HTS-10 Single Seated Control Valve

HTS-10[1] quick-change type single seated control valve includes **HTS-10000** straight-through single seated control valve, **HTS-10010** single seated control valve with totally-insulated body jacket, **HTS-10020** single seated control valve with semi-insulated body jacket, **HTS-10100** angular single seated control valve and **HTS-10110** angular single seated control valve with totally-insulated body jacket.

The type of valves has compact structure, low pressure drop loss, high flow, wide rangeability and high flow feature accuracy, meeting IEC60534-2-1-2011 standard. Leakage of the control valves meets ANSI FCI 70-2-2013 standard. With multi-spring diaphragm or cylinder actuator, the control valve has compact structure and high output force. The products meet GB/T4213-2008 standard.

Standard specification

Body

Type	HTS-10000、HTS-10100、HTS-10110		HTS-10010、HTS-10020	HTS-10110
Nominal size DN	10、15、20、25、32、40、50、65、80、100、125、150、200、250	25、32、40、50、65、80、100、125、150	10、15、20、25、32、40、50、65、80、100、150	40、50、65、80、100、150、200
Nominal pressure	Class 150、300、600; PN16、20、25、40、50、63、100、110	Class 900、1500、2500; PN150、160、220、250、260、320、420	Class 150、300、600; PN6、10、16、20、25、40、50、63、100、110	Class 150、300、600、900、1500、2500; PN6、10、16、20、25、40、50、63、100、110 、150、160、220、250、260、320、420
Type of connection	Flanged：FF、RF、RJ、TG、MFM Welded： SW（10~50mm）; BW（65~250mm） SW (10~50мм); BW (65~250мм)	Flanged：RF、RJ Welded： SW（25~50mm）; BW（65mm~）	Flanged: FF, RF, RJ, TG, MFM	Flanged：RF、RJ Welded： SW（40~50mm）; BW（65~200mm）
	Flange standard：JB/T79.1(PN16)；JB/T79.2(PN40、63)；ASME B16.5；HG20592；HG20615			
Size	See Table 5			
Body and upper bonnet material	WCB, WC6, CF8, CF8M, CF3M, Ti and other alloys. Please see Table 1 and Table 2 (bar material only for DN10 and DN15 bodies) for application temperature • pressure ranges of various materials.			
Type of upper bonnet	Normal temperature type (P)：-17~+250℃ Extension type I (EI):-45~-17℃ and +250~+566℃ Extension type II (EII)：-100~-45℃ and +566~+650℃			
Type of gland	Bolted gland			
Packing	V type PTFE and graphite packing. See 2			
Gasket	3 (316L)	Flat and zigzag types (SS 316L, other alloys)		
Покрытие поверхности Surface coating	Dark gray (epoxy resin). No coating for the body if it is made of stainless steel.			

Note [1]: HTS-10 corresponding to old model HLS/HTS;

Trim

Type of plug	Single seated plunger type
Trim material and Trim treatment	See Table 1 and Figure 1 for standard material combination and application temperature • pressure range
Flow feature	See Fig. 4-1 for high-capacity flow feature ● Equal percentage feature (%F) and linear feature (LF) See Fig. 4-2 for high-accuracy flow feature ● Equal percentage feature (%) and linear feature (L) **Note: See Fig. 1-2 for operating temperature and differential pressure of PTFE seat**

Actuator

Model / **Specification**	Pneumatic diaphragm type	Cylinder piston type	Electronic type	Electric type	Intelligent type
	HA	HV	EIL	RS4	M8 series
	Multi-spring type	Single-action and dual-action piston type			
Purpose	Regulation	Regulation	Regulation		
Air supply pressure or power supply voltage	Air supply pressure (spring range) 500kPa	Air supply pressure 500kPa	Voltage：220 /380V 50HZ Input signal：4~20mA DC		
Connector	Air piping: NPT1/4（HA11~HA41）; NPT 1/2（HA51）	Air piping: NPT 1/4（HV21~31）; NPT 3/8（HV41~51）; NPT 1/2（HV61~71）; NPT 3/4（HV81）	Wiring: 2~PF3/4	Wiring: 2~G1/2	Wiring: PG13.5
Direct action	Air to valve close	Air to valve close	Input signal to valve close		
Reverse action	Air to valve open	Air to valve open	Input signal to valve open		
Intrinsic error	±1.5%		±1.5%		
Hysteresis error	1.5%		1.5%		
Ambient temperature	Standard type: -30~+70℃ High temperature type: -15~+120℃ Low temperature type: -40~+70℃	Standard type:~20~+80℃ High temperature type:~15~+120℃ Low temperature type: ~ 40~ + 80℃	-20~+70℃		
Paint color	Aqua blue (color code RAL5021)				
Accessories	Positioner, air filtration reducer, lock-up valve, valve location transmitter, hand wheel, etc.	Positioner, air filtration reducer, lock-up valve, valve location transmitter, hand wheel, etc.	EIL actuator handwheel	RS actuator handwheel	M8 actuator handwheel

Performance

CV value and stroke	See Table 3
Seat leakage	See Table 1
Rangeability	50：1 (0.25≤Cv) or 30：1 (Cv≤0.16)
Allowable differential pressure	See Table 4
Weight	See Table 5

Table 1 Material combination and application temperature of body and trim • Allowable leakage of valve seat

- R.TFE: Reinforced PTFE
- HT: Heat treatment
- ST: Stellite
- SS: Partial stellite
- SF: Full stellite

Table 1-1 Body material: carbon steel

HTS~10000、HTS~10100、HTS~10110（Class150~Class600，PN16~PN110）

Body material		WCB, WC6, LCB		
Plug	**Material**	304/316	304/316	304/316
	Treatment	-	R.TFE	SS/SF
Valve seat	**Material**	304/316	304/316	304/316
	Treatment	-	-	SS/SF
Guide	**Material**	420	420	420
	Treatment	HT	HT	HT
Gasket	**Material**	316L	316L	316L
Allowable leakage of valve seat	**ANSI**	Class IV	Class VI	Class IV
	Rated Cv×	0.01%	Bubble~tight	0.01%
Application temperature ℃	**WCB Body**	-29~+425	-29~+250	-29~+425
	WC6 Body	-29~+566	-29~+250	-29~+595
	LCB Body	-45~+345	-45~+250	-45~+345

HTS~10000、HTS~10100、HTS~10110（Class900~2500，PN150~PN420）

Body material		WCB, WC6, LCB		
Plug	**Material**	410	304/316	304/316
	Treatment	HT	SS	SF
Valve seat	**Material**	410	304/316	304/316
	Treatment	HT	SS	SF
Guide	**Material**	630	630	630
	Обработка Treatment	HT	HT	HT
Gasket	**Material**	316L	316L	316L
Allowable leakage of valve seat	**ANSI**	Class IV	Class IV	Class IV
	Rated Cv×	0.01%	0.01%	0.01%
Application temperature ℃	**WCB Body**	-29~+425		
	WC6 Body	-29~+595		
	LCB Body	-45~+345		

HTS~10010/10020

Body material		WCB, WC6		
Plug	**Material**	304/316	304/316	304/316
	Treatment	-	R.TFE	SS/SF
Valve seat	**Material**	304/316	304/316	304/316
	Treatment	-	-	SS/SF
Guide	**Material**	420	420	420
	Treatment	HT	HT	HT
Gasket	**Material**	316L	316L	316L
Jacket	**Material**	A3	A3	A3
Allowable leakage of valve seat	**ANSI**	Class IV	Class VI	Class IV
	Rated Cv×	0.01%	Bubble~tight	0.01%
Application temperature ℃	**WCB Body**	-29~+425	-29~+250	-29~+425
	WC6 Body	-29~+595		-29~+595

Table 1-2 Body material: Stainless steel

Chongqing Chuanyi Control Valve Co., Ltd.

HTS~10000、HTS~10100、HTS~10110（Class150~Class600，PN16~PN110）

Body material		CF8, CF8M,CF3M		
Plug	**Material**	304/316/316L	304/316	304/316/316L
	Treatment	-	R.TFE	SS/SF
CValve seat	**Material**	304/316/316L	304/316/316L	304/316/316L
	Treatment	-	-	SS/SF
Guide	**Material**	304/316/316L	304/316/316L	304/316/316L
	Treatment	-	R.TFE	ST
Gasket	**Material**	316L	316L	316L
Allowable leakage of valve seat	**ANSI**	Class IV	Class VI	Class IV
	Rated Cv×	0.01%	Bubble~tight	0.01%
Application temperature ℃		-100~+650	-100~+250	-100~+650

HTS~10000、HTS~10100、HTS~10110（Class900~2500，PN150~PN420）

Body material		CF8, CF8M, CF3M	
Plug	**Material**	304/316/316L	304/316/316L
	Treatment	SS	SF
Valve seat	**Material**	304/316/316L	304/316/316L
	Treatment	SS	SF
Guide	**Material**	304/316/316L	304/316/316L
	Treatment	ST	ST
Gasket	**Material**	316L	316L
Allowable leakage of valve seat	**ANSI**	Class IV	Class IV
	Rated Cv×	0.01%	0.01%
Application temperature ℃		-100~+650	

HTS~10010/10020

Body material		CF8, CF8M, CF3M		
Plug	**Material**	304/316/316L	304/316	304/316/316L
	Treatment	-	R.TFE	SS/SF
Valve seat	**Material**	304/316/316L	304/316/316L	304/316/316L
	Treatment	-	-	SS/SF
Guide	**Material**	304/316/316L	304/316/316L	304/316/316L
	Treatment	ST	R.TFE	ST
Gasket	**Material**	316L	316L	316L
Jacket	**Material**	304	304	304
Allowable leakage of valve seat	**ANSI**	Class IV	Class VI	Class IV
	Rated Cv×	0.01%	Bubble~tight	0.01%
Application temperature ℃		-100~+650	-100~+250	-100~+650

Table 2 Application temperature • pressure range of body material

Table 2-1

Unit: MPa

Temperature℃	Class150					Class300					Class600				
	LCB	WCB A105	WC6 F11	F304 CF8	F316 CF8M	LCB	WCB A105	WC6 F11	F304 CF8	F316 CF8M	LCB	WCB A105	WC6 F11	F304 CF8	F316 CF8M
-196~38	-	-	-	1.90	1.90	-	-	-	4.95	4.95	-	-	-	9.91	9.92
-45~38	1.84	-	-	1.90	1.90	4.78	-	-	4.95	4.95	9.57	-	-	9.91	9.92
-5~38	1.84	1.96	1.99	1.90	1.90	4.78	5.10	5.16	4.95	4.95	9.57	10.2	10.32	9.91	9.92
~50	1.81	1.92	1.92	1.84	1.84	4.72	5.00	5.16	4.77	4.80	9.46	10.1	10.32	9.56	9.62
~100	1.72	1.76	1.76	1.56	1.61	4.51	4.63	5.14	4.08	4.21	9.02	9.27	10.29	8.17	8.43
~150	1.57	1.57	1.57	1.39	1.47	4.40	4.51	5.01	3.62	3.85	8.78	9.04	10.03	7.26	7.69
~200	1.40	1.40	1.40	1.25	1.37	4.26	4.38	4.88	3.27	3.56	8.54	8.75	9.75	6.54	7.12
~250	1.20	1.20	1.20	1.16	1.20	4.05	4.16	4.62	3.04	3.34	8.11	8.33	9.26	6.10	6.67
~300	1.01	1.01	1.01	1.01	1.01	3.76	3.87	4.23	2.91	3.15	7.54	7.74	8.48	5.80	6.32
~350	0.84	0.84	0.84	0.84	0.84	3.59	3.69	4.01	2.81	3.03	7.18	7.38	8.04	5.60	6.07
~375	-	0.73	0.73	0.73	0.73	-	3.64	3.88	2.77	2.96	-	7.28	7.75	5.54	5.93
~400	-	0.64	0.64	0.64	0.64	-	3.44	3.65	2.74	2.91	-	6.89	7.31	5.48	5.81
~425	-	0.55	0.55	0.55	0.55	-	2.88	3.44	2.71	2.87	-	5.74	6.91	5.42	5.72
~450	-	0.47	0.47	0.47	0.47	-	1.99	3.08	2.68	2.81	-	4.00	6.17	5.37	5.61
~475	-	0.37	0.37	0.37	0.37	-	1.35	2.58	2.65	2.73	-	2.70	5.17	5.30	5.46
~500	-	0.28	0.28	0.28	0.28	-	0.88	2.02	2.60	2.67	-	1.75	4.04	5.20	5.37
~525	-	0.18	0.18	0.18	0.18	-	0.51	1.53	2.19	2.57	-	1.03	3.07	4.77	5.15
~550	-	-	-	-	-	-	-	1.20	2.00	2.40	-	-	2.40	4.00	4.60
~566	-	-	-	-	-	-	-	1.00	1.90	2.20	-	-	2.00	3.80	4.50

Unit: MPa

Температ Temperature ℃	Class900					Class1500					Class2500				
	LCB	WCB A105	WC6 F11	F304 CF8	F316 CF8M	LCB	WCB A105	WC6 F11	F304 CF8	F316 CF8M	LCB	WCB A105	WC6 F11	F304 CF8	F316 CF8M
-196~38	-	-	-	14.88	14.88	-	-	-	24.79	24.79	-	-	-	41.34	41.34
-45~38	14.35	-	-	14.88	14.88	23.92	-	-	24.79	24.79	39.87	-	-	41.34	41.34
-5~38	14.35	15.31	15.50	14.88	14.88	23.92	25.51	25.84	24.79	24.79	39.87	42.52	43.07	41.34	41.34
~50	14.18	15.01	15.33	14.34	14.43	23.64	25.02	25.55	23.90	24.04	39.40	41.70	42.59	39.84	40.07
~100	13.52	13.90	14.62	12.25	12.65	22.53	23.16	24.36	20.42	21.09	37.56	38.62	40.61	34.01	35.14
~150	13.18	13.56	13.90	10.89	11.54	21.96	22.60	23.18	18.16	19.24	36.60	37.66	38.61	30.26	32.07
~200	12.79	13.14	13.63	9.82	10.69	21.32	21.89	22.73	16.37	17.83	35.53	36.50	37.88	27.28	29.71
~250	12.17	12.51	13.33	9.15	10.02	20.28	20.84	22.22	15.26	16.68	33.80	34.75	37.03	25.43	27.80
~300	11.30	11.61	12.72	8.71	9.49	18.84	19.36	21.20	14.52	15.80	31.40	32.26	35.33	24.20	26.34
~350	10.78	11.08	12.06	8.42	9.12	17.96	18.46	20.11	14.02	15.20	29.95	30.78	33.51	23.36	25.36
~375	-	10.94	11.63	8.32	8.91	-	18.22	19.38	13.86	14.84	-	30.37	32.32	23.12	24.74
~400	-	10.34	10.98	8.23	8.72	-	17.24	18.28	13.72	14.55	-	28.73	30.47	22.87	24.25
~425	-	8.62	10.53	8.14	8.59	-	14.37	17.54	13.57	14.32	-	23.94	29.23	22.63	23.87
~450	-	6.01	10.13	8.06	8.42	-	10.02	16.89	13.42	14.03	-	16.68	28.16	22.37	22.79
~475	-	4.06	9.50	7.97	8.20	-	6.76	15.82	13.27	13.67	-	11.28	26.36	22.13	22.34
~500	-	-	8.33	7.81	8.05	-	-	13.89	13.02	13.40	-	-	23.15	21.71	21.47
~525	-	-	6.08	7.15	7.73	-	-	10.12	11.94	12.89	-	-	16.88	19.88	20.79
~550	-	-	3.83	6.54	7.49	-	-	6.38	10.91	12.48	-	-	10.63	18.17	17.85
~575	-	-	2.55	6.02	7.22	-	-	4.24	10.04	12.04	-	-	7.08	16.72	15.20
~600	-	-	1.75	5.01	6.43	-	-	2.94	8.35	10.71	-	-	7.90	13.92	17.85
~625	-	-	-	3.92	5.48	-	-	-	6.54	9.12	-	-	-	10.89	15.20
~650	-	-	-	3.16	4.23	-	-	-	5.25	7.06	-	-	-	8.75	11.76
~675	-	-	-	2.33	3.78	-	-	-	3.88	6.31	-	-	-	6.45	10.53

Table 2-2 JB/T79-94 or HG20592-2009 Unit: MPa

Temperature ℃	PN16	PN40	PN63	PN100	TTemperature ℃	PN16	PN40	PN63	PN100
	WCB					CF8			
-5~200	1.60	4.00	6.30	10.0	-45~200	1.60	4.00	6.30	10.0
~250	1.40	3.50	5.40	9.00	~300	1.40	3.50	5.40	9.00
~300	1.20	3.00	4.80	7.50	~400	1.20	3.00	4.80	7.50
~350	1.10	2.60	4.00	6.60	~480	1.10	2.60	4.00	6.60
~400	0.90	2.30	3.70	5.80	~520	0.90	2.30	3.70	5.80
~425	0.80	2.00	3.20	5.00	~560	0.80	2.00	3.20	5.00
~435	0.70	1.80	2.80	4.50					
~445	0.62	1.60	2.50	4.20					
~455	0.57	1.40	2.30	3.60					

Fig. 1 Trim material • Treatment

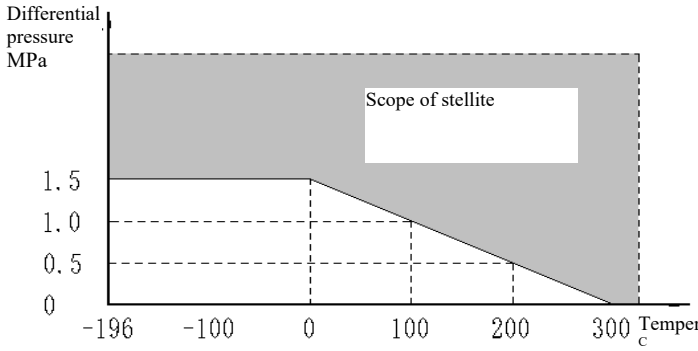


Fig. 1-1 Operating temperature and differential pressure ranges of Stellite

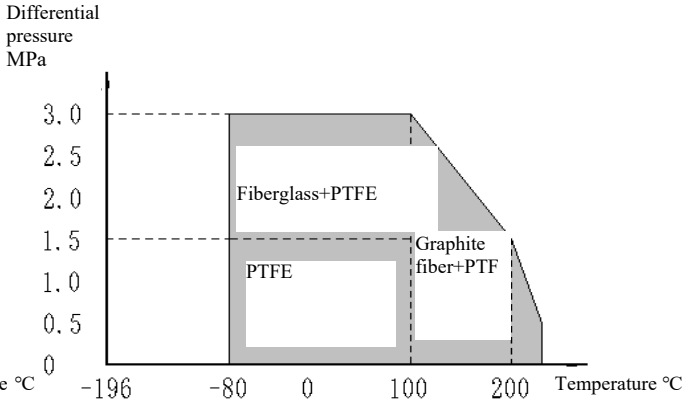


Fig. 1-2 Operating temperature and differential pressure ranges of flexible seat

Note: 1. 440C hardened stainless steel is suggested for cavitation and flashing or water temperature over 100℃.

2. Cavitation, flashing, oil prohibitive service or normally-closed status.

3. If Cv≤0.16, SF or 440 hardened stainless steel is used for plug.

Fig. 2 Application temperature • pressure range of packing

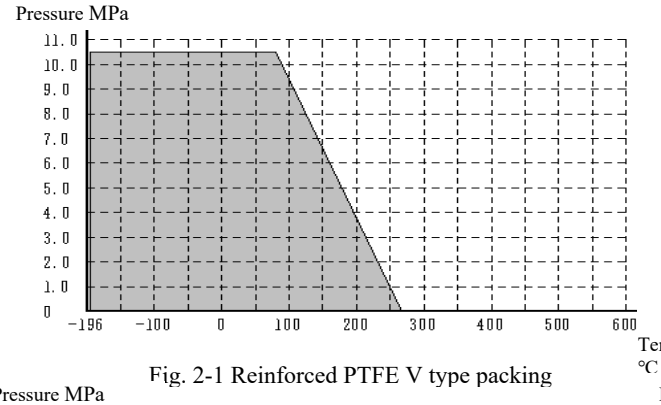


Fig. 2-1 Reinforced PTFE V type packing

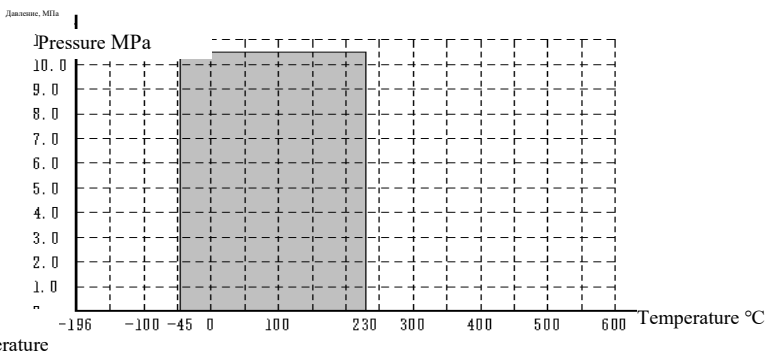


Fig. 2-2 PTFE carbon fiber

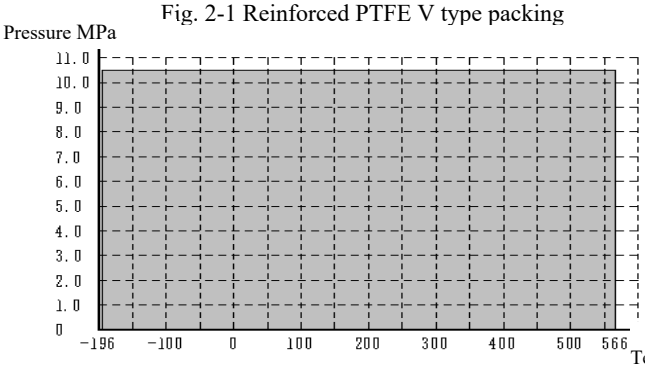


Fig. 2-3 Flexible graphite (non-oxidation environment)

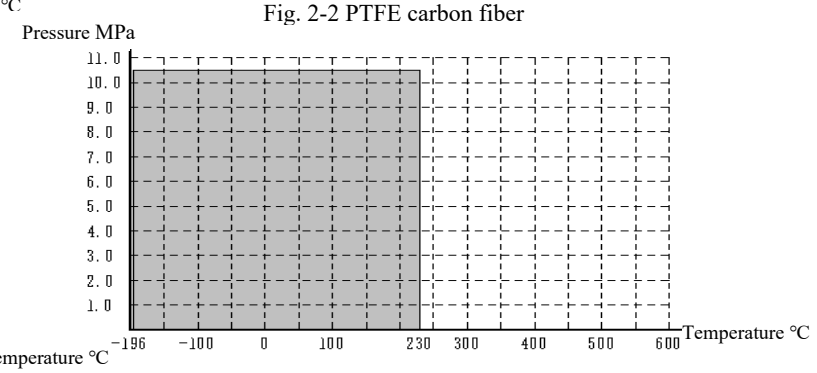
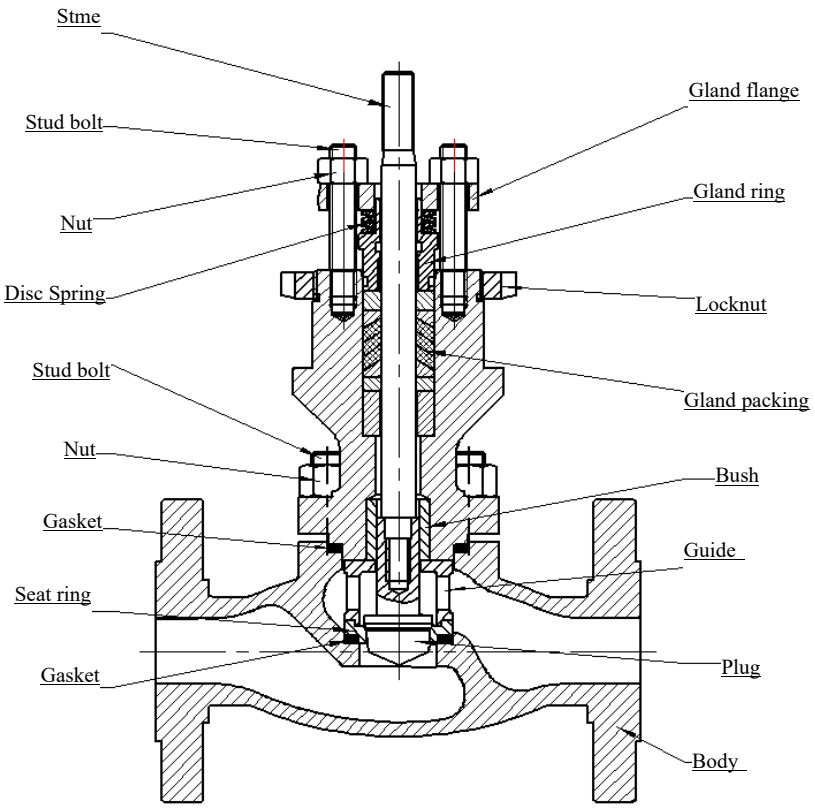
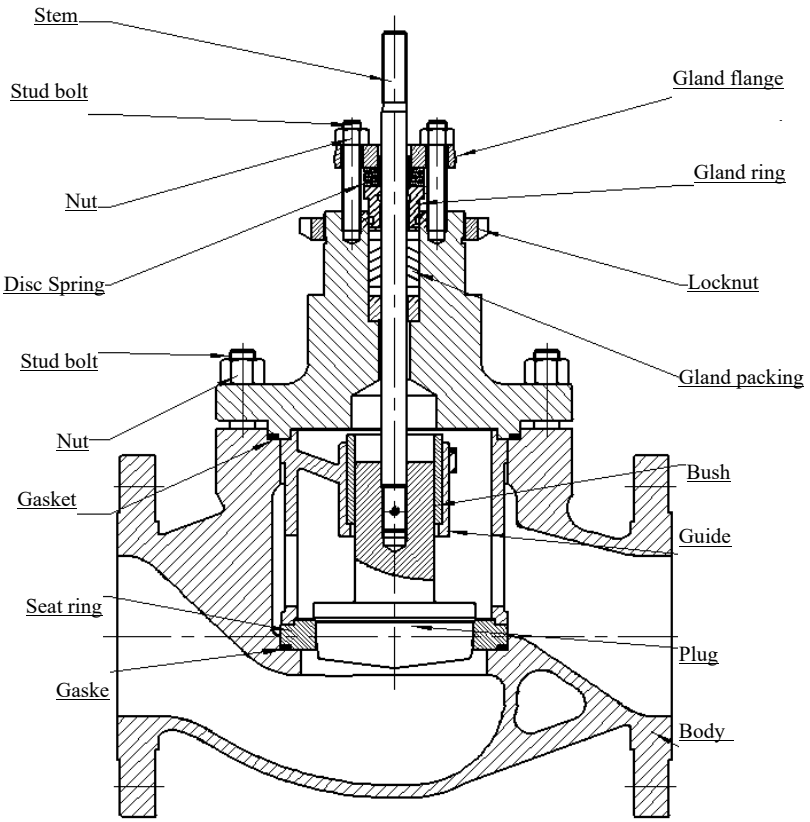


Fig. 2-4 Flexible graphite (oxidation environment)

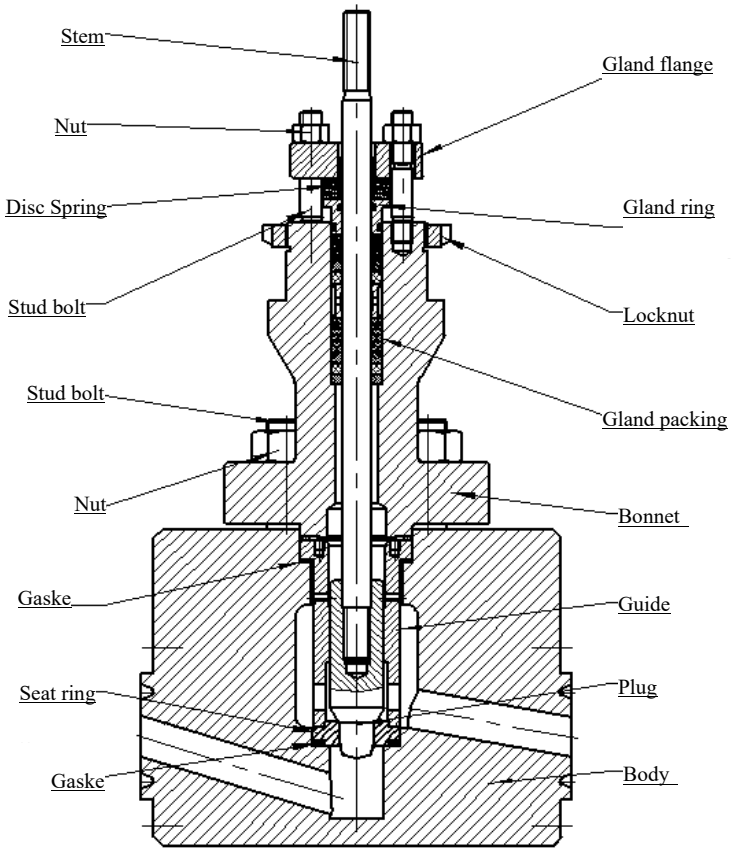
Fig. 3 Structure of body components



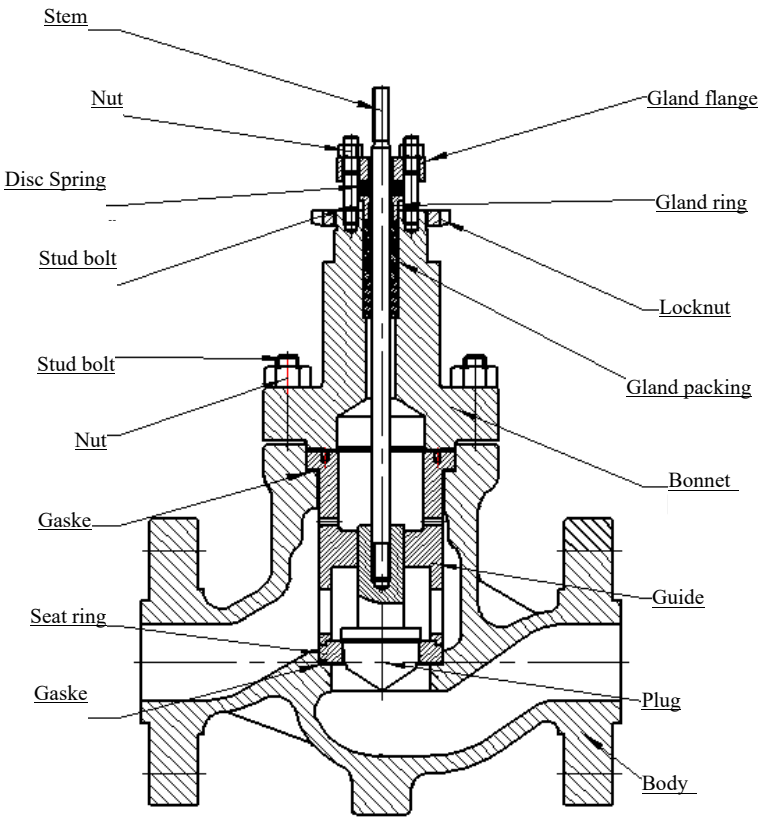
HTS~10000 Class150~600 PN16~100 DN15~25



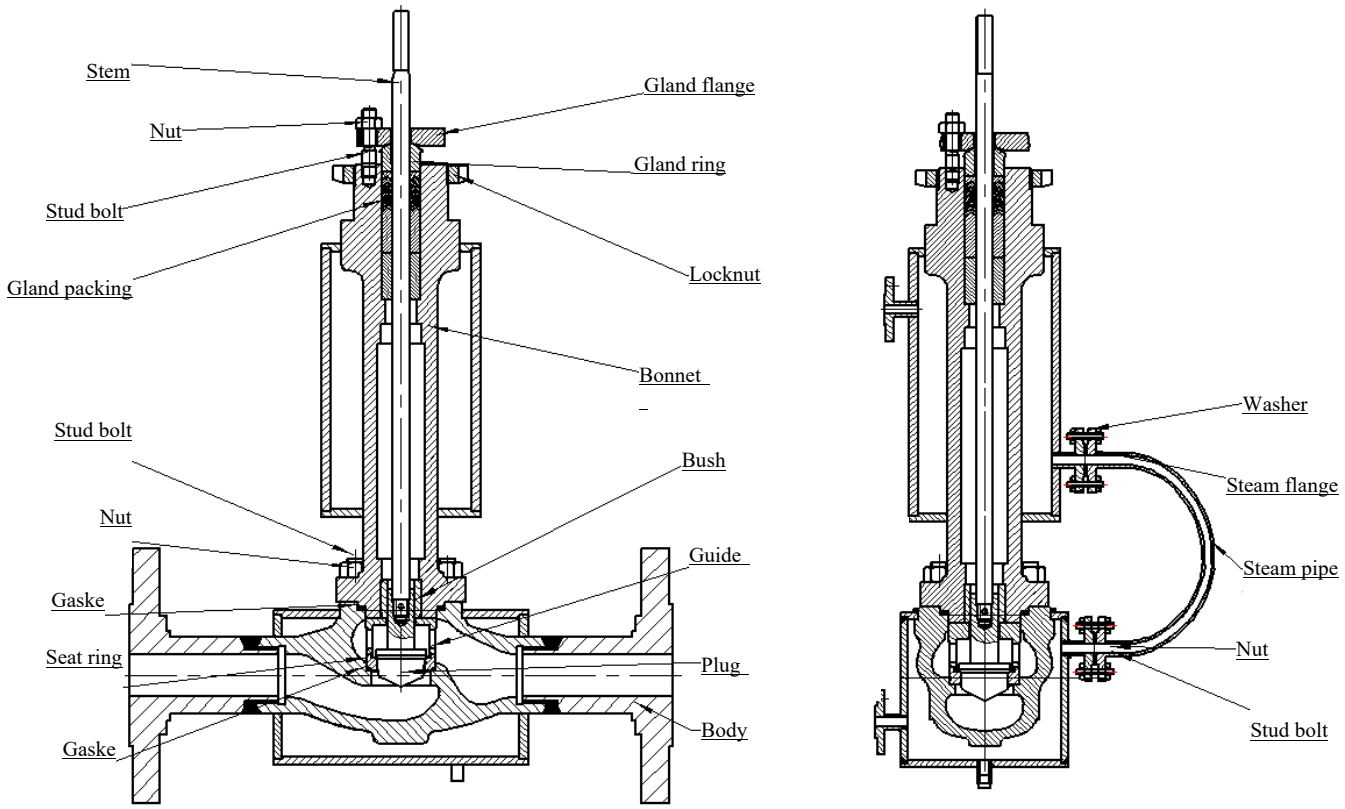
HTS~10000 Class150~600 PN16~100 DN32~200



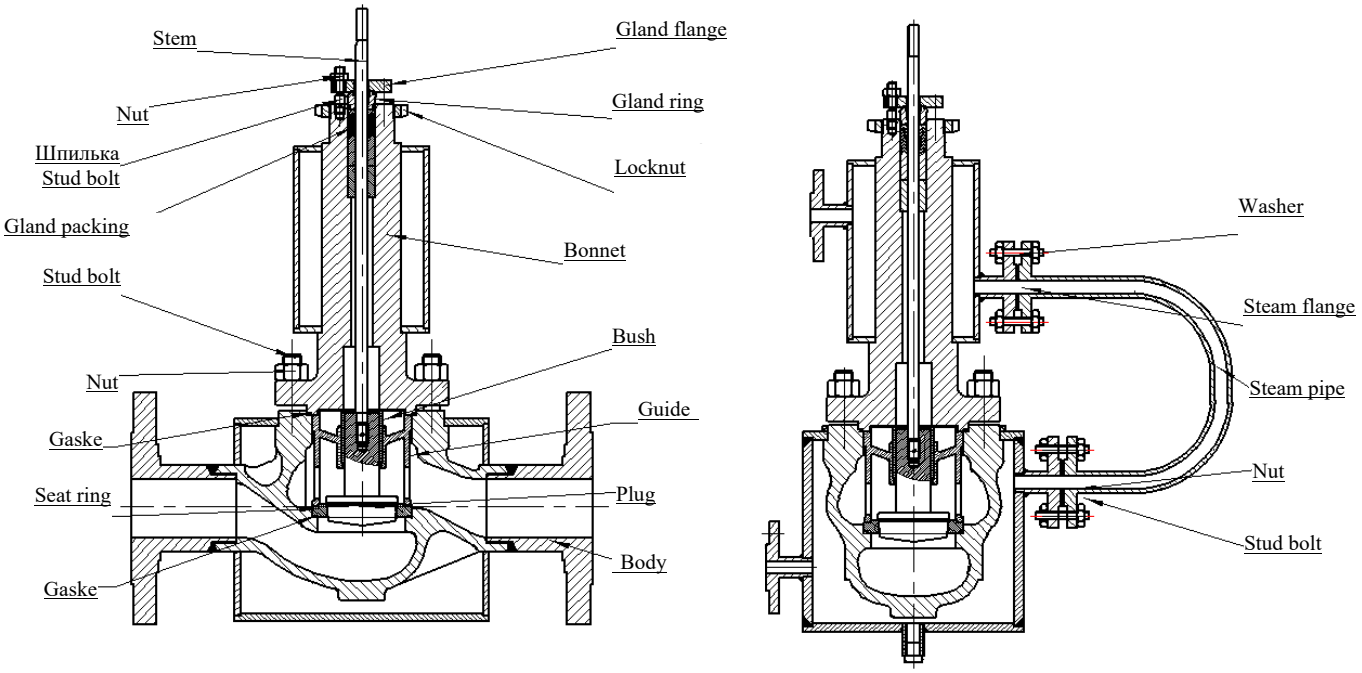
HTS~10000 Class900~2500 DN15~25



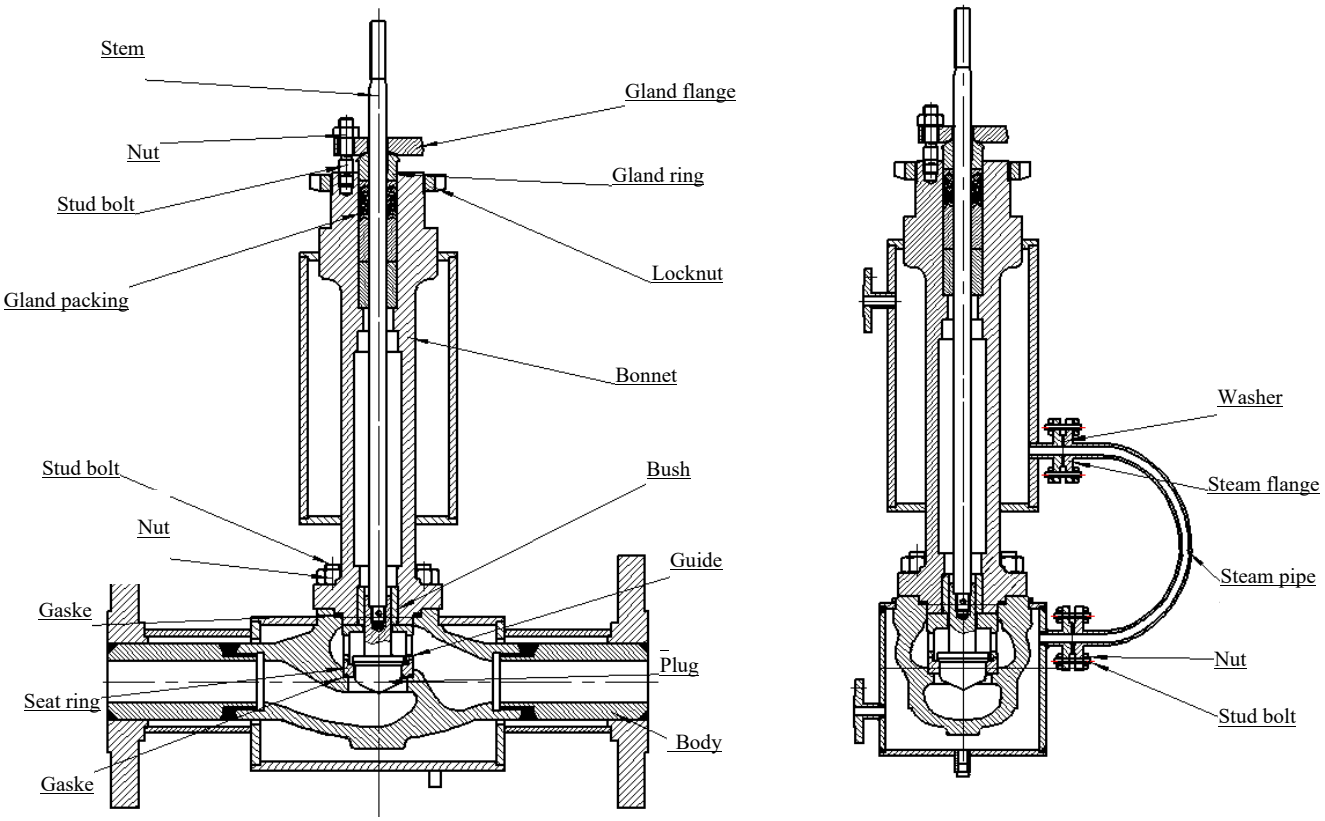
HTS~10000 Class900~2500 DN32~80



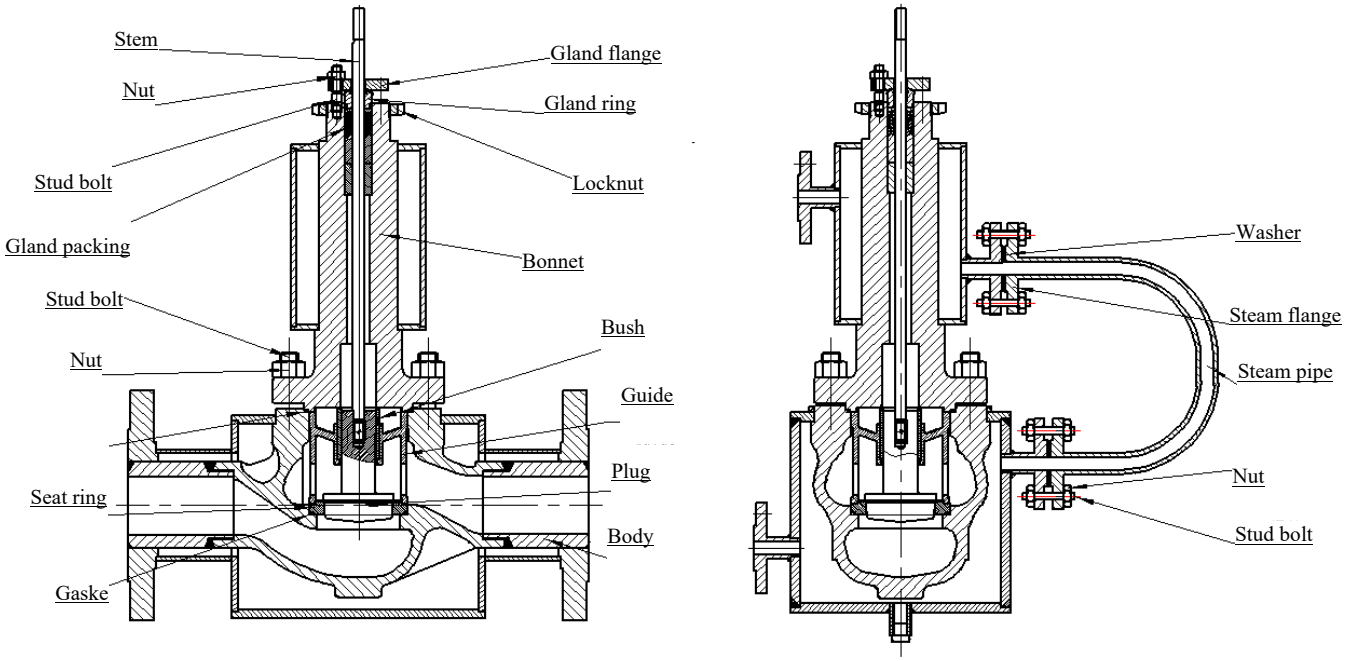
HTS~10020 Class150~600 PN16~100 DN15~25



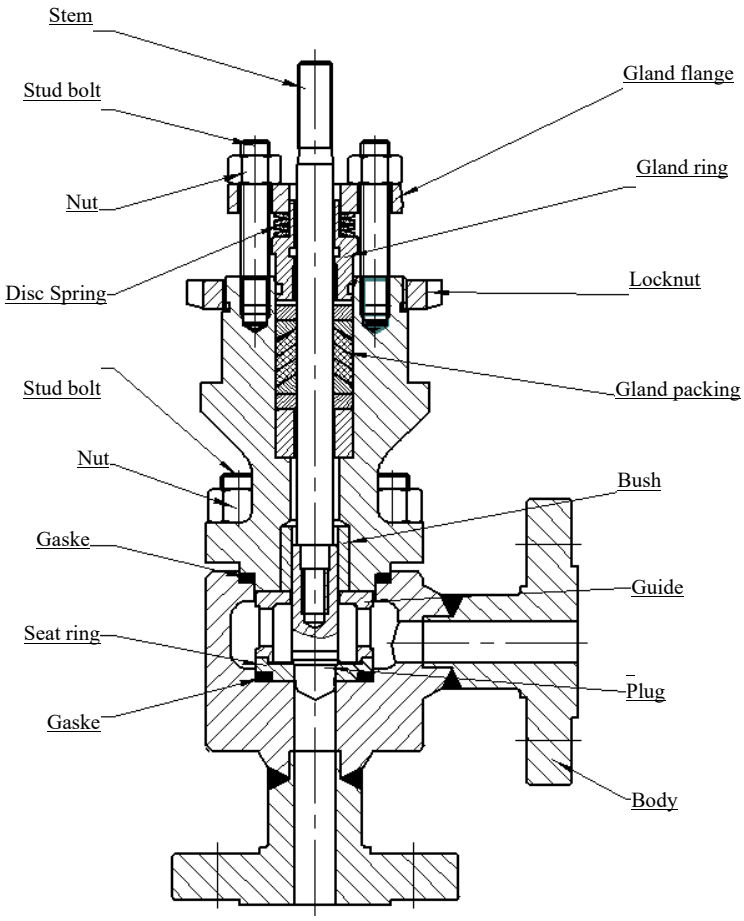
HTS~10020 Class150~600 PN16~100 DN32~200



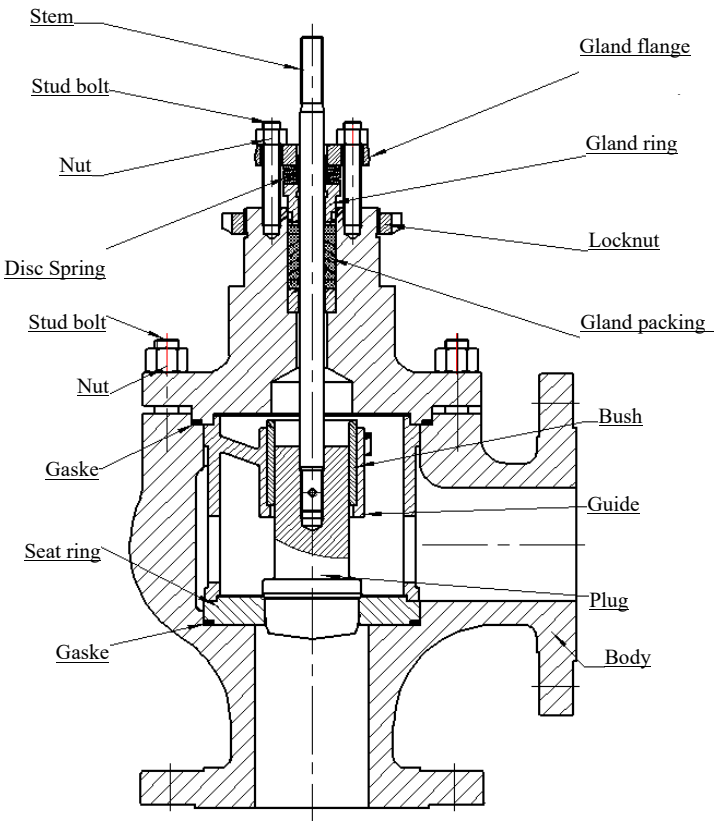
HTS~10010 Class150~600 PN16~100 DN15~25



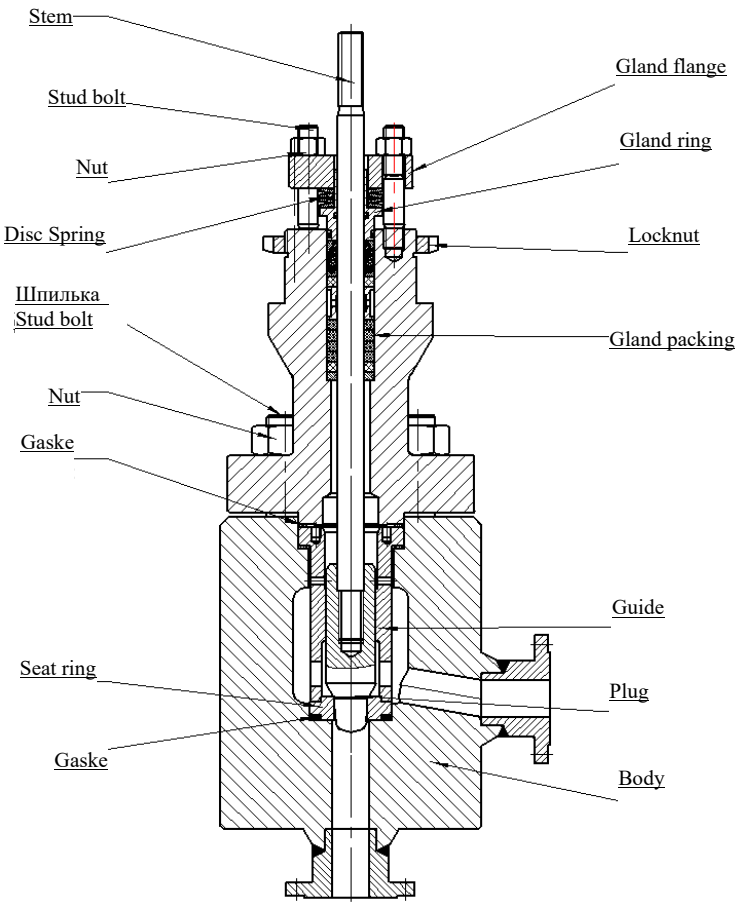
HTS~10010 Class150~600 PN16~100 DN32~200



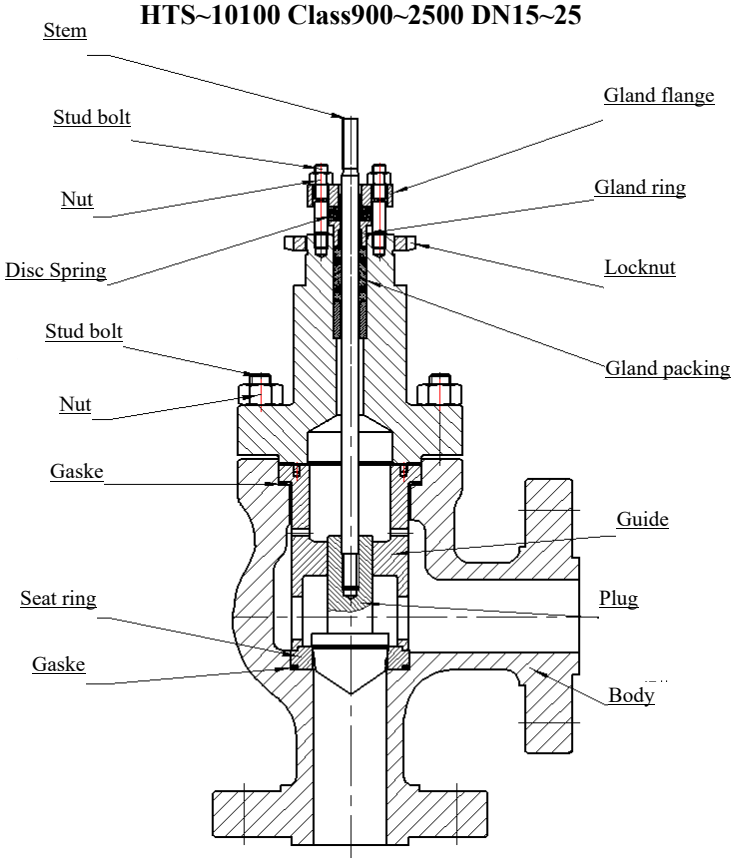
HTS~10010 Class150~600 PN16~100 DN15~25



HTS~10100 Class150~600 PN16~100 DN32~200



HTS~10100 Class900~2500 DN15~25



HTS~10100 Class900~2500 DN32~80

Table 3 CV value and stroke

HTS~10000、HTS~10010、HTS~10020、HTS~10100、HTS~10110（Class150~Class600，PN16~PN110）

Table 3-1 High-capacity plug (%F, LF)

Nominal size	32	40	50	65	80	100	125	150	200	250
Diameter of valve seat	32	40	50	65	80	100	125	150	176	250
Rated Cv value	20	30	50	85	125	200	320	420	700	820
Rated stroke	25			38			50		75	100

Table 3-2 High-accuracy plug (%, L)

Nominal size	10、15、20、25								20、25		25	32		40			50		
Diameter of valve seat	6	6	8	8	11	11	14	14	19	22	25	25	32	25	32	40	32	40	50
Rated Cv value	0.16	0.25	0.4	0.63	1.0	1.6	2.5	4.0	6.3	10	14	10	17	10	17	24	17	24	44
ated stroke	14.3											25							

Nominal size	65			80			100			125			150			200			250		
f valve seat	40	50	65	50	65	80	65	80	100	80	100	125	100	125	150	125	150	200	150	200	250
Rated Cv value	24	44	68	44	68	99	68	99	175	99	175	275	175	275	360	275	360	650	360	650	820
Rated stroke	38									50						75			100		

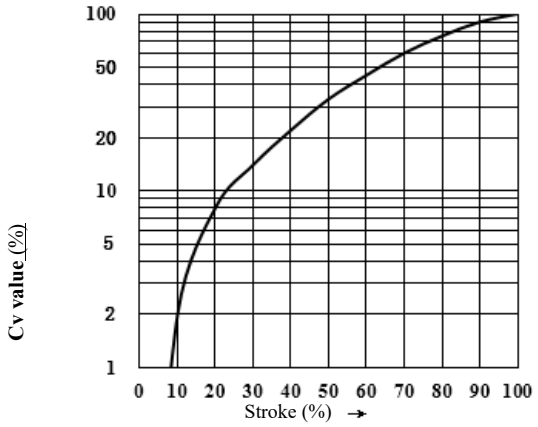
Note: diameters of HTS-10010 and HTS-10020 are DN10-DN150.

HTS~10000、HTS~10100、HTS~10110（Class900~2500，PN150~PN420）

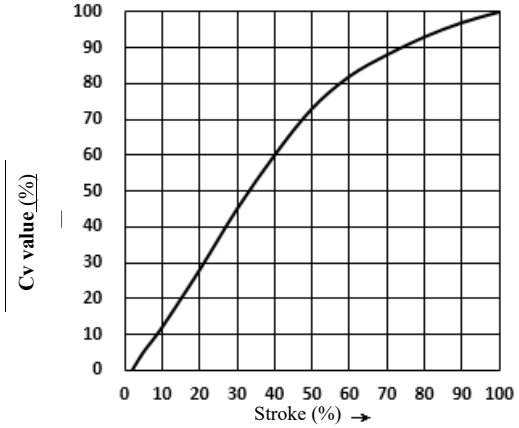
Nominal size			25								32			40			50		
Diameter of valve seat			6	8		10		12	14	16	25	16	25	32	25	32	40	32	40	50
Rated Cv value	Equal percentage feature (%)	**Class 900~1500 PN150~260**	0.25	0.4	0.63	1	1.6	2.5	4.0	6.3	12	6.3	12	17	12	17	24	17	24	48
		PN320~420 Class2500											-	12	-	12	17	12	17	30
	Linear feature (L)	**Class 900~1500 PN150~260**	0.25	0.4	0.63	1	1.6	2.5	4.0	6.3	12	6.3	12	17	12	17	24	17	24	48
		PN320~420 Class2500											-	12	-	12	17	12	17	30
Rated stroke (mm)			14.3			25														

Nominal size			65			80			100			125			150		
Diameter of valve seat			40	50	65	50	65	80	65	80	100	80	100	125	100	125	150
Rated Cv value	Equal percentage feature (%)	**Class 900~1500 PN150~260**	24	48	75	48	75	110	75	110	180	110	180	275	180	275	360
		PN320~420 Class2500	17	30	48	30	48	75	48	75	110	75	110	180	110	180	275
	Linear feature (L)	**Class 900~1500 PN150~260**	24	48	75	48	75	110	75	110	180	110	180	275	180	275	360
		PN320~420 Class2500	17	30	48	30	48	75	48	75	110	75	110	180	110	180	275
Rated stroke (mm)			38									50					

Fig. 4 Typical flow feature curve

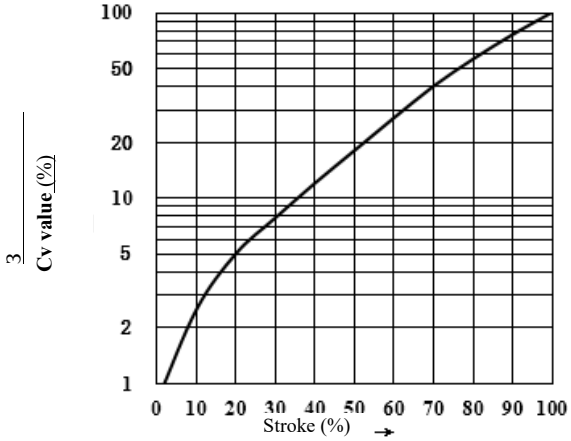


Equal percentage feature (%F)

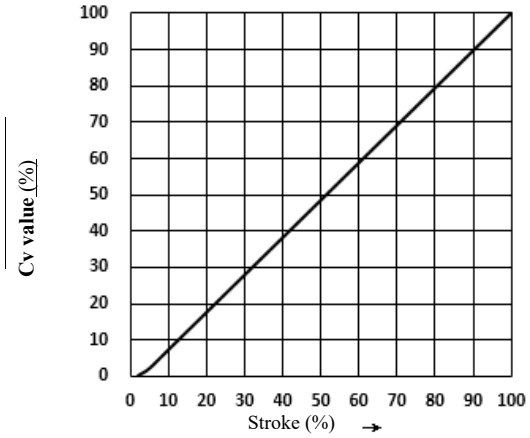


Linear feature (LF)

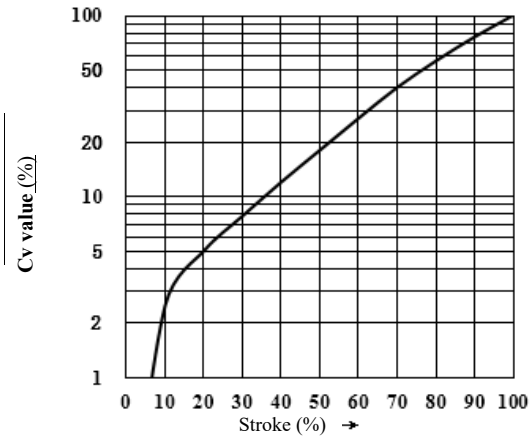
Fig. 4-1 High-capacity flow feature curve



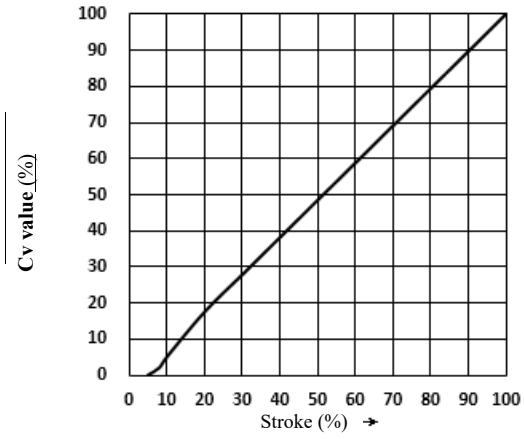
Equal percentage feature (% metal valve seat)



Linear feature (L metal valve seat)



Equal percentage feature (% flexible valve seat)

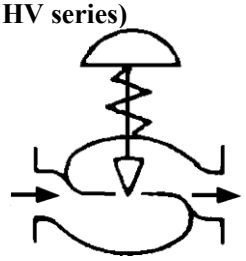


Linear feature (L flexible valve seat)

Fig. 4-2 High-accuracy flow feature curve

Table 4 Allowable differential pressure

Table 4-1 Air-to-close valve actuator (HA and HV series)



Unit: 100kPa

Nominal pressure	Actuator	Air supply pressure	Spring range	Type of valve seat	Type of packing	Allowable differential pressure															
						Nominal size															
						10/15				20						25					
						Diameter of valve seat (mm)															
						6	8	11	14	6	8	11	14	19	22	6	8	11	14	19	22	25
Class150~ Class600 PN16~ PN110	HA21D60	5.0	1.9~3.46	Metal seal	PTFE packing	100	100	100	100	100	100	100	100	67	51	100	100	100	100	67	51	44
					Graphite packing	68	68	68	64	68	68	68	64	38	29	68	68	68	64	38	29	25
				Flexible seal	PTFE packing	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
	HA31D60	5.0	2.06~3.16	Metal seal	PTFE packing	-	-	-	-	-	-	-	-	100	100	-	-	-	-	100	100	100
					Graphite packing	100	100	100	100	100	100	100	100	100	95	100	100	100	100	100	95	81
				Flexible seal	PTFE packing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Unit: 100kPa

Nominal pressure	Actuator	Air supply pressure	Spring range	Type of valve seat	Type of packing	Allowable differential pressure														
						Nominal size														
						32		40		50			65			80			100	
						Diameter of valve seat (mm)														
						25	32	32	40	32	40	50	40	50	65	50	65	80	65	80	100
Class150 ~ Class600 PN16~ PN110	HA21D60	5.0	1.58~3.66	Metal seal	PTFE packing	33	18	21	14	21	14	7	-	-	-	-	-	-	-	-	-
					Graphite packing	16	9	10	8	10	8	5	-	-	-	-	-	-	-	-	-
				Flexible seal	TPTFE packing	22	9	9	4	9	4	0	-	-	-	-	-	-	-	-	-
	HA31D60	5.0	1.56~3.16	Metal seal	PTFE packing	90	49	58	42	58	42	24	-	-	-	-	-	-	-	-	-
					Graphite packing	73	40	47	34	47	34	20	-	-	-	-	-	-	-	-	-
				Flexible seal	PTFE packing	30	30	30	30	30	30	17	-	-	-	-	-	-	-	-	-
			1.46~3.16	Metal seal	TPTFE packing	-	-	-	-	-	-	-	41	24	14	24	14	10	14	10	5
					Graphite packing	-	-	-	-	-	-	-	31	19	12	19	12	9	12	9	5
				Flexible seal	PTFE packing	-	-	-	-	-	-	-	30	17	9	17	9	5	9	5	1
	HA41D60	5.0	1.34~2.40	Metal seal	TPTFE packing	100	100	100	100	100	100	93	-	-	-	-	-	-	-	-	-
					Graphite packing	100	100	100	100	100	100	88	-	-	-	-	-	-	-	-	-
				Flexible seal	PTFE packing	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-
			1.34~2.88	Metal seal	PTFE packing	-	-	-	-	-	-	-	100	75	48	75	48	35	48	35	19
					Graphite packing	-	-	-	-	-	-	-	100	69	44	69	44	32	44	32	18
				Flexible seal	PTFE packing	-	-	-	-	-	-	-	-	30	30	30	30	30	30	30	15
	HA41D40	5.0	0.9~1.9	Metal seal	PTFE packing	-	-	-	-	-	-	-	-	100	71	100	71	51	71	51	29
					Graphite packing	-	-	-	-	-	-	-	-	100	67	100	67	48	67	48	28
				Flexible seal	PTFE packing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25

Chongqing Chuanyi Control Valve Co., Ltd.

Unit: 100kPa

Nominal pressure	Actuator	Air supply pressure	Spring range	Type of valve seat	Type of packing	Allowable differential pressure											
						Nominal size											
						125			150			200			250		
						Diameter of valve seat (mm)											
						80	100	125	100	125	150	125	150	200	150	200	250
Class150~ Class600 PN16~ PN110	HA41D60	5.0	1.22~2.40	Metal seal	PTFE packing	42	24	15	24	15	9	-	-	-	-	-	-
					Graphite packing	37	21	14	21	14	9	-	-	-	-	-	-
				Flexible seal	PTFE packing	39	20	12	20	12	7	-	-	-	-	-	-
			1.22~2.94	Metal seal	PTFE packing	-	-	-	-	-	-	11	6	5	-	-	-
					Graphite packing	-	-	-	-	-	-	10	6	5	-	-	-
				Flexible seal	PTFE packing	-	-	-	-	-	-	9	4	3	-	-	-
	HA41D40	5.0	0.81~1.6	Metal seal	PTFE packing	56	32	20	32	20	12	-	-	-	-	-	-
					Graphite packing	51	29	19	29	19	12	-	-	-	-	-	-
				Flexible seal	PTFE packing	30	28	17	28	17	10	-	-	-	-	-	-
			0.81~1.96	Metal seal	PTFE packing	-	-	-	-	-	-	18	10	8	-	-	-
					Graphite packing	-	-	-	-	-	-	17	10	8	-	-	-
				Flexible seal	PTFE packing	-	-	-	-	-	-	15	8	7	-	-	-
	HA51D1	4.0	1.06~2.06	Metal seal	PTFE packing	-	-	-	-	-	-	21	13	10	-	-	-
					Graphite packing	-	-	-	-	-	-	20	12	10	-	-	-
				Flexible seal	PTFE packing	-	-	-	-	-	-	19	11	8	-	-	-
	HA51D4	4.0	1.06~2.4	Metal seal	PTFE packing	-	-	-	-	-	-	-	-	-	10	8	3
					Graphite packing	-	-	-	-	-	-	-	-	-	10	8	3
				Flexible seal	PTFE packing	-	-	-	-	-	-	-	-	-	8	6	2
	HV71SD5	5.0	-	Metal seal	PTFE packing	-	-	-	-	-	-	-	-	-	13	11	4
					Graphite packing	-	-	-	-	-	-	-	-	-	13	11	4
				Flexible seal	PTFE packing	-	-	-	-	-	-	-	-	-	11	9	4

Unit: 100kPa

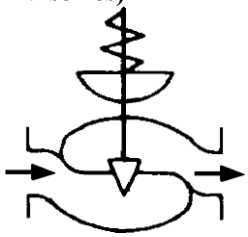
Nominal pressure	Actuator	Air supply pressure	Spring range	Type of valve seat	Type of packing	Allowable differential pressure												
						10/15/20/25				20/25		25	32			40		
						Diameter of valve seat (mm)												
						6	8	10	12	14	16	25	16	25	32	25	32	40
Class 900 PN150 PN160	HA31D60	5.0	2.06~3.16	Metal seal	Graphite packing	160	160	-	-	-	-	-	-	-	-	-	-	-
	HA31D60	5.0	1.56~3.16	Metal seal	Graphite packing	-	-	160	160	113	87	66	87	66	42	66	42	31
	HA41D60	5.0	1.74~2.7	Metal seal	Graphite packing	-	-	-	-	-	-	-	-	-	-	-	-	-
	HA41D60	5.0	1.34~2.4	Metal seal	Graphite packing	-	-	-	-	160	160	160	160	160	160	160	160	144
Class 1500 PN260	HA31D60	5.0	2.06~3.16	Metal seal	Graphite packing	181	181	-	-	-	-	-	-	-	-	-	-	-
	HA31D60	5.0	1.56~3.16	Metal seal	Graphite packing	-	-	181	170	100	77	59	77	59	38	59	38	28
	HA41D60	5.0	1.74~2.7	Metal seal	Graphite packing	260	260	-	-	-	-	-	-	-	-	-	-	-
	HA41D60	5.0	1.34~2.4	Metal seal	Graphite packing	-	-	260	260	260	260	193	260	193	193	193	193	141
Class 2500 PN320 ~420	HA31D60	5.0	2.06~3.16	Metal seal	Graphite packing	164	164	-	-	-	-	-	-	-	-	-	-	-
	HA31D60	5.0	1.56~3.16	Metal seal	Graphite packing	-	-	164	154	91	70	53	70	53	34	53	34	25
	HA41D60	5.0	1.74~2.7	Metal seal	Graphite packing	420	420	-	-	-	-	-	-	-	-	-	-	-
	HA41D60	5.0	1.34~2.4	Metal seal	Graphite packing	-	-	420	420	420	386	296	386	296	189	296	189	138

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Unit: 100kPa

Nominal pressure	Actuator	Air supply pressure	Spring range	Type of valve seat	Type of packing	Allowable differential pressure								
						50			65			80		
						Diameter of valve seat (mm)								
						32	40	50	40	50	65	50	65	80
Class 900 PN150 PN160	HA31D60	5.0	1.56~3.16	Metal seal	Graphite packing	42	31	19	-	-	-	-	-	-
	HA31D60	5.0	1.46~3.16	Metal seal	Graphite packing	-	-	-	22	14	9	14	9	6
	HA41D60	5.0	1.34~2.4	Metal seal	Graphite packing	160	144	86	-	-	-	-	-	-
	HA41D60	5.0	1.34~2.88	Metal seal	Graphite packing	-	-	-	107	64	41	64	41	30
	HA41D40	5.0	0.97~1.73	Metal seal	Graphite packing	-	160	110	-	-	-	-	-	-
	HA41D40	5.0	0.9~1.9	Metal seal	Graphite packing	-	-	-	160	100	64	100	64	46
Class 1500 PN260	HA31D60	5.0	1.56~3.16	Metal seal	Graphite packing	38	28	16	-	-	-	-	-	-
	HA31D60	5.0	1.46~3.16	Metal seal	Graphite packing	-	-	-	17	10	7	10	7	5
	HA41D60	5.0	1.34~2.4	Metal seal	Graphite packing	193	141	84	-	-	-	-	-	-
	HA41D60	5.0	1.34~2.88	Metal seal	Graphite packing	-	-	-	101	61	39	61	39	28
	HA41D40	5.0	0.97~1.73	Metal seal	Graphite packing	248	181	108	-	-	-	-	-	-
	HA41D40	5.0	0.9~1.9	Metal seal	Graphite packing	-	-	-	161	96	62	96	62	44
Class 2500 PN320 ~420	HA31D60	5.0	1.56~3.16	Metal seal	Graphite packing	34	25	15	-	-	-	-	-	-
	HA31D60	5.0	1.46~3.16	Metal seal	Graphite packing	-	-	-	12	7	5	7	5	3
	HA41D60	5.0	1.34~2.4	Metal seal	Graphite packing	189	138	82	-	-	-	-	-	-
	HA41D60	5.0	1.34~2.88	Metal seal	Graphite packing	-	-	-	96	58	37	58	37	27
	HA41D40	5.0	0.97~1.73	Metal seal	Graphite packing	245	178	107	-	-	-	-	-	-
	HA41D40	5.0	0.9~1.9	Metal seal	Graphite packing	-	-	-	156	93	60	93	60	43

Table 4-2 Air-to-open valve actuator (HA and HV series)



Unit: 100kPa

Nominal pressure	Actuator	Air supply pressure	Spring range	Type of valve seat	Type of packing	Allowable differential pressure															
						Nominal size															
						10、15 10, 15				20				25							
						Diameter of valve seat (mm)															
						6	8	11	14	6	8	11	14	19	22	6	8	11	14	19	22	25
Class150~ Class600 PN16~ PN110	HA21R60	5.0	1.9~3.46	Metal seal	PTFE packing	100	100	100	100	100	100	100	100	85	65	100	100	100	100	85	65	56
					Graphite packing	100	100	100	94	100	100	100	94	56	43	100	100	100	94	56	43	37
				Flexible seal	PTFE packing	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
	HA31R60	5.0	2.06~3.16	Metal seal	PTFE packing	-	-	-	-	-	-	-	-	100	100	-	-	-	-	100	100	100
					Graphite packing	-	-	-	-	-	-	-	-	100	100	-	-	-	-	100	100	94
				Flexible seal	PTFE packing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Unit: 100kPa

Nominal pressure	Actuator	Air supply pressure	Spring range	Type of valve seat	Type of packing	Allowable differential pressure														
						Nominal size														
						32		40		50			65			80			100	
						Diameter of valve seat (mm)														
						25	32	32	40	32	40	50	40	50	65	50	65	80	65	80	100
Class150 ~ Class600 PN16 ~ PN110	HA21R60	5.0	1.58~3.66	Metal seal	PTFE packing	40	26	26	18	26	18	9	-	-	-	-	-	-	-	-	-
					Graphite packing	23	15	15	11	15	11	7	-	-	-	-	-	-	-	-	-
				Flexible seal	PTFE packing	31	15	15	8	15	8	2	-	-	-	-	-	-	-	-	-
	HA31R60	5.0	1.56~3.16	Metal seal	PTFE packing	75	48	48	35	48	35	20	-	-	-	-	-	-	-	-	-
					Graphite packing	58	37	37	27	37	27	16	-	-	-	-	-	-	-	-	-
				Flexible seal	PTFE packing	-	30	30	27	30	27	13	-	-	-	-	-	-	-	-	-
			1.46~3.16	Metal seal	PTFE packing	-	-	-	-	-	-	-	32	18	11	18	11	7	11	7	3
					Graphite packing	-	-	-	-	-	-	-	22	13	8	13	8	6	8	6	3
				Flexible seal	PTFE packing	-	-	-	-	-	-	-	24	11	5	11	5	2	5	2	0
	HA41R60	5.0	1.46~2.60	Metal seal	PTFE packing	100	100	100	79	100	79	47	-	-	-	-	-	-	-	-	-
					Graphite packing	100	97	97	71	97	71	42	-	-	-	-	-	-	-	-	-
				Flexible seal	PTFE packing	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-
			1.34~2.88	Metal seal	PTFE packing	-	-	-	-	-	-	-	78	47	30	47	30	21	30	21	11
					Graphite packing	-	-	-	-	-	-	-	68	40	26	40	26	19	26	19	11
				Flexible seal	PTFE packing	-	-	-	-	-	-	-	30	30	24	30	24	16	24	16	7
	HA41R66	5.0	1.94~4.16	Metal seal	PTFE packing	-	-	-	-	-	-	-	100	68	44	68	44	31	44	31	17
					Graphite packing	-	-	-	-	-	-	-	100	62	40	62	40	29	40	29	16
				Flexible seal	PTFE packing	-	-	-	-	-	-	-	-	-	30	-	30	27	30	27	14

Unit: 100kPa

Nominal pressure	Actuator	Air supply pressure	Spring range	Type of valve seat	Type of packing	Allowable differential pressure											
						Nominal size											
						125			150			200			250		
						Diameter of valve seat (mm)											
						80	100	125	100	125	150	125	150	200	150	200	250
Class150 ~ Class600 PN16 ~PN110	HA41R60	5.0	1.22~2.40	Metal seal	PTFE packing	18	10	6	10	6	3	-	-	-	-	-	-
					Graphite packing	14	8	5	8	5	3	-	-	-	-	-	-
				Flexible seal	PTFE packing	14	6	3	6	3	1	-	-	-	-	-	-
			1.22~2.94	Metal seal	PTFE packing	-	-	-	-	-	-	6	3	2	-	-	-
					Graphite packing	-	-	-	-	-	-	5	3	2	-	-	-
				Flexible seal	PTFE packing	-	-	-	-	-	-	3	1	1	-	-	-
	HA41R66	5.0	1.74~3.46	Metal seal	PTFE packing	28	15	9	15	9	8	-	-	-	-	-	-
					Graphite packing	23	13	8	13	8	5	-	-	-	-	-	-
				Flexible seal	PTFE packing	23	12	6	12	6	3	-	-	-	-	-	-
			1.74~4.25	Metal seal	PTFE packing	-	-	-	-	-	-	9	5	4	-	-	-
					Graphite packing	-	-	-	-	-	-	8	5	4	-	-	-
				Flexible seal	PTFE packing	-	-	-	-	-	-	6	3	2	-	-	-
	HA51R3	5.0	2.12~4.12（8 组）(8 групп)	Metal seal	PTFE packing	-	-	-	-	-	-	24	14	12	-	-	-
					Graphite packing	-	-	-	-	-	-	23	14	12	-	-	-
				Flexible seal	PTFE packing	-	-	-	-	-	-	21	12	10	-	-	-
	HA51R6	5.0	2.12~4.8（8 组）(8 групп)	Metal seal	PTFE packing	-	-	-	-	-	-	-	-	-	10	8	3
					Graphite packing	-	-	-	-	-	-	-	-	-	10	8	3
				Flexible seal	PTFE packing	-	-	-	-	-	-	-	-	-	8	6	2
	HV61SR5	5.0	-	Metal seal	PTFE packing	-	-	-	-	-	-	-	-	-	9	7	4
					Graphite packing	-	-	-	-	-	-	-	-	-	8	6	3
				Flexible seal	PTFE packing	-	-	-	-	-	-	-	-	-	9	7	4
	HV71SR5	5.0	-	Metal seal	PTFE packing	-	-	-	-	-	-	-	-	-	14	12	6
					Graphite packing	-	-	-	-	-	-	-	-	-	13	11	5
				Flexible seal	PTFE packing	-	-	-	-	-	-	-	-	-	14	12	6

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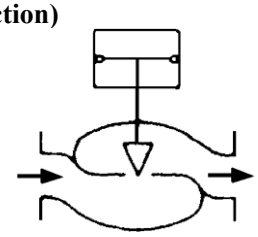
Unit: 100kPa

Nominal pressure	Actuator	Air supply pressure	Spring range	Type of valve seat	Type of packing	Allowable differential pressure												
						Nominal size												
						10/15/20/25				20/25		25	32			40		
						Diameter of valve seat (mm)												
						6	8	10	12	14	16	25	16	25	32	25	32	40
Class 900 PN150 PN160	HA31R60	5.0	2.06~3.16	Metal seal	Graphite packing	160	160	-	-	-	-	-	-	-	-	-	-	-
	HA31R60	5.0	1.56~3.16	Metal seal	Graphite packing	-	-	160	149	88	68	52	68	52	33	52	33	24
	HA41R60	5.0	1.74~2.7	Metal seal	Graphite packing	-	-	-	-	-	-	-	-	-	-	-	-	-
	HA41R60	5.0	1.34~2.4	Metal seal	Graphite packing	-	-	-	160	160	160	145	160	145	93	145	93	68
Class 1500 PN260	HA31R60	5.0	2.06~3.16	Metal seal	Graphite packing	216	216	-	-	-	-	-	-	-	-	-	-	-
	HA31R60	5.0	1.56~3.16	Metal seal	Graphite packing	-	-	136	128	75	58	44	58	44	28	44	28	21
	HA41R60	5.0	1.74~2.7	Metal seal	Graphite packing	260	260	-	-	-	-	-	-	-	-	-	-	-
	HA41R60	5.0	1.34~2.4	Metal seal	Graphite packing	-	-	260	260	233	180	138	180	138	88	138	88	64
Class 2500 PN320 ~420	HA31R60	5.0	2.06~3.16	Metal seal	Graphite packing	198	198	-	-	-	-	-	-	-	-	-	-	-
	HA31R60	5.0	1.56~3.16	Metal seal	Graphite packing	-	-	119	112	66	51	39	51	39	26	39	26	18
	HA41R60	5.0	1.74~2.7	Metal seal	Graphite packing	420	420	-	-	-	-	-	-	-	-	-	-	-
	HA41R60	5.0	1.34~2.4	Metal seal	Graphite packing	-	-	404	380	224	172	132	172	132	84	132	84	62

Unit: 100kPa

Nominal pressure	Actuator	Air supply pressure	Spring range	Type of valve seat	Type of packing	Allowable differential pressure								
						Nominal size								
						50			65			80		
						Diameter of valve seat (mm)								
						32	40	50	40	50	65	50	65	80
Class 900 PN150 PN160	HA31R60	5.0	1.56~3.16	Metal seal	Graphite packing	33	24	14	-	-	-	-	-	-
	HA31R60	5.0	1.46~3.16	Metal seal	Graphite packing	-	-	-	14	8	5	8	5	4
	HA41R60	5.0	1.34~2.4	Metal seal	Graphite packing	93	68	40	-	-	-	-	-	-
	HA41R60	5.0	1.34~2.88	Metal seal	Graphite packing	-	-	-	60	36	23	36	23	17
	HA41R66	5.0	1.94~3.46	Metal seal	Graphite packing	143	104	62	-	-	-	-	-	-
	HA41R66	5.0	1.94~4.16	Metal seal	Graphite packing	-	-	-	96	58	37	58	37	27
Class 1500 PN260	HA31R60	5.0	1.56~3.16	Metal seal	Graphite packing	28	21	12	-	-	-	-	-	-
	HA31R60	5.0	1.46~3.16	Metal seal	Graphite packing	-	-	-	8	5	3	5	3	2
	HA41R60	5.0	1.34~2.4	Metal seal	Graphite packing	88	34	38	-	-	-	-	-	-
	HA41R60	5.0	1.34~2.88	Metal seal	Graphite packing	-	-	-	54	32	21	32	21	15
	HA41R66	5.0	1.94~3.46	Metal seal	Graphite packing	138	101	60	-	-	-	-	-	-
	HA41R66	5.0	1.94~4.16	Metal seal	Graphite packing	-	-	-	90	54	35	54	35	25
Class 2500 PN320 ~420	HA31R60	5.0	1.56~3.16	Metal seal	Graphite packing	28	18	11	-	-	-	-	-	-
	HA31R60	5.0	1.46~3.16	Metal seal	Graphite packing	-	-	-	3	2	1	2	1	1
	HA41R60	5.0	1.34~2.4	Metal seal	Graphite packing	84	62	37	-	-	-	-	-	-
	HA41R60	5.0	1.34~2.88	Metal seal	Graphite packing	-	-	-	49	29	19	29	19	14
	HA41R66	5.0	1.94~3.46	Metal seal	Graphite packing	134	98	58	-	-	-	-	-	-
	HA41R66	5.0	1.94~4.16	Metal seal	Graphite packing	-	-	-	85	51	33	51	33	24

Table 4-3 Cylinder type actuator (HV dual-action)



Unit: 100kPa

Nominal pressure	Actuator	Air supply pressure	Type of valve seat	Type of packing	Allowable differential pressure													
					Nominal size													
					100			125			150			200			250	
					Diameter of valve seat (mm)													
					65	80	100	80	100	125	100	125	150	125	150	200	150	200	250
Class150 ~ Class600 PN16 ~ PN110	HV51D00	5.0	Metal seal	PTFE packing	81	58	33	58	33	21	33	21	12	21	12	10	12	10	3
				Graphite packing	77	55	21	52	30	19	30	19	12	19	12	10	12	10	3
			Flexible seal	PTFE packing	30	30	29	30	29	18	29	18	10	18	10	8	10	8	3
	HV61D00	5.0	Metal seal	PTFE packing	100	100	57	99	57	37	57	37	22	37	22	18	22	18	8
				Graphite packing	100	97	55	94	54	35	54	35	22	35	22	18	22	18	8
			Flexible seal	PTFE packing	-	-	-	-	-	30	-	30	20	30	20	16	20	16	7
	HV71D00	5.0	Metal seal	PTFE packing	-	-	-	-	-	-	-	-	-	56	35	28	35	28	13
				Graphite packing	-	-	-	-	-	-	-	-	-	54	34	28	34	28	13
			Flexible seal	PTFE packing	-	-	-	-	-	-	-	-	-	-	30	27	30	27	12

Unit: 100kPa

Nominal pressure	Actuator	Air supply pressure	Type of valve seat	Type of packing	Allowable differential pressure												
					Nominal size												
					10/15/20/25				20/25		25	32			40		
					Diameter of valve seat (mm)												
					6	8	10	12	14	16	25	16	25	32	25	32	40
Class 900 PN150 PN160	HV21D00	5.0	Metal seal	Graphite packing	160	160	160	160	143	110	84	110	84	54	84	54	39
	HV31D00	5.0	Metal seal	Graphite packing	-	-	-	-	160	160	160	160	160	111	160	111	81
	HV41D00	5.0	Metal seal	Graphite packing	-	-	-	-	-	-	-	-	-	160	-	160	135
	HV51D00	5.0	Metal seal	Graphite packing	-	-	-	-	-	-	-	-	-	-	-	-	160

Unit: 100kPa

Nominal pressure	Actuator	Air supply pressure	Type of valve seat	Type of packing	Allowable differential pressure								
					Nominal size								
					50			65			80		
					Diameter of valve seat (mm)								
					32	40	50	40	50	65	50	65	80
Class 900 PN150 PN160	HV21D00	5.0	Metal seal	Graphite packing	54	39	24	-	-	-	-	-	-
	HV31D00	5.0	Metal seal	Graphite packing	111	81	49	73	44	28	44	28	20
	HV41D00	5.0	Metal seal	Graphite packing	160	135	81	127	76	49	76	49	35
	HV51D00	5.0	Metal seal	Graphite packing	-	160	119	160	114	74	114	74	53
	HV61D00	5.0	Metal seal	Graphite packing	-	-	160	-	160	132	160	132	95
	HV71D00	5.0	Metal seal	Graphite packing	-	-	-	-	-	160	-	160	147

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Unit: 100kPa

Nominal pressure	Actuator	Air supply pressure	Type of valve seat	Type of packing	Allowable differential pressure												
					Nominal size												
					10/15/20/25				20/25		25	32			40		
					Diameter of valve seat (mm)												
					6	8	10	12	14	16	25	16	25	32	25	32	40
Class 1500 PN260	HV21D00	5.0	Metal seal	Graphite packing	236	236	236	222	131	101	77	101	77	49	77	49	36
	HV31D00	5.0	Metal seal	Graphite packing	260	260	260	260	260	217	166	217	166	107	166	107	78
	HV41D00	5.0	Metal seal	Graphite packing	-	-	-	-	-	260	260	260	260	180	260	180	131
	HV51D00	5.0	Metal seal	Graphite packing	-	-	-	-	-	-	-	-	-	260	-	260	195
	HV61D00	5.0	Metal seal	Graphite packing	-	-	-	-	-	-	-	-	-	-	-	-	260

Unit: 100kPa

Nominal pressure	Actuator	Air supply pressure	Type of valve seat	Type of packing	Allowable differential pressure								
					Nominal size								
					50			65			80		
					Diameter of valve seat (mm)								
					32	40	50	40	50	65	50	65	80
Class 1500 PN260	HV21D00	5.0	Metal seal	Graphite packing	49	36	22	-	-	-	-	-	-
	HV31D00	5.0	Metal seal	Graphite packing	107	78	46	67	40	26	40	26	19
	HV41D00	5.0	Metal seal	Graphite packing	180	131	79	121	73	47	73	47	33
	HV51D00	5.0	Metal seal	Graphite packing	260	195	117	185	111	71	111	71	51
	HV61D00	5.0	Metal seal	Graphite packing	-	260	207	260	201	130	201	130	93
	HV71D00	5.0	Metal seal	Graphite packing	-	-	260	-	260	203	260	203	145

Unit: 100kPa

Nominal pressure	Actuator	Air supply pressure	Type of valve seat	Type of packing	Allowable differential pressure												
					Nominal size												
					10/15/20/25			20/25			25	32			40		
					Diameter of valve seat (mm)												
					6	8	10	12	14	16	25	16	25	32	25	32	40
Class 2500 PN420	HV21D00	5.0	Metal seal	Graphite packing	219	219	219	206	121	93	71	93	71	46	71	46	33
	HV31D00	5.0	Metal seal	Graphite packing	420	420	420	420	273	210	161	210	161	103	161	103	75
	HV41D00	5.0	Metal seal	Graphite packing	-	-	-	-	420	361	276	361	276	177	276	177	129
	HV51D00	5.0	Metal seal	Graphite packing	-	-	-	-	-	420	413	420	413	264	413	264	192
	HV61D00	5.0	Metal seal	Graphite packing	-	-	-	-	-	-	420	-	420	420	420	420	344

Unit: 100kPa

Nominal pressure	Actuator	Air supply pressure	Type of valve seat	Type of packing	Allowable differential pressure								
					Nominal size								
					50			65			80		
					Diameter of valve seat (mm)								
					32	40	50	40	50	65	50	65	80
Class2500 PN420	HV21D00	5.0	Metal seal	Graphite packing	46	33	20	-	-	-	-	-	-
	HV31D00	5.0	Metal seal	Graphite packing	103	75	45	62	37	24	37	24	17
	HV41D00	5.0	Metal seal	Graphite packing	177	129	77	116	70	45	70	45	32
	HV51D00	5.0	Metal seal	Graphite packing	264	192	115	180	108	69	108	69	50
	HV61D00	5.0	Metal seal	Graphite packing	420	344	206	331	198	128	198	128	92
	HV71D00	5.0	Metal seal	Graphite packing	-	420	319	420	312	201	312	201	144

Table 4-4 Electronic actuator (EIL) and intelligent actuator (M8) Unit: 100kPa

Nominal pressure	Actuator	Type of valve seat	Type of packing	Allowable differential pressure																
				Nominal size																
				10、15 10, 15				20						25						
				Diameter of valve seat (mm)																
				6	8	11	14	6	8	11	14	19	22	6	8	11	14	19	22	25
Class150~ Class600 PN16~ PN110	EIL04	Metal seal	PTFE packing	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	77	66
			Graphite packing	100	100	100	100	100	100	100	100	100	100	100	100	100	100	72	55	47
		Flexible seal	PTFE packing	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
	EIL08	Metal seal	PTFE packing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100	100
			Graphite packing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100	100
		Flexible seal	PTFE packing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	30	30
	M8610+L8210	Metal seal	PTFE packing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100	100
			Graphite packing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100	100
		Flexible seal	PTFE packing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	30	30

Unit: 100kPa

Nominal pressure	Actuator	Type of valve seat	Type of packing	Allowable differential pressure														
				Nominal size														
				32		40		50			65			80			100	
				Diameter of valve seat (mm)														
				25	32	32	40	32	40	50	40	50	65	50	65	80	65	80	100
Class150 ~ Class600 PN16 ~ PN110	EIL04	Metal seal	PTFE packing	59	38	38	28	38	28	15	-	-	-	-	-	-	-	-	-
			Graphite packing	42	27	27	20	27	20	12	-	-	-	-	-	-	-	-	-
		Flexible seal	PTFE packing	30	29	29	18	29	18	8	-	-	-	-	-	-	-	-	-
	EIL08	Metal seal	PTFE packing	100	80	80	58	80	58	35	57	34	21	34	21	14	21	14	7
			Graphite packing	100	69	69	50	69	50	30	47	28	18	28	18	13	18	13	7
		Flexible seal	PTFE packing	-	-	-	30	-	30	28	30	28	16	28	16	10	16	10	4
	EIL12	Metal seal	PTFE packing	-	100	100	88	100	88	53	88	52	34	52	34	23	34	23	12
			Graphite packing	-	100	100	80	100	80	48	77	46	30	46	30	21	30	21	12
		Flexible seal	PTFE packing	-	-	-	-	-	-	-	-	-	29	-	29	19	29	19	9
	EIL20	Metal seal	PTFE packing	-	-	-	-	-	100	71	100	71	46	71	46	32	46	32	18
			Graphite packing	-	-	-	-	-	100	66	100	64	42	64	42	30	42	30	17
		Flexible seal	PTFE packing	-	-	-	-	-	-	-	-	-	-	-	-	28	-	28	14
	M8610+L8210	Metal seal	PTFE packing	100	80	80	58	80	58	35	57	34	21	34	21	14	21	14	7
			Graphite packing	100	69	69	50	69	50	30	47	28	18	28	18	13	18	13	7
		Flexible seal	PTFE packing	30	30	30	30	30	30	28	30	28	16	28	16	10	16	10	4
	M8620+L8220	Metal seal	PTFE packing	-	-	-	-	100	100	71	100	71	46	71	46	32	46	32	18
			Graphite packing	-	-	-	-	100	100	66	100	64	42	64	42	30	42	30	17
		Flexible seal	PTFE packing	-	-	-	-	-	-	-	-	-	30	-	30	28	30	28	14

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Unit: 100kPa

Nominal pressure	Actuator	Type of valve seat	Type of packing	Allowable differential pressure											
				Nominal size											
				125			150			200			250		
				Diameter of valve seat (mm)											
				80	100	125	100	125	150	125	150	200	150	200	250
Class150 ~ Class600 PN16 ~ PN110	EIL12	Metal seal	PTFE packing	23	12	8	12	8	4	-	-	-	-	-	-
			Graphite packing	19	11	7	11	7	4	-	-	-	-	-	-
		Flexible seal	PTFE packing	19	9	5	9	5	2	-	-	-	-	-	-
	EIL20	Metal seal	PTFE packing	32	18	11	18	11	6	11	6	5	-	-	-
			raphite packing	27	16	10	16	10	6	10	6	5	-	-	-
		Flexible seal	PTFE packing	28	14	8	14	8	4	8	4	3	-	-	-
	EIL25	Metal seal	PTFE packing	-	-	-	-	-	-	-	-	-	11	9	3
			Graphite packing	-	-	-	-	-	-	-	-	-	11	9	3
		Flexible seal	PTFE packing	-	-	-	-	-	-	-	-	-	9	7	3
	M8620+L8220	Metal seal	PTFE packing	32	18	11	18	11	6	11	6	5	-	-	-
			Graphite packing	27	16	10	16	10	6	10	6	5	-	-	-
		Flexible seal	PTFE packing	28	14	8	14	8	4	8	4	3	-	-	-
	M8620+L8230	Metal seal	PTFE packing	-	-	-	-	-	-	-	-	-	11	9	3
			Graphite packing	-	-	-	-	-	-	-	-	-	11	9	3
		Flexible seal	PTFE packing	-	-	-	-	-	-	-	-	-	9	7	3

Unit: 100kPa

Nominal pressure	Actuator	Type of valve seat	Type of packing	Allowable differential pressure																		
				Nominal size																		
				10/15/20/25					20/25	25	32			40			50			80		
				Diameter of valve seat (mm)																		
				6	8	10	12	14	16	25	16	25	32	25	32	40	32	40	50	50	65	80
Class 900 PN150 PN160	EIL04	Metal valve seat	Graphite packing	109	109	109	103	61	47	40	-	-	-	-	-	-	-	-	-	-	-	-
	EIL08	Metal valve seat	Graphite packing	160	160	160	160	160	132	101	132	101	64	101	64	47	64	47	28	-	-	-
	EIL12	Metal valve seat	Graphite packing	-	-	-	-	-	160	160	160	160	106	160	106	77	106	77	46	-	-	-
	EIL20	Metal valve seat	Graphite packing	-	-	-	-	-	-	-	-	-	-	-	-	-	148	108	64	60	39	28
	M8610+L8210	Metal valve seat	Graphite packing	160	160	160	160	160	132	101	132	101	64	101	64	47	64	47	28	-	-	-
	M8620+L8220	Metal valve seat	Graphite packing	-	-	-	-	-	-	-	-	-	-	-	-	-	148	108	64	60	39	28

Chongqing Chuanyi Control Valve Co., Ltd.

Unit: 100kPa

Nominal pressure	Actuator	Type of valve seat	Type of packing	Allowable differential pressure																		
				Nominal size																		
				10/15/20/25					20/25	25	32			40			50			80		
				Diameter of valve seat (mm)																		
				6	8	10	12	14	16	25	16	25	32	25	32	40	32	40	50	50	65	80
Class 1500 PN260	EIL04	Metal valve seat	Graphite packing	87	87	87	82	48	37	28	-	-	-	-	-	-	-	-	-	-	-	-
	EIL08	Metal valve seat	Graphite packing	260	260	260	260	158	122	93	122	93	60	93	60	44	60	44	26	-	-	-
	EIL12	Metal valve seat	Graphite packing	-	-	-	-	260	207	158	207	158	101	158	101	74	101	74	44	-	-	-
	EIL20	Metal valve seat	Graphite packing	-	-	-	-	-	-	-	-	-	-	-	-	-	143	104	62	55	36	26
	M8610+L8210	Metal valve seat	Graphite packing	260	260	260	260	158	122	93	122	93	60	93	60	44	60	44	26	-	-	-
	M8620+L8220	Metal valve seat	Graphite packing	-	-	-	-	-	-	-	-	-	-	-	-	-	143	104	62	55	36	26

Ед. изм.: 100kPa

Unit: 100kPa

Nominal pressure	Actuator	Type of valve seat	Type of packing	Allowable differential pressure																		
				Nominal size																		
				10/15/20/25					20/25	25	32			40			50			80		
				Diameter of valve seat (mm)																		
				6	8	10	12	14	16	25	16	25	32	25	32	40	32	40	50	50	65	80
Class 2500 PN420	EIL04	Metal valve seat	Graphite packing	70	70	70	65	39	30	23	-	-	-	-	-	-	-	-	-	-	-	-
	EIL08	Metal valve seat	Graphite packing	269	269	269	253	149	115	88	115	88	56	88	56	41	56	41	24	-	-	-
	EIL12	Metal valve seat	Graphite packing	420	420	420	420	259	199	153	199	153	98	153	98	71	98	71	43	-	-	-
	EIL20	Metal valve seat	Graphite packing	-	-	-	-	-	-	-	-	-	-	-	-	-	139	101	61	53	34	25
	M8610+L8210	Metal valve seat	Graphite packing	269	269	269	253	149	115	88	115	88	56	88	56	41	56	41	24	-	-	-
	M8620+L8220	Metal valve seat	Graphite packing	-	-	-	-	-	-	-	-	-	-	-	-	-	139	101	61	53	34	25

Table 5 Size

Table 5-1 Face -to-face size

HTS~ 10000 Unit: **mm**

Nominal size	A										
	ANSI 125 FF ANSI 150 RF PN16 RF	ANSI 300 RF PN40 MFM	ANSI 600 RF PN64 MFM	ANSI 150 RJ	ANSI 300 RJ	ANSI 600 RJ	ANSI 300 TG	ANSI 600 TG	ANSI 150 SW、BW SW, BW	ANSI 300 SW、BW SW, BW	ANSI 600 SW、BW SW, BW
10/15/20	184	194	206	-	210	210	194	206	184	194	206
25	184	197	210	197	210	210	197	210	184	197	210
32	190	205	210	-	248	-	205	210	190	205	210
40	222	235	251	235	248	251	235	251	222	235	251
50	254	267	286	267	283	289	267	286	254	267	286
65	276	292	311	289	308	314	292	311	276	292	311
80	298	317	337	311	333	340	317	337	298	317	337
100	352	368	394	365	384	397	368	394	352	368	394
125	403	425	457	-	-	-	425	457	403	425	457
150	451	473	508	464	489	511	473	508	451	473	508
200	543	568	610	556	584	613	568	610	543	568	610
250	673	708	752	-	-	-	708	752	673	708	752

Unit: **mm**

Nominal size	A						
	JIS63K	Class 900		Class 1500		Class 2500	
	RF	RF（SW，BW） RF (SW, BW)	RJ	RF（SW，BW） RF (SW, BW)	RJ	RF（SW，BW） RF (SW, BW)	RJ
25	245	245	245	245	245	245	249
40	323	333	333	333	333	358	361
50	354	375	378	375	378	400	403
80	431	440	443	460	463	498	504

HTS-10010、HTS-10020 Unit: **mm**

Diameter of valve	A				
	Partial insulation of body		Total insulation of body		
	Class 150 RF PN16 RF	ANSI 300 RF PN40 MFM	Class 150 RF PN16 RF	ANSI 300 RF PN40 MFM	Калибр трубопроводки Diameter of piping
15、20	240	240	320	320	40
25	240	240	320	320	50
32	340	370	370	380	65
40	340	370	370	380	80
50	400	400	410	420	80
65	430	440	430	460	100
80	460	470	470	470	125
100	510	540	530	550	150
125	550	600	580	600	200
150	600	660	620	660	200

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TS-10100 Unit:**mm**

Nominal size	A/A1						
	Class 150 RJ	Class 300 RJ	Class 600 RJ	Class 300 LG	Class 600 LG	Class 150 SW、BW	Class 300、600 SW、BW
15、20	-	103	103	-	-	-	103
25	98.5	105	105	-	-	-	105
32	118	124	126	122	124	126	126
40	118	124	133	122	133	126	133
50	134	142	152	138	150	143	150
65	145	154	166	151	165	156	165
80	156	167	170	164	167	169	169
100	183	192	208	189	206	197	206
150	232	245	269	242	267	237	267
200	278	292	307	289	303	284	305

Unit: **mm**

Nominal size	A/A1		
	CLass 150 RF PN16 RF	CLass 300 RF PN40 MFM	CLass 600 RF PN63 MFM
15、20	92	97	103
25	92	98.5	105
32	111	118	126
40	111	118	133
50	127	134	150
65	138	146	165
80	149	159	169
100	176	184	206
150	226	237	267
200	272	284	305

Unit: **mm**

Nominal size	A/A1					
	Class 900		Class 1500		Class 2500	
	RF（SW，BW）	RJ	RF（SW，BW）	RJ	RF（SW，BW）	RJ
25	95 (horizontal A)/ 111 (vertical A1)	94.5 (horizontal A)/ 110 (vertical A1)	95 (horizontal A)/ 110 (vertical A1)	94.5 (horizontal A)/ 110 (vertical A1)	95 (horizontal A)/ 110 (vertical A1)	88 (horizontal A)/ 108.5 (vertical A1)
40	166.5	166.5	166.5	166.5	179	180.5
40	166.5	166.5	166.5	166.5	179	180.5
50	187.5	189	188	189	225	225
80	220	220	230	230	270	270

Table 5-1-2 The maximum size of side

HTS-10000

Unit: **mm**

Nominal size	C					
	PN16	PN40	PN64	Class150	Class300	Class600
15	95	95	105	90	95	95
20	105	105	130	100	115	115
25	115	115	140	105	125	125
32	147	149	152	147	149	152
40	150	150	170	150	150	170
50	177	180	184	177	180	184
65	198	202	206	198	202	206
80	209	214	218	209	214	218
100	249	256	262	249	256	275
125	301	306	316	301	312	330
150	351	358	370	351	358	370
200	434	450	458	434	450	468

Unit: **mm**

Nominal size	C		
	Class900	Class1500	Class2500
25	135	135	176
40	170(180)	180	190(205)
50	190(215)	190(215)	230(235)
80	210(240)	225(265)	250(305)

HTS-10100

Unit: **mm**

Nominal size	C					
	PN16	PN40	PN64	Class150	Class300	Class600
32	155	160	180	155	160	180
40	155	160	180	155	160	180
50	175	175	190	175	175	190
65	190	198	208	190	198	208
80	210	220	225	210	220	225
100	235	264	283	235	264	283
150	295	330	366	295	330	366
200	350	391	429	350	391	429

Unit: **mm**

Nominal size	C		
	Class900	Class1500	Class2500
DN25	150	155	176
DN40	180	180	205
DN50	215	215	235
DN80	240	265	305

Table 5-2 Overall size

Table 5-2-1 Overall size **Unit: mm**

Nominal size	Actuator	H			B	B1	B2	B3	B4	H1
		Class150~600，PN16~PN110								
		Normal temperature type (P)	Extension type I (EI)	Extension type II (EII)						
15/20/25	HA21	545	695	985	267	-	-	-	-	70
	EIL04	760	910	1200	267	-	258	-	-	
32	HA21	575	745	850	281	-	-	-	-	70
	HA31	700	870	1015	363	-	-	-	-	
	EIL04	790	960	1065	172	-	258	-	-	
40	HA21	575	745	850	281	-	-	-	-	70
	HA31	700	870	1015	363	-	-	-	-	
	EIL04	790	960	1065	172	-	258	-	-	
50	HA21	575	745	855	281	-	-	-	-	80
	HA31	700	870	980	363	-	-	-	-	
	EIL04	790	960	1070	172	-	258	-	-	
65	HA31	735	915	1035	363	-	-	-	-	88
	HA41	920	1100	1215	520	-	-	-	-	
	EIL08	925	1105	1225	229	-	338	-	-	
	M8610+L8210	975	1155	1275	-	285	346	253	350	
80	HA31	745	925	1065	363	-	-	-	-	98
	HA41	925	1115	1240	520	-	-	-	-	
	EIL08	930	1110	1230	229	-	338	-	-	
	M8610+L8210	985	1170	1305	-	285	346	253	350	
100	HA31	770	980	1105	363	-	-	-	-	113
	HA41	945	1165	1305	520	-	-	-	-	
	HV61SR5	1485	1705	1850	475	-	-	-	-	
	HV51D00	1190	1410	1555	382	-	-	-	-	
	EIL08	960	1170	1295	229	-	338	-	-	
	M8610+L8210	1010	1220	1245	-	285	346	253	350	
125	HA31	840	1100	1300	363	-	-	-	-	146
	HA41	1010	1270	1485	520	-	-	-	-	
	HV61SR5	1550	1810	2025	480	-	-	-	-	
	HV51D00	1255	1515	1730	382	-	-	-	-	
	HV61D00	1370	1630	1745	480	-	-	-	-	
	HV71D00	1370	1630	1745	580	-	-	-	-	
	EIL08	1050	1310	1515	229	-	338	-	-	
	M8610+L8210	1170	1430	1643	-	313	350	253	350	
150	HA31	840	1100	1300	363	-	-	-	-	170
	HA41	1010	1270	1485	520	-	-	-	-	
	HV61SR5	1550	1810	2025	480	-	-	-	-	
	HV51D00	1255	1515	1730	382	-	-	-	-	
	HV61D00	1370	1630	1845	480	-	-	-	-	
	HV71D00	1370	1630	1845	580	-	-	-	-	
	EIL08	1050	1310	1515	229	-	338	-	-	
	M8610+L8210	1170	1430	1645	-	313	350	253	350	
200	HA41	1150	1410	1655	520	-	-	-	-	220
	HV51D00	1420	1685	2050	382	-	-	-	-	
	HV61D00	1530	1795	2165	480	-	-	-	-	
	HV71D00	1530	1795	2165	580	-	-	-	-	
	M8620+L8220	1570	1835	2205	-	313	350	253	350	
250	HA51	1455	1725	-	605	-	-	-	-	305
	HV61D00	1470	1735	-	480	-	-	-	-	
	HV71D00	1470	1735	-	580	-	-	-	-	
	EIL25	1540	1805	-	258	-	356	-	-	
	M8620+L8230	1865	2470	-	-	313	350	253	350	

Unit: mm

Nominal size	Actuator	H						H1			B	B1	B2	B3	B4
		Class 900		Class 1500		Class 2500									
		Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)	Class 900	Class 1500	Class 2500					
25	HA31	810	945	810	945	840	960	62	62	62	363	-	-	-	-
	HA41	975	1105	975	1105	1005	1125				520	-	-	-	-
	HV61SR5	1465	1595	1465	1595	1495	1615				475	-	-	-	-
	HV51D00	1170	1300	1170	1300	1200	1320				345	-	-	-	-
	EIL04	915	1045	915	1045	945	1065				267	-	258	-	-
40	HA31	835	975	835	975	880	1025	100	105	115	363	-	-	-	-
	HA41	995	1135	995	1135	1040	1185				520	-	-	-	-
	HA42	1560	1700	1560	1700	1605	1750				470	-	-	-	-
	HV61SR5	1485	1625	1485	1625	1530	1675				475	-	-	-	-
	HV51D00	1190	1330	1190	1330	1235	1380				345	-	-	-	-
	HV61D00	1305	1445	1305	1445	1350	1500				445	-	-	-	-
	EIL08	1010	1150	1010	1150	1055	1200				229	-	338	-	-
	M8610+L8210	1160	1300	1160	1300	1205	1350				-	285	346	253	350
50	HA31	865	1025	865	1025	900	1060	110	120	130	363	-	-	-	-
	HA41	1030	1190	1030	1190	1065	1225				520	-	-	-	-
	HA42	1595	1760	1595	1760	1635	1790				520	-	-	-	-
	HV61SR5	1520	1680	1520	1680	1555	1715				475	-	-	-	-
	HV51D00	1225	1385	1225	1385	1260	1420				345	-	-	-	-
	HV61D00	1335	1500	1335	1500	1375	1535				445	-	-	-	-
	HV71D00	1335	1500	1335	1500	1375	1535				545	-	-	-	-
	EIL08	1040	1205	1040	1205	1080	1240				229	-	338	-	-
	M8610+L8210	1195	1360	1195	1360	1235	1390				-	285	346	253	350
80	HA31	900	1080	900	1080	935	1105	140	150	160	363	-	-	-	-
	HA41	1070	1250	1070	1250	1105	1280				520	-	-	-	-
	HA42	1635	1815	1635	1815	1670	1740				520	-	-	-	-
	HV61SR5	1560	1740	1560	1740	1595	1765				475	-	-	-	-
	HV51D00	1265	1445	1265	1445	1300	1470				345	-	-	-	-
	HV61D00	1380	1560	1380	1560	1415	1585				445	-	-	-	-
	HV71D00	1380	1560	1380	1560	1415	1585				545	-	-	-	-
	EIL20	1445	1625	1445	1625	1480	1650				258	-	356	-	-
	M8620+L8220	1230	1410	1230	1410	1265	1435				-	313	350	253	350

Chongqing Chuanyi Control Valve Co., Ltd.

Unit: mm

Nominal size	Actuator	H						B2	M
		Side-mounted handwheel			MTop-mounted handwheel				
		Class150~600，PN16~PN110 кл.150~600, Py16~Py110							
		Normal temperature type (P)	Extension type I (EI)	Extension type II (EII)	Normal temperature type (P)	Extension type I (EI)	Extension type II (EII)		
15/20/25	HA21	545	695	985	695	740	1135	273.5	¢175
32	HA21	575	745	850	840	1005	1110	273.5	¢175
	HA31	700	870	1015	990	1160	1305	278.5	¢175
40	HA21	575	745	850	840	1005	1110	273.5	¢175
	HA31	700	870	1015	990	1160	1305	278.5	¢175
50	HA21	575	745	855	840	1005	1110	273.5	¢175
	HA31	700	870	980	990	1160	1305	278.5	¢175
65	HA31	735	915	1035	1025	1205	1325	278.5	¢175
	HA41	920	1100	1215	1320	1500	1615	303	¢320
80	HA31	745	925	1065	1035	1215	1355	278.5	¢175
	HA41	925	1115	1240	1325	1515	1640	303	¢320
100	HA31	770	980	1105	1160	1270	1395	278.5	¢175
	HA41	945	1165	1305	1345	1565	1705	303	¢320
	HV61SR5	1610	1830	1975	-	-	-	384	¢380
	HV51D00	1300	1520	1665	-	-	-	324	¢380
125	HA31	840	1100	1300	1130	1390	1590	278.5	¢175
	HA41	1010	1270	1485	1410	1670	1885	303	¢320
	HV61SR5	1675	1935	2150	-	-	-	384	¢380
	HV51D00	1365	1625	1840	-	-	-	324	¢380
	HV61D00	1495	1755	1870	-	-	-	384	¢380
	HV71D00	1495	1755	1870	-	-	-	384	¢380
150	HA31	840	1100	1300	1130	1390	1590	278.5	¢175
	HA41	1010	1270	1485	1410	1670	1885	303	¢320
	HV61SR5	1675	1935	2150	-	-	-	384	¢380
	HV51D00	1365	1625	1840	-	-	-	324	¢380
	HV61D00	1495	1755	1870	-	-	-	384	¢380
	HV71D00	1495	1755	1870	-	-	-	384	¢380
200	HA41	1150	1410	1655	1550	1810	2055	303	¢320
	HV51D00	1530	1790	2160	-	-	-	324	¢380
	HV61D00	1655	1920	2290	-	-	-	384	¢380
	HV71D00	1655	1920	2290	-	-	-	384	¢380
250	HA5Y	1805	2075	-	-	-	-	380	¢325
	HV61D00	1595	1860	-	-	-	-	384	¢380
	HV71D00	1595	1860	-	-	-	-	384	¢380

Unit: mm

Nominal size	Actuator	H												B2	M
		Side-mounted handwheel						Top-mounted handwheel							
		Class 900		Class 1500		Class 2500		Class900		Class1500		Class2500			
		Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)		
25	HA31	810	945	810	945	840	960	1100	1235	1100	1235	1130	1250	278.5	¢175
	HA41	975	1105	975	1105	1005	1125	1375	1505	1375	1505	1405	1525	303	¢320
	HV61SR5	1590	1720	1590	1720	1620	2015	-	-	-	-	-	-	384	¢380
	HV51D00	1280	1410	1280	1410	1310	1430	-	-	-	-	-	-	324	¢380
40	HA31	835	975	835	975	880	1025	1125	1265	1125	1265	1170	1315	278.5	¢175
	HA41	995	1135	995	1135	1040	1185	1395	1535	1395	1535	1440	1585	303	¢320
	HA42	1880	2020	1880	2020	1925	2070	-	-	-	-	-	-	310	¢380
	HV61SR5	1610	1750	1610	1750	1655	1800	-	-	-	-	-	-	384	¢380
	HV51D00	1300	1440	1300	1440	1345	1490	-	-	-	-	-	-	324	¢380
	HV61D00	1430	1560	1430	1560	1465	1625	-	-	-	-	-	-	384	¢380
50	HA31	865	1025	865	1025	900	1060	1155	1315	1155	1315	1190	1350	278.5	¢175
	HA41	1030	1190	1030	1190	1065	1225	1430	1590	1430	1590	1465	1625	303	¢320
	HA42	1915	2080	1915	2080	1955	2110	-	-	-	-	-	-	310	¢380
	HV61SR5	1645	1800	1645	1800	1680	1840	-	-	-	-	-	-	384	¢380
	HV51D00	1335	1495	1335	1495	1370	1530	-	-	-	-	-	-	324	¢380
	HV61D00	1460	1625	1460	1625	1500	1660	-	-	-	-	-	-	384	¢380
	HV71D00	1460	1625	1460	1625	1500	1660	-	-	-	-	-	-	384	¢380
80	HA31	900	1080	900	1080	935	1105	1190	1370	1190	1370	1225	1395	278.5	¢175
	HA41	1070	1250	1070	1250	1105	1275	1470	1650	1470	1650	1505	1675	303	¢320
	HA42	1955	2135	1955	2135	1990	2060	-	-	-	-	-	-	310	¢380
	HV61SR5	1685	1865	1685	1865	1720	1890	-	-	-	-	-	-	384	¢380
	HV51D00	1375	1555	1375	1555	1410	1580	-	-	-	-	-	-	324	¢380
	HV61D00	1505	1685	1505	1685	1540	1710	-	-	-	-	-	-	384	¢380
	HV71D00	1845	1955	1845	1955	-	-	-	-	-	-	-	-	384	¢380

Chongqing Chuanyi Control Valve Co., Ltd.

HTS~10010, HTS~10020 Unit: **mm**

Diameter	Actuator	H Without handwheel	H2	L1	L2	L3	B1	B2	B3	B4	B	H1
15、20、25	HA21	700	250	105	110	230	-	-	-	-	267	80
	EIL04	915					-	260	-	-	267	
32	HA21	745	355	105	135	255	-	-	-	-	281	95
	HA31	870					-	-	-	-	363	
	EIL04	960					-	260	-	-	175	
40	HA21	745	355	105	135	255	-	-	-	-	281	95
	HA31	870					-	-	-	-	363	
	EIL04	960					-	260	-	-	175	
50	HA21	745	365	105	160	280	-	-	-	-	281	100
	HA31	870					-	-	-	-	363	
	EIL04	965					-	260	-	-	175	
65	HA21	745/755	420	110	170	290	-	-	-	-	281	115
	HA31	915					-	-	-	-	363	
	HA41	1100					-	-	-	-	520	
	EIL08	1105					-	340	-	-	230	
	M8610+L8210	1400					285	350	255	230	-	
80	HA21	755/765	435	110	175	295	-	-	-	-	281	130
	HA31	930					-	-	-	-	363	
	HA41	1115					-	-	-	-	520	
	EIL08	1110					-	340	-	-	230	
	M8610+L8210	1170					285	350	255	230	-	
100	HA21	810/870	505	125	200	320	-	-	-	-	281	145
	HA31	980					-	-	-	-	363	
	HA41	1165					-	-	-	-	520	
	HV61SR5	1705					-	-	-	-	480	
	HV51D00	1410					-	-	-	-	384	
	EIL08	1170					-	340	-	-	230	
	M8610+L8210	1220					285	350	255	230	-	
125	HA31	1100	585	130	245	330	-	-	-	-	363	180
	HA41	1270					-	-	-	-	520	
	HV61SR5	1810					-	-	-	-	480	
	HV51D00	1515					-	-	-	-	384	
	HV61D00	1630					-	-	-	-	480	
	HV71D00	1630					-	-	-	-	580	
	EIL08	1310					-	340	-	-	230	
	M8620+L8220	1430					285	350	255	230	-	
150	HA31	1100	585	130	270	330	-	-	-	-	363	205
	HA41	1270					-	-	-	-	520	
	HV61SR5	1810					-	-	-	-	480	
	HV51D00	1515					-	-	-	-	384	
	HV61D00	1630					-	-	-	-	480	
	HV71D00	1630					-	-	-	-	580	
	EIL08	1310					-	340	-	-	230	
	M8620+L8220	1430					285	350	255	230	-	

Unit: **mm**

Nominal size	Actuator	H C With side-mounted handwheel	H2	L1	L2	L3	M	B1	B2	B3	B4	B	H1
15、20、25	HA21	700	250	105	110	230	175	-	273.5	-	-	267	80
32	HA21	745	355	105	135	255	175	-	-	-	-	281	95
	HA31	870					175	-	-	-	-	363	
40	HA21	745	355	105	135	255	175	-	-	-	-	281	95
	HA31	870					175	-	-	-	-	363	
50	HA21	745	365	105	160	280	175	-	-	-	-	281	100
	HA31	870					175	-	-	-	-	363	
65	HA21	745/755	420	110	170	290	175	-	-	-	-	281	115
	HA31	915					175	-	-	-	-	363	
	HA41	1100					φ320	-	-	-	-	520	
80	HA21	755/765	435	110	175	295	175	-	-	-	-	281	130
	HA31	930					175	-	-	-	-	363	
	HA41	1115					φ320	-	-	-	-	520	
100	HA21	810/870	505	125	200	320	175	-	-	-	-	281	145
	HA31	980					175	-	-	-	-	363	
	HA41	1165					φ320	-	-	-	-	520	
	HV61SR5	1830					φ380	-	-	-	-	480	
	HV51D00	1520					φ380	-	-	-	-	384	
125	HA31	1100	585	130	245	330	175	-	-	-	-	363	180
	HA41	1270					φ320	-	-	-	-	520	
	HV61SR5	1935					φ380	-	-	-	-	480	
	HV51D00	1625					φ380	-	-	-	-	384	
	HV61D00	1755					φ380	-	-	-	-	480	
	HV71D00	1755					φ380	-	-	-	-	580	
150	HA31	1100	585	130	270	330	175	-	-	-	-	363	205
	HA41	1270					φ320	-	-	-	-	520	
	HV61SR5	1935					φ380	-	-	-	-	480	
	HV51D00	1625					φ380	-	-	-	-	384	
	HV61D00	1755					φ380	-	-	-	-	480	
	HV71D00	1755					φ380	-	-	-	-	580	

Chongqing Chuanyi Control Valve Co., Ltd.

Unit: **mm**

Nominal size	Actuator	H C With top-mounted handwheel	H2	L1	L2	L3	B1	B2	B3	B4	B	H1
15、20、25	HA21	965	250	105	110	230	-	-	-	-	267	80
32	HA21	1010	355	105	135	255	-	-	-	-	281	95
	HA31	1160					-	-	-	-	363	
40	HA21	1010	355	105	135	255	-	-	-	-	281	95
	HA31	1160					-	-	-	-	363	
50	HA21	1010	365	105	160	280	-	-	-	-	281	100
	HA31	1160					-	-	-	-	363	
65	HA21	1020	420	110	170	290	-	-	-	-	281	115
	HA31	1200					-	-	-	-	363	
	HA41	1500					-	-	-	-	520	
80	HA21	1020	435	110	175	295	-	-	-	-	281	130
	HA31	1210					-	-	-	-	363	
	HA41	1515					-	-	-	-	520	
100	HA21	1135	505	125	200	320	-	-	-	-	281	145
	HA31	1270					-	-	-	-	363	
	HA41	1565					-	-	-	-	520	
150	HA31	1390	585	130	270	330	-	-	-	-	363	205
	HA41	1670					-	-	-	-	520	

HTS-10100 Unit: **mm**

Nominal size	Actuator	H			B	B1	B2	B3	B4
		Without handwheel							
		Class150~Class600，PN16~PN110							
		Normal temperature type (P)	Extension type I (EI)	Extension type II (EII)					
15、20、25	HA21	570	730	1010	281	-	-	-	-
	EIL04	770	930	1205	172	-	258	-	-
32	HA21	555	725	835	281	-	-	-	-
	HA31	680	850	1000	363	-	-	-	-
	EIL04	770	940	1050	172	-	258	-	-
40	HA21	555	725	835	281	-	-	-	-
	HA31	680	850	1000	363	-	-	-	-
	EIL04	770	940	1050	172	-	258	-	-
50	HA21	550	720	830	281	-	-	-	-
	HA31	675	845	955	363	-	-	-	-
	EIL04	765	940	1045	172	-	258	-	-
65	HA21	625	7805	930	281	-	-	-	-
	HA31	705	895	1005	363	-	-	-	-
	HA41	890	1080	1185	520	-	-	-	-
	EIL08	890	1070	1195	229	-	338	-	-
	M8610+L8210	945	1125	1245	-	285	346	353	230
80	HA21	660	845	980	281	-	-	-	-
	HA31	715	910	1035	363	-	-	-	-
	HA41	900	1095	1215	520	-	-	-	-
	EIL08	905	1085	1205	229	-	338	-	-
	M8610+L8210	955	1140	1275	-	285	346	253	230
100	HA21	700	970	1040	281	-	-	-	-
	HA31	755	1005	1090	363	-	-	-	-
	HA41	930	1160	1290	520	-	-	-	-
	HV61SR5	1470	1690	1830	480	-	-	-	-
	HV51D00	1175	1395	1535	382	-	-	-	-
	EIL08	940	1150	1275	229	-	338	-	-
	M8610+L8210	995	1205	1330	-	285	346	253	230
125	HA31	825	1105	1285	363	-	-	-	-
	HA41	995	1290	1465	520	-	-	-	-
	HV61SR5	1535	1795	2010	480	-	-	-	-
	HV51D00	1240	1500	1715	382	-	-	-	-
	HV61D00	1355	1615	1830	480	-	-	-	-
	HV71D00	1355	1615	1830	580	-	-	-	-
	EIL08	1035	1295	1495	229	-	338	-	-
	M8620+L8220	1155	1415	1630		313	350	253	230
150	HA31	825	1105	1285	363	-	-	-	-
	HA41	995	1290	1465	520	-	-	-	-
	HV61SR5	1535	1795	2010	480	-	-	-	-
	HV51D00	1240	1500	1715	382	-	-	-	-
	HV61D00	1355	1615	1830	480	-	-	-	-
	HV71D00	1355	1615	1830	580	-	-	-	-
	EIL08	1035	1295	1495	229	-	338	-	-
	M8620+L8220	1155	1415	1630	-	313	350	253	230
200	HA41	1135	1395	1640	520	-	-	-	-
	HV51D00	1405	1670	2035	382	-	-	-	-
	HV61D00	1515	1780	2150	480	-	-	-	-
	HV71D00	1515	1780	2150	580	-	-	-	-
	M8620+L8230	1485	1745	1990	-	313	350	253	230

Chongqing Chuanyi Control Valve Co., Ltd.

Ед. изм.: мм

Unit: **mm**

Nominal size	Actuator	H						B	B1	B2	B3	B4
		Without handwheel										
		Class 900 JIS 63K		Class 1500		Class 2500						
		Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)					
25	HA31	830	965	830	965	860	980	363	-	-	-	-
	HA41	975	1105	975	1105	1005	1125	520	-	-	-	-
	HV61SR5	1465	1595	1465	1595	1495	1615	480	-	-	-	-
	HV51D00	1170	1300	1170	1300	1200	1320	382	-	-	-	-
	EIL04	915	1045	915	1045	945	1065	172	-	258	-	-
40	HA31	860	1000	860	1000	905	1050	363	-	-	-	-
	HA41	995	1135	995	1135	1040	1185	520	-	-	-	-
	HA42	1565	1705	1565	1705	1610	1755	470/520	-	-	-	-
	HV61SR5	1485	1625	1485	1625	1530	1675	480	-	-	-	-
	HV51D00	1190	1330	1190	1330	1235	1380	382	-	-	-	-
	HV61D00	1305	1445	1305	1445	1350	1495	480	-	-	-	-
	EIL08	1010	1150	1010	1150	1055	1200	229	-	338	-	-
	M8610+L8210	1080	1220	1080	1220	1125	1270	-	285	346	353	230
50	HA31	890	1050	890	1050	920	1080	363	-	-	-	-
	HA41	1030	1190	1030	1190	1065	1220	520	-	-	-	-
	HA42	1600	1760	1600	1760	1635	1790	520	-	-	-	-
	HV61SR5	1520	1680	1520	1680	1555	1710	480	-	-	-	-
	HV51D00	1225	1385	1225	1385	1260	1415	382	-	-	-	-
	HV61D00	1335	1500	1335	1500	1370	1530	480	-	-	-	-
	HV71D00	1335	1500	1335	1500	1370	1530	580	-	-	-	-
	EIL08	1040	1205	1040	1205	1075	1235	229	-	338	-	-
	M8610+L8210	1115	1280	1115	1280	1150	1310	-	285	346	353	230
80	HA31	925	1105	925	1105	960	1130	363	-	-	-	-
	HA41	1070	1250	1070	1250	1105	1275	520	-	-	-	-
	HA42	1640	1820	1640	1820	1675	1845	520	-	-	-	-
	HV61SR5	1560	1740	1560	1740	1595	1765	480	-	-	-	-
	HV51D00	1265	1445	1265	1445	1300	1470	382	-	-	-	-
	HV61D00	1380	1560	1380	1560	1415	1585	480	-	-	-	-
	HV71D00	1380	1560	1380	1560	1415	1585	580	-	-	-	-
	EIL20	1450	1630	1450	1630	1485	1655	258	-	356	-	-
	M8620+L8220	1230	1410	1230	1410	1265	1435	-	313	350	253	230

Unit: mm

Nominal size	Actuator	H						B2	M
		Class150~Class600，PN16~PN110							
		Side-mounted handwheel			Top-mounted handwheel				
		Normal temperature type (P)	Extension type I (EI)	Extension type II (EII)	Normal temperature type (P)	Extension type I (EI)	Extension type II (EII)		
15、20、25	HA21	570	730	1010	831	991	1271	273.5	¢175
32	HA21	555	725	835	811	986	1096	273.5	¢175
	HA31	680	850	1000	967	1137	1287	278.5	¢175
40	HA21	555	725	835	811	986	1096	273.5	¢175
	HA31	680	850	1000	967	1137	1287	278.5	¢175
50	HA21	550	720	830	811	981	1091	273.5	¢175
	HA31	675	845	955	962	1132	1242	278.5	¢175
65	HA21	625	805	930	886	1066	1191	273.5	¢175
	HA31	705	895	1005	992	1182	1292	278.5	¢175
	HA41	890	1080	1185	1288	1478	1583	303	φ320
80	HA21	660	845	980	921	1106	1241	273.5	¢175
	HA31	715	910	1035	1002	1197	1322	278.5	¢175
	HA41	900	1095	1215	1298	1493	1613	303	φ320
100	HA21	700	970	1040	961	1231	1301	273.5	¢175
	HA31	755	1005	1090	1042	1292	1377	278.5	¢175
	HA41	930	1160	1290	1328	1558	1688	303	φ320
125	HA31	825	1105	1285	1112	1392	1572	278.5	¢175
	HA41	995	1290	1465	1393	1688	1863	303	φ320
	HV61SR5	1660	1920	2135	-	-	-	384	φ380
	HV51D00	1350	1610	1825	-	-	-	324	φ380
	HV61D00	1480	1740	1955	-	-	-	384	φ380
	HV71D00	1480	1740	1955	-	-	-	384	φ380
150	HA31	825	1105	1285	1112	1392	1572	278.5	¢175
	HA41	995	1290	1465	1393	1688	1863	303	φ320
	HV61SR5	1660	1920	2135	-	-	-	384	φ380
	HV51D00	1350	1610	1825	-	-	-	324	φ380
	HV61D00	1480	1740	1955	-	-	-	384	φ380
	HV71D00	1480	1740	1955	-	-	-	384	φ380
200	HA41	1135	1395	1640	1533	1793	2038	303	φ320
	HV51D00	1515	1780	2145	-	-	-	324	φ380
	HV61D00	1640	1905	2275	-	-	-	384	φ380
	HV71D00	1640	1905	2275	-	-	-	384	φ380

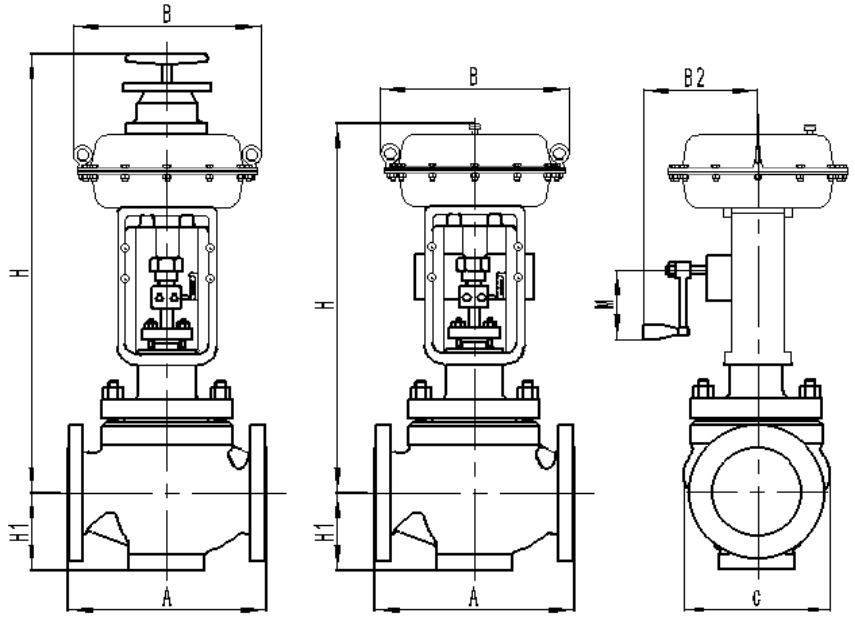
Chongqing Chuanyi Control Valve Co., Ltd.

Ед. изм.: мм

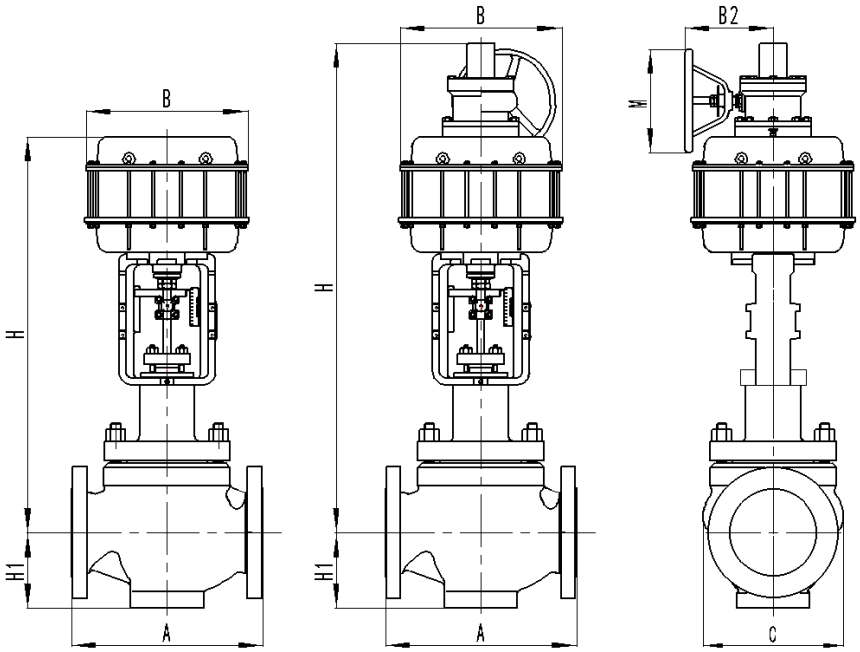
Unit: mm

Nominal size	Actuator	H								B2	M
		Side-mounted handwheel				Top-mounted handwheel					
		Class 900 JIS 63K Class 1500		Class 2500		Class 900 JIS63K Class 1500		Class 2500			
		Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)		
25	HA31	830	965	860	980	1117	1252	1147	1267	278.5	¢175
	HA41	975	1105	1005	1125	1373	1503	1403	1523	303	φ320
	HV61SR5	1590	1720	1620	1740	-	-	-	-	384	φ380
	HV51D00	1280	1410	1310	1430	-	-	-	-	324	φ380
40	HA31	860	1000	905	1050	1147	1287	1192	1337	278.5	¢175
	HA41	995	1135	1040	1185	1393	1533	1438	1583	303	φ320
	HA42	1890	2030	1935	2080	-	-	-	-	310	φ380
	HV61SR5	1610	1750	1655	1800	-	-	-	-	384	φ380
	HV51D00	1300	1440	1345	1490	-	-	-	-	324	φ380
	HV61D00	1430	1570	1475	1620	-	-	-	-	384	φ380
50	HA31	890	1050	920	1080	1177	1337	1207	1367	278.5	¢175
	HA41	1030	1190	1065	1220	1428	1588	1463	1618	303	φ320
	HA42	1925	2085	1960	2115	-	-	-	-	310	φ380
	HV61SR5	1645	1805	1680	1835	-	-	-	-	384	φ380
	HV51D00	1335	1495	1370	1525	-	-	-	-	324	φ380
	HV61D00	1460	1625	1495	1655	-	-	-	-	384	φ380
	HV71D00	1460	1625	1495	1655	-	-	-	-	384	φ380
80	HA31	925	1105	960	1130	1212	1392	1247	1417	278.5	¢175
	HA41	1070	1250	1105	1275	1468	1648	1503	1673	303	φ320
	HA42	1965	2145	2000	2170	-	-	-	-	310	φ380
	HV61SR5	1685	1865	1720	1890	-	-	-	-	384	φ380
	HV51D00	1375	1555	1410	1580	-	-	-	-	324	φ380
	HV61D00	1505	1685	1540	1710	-	-	-	-	384	φ380
	HV71D00	1505	1685	1540	1710	-	-	-	-	384	φ380

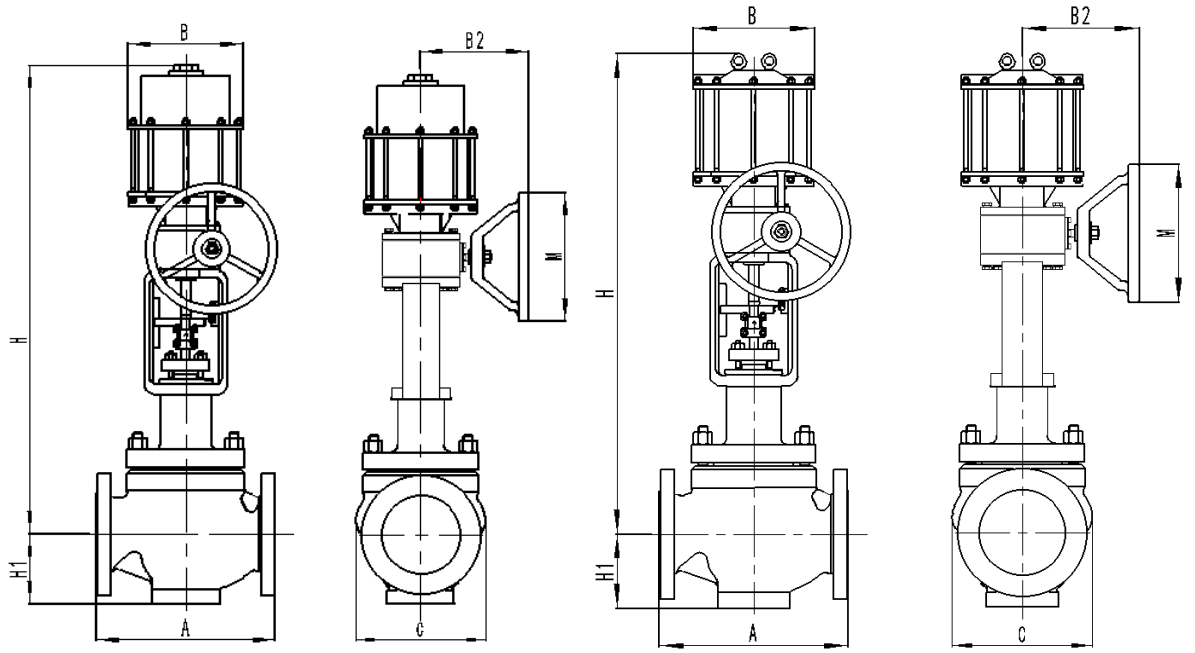
HTS-10000



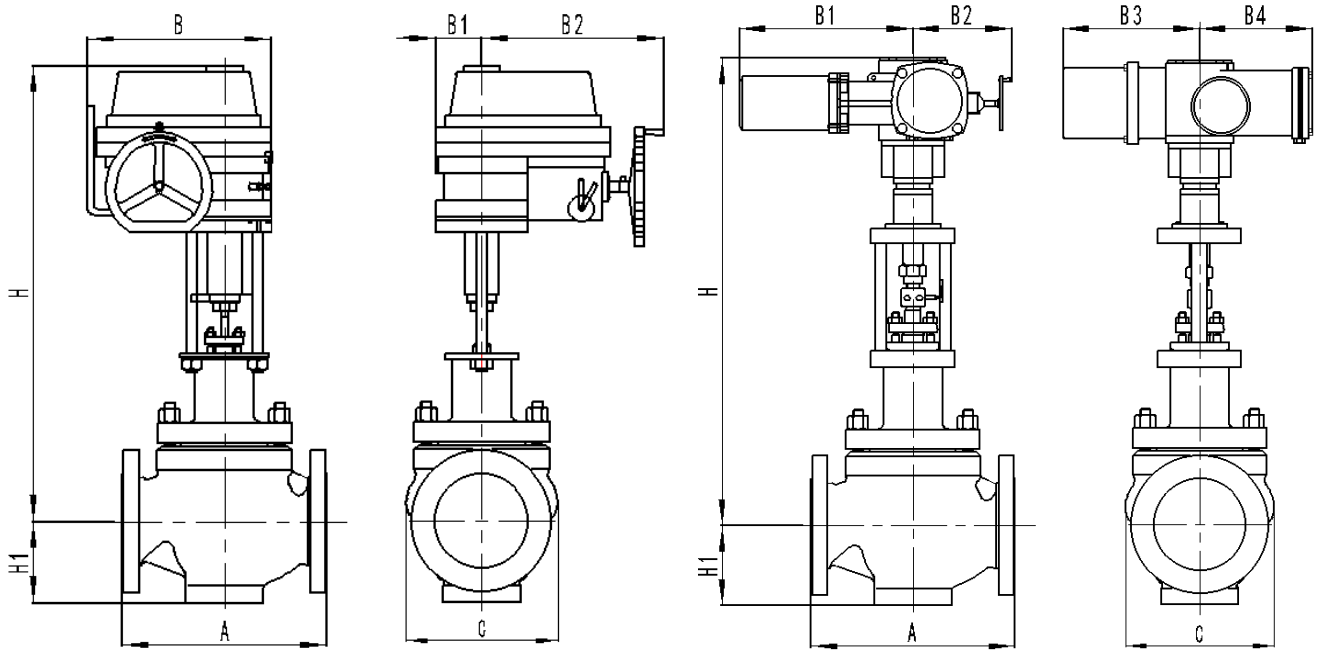
With HA11-HA41 actuator



With HA51 actuator



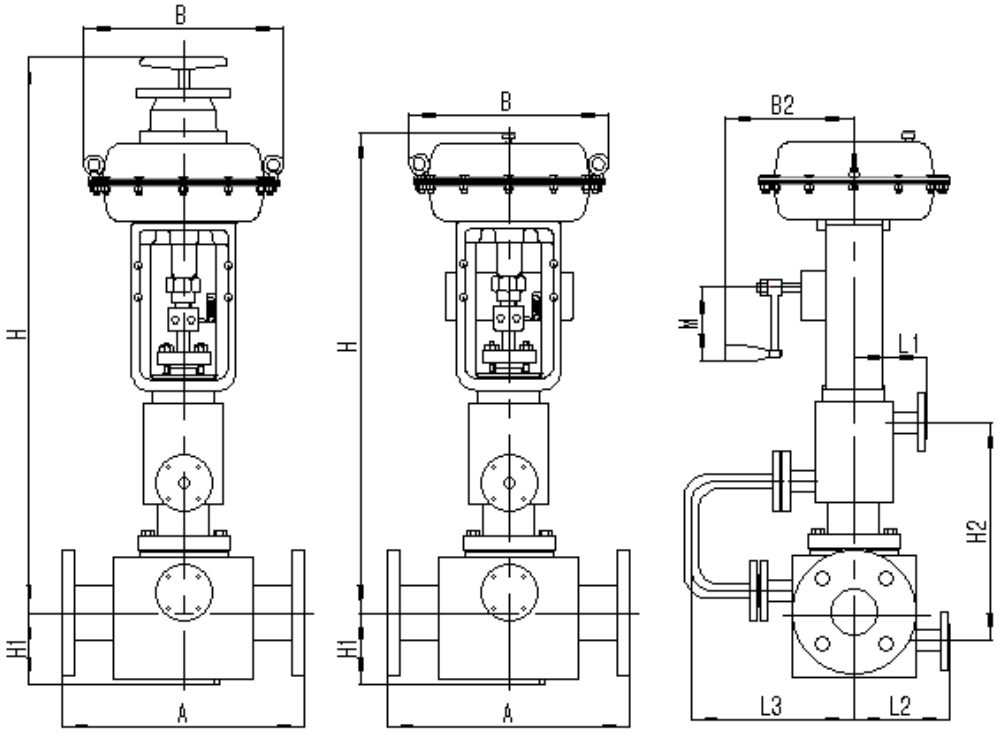
With HV single/dual-action actuator



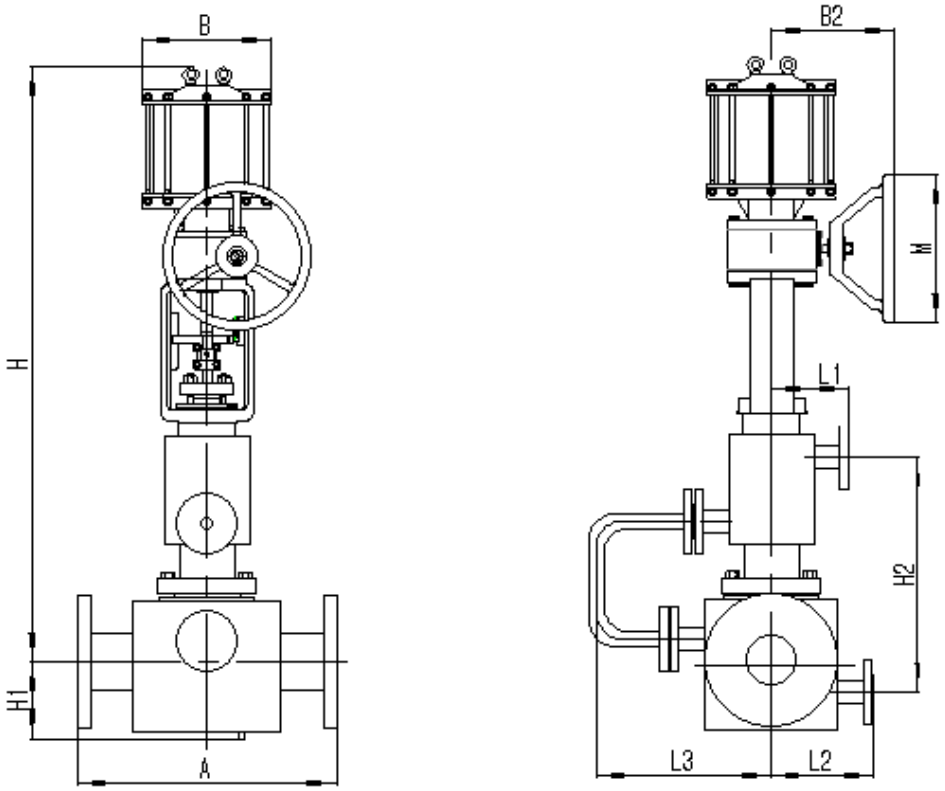
With EIL\M8 actuator

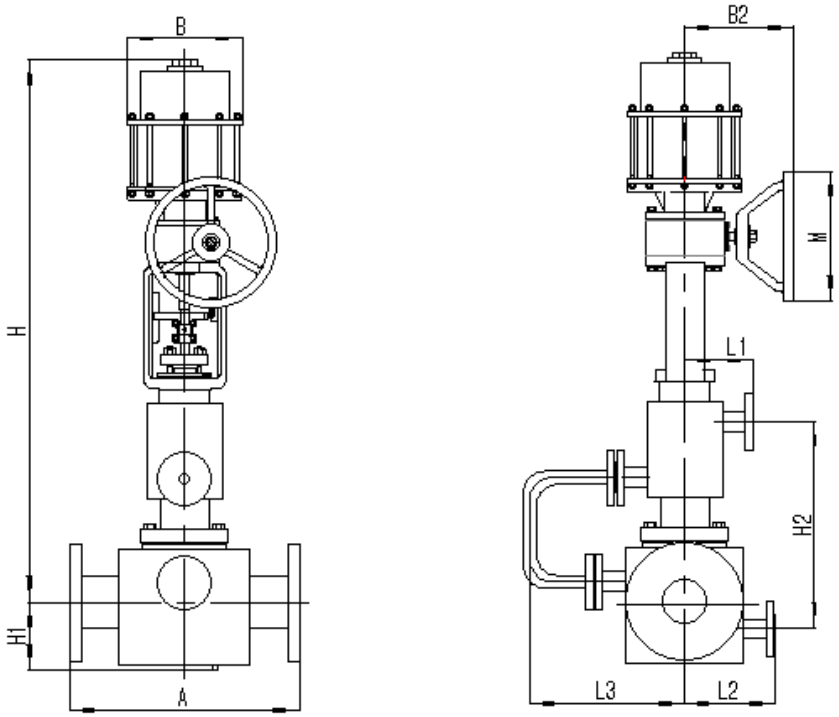
Fig. 5 Face-to-face size and overall size

HTS-10010、HTS-10020

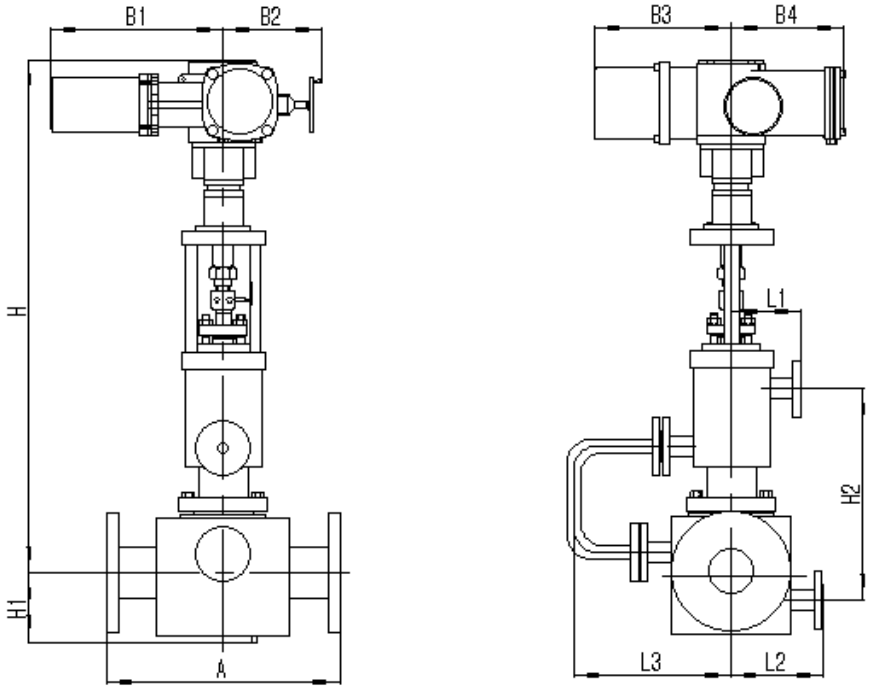


With HA11-HA41 actuator

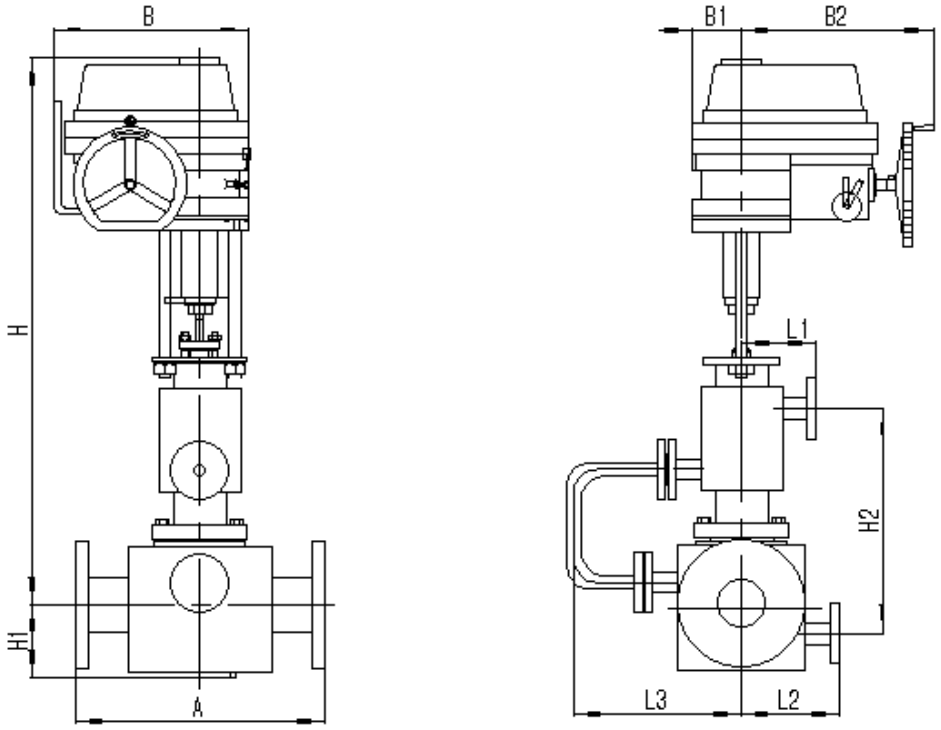




With HV single/dual-action actuator



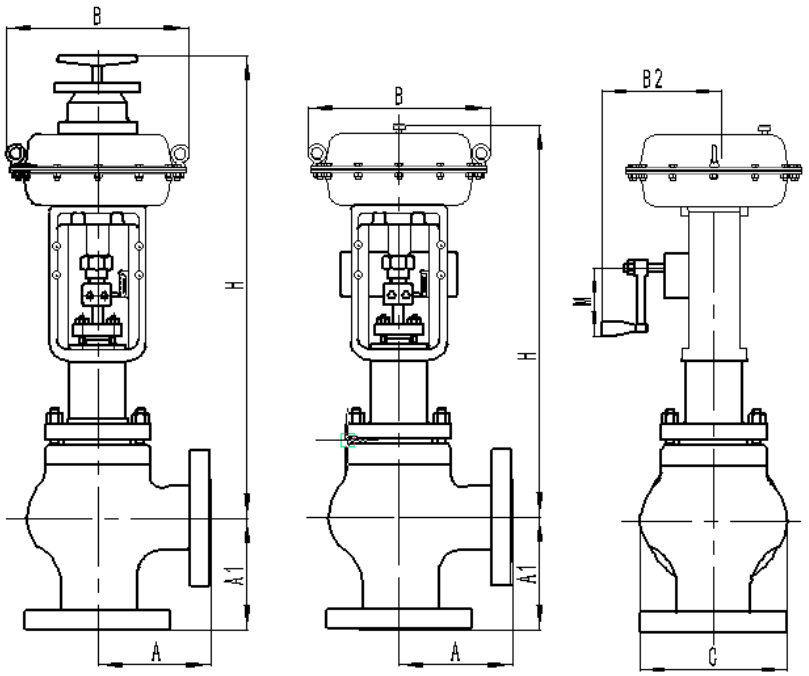
With M8 actuator



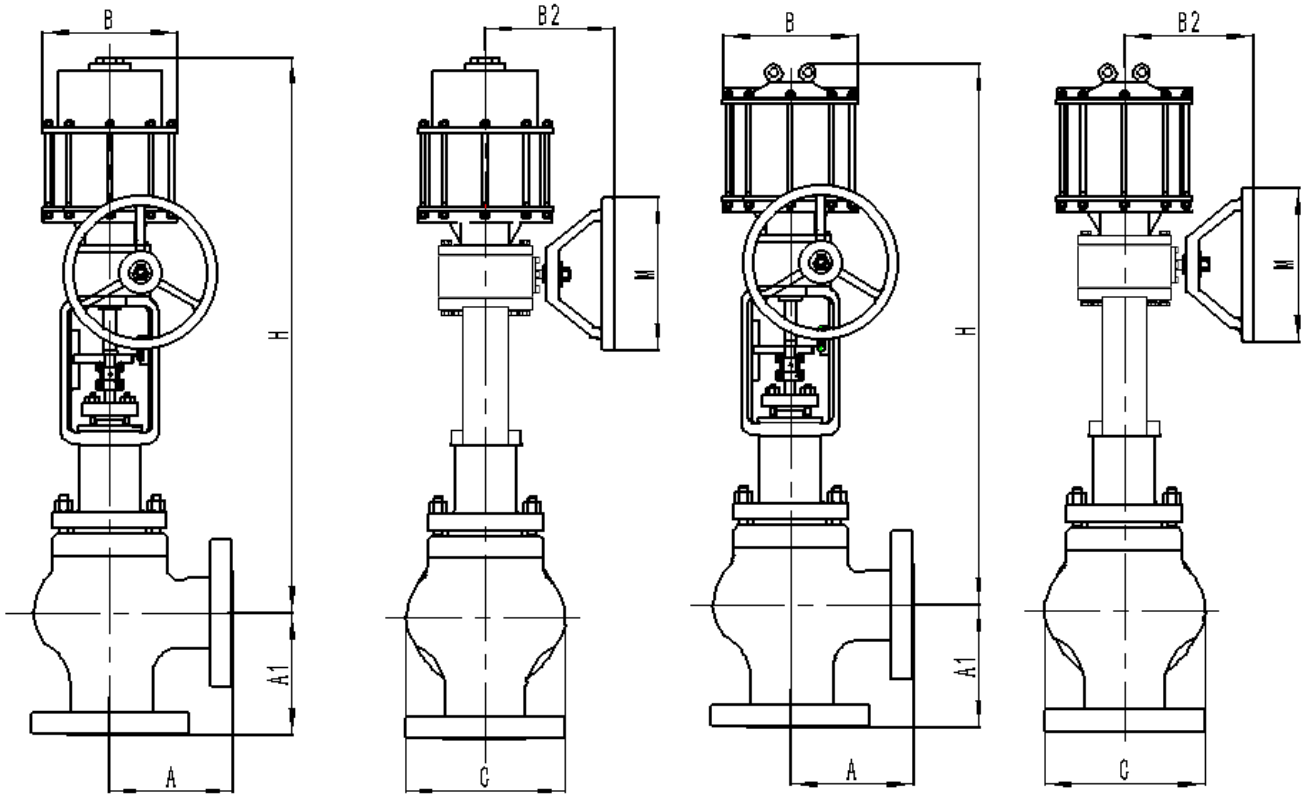
с исп. органом EIL
With EIL actuator

Fig. 5 Face-to-face size and overall size

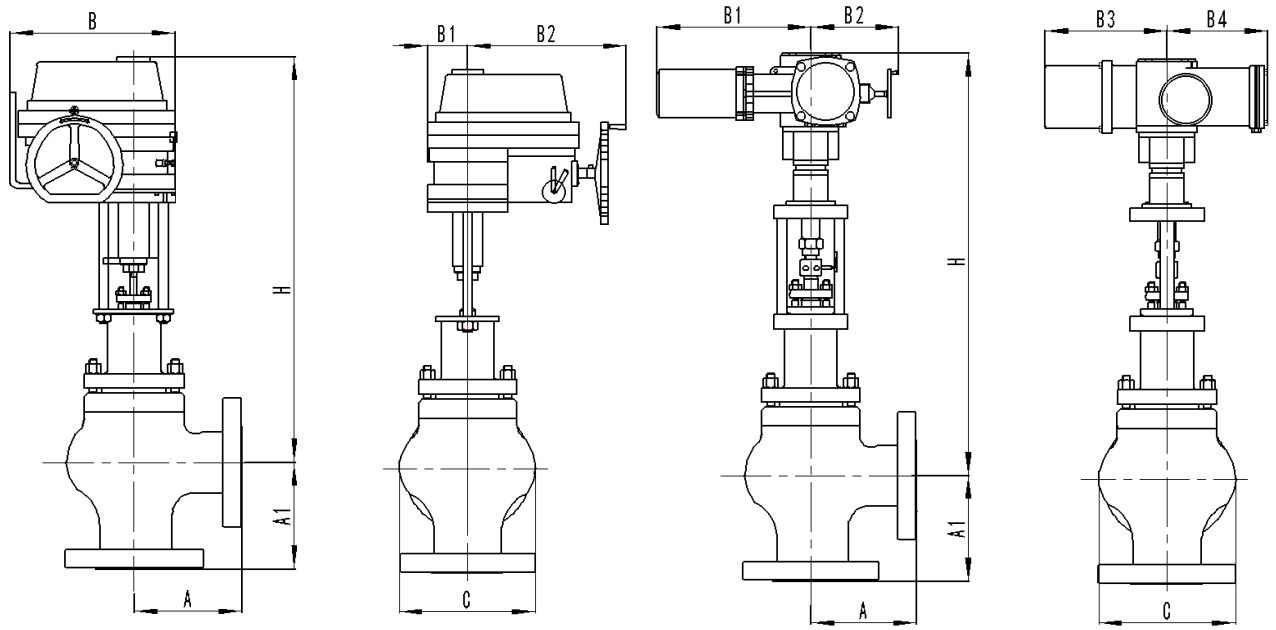
HTS-10100



With HA11-HA41 actuator



With HV single/dual-action actuator



With EIL\M8 actuator

Fig. 5 Face-to-face size and overall size

Table 6 Weight

HTS-10000 **Unit: kg**

Nominal size	Actuator	Flanged									Welded		
		Class 125、150			Class 300			Class 600			Class 150、300、600		
		P	EI	EII	P	EI	EII	P	EI	EII	P	EI	EII
15、20、25	HA21	23	25	28	24	26	29	24	26	29	21	23	26
	EIL04	16	18	21	17	19	22	17	19	22	14	16	19
32	HA21	28	31	34	32	35	38	39	42	45	32	35	38
	HA31	40	43	46	44	47	50	51	54	57	44	47	50
	EIL04	20	23	26	23	27	30	31	34	37	23	27	30
40	HA21	31	34	37	36	39	42	44	47	50	36	39	42
	HA31	43	46	49	48	51	54	56	59	62	48	51	54
	EIL04	23	26	29	27	31	34	36	39	42	28	31	33
50	HA21	37	40	43	42	45	48	47	50	53	42	45	48
	HA31	49	52	55	54	57	60	59	62	65	54	57	60
	EIL04	29	32	35	33	37	40	42	45	48	34	51	54
65	HA31	55	59	63	60	64	68	77	81	85	60	64	68
	HA41	86	90	94	91	95	99	108	112	116	91	95	99
	EIL08	39	43	47	44	48	52	61	65	69	44	48	52
	M8610+L8210	61	65	69	66	70	74	83	87	91	66	70	73
80	HA31	65	71	77	75	81	87	97	103	109	75	81	87
	HA41	96	102	108	106	112	118	128	134	140	106	112	118
	EIL08	49	55	51	59	65	61	81	87	93	59	65	61
	M8610+L8210	71	77	83	81	75	81	103	109	115	81	87	93
100	HA31	75	85	90	90	100	105	125	135	140	87	97	102
	HA41	106	116	121	121	131	136	156	166	171	118	128	133
	HV61SR5	248	258	263	263	273	278	298	308	313	260	270	275
	HV51D00	123	133	138	138	148	153	173	183	188	135	145	150
	EIL08	59	69	74	74	84	89	109	119	124	71	81	86
	M8610+L8210	81	91	96	96	106	111	131	141	146	93	103	108
125	HA31	143	158	165	168	183	190	218	233	240	155	170	182
	HA41	174	189	196	199	214	221	249	264	271	186	201	213
	HV61SR5	316	331	338	341	356	363	391	406	413	328	343	355
	HV51D00	206	221	228	231	246	253	281	296	304	219	233	245
	HV61D00	266	281	288	291	306	313	341	356	363	278	293	305
	HV71D00	376	391	398	401	416	423	451	466	473	388	403	415
	EIL08	127	142	149	152	167	174	202	217	224	139	154	166
	M8610+L8210	149	164	171	174	189	196	224	239	246	161	176	188
150	HA31	157	172	179	187	202	209	237	252	259	177	192	199
	HA41	188	203	210	218	233	240	268	283	290	208	223	230
	HV61SR5	330	345	352	360	375	382	410	425	432	350	365	372
	HV51D00	220	235	242	250	265	272	300	315	323	241	255	262
	HV61D00	280	295	302	310	325	332	360	375	382	300	315	322
	HV71D00	390	405	412	420	435	442	470	485	492	410	425	432
	EIL08	141	156	163	171	186	193	221	236	243	161	176	183
	M8610+L8210	163	178	185	193	208	215	243	258	265	183	198	205
200	HA41	268	288	298	318	338	348	438	458	468	308	328	338
	HV51D00	300	320	330	350	370	380	470	490	500	340	360	370
	HV61D00	360	380	390	410	430	440	530	550	560	400	420	430
	HV71D00	470	490	500	520	540	550	640	660	670	510	530	540
	M8620+L8220	248	268	279	298	318	328	418	438	448	288	308	318
250	HA5Y	635	700	-	735	900	-	924	1195	-	-	-	-
	HV61D00	572	637	-	672	837	-	861	1132	-	-	-	-
	HV71D00	722	787	-	822	987	-	1011	1282	-	-	-	-
	EIL20	460	525	-	560	725	-	749	1020	-	-	-	-
	M8620+L8230	480	545	-	580	745	-	770	1040	-	-	-	-

Chongqing Chuanyi Control Valve Co., Ltd.

Unit: kg

Nominal size	Actuator	Flanged						Welded					
		Class 900		Class 1500		Class 2500		Class 900		Class 1500		Class 2500	
		Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)
25	HA31	55	60	60	65	85	90	45	50	50	55	70	75
	HA41	85	90	90	95	115	120	80	85	85	90	100	105
	HV51D00	105	110	105	110	130	135	95	100	100	105	115	120
	EIL04	35	40	35	40	65	70	25	30	25	30	50	55
40	HA31	60	65	65	70	90	95	50	55	55	60	75	80
	HA41	90	95	95	100	125	130	80	85	85	90	105	110
	HA42D	170	175	175	180	205	210	160	165	165	170	185	195
	HV51D00	105	110	110	115	140	145	95	100	100	105	120	125
	HV61D00	180	185	185	190	215	220	170	175	175	180	195	200
	EIL08	60	65	65	70	90	95	50	55	55	60	75	80
	M8610+L8210	75	80	75	80	80	85	40	45	40	45	65	80
50	HA31	75	85	75	85	110	120	55	65	60	70	85	95
	HA41	100	110	105	115	140	150	85	95	90	100	115	125
	HA42D	180	190	185	195	220	230	165	175	170	180	195	205
	HV51D00	115	125	120	130	155	165	100	110	105	115	130	140
	HV61D00	190	200	195	205	230	240	175	185	180	190	205	215
	HV71D00	300	310	305	315	340	350	285	295	290	300	315	325
	EIL08	75	85	75	85	110	120	55	65	60	70	85	95
	M8610+L8210	90	100	90	100	125	135	70	80	75	85	100	110
80	HA31	105	115	140	160	225	245	85	95	110	130	170	190
	HA41	135	145	170	190	255	275	115	125	140	160	200	220
	HA42D	215	225	250	270	235	355	195	205	220	240	280	300
	HV51D00	150	160	185	205	270	290	130	140	155	175	215	235
	HV61D00	225	235	260	280	345	365	205	215	230	250	290	310
	HV71D00	335	345	370	390	455	475	315	325	340	360	400	420
	EIL20	95	105	130	150	215	235	75	85	100	120	160	180
	M8620+L8220	115	125	150	170	235	255	95	105	120	140	180	220

HTS-10010, HTS-10020 **Unit: kg**

Nominal size	Actuator	Flanged			
		Class 150		Class 300	
		HTS~10020	HTS~10010	HTS~10020	HTS~10010
15、20、25	HA21	30	35	31	36
	EIL04	23	28	24	29
	RS4	33	38	44	49
32	HA21	39	43	43	48
	HA31	51	55	55	60
	EIL04	31	35	34	40
40	HA21	42	46	47	52
	HA31	54	58	59	64
	EIL04	34	38	39	44
50	HA21	48	54	53	61
	HA31	60	66	65	73
	EIL04	40	46	45	53
65	HA21	60	72	66	79
	HA31	72	84	78	91
	HA41	103	115	109	122
	EIL08	56	68	62	75
	M8610+L8210	79	91	84	97
80	HA21	76	85	86	99
	HA31	88	97	98	111
	HA41	119	127	129	142
	EIL08	72	81	82	95
	M8610+L8210	94	103	92	105
100	HA21	97	106	113	137
	HA31	109	118	125	149
	HA41	140	149	156	180
	HV61SR5	272	281	298	322
	HV51D00	157	166	173	196
	EIL08	93	102	107	131
	M8610+L8210	115	124	131	155
125	HA31	234	256	263	288
	HA41	265	287	294	319
	HV61SR5	407	429	436	461
	HV51D00	282	305	311	236
	HV61D00	358	380	386	411
	HV71D00	467	489	496	521
	EIL08	218	240	247	372
	M8610+L8210	240	262	269	295
150	HA31	248	270	282	307
	HA41	279	301	313	338
	HV61SR5	421	443	455	480
	HV51D00	296	319	330	255
	HV61D00	372	394	405	430
	HV71D00	481	503	515	540
	EIL08	232	254	266	391
	M8610+L8210	254	276	288	314

Chongqing Chuanyi Control Valve Co., Ltd.

HTS-10100 **Unit: kg**

Nominal size	Actuator	Flanged									Welded		
		CLass 150			CLass 300			CLass 600			CLass 150、300、600 CLass 150, 300, 600		
		P	EI	EII	P	EI	EII	P	EI	EII	P	EI	EII
15、20、25	HA21	26	28	31	27	29	32	27	29	32	-	-	-
	EIL04	19	21	24	20	22	25	20	22	25	-	-	-
32	HA21	28	31	34	32	35	38	39	42	45	32	35	38
	HA31	40	43	46	44	47	50	51	54	57	44	47	50
	EIL04	20	23	26	23	27	30	31	34	37	23	27	30
40	HA21	31	34	37	36	39	42	44	47	50	36	39	42
	HA31	43	46	49	48	51	54	56	59	62	48	51	54
	EIL04	23	26	29	27	31	34	36	39	42	28	31	33
50	HA21	37	40	43	42	45	48	47	50	53	42	45	48
	HA31	49	52	55	54	57	60	59	62	65	54	57	60
	EIL04	29	32	35	33	37	40	42	45	48	34	51	54
65	HA21	43	47	51	48	52	56	65	69	73	48	52	56
	HA31	55	59	63	60	64	68	77	81	85	60	64	68
	HA41	86	90	94	91	95	99	108	112	116	91	95	99
	EIL08	39	43	47	44	48	52	61	65	69	44	48	52
	M8610+L8210	61	65	69	66	70	74	83	87	91	66	70	73
80	HA21	53	59	65	63	69	75	85	91	97	63	69	75
	HA31	65	71	77	75	81	87	97	103	109	75	81	87
	HA41	96	102	108	106	112	118	128	134	140	106	112	118
	EIL08	49	55	51	59	65	61	81	87	93	59	65	61
	M8610+L8210	71	77	83	81	75	81	103	109	115	81	87	93
100	HA21	63	73	78	78	88	93	113	123	128	75	85	90
	HA31	75	85	90	90	100	105	125	135	140	87	97	102
	HA41	106	116	121	121	131	136	156	166	171	118	128	133
	HV61SR5	248	258	263	263	273	278	298	308	313	260	270	275
	HV51D00	123	133	138	138	148	153	173	183	188	135	145	150
	EIL08	59	69	74	74	84	89	109	119	124	71	81	86
	M8610+L8210	81	91	96	96	106	111	131	141	146	93	103	108
125	HA31	143	158	165	168	183	190	218	233	240	155	170	182
	HA41	174	189	196	199	214	221	249	264	271	186	201	213
	HV61SR5	316	331	338	341	356	363	391	406	413	328	343	355
	HV51D00	206	221	228	231	246	253	281	296	304	219	233	245
	HV61D00	266	281	288	291	306	313	341	356	363	278	293	305
	HV71D00	376	391	398	401	416	423	451	466	473	388	403	415
	EIL08	127	142	149	152	167	174	202	217	224	139	154	166
	M8620+L8220	149	164	171	174	189	196	224	239	246	161	176	188
150	HA31	157	172	179	187	202	209	237	252	259	177	192	199
	HA41	188	203	210	218	233	240	268	283	290	208	223	230
	HV61SR5	330	345	352	360	375	382	410	425	432	350	365	372
	HV51D00	205	220	227	235	250	257	285	300	307	225	240	247
	HV61D00	280	295	302	310	325	332	360	375	382	300	315	322
	HV71D00	390	405	412	420	435	442	470	485	492	410	425	432
	EIL08	141	156	163	171	186	193	221	236	243	161	176	183
	M8620+L8220	163	178	185	193	208	215	243	258	265	183	198	205
200	HA41	268	288	298	318	338	348	438	458	468	308	328	338
	HV51D00	285	305	315	335	355	365	455	475	485	325	345	355
	HV61D00	360	380	390	410	430	440	530	550	560	400	420	430
	HV71D00	470	490	500	520	540	550	640	660	670	510	530	540
	M8620+L8220	248	268	279	298	318	328	418	438	448	288	308	318

Ед. изм.: кг

Unit: kg

Nominal size	Actuator	Flanged						Welded					
		Class 900		Class 1500		Class 2500		Class 900		Class 1500		Class 2500	
		Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)	Normal temperature type (P)	Extension type I (EI)
25	HA31	55(52)	60(57)	60	65	85	90	45	50	50	55	70	75
	HA41	85(83)	90(88)	90	95	115	120	80	85	85	90	100	105
	HV51D00	105(100)	110(105)	105	110	130	135	95	100	100	105	115	120
	EIL04	35	40	35	40	65	70	25	30	25	30	50	55
40	HA31	60(55)	65(60)	65	70	90	95	50	55	55	60	75	80
	HA41	90(86)	95(91)	95	100	125	130	85	90	90	95	105	110
	HA42	170	175	175	180	205	210	160	165	165	170	185	195
	HV51D00	105(103)	110(108)	110	115	140	145	95	100	100	105	120	125
	HV61D00	180(178)	185(183)	185	190	215	220	170	175	175	180	195	200
	EIL08	60	65	65	70	90	95	50	55	55	60	75	80
	M8610+L8210	75	80	75	80	80	85	65	70	70	75	90	95
50	HA31	75(61)	85(71)	75	85	110	120	55	65	60	70	85	95
	HA41	100(92)	110(102)	105	115	140	150	85	95	90	100	115	125
	HA42	180	190	185	195	220	230	165	175	170	180	195	205
	HV51D00	115(109)	125(119)	120	130	155	165	100	110	105	115	130	140
	HV61D00	190(184)	200(194)	195	205	230	240	175	185	180	190	205	215
	HV71D00	300(294)	310(304)	305	315	340	350	285	295	290	300	315	325
	EIL08	75	85	75	85	110	120	55	65	60	70	85	95
	M8610+L8210	90	100	90	100	125	135	70	80	75	85	100	110
80	HA31	105(97)	115(107)	140	160	225	245	85	95	110	130	170	190
	HA41	135(128)	145(138)	170	190	255	275	115	125	140	160	200	220
	HA42	215	225	250	270	235	355	195	205	220	240	280	300
	HV51D00	150(145)	160(155)	185	205	270	290	130	140	155	175	215	235
	HV61D00	225(220)	235(230)	260	280	345	365	205	215	230	250	290	310
	HV71D00	335(330)	345(340)	370	390	455	475	315	325	340	360	400	420
	EIL20	95	105	130	150	215	235	75	85	100	120	160	180
	M8620+L8220	115	125	150	170	235	255	95	105	120	140	180	220

Chongqing Chuanyi Control Valve Co., Ltd.

Steam jacket

Steam media in jacket: pressure ≤ 1.0MPa, temperature ≤ 250℃

Material of jacket: A3 steel for general circumstance, SS 304 for special circumstance

Type of jacket I: semi-insulated body, insulated bonnet

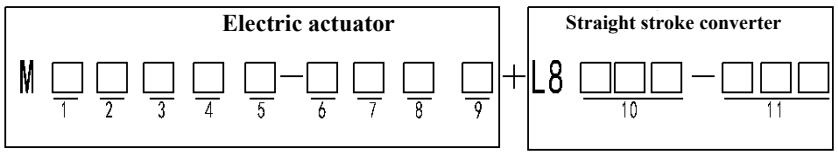
II: totally-insulated body, insulated bonnet

Steam input connector of jacket:

Connector of insulated jacket		PN series valve with insulated jacket		рубашкой Class series valve with insulated jacket	
		≤DN100	DN125~DN200	≤NPS4	NPS5~NPS8
		Connection, specification and size			
Inlet and outlet of insulated and heated fluid	**Flanged**	**Py25 DN15 and PN25 raised face flange**	**Py25 DN20 and PN25 raised face flange**	**NPS1/2, кл.150 NPS1/2 and Class150 raised face flange**	**NPS3/4, кл.150 NPS3/4 and Class150 raised face flange**
	Pipe thread connection	1/2NPT 1/2NPT pipe thread	3/4NPT 3/4NPT pipe thread	1/2NPT 1/2NPT pipe thread	3/4NPT 3/4NPT pipe thread
Discharge port	**Pipe thread connection**	**1/2NPT pipe thread and plug**			

Unless otherwise specified in the order contract, design pressure and temperature of the insulated jacket are 1.0Mpa and 250℃ respectively. Strength of the insulated jacket shall meet requirements of design pressure and temperature or requirements of design pressure and temperature in the order contract.

M series model code rules



Model rules: (1) Output type

8-8000 multi-revolution type

0-Small torque 90° type

1-Small thrust linear stroke

(2) Control module:

1-Simple ON-OFF type (MCC)и

2-ON-OFF control

3-Intelligent ON-OFF type

4-Intelligent control type

5-Variable frequency ON-OFF type

6-Variable frequency control type

(3) Output torque:

1—50N.m or 100N.m/90°

2—100N.m or 200N.m/90°

3—200N.m or 300N.m/90°

4—400N.m

5—600N.m

6—1000N.m. or 600N.m/90°

7—1600N.m～2500N.m

8—3000N.m

Note: Small thrust is output thrust

(4) Output speed:

0—36r/min or 34s/90°

1—24r/min or 28s/90°

2—12r/min；

3—72r/min

4—84r/min；

6—144r/min

Small thrust default

(5) Explosion-proof rating:

None-No requirement

d—Ex dIIBT4

D—Ex dibIICT4

(6) Ambient temperature

0-Normal temperature

E-Low temperature

G-High temperature

(7) Power:

0—380V/3PH

S—220V/1PH

B—24 V d.c.

U—12 Vd.c.

X—440V～460V/3PH

(8) Communication protocol:

0 — Нет

0-None

r-Infrared

w-Wireless

p-Profibus (2p is two-channel)

m-Modbus

f-FF fieldbus

h-HART fieldbus

(9) Feedback:

0-None

c-ON-OFF type with 4mA-20mA

(10) Specification code

(11) Stroke: not indicated in general model

e.g.: M8510-0S0C+L8210