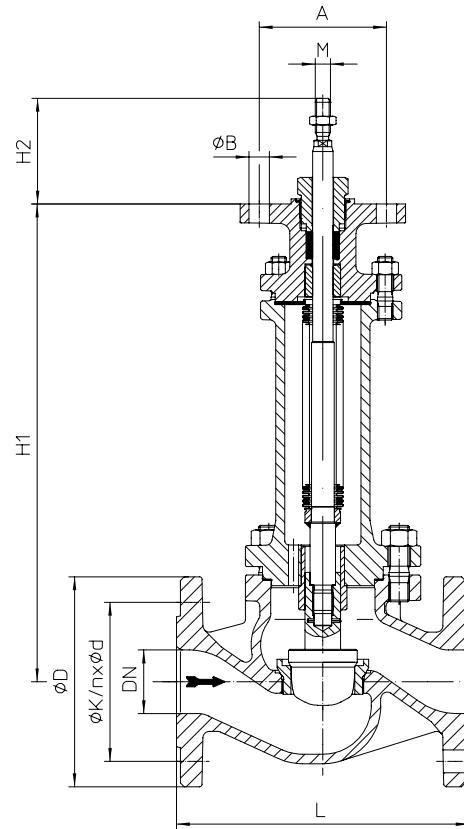


Fig. 471...90

NPS 1"-6"

(e.g.: DP32-34; PREMIO 2.2 kN (495 lbf) - 25 kN (5620 lbf); AUMA 07.2-10.2)

NPS			1"	1 1/2"	2"	3"	4"	6"
Dimensions								
M	Fig. 470	(mm)	M10	M12		M16 x 1.5		
	Fig. 471	(mm)		M12		M14 x 1.5		M16 x 1.5
H1	Fig. 470	(in)	5.28	6.5	6.5	7.64	7.72	10.08
	Fig. 471	(in)	11.46	14.8	14.8	15.51	16.69	22.95
H2	Fig. 470 / Fig. 471	(in)	3.27					
A	Fig. 470 / Fig. 471	(in)	3.94					
ØB	Fig. 470 / Fig. 471	(in)	2 x 0.62					
Face-to-face dimension Form RF acc. to ANSI / ISA - S75.08.01-2016 (Face-to-face dimension for Form RTJ refer to page 26.)								
L	ANSI150	(in)	7.25	8.75	10	11.75	13.88	17.75
	ANSI300	(in)	7.75	9.25	10.5	12.5	14.5	18.62
Flanges acc. to ASME B16.5								
ØD	ANSI150	(in)	4.25	5	6	7.5	9	11
	ANSI300	(in)	4.88	6.12	6.5	8.25	10	12.5
ØK	ANSI150	(in)	3.12	3.88	4.76	6	7.5	9.5
	ANSI300	(in)	3.5	4.5	5	6.62	7.88	10.62
n x Ød	ANSI150	(in)	4 x 5/8	4 x 5/8	4 x 3/4	4 x 3/4	8 x 3/4	8 x 7/8
	ANSI300	(in)	4 x 3/4	4 x 7/8	8 x 3/4	8 x 7/8	8 x 7/8	12 x 7/8
Weights								
Fig. 470	ANSI150	(lbs)	20	35	40	75	115	225
	ANSI300	(lbs)	24	42	46	90	146	280
Fig. 471	ANSI150	(lbs)	29	37	42	79	123	231
	ANSI300	(lbs)	31	44	49	95	141	287
max. permissible thrust								
Fig. 470		(lbf)	2855	4092		9127		
Fig. 471		(lbf)	4092		6654		9127	

Control valve in straightway form with flanges

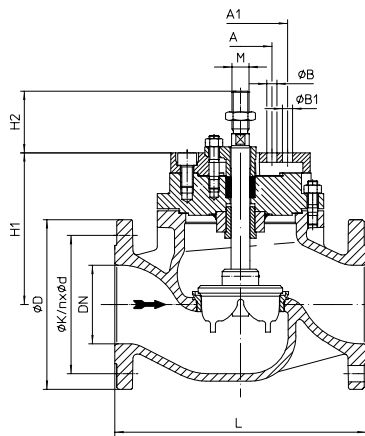


Fig. 470...90

NPS 8"

(e.g.: DP34, PREMIO 5 kN (1124 lbf) -
25 kN (5620 lbf))

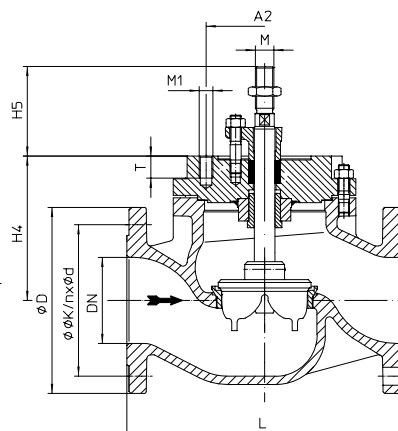


Fig. 470...90

NPS 8"

(e.g.: AUMA 07.6-10.2)

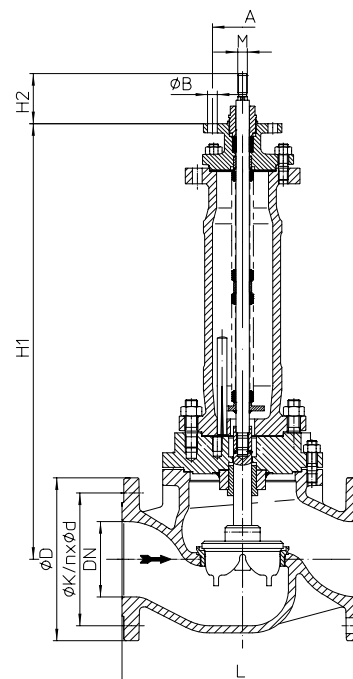


Fig. 471...90

NPS 8" M16

(e.g.: PREMIO 5 kN (1124 lbf) - 25 kN (5620 lbf), AUMA 07.6-10.2)

NPS	8"
-----	----

Dimensions				
M	Fig. 470	(mm)	M20	
	Fig. 471	(mm)	M16	M20
H1	Fig. 470	(in)	12.4	
	Fig. 471	(in)	31.34	28.43
H2	Fig. 470	(in)	3.86	
	Fig. 471	(in)	3.27	3.86
H4	Fig. 470	(in)	11.14	
H5	Fig. 470	(in)	5.12	
A	Fig. 470 / Fig. 471	(in)	3.94	
ØB	Fig. 470	(in)	2 x 0.62	
A1	Fig. 470 / Fig. 471	(in)	5.91	
ØB1	Fig. 470 / Fig. 471	(in)	4 x 0.62	
A2	Fig. 470	(in)	6.69	
M1	Fig. 470	(mm)	M20	
T	Fig. 470	(in)	1.26	

Face-to-face dimension Form RF acc. to ANSI / ISA - S75.08.01-2016
(Face-to-face dimension for Form RTJ refer to page 26.)

L	ANSI150	(in)	21.38
	ANSI300	(in)	22.38

Flanges acc. to ASME B16.5				
ØD	ANSI150	(in)	13.5	
	ANSI300	(in)	15	
ØK	ANSI150	(in)	11.75	
	ANSI300	(in)	13	
n x Ød	ANSI150	(in)	8 x 7/8	
	ANSI300	(in)	12 x 1	

Weights				
Fig. 470	ANSI150	(lbs)	388	
	ANSI300	(lbs)	425	
Fig. 471	ANSI150	(lbs)	445	443
	ANSI300	(lbs)	483	481

max. permissible thrust				
Fig. 470		(lbf)	13286	
Fig. 471		(lbf)	7644	

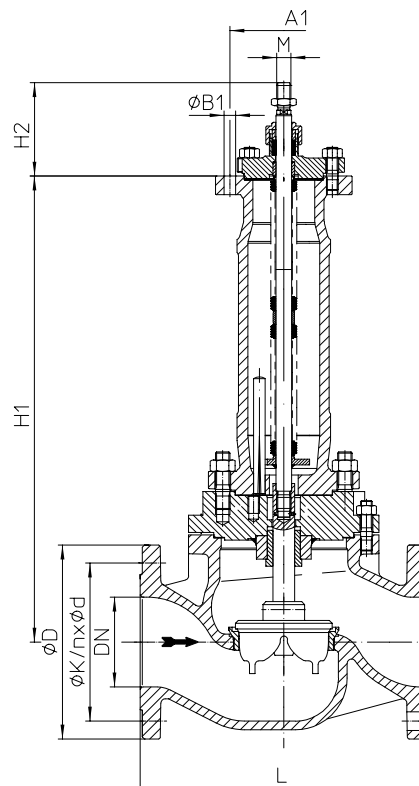


Fig. 471...90

NPS 8" M20

(e.g.: DP34-34Tri)



Control valve in straightway form with flanges

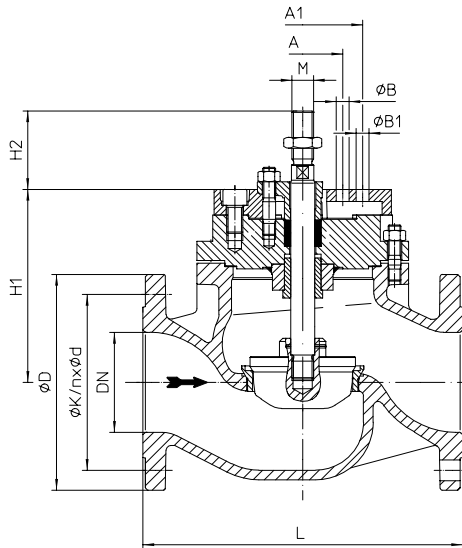


Fig. 470...90
NPS 6"-8"
(e.g.: DP34T-34Tri)

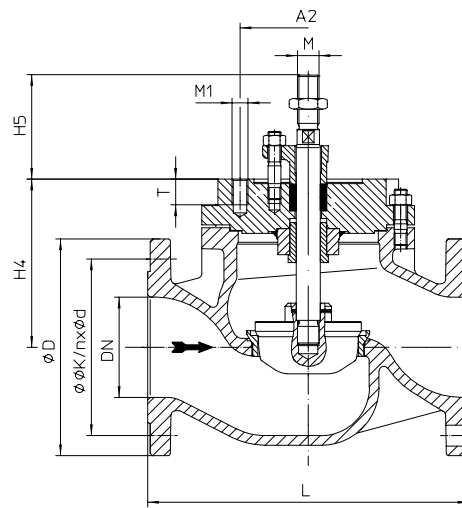


Fig. 470...90
NPS 6"-8"
(e.g.: DP35; AUMA 14.2-14.6)

NPS	6"	8"
-----	----	----

Dimensions				
M	Fig. 470	(mm)	M27	
	Fig. 471	(mm)	M27	--
H1	Fig. 470	(in)	10.94	12.4
	Fig. 471	(in)	28.43	--
H2	Fig. 470	(in)	3.86	
	Fig. 471	(in)	7.28	--
H4	Fig. 470	(in)	9.45	11.14
H5	Fig. 470	(in)	5.12	
A	Fig. 470	(in)	3.94	
ØB	Fig. 470	(in)	0.63	
A1	Fig. 470	(in)	5.91	
	Fig. 471	(in)	5.91	--
ØB1	Fig. 470	(in)	0.63	
	Fig. 471	(in)	0.63	--
A2	Fig. 470	(in)	6.69	
M1	Fig. 470	(mm)	M20	
T	Fig. 470	(in)	1.26	

Face-to-face dimension Form RF acc. to ANSI/ ISA - S75.08.01-2016
(Face-to-face dimension for Form RTJ refer to page 26.)

L	ANSI150	(in)	17.75	21.38
	ANSI300	(in)	18.62	22.38

Flanges acc. to ASME B16.5

ØD	ANSI150	(in)	11	13,5
	ANSI300	(in)	12.5	15
ØK	ANSI150	(in)	9.5	11.75
	ANSI300	(in)	10.62	13
n x Ød	ANSI150	(in)	8 x 7/8	8 x 7/8
	ANSI300	(in)	12 x 7/8	12 x 1

Weights

Fig. 470	ANSI150	(lbs)	236	448
	ANSI300	(lbs)	291	483
Fig. 471	ANSI150	(lbs)	414	--
	ANSI300	(lbs)	448	--

max. permissible thrust

Fig. 470	(lbf)	25179
Fig. 471	(lbf)	15737

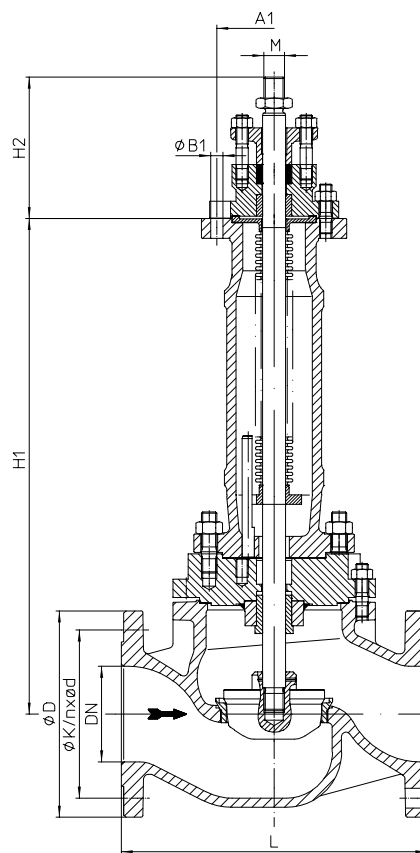


Fig. 471...90
NPS 6"
(e.g.: DP34T-35; AUMA 14.2)



Control valve in straightway form with butt weld ends

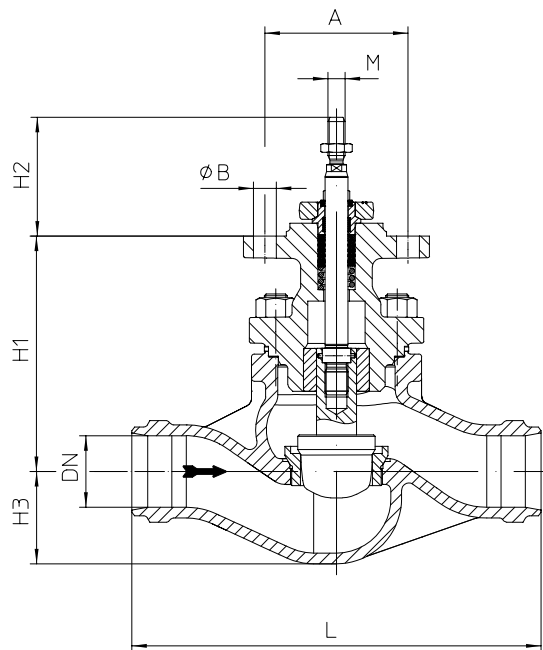


Fig. 470...4...90
NPS 1"-6"

(e.g.: DP32-34; PREMIO 2.2 kN (495 lbf) - 25 kN (5620 lbf); AUMA 07.2-10.2)

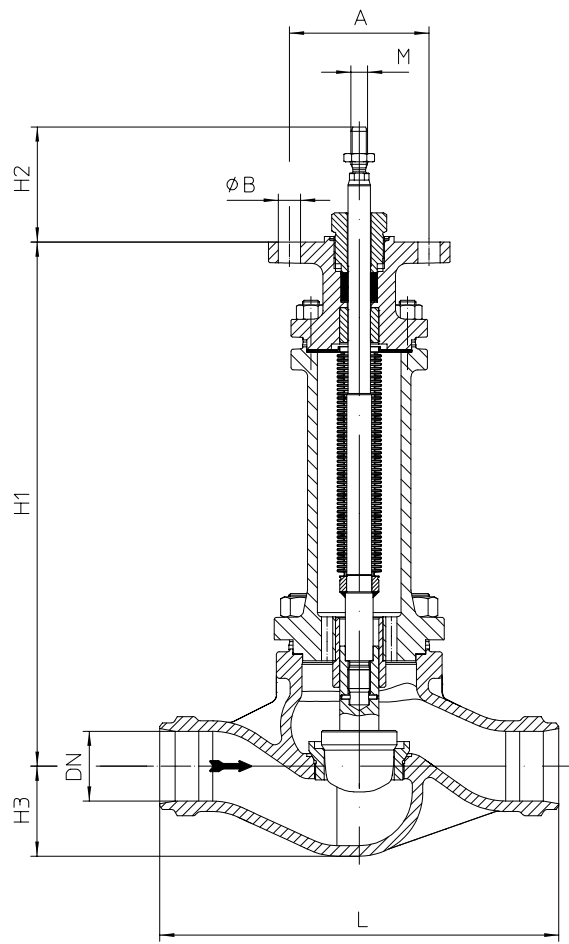


Fig. 471...4...90
NPS 1"-6"

(e.g.: DP32-34; PREMIO 2.2 kN (495 lbf) - 25 kN (5620 lbf); AUMA 07.2-10.2)

NPS			1"	1 1/2"	2"	3"	4"	6"
Dimensions								
M	Fig. 470	(mm)	M10	M12		M16 x 1.5		
	Fig. 471	(mm)	M12		M14 x 1.5			
H1	Fig. 470	(in)	5.28	6.5	6.5	7.64	7.72	10.08
	Fig. 471	(in)	11.46	14.8	14.8	15.51	16.69	22.95
H2	Fig. 470 / 471	(in)	3.27					
H3	Fig. 470 / 471	(in)	1.97	2.76	2.76	3.94	4.53	6.3
A	Fig. 470 / 471	(in)	3.94					
ØB	Fig. 470 / 471	(in)	0.63					
Face-to-face dimension according to ANSI / ISA - 75.08.05-2016								
L	(in)		8.25	9.88	11.25	13.25	15.5	20
Butt weld ends similar to ANSI B16.25 (refer to page 27)								
Weights								
Fig. 470	ANSI300	(lbs)	18	31	33	62	95	181
Fig. 471	ANSI300	(lbs)	20	35	37	73	106	212
max. permissible thrust								
Fig. 470	(lbf)		2855	4092		9127		
Fig. 471	(lbf)		4092		6654		9127	

Control valve in straightway form with butt weld ends

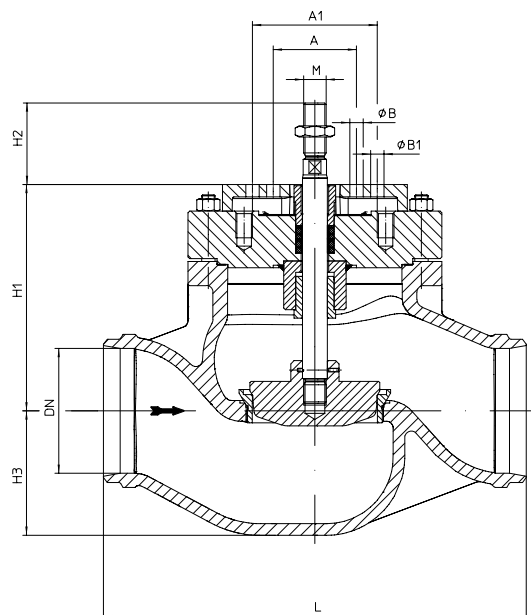


Fig. 470...4...90
NPS 6"
(e.g.: DP34T-34Tri)

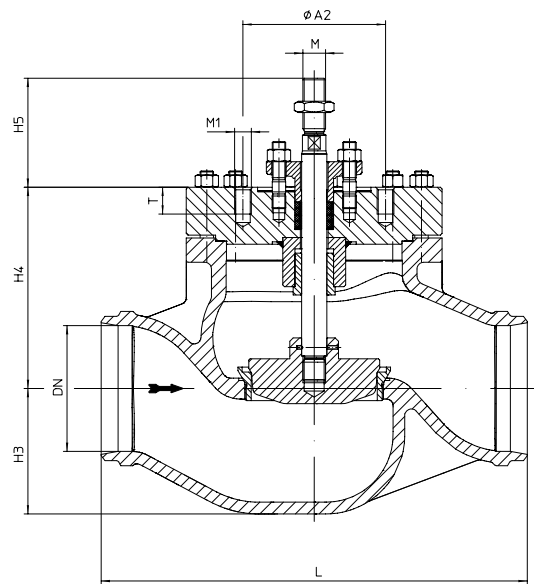


Fig. 470...4...90
NPS 6"
(e.g.: DP35; AUMA 14.2-14.6)

NPS		6"	
Dimensions			
M	Fig. 470 / 471	(mm)	M27
H1	Fig. 470	(in)	10.71
	Fig. 471	(in)	26.73
H2	Fig. 470	(in)	3.86
	Fig. 471	(in)	7.28
H3	Fig. 470 / 471	(mm)	6.3
H4	Fig. 470	(in)	9.45
H5	Fig. 470	(in)	5.12
A	Fig. 470	(in)	3.94
n x ØB	Fig. 470	(in)	2 x 0.62
A1	Fig. 470 / 471	(in)	5.91
n x ØB1	Fig. 470 / 471	(in)	4 x 0.62
A2	Fig. 470	(in)	6.69
n x M1	Fig. 470	(mm)	8 x M20
T	Fig. 470	(in)	1.26
Face-to-face dimension according to ASME / ISA - 75.08.05-2016			
L		(in)	20
Butt weld ends similar to ANSI B16.25 (refer to page 27)			
Weights			
Fig. 470	ANSI300	(lbs)	216
Fig. 471	ANSI300	(lbs)	289
max. permissible thrust			
Fig. 470		(lbf)	25179
Fig. 471		(lbf)	15737

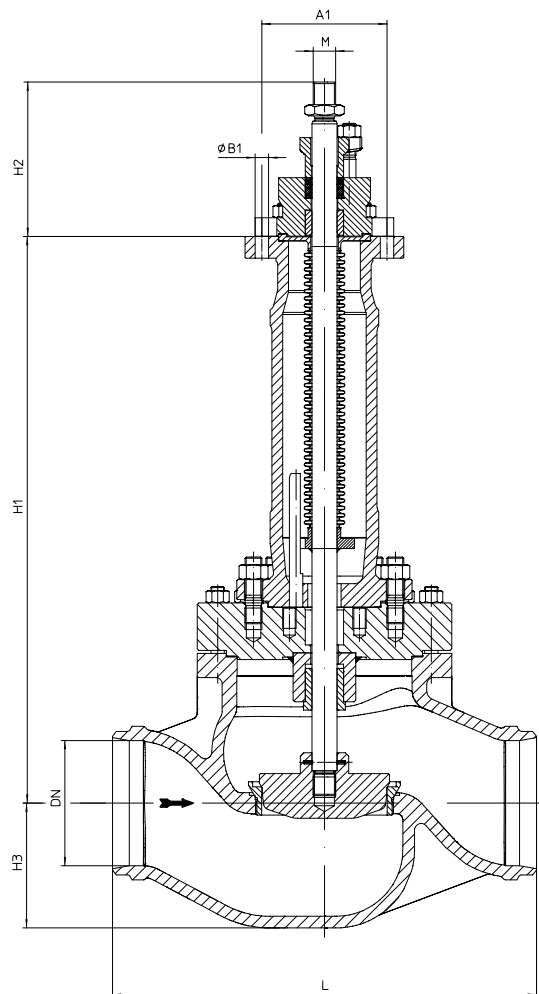
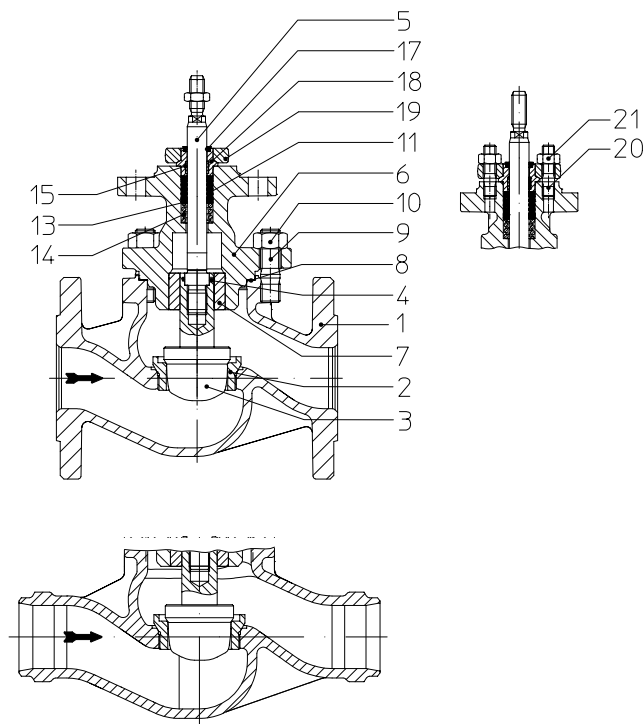
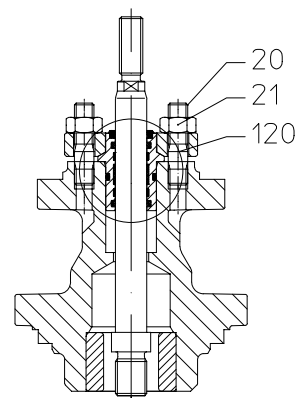


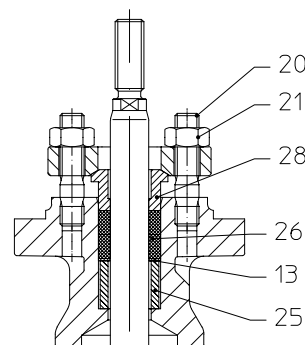
Fig. 471...4...90
NPS 6"
(e.g.: DP34T-35; AUMA 14.2)



I. PTFE-V-ring unit



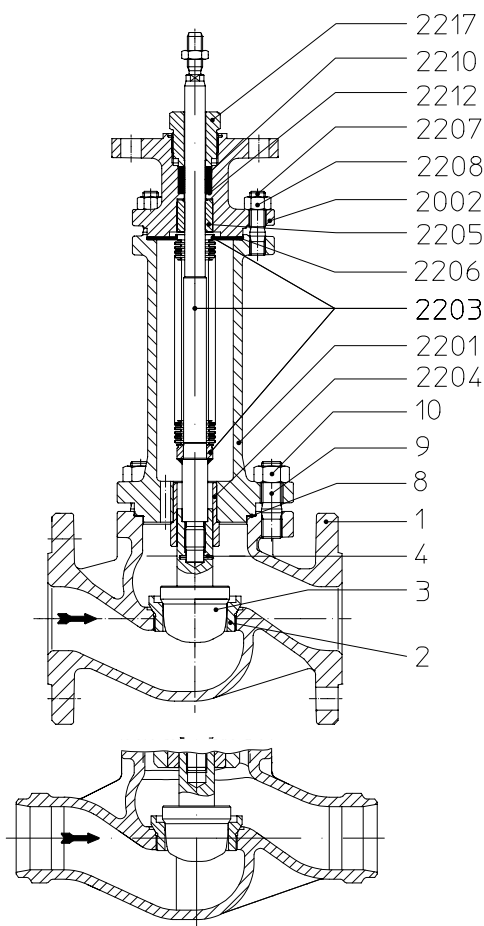
I. EPDM-sealing



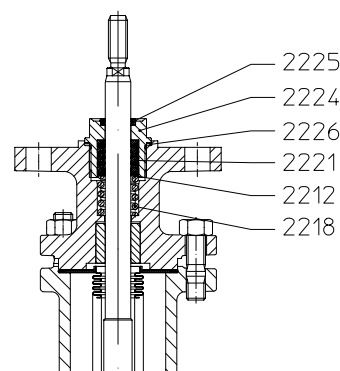
II. PTFE- / pure graphite-packing

Pos.	Sp.p.	Description	Fig. 32.470...90 / Fig. 35.470...90
1		Body	SA216WCB
2	x	Seat ring	SA276Gr.420 ¹⁾
3	x	Plug	SA276Gr.420 ¹⁾
4	x	Clamping sleeve	A2
5	x	Spindle	SA276Gr.420 ¹⁾
6		Mounting bonnet	SA216WCB
7		Guide bushing	SA276Gr.420 ¹⁾ (hardened)
8	x	Gasket	Pure graphite (CrNi laminated with graphite)
9		Stud	SA193-B7
10		Hexagon nuts	SA194-2H
11		V-ring unit	PTFE
13		Washer	SA240Gr.304
14		Compression spring	AISI301 A313Gr.301
15		Guide bush	PTFE25%C
17		Scraper	PTFE
18		Stem guiding	AISI303
19		Packing box flange	SA105
20		Stud	A4-70
21		Hexagon nuts	A4
25	x	Distance bush	SA276Gr.420 ¹⁾
26	x	Packing ring	PTFE or Pure graphite
28	x	Packing follower	SA276Gr.420 ¹⁾
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 / AISI303
26	x	Packing ring	PTFE / SA276Gr.420 ¹⁾
26	x	Packing ring	Pure graphite / SA276Gr.420 ¹⁾
L Spare parts			

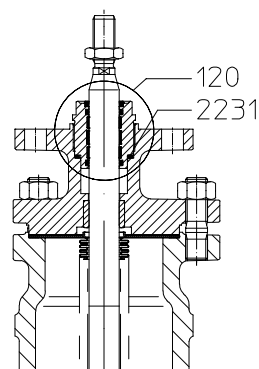
¹⁾ Heat treatment acc. to EN



III. Stainless steel bellows seal with PTFE-packing / Pure graphite-packing



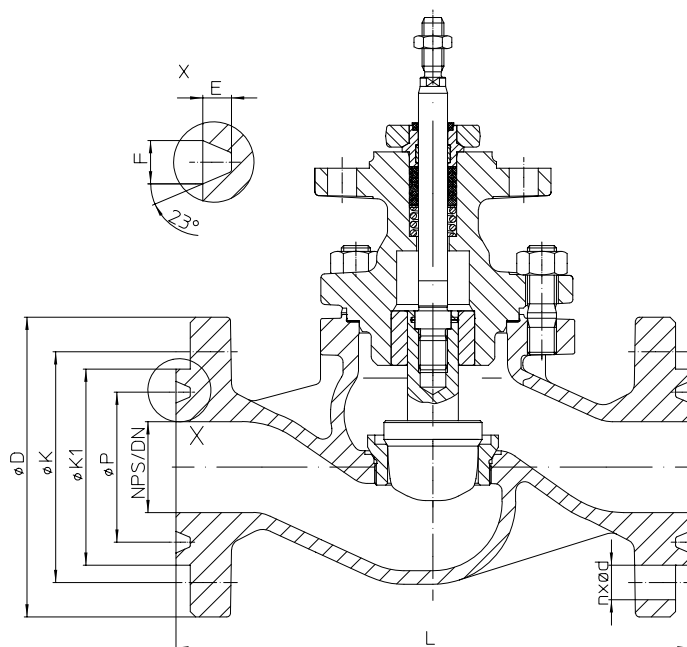
III. Stainless steel-bellows with V-ring unit



III. Stainless steel bellows seal with EPDM-sealing

Pos.	Sp.p.	Description	Fig. 32.471...90 / Fig. 35.471...90
1		Body	SA216WCB
2	x	Seat ring	SA276Gr.420 ¹⁾
3	x	Plug	SA276Gr.420 ¹⁾
4	x	Clamping sleeve	A2
8	x	Gasket	Pure graphite (CrNi laminated with graphite)
9		Stud	SA193-B7
10		Hexagon nuts	SA194-2H
2201		Bellows housing	SA216WCB
2202		Mounting bonnet	SA216WCB
2203	x	Stem- / Bellows unit	SA276Gr.420 ¹⁾ / SA240Gr.321
2204		Guide bushing	SA276Gr.420 ¹⁾ (hardened)
2205		Guide bushing	SA276Gr.420 ¹⁾ (hardened)
2206	x	Gasket	Pure graphite (CrNi laminated with graphite)
2207		Stud	SA 193 B7
2208		Hexagon nuts	SA 194 2H
2210	x	Packing ring	Pure graphite
2212	x	Washer	SA 240 Gr. 304
2217	x	Coupling	AISI 303
2218		Compression spring	AISI301
2212		Washer	SA240Gr.304
2221		V-ring unit	PTFE
2224		Coupling	AISI303
2225		Scraper	PTFE
2226		Gasket	SA479Gr.316Ti
2231	x	Gasket	Cu
Stem sealings Fig. 471....90			
2010	x	Packing ring	Pure graphite or PTFE
100	x	V-ring unit (set)	Set of: Pos. 2212, 2218, 2221, 2224, 2225, 2226
120	x	EPDM-sealing, cpl.	EPDM / AISI303
		^L Spare parts	

¹⁾ Heat treatment acc. to EN



NPS			1"	1 1/2"	2"	3"	4"	6"	8"
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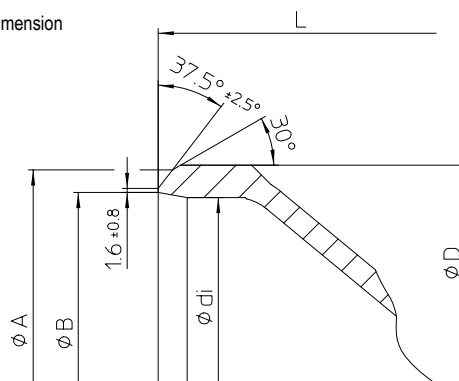
Face-to-face dimension Form RTJ

L	ANSI150	(in)	7.76	9.25	10.51	12.24	14.37	18.27	21.89
	ANSI300	(in)	8.27	9.76	11.14	13.15	15.12	19.25	22.99

Flanges acc. to ASME B16.5 (Ring-Joint Facing)

øP	ANSI150	(in)	1.875	2.562	3.25	4.5	5.875	7.625	9.75
	ANSI300	(in)	2	2.688	3.25	4.875	5.875	8.312	10.625
E	ANSI150	(in)	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	ANSI300	(in)	0.25	0.25	0.312	0.312	0.312	0.312	0.312
F	ANSI150	(in)	0.344	0.344	0.344	0.344	0.344	0.344	0.344
	ANSI300	(in)	0.344	0.344	0.469	0.469	0.469	0.469	0.469
ø K1	ANSI150	(in)	2.5	3.25	4	5.25	6.75	8.62	10.75
	ANSI300	(in)	2.75	3.56	4.25	5.75	6.88	9.5	11.88
øD	ANSI150	(in)	4.25	5	6	7.5	9	11	13.5
	ANSI300	(in)	4.88	6.12	6.5	8.25	10	12.5	15
øK	ANSI150	(in)	3.12	3.86	4.75	6	7.5	9.5	11.75
	ANSI300	(in)	3.5	4.5	5	6.62	7.88	10.62	13
n x ød	ANSI150	(n x in)	4 x 5/8	4 x 5/8	4 x 3/4	4 x 3/4	8 x 3/4	8 x 7/8	8 x 7/8
	ANSI300	(n x in)	4 x 3/4	4 x 7/8	8 x 3/4	8 x 7/8	8 x 7/8	12 x 7/8	12 x 1

L = Face-to-face dimension



NPS	1"	1 1/2"	2"	3"	4"	6"
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Butt weld ends similar to ASME B16.25 (Schedule 40)

L	Fig. 470 / 471	(in)	8.27	9.88	11.26	13.27	15.51	20
ØA	Fig. 470 / 471	(in)	1.32	1.9	2.38	3.59	4.63	6.78
ØB	Fig. 470 / 471	(in)	1.05	1.61	2.07	3.07	4.03	6.07
Ødi	Fig. 470 / 471	(in)	0.98	1.57	1.97	3.15	3.94	5.91
ØD	Fig. 470 / 471	(in)	1.57	2.24	2.64	3.94	4.92	6.93

Butt weld ends similar to ASME B16.25 (Schedule 80)

L	Fig. 470 / 471	(in)	8.27	9.88	11.26	13.27	15.51	20
ØA	Fig. 470 / 471	(in)	1.32	1.9	2.38	3.59	4.63	6.78
ØB	Fig. 470 / 471	(in)	0.96	1.5	1.94	2.9	3.83	5.76
Ødi	Fig. 470 / 471	(in)	0.98	1.57	1.97	3.15	3.94	5.91
ØD	Fig. 470 / 471	(in)	1.57	2.24	2.64	3.94	4.92	6.93

Face-to-face dimension according to ANSI / ISA - 75.08.05-2016

Butt weld ends similar to ASME B16.25 (Schedule 40 or Schedule 80)

The material used for ARI valves with butt weld ends are: SA 216 WCB acc. to ASME B16.5

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.

