

# CV3000 系列

## CV3000 SERIES

### HKE 迷宫笼式调节阀

HKE 迷宫笼式调节阀采用集成化的迷宫式多级降压阀内件，通过增减迷宫内件中槽的节流级数来适应不同的压差要求。完全控制流体速度，逐级降低压力，达到降噪的目的。不仅能有效防止液体工况的空化、气蚀现象，而且能大幅降低高压差气体工况所产生的噪音。符合 IEC534-2-1976 标准。

调节阀泄漏量符合 ANSI B16.104 标准。调节阀配用多弹簧薄膜或气缸执行机构，其结构紧凑，输出力大。

产品符合 GB/T4213-2008 标准。

### Cage Guided Labyrinth Type Control Valve

HKE cage guided labyrinth type control valve with trims which are of integrated, labyrinth type and function of multi-stage pressure reducing to satisfy different pressure differential requirements by increasing or decreasing labyrinth spacer, it can be effectively control fluid speed and reducing the pressure step by step to achieve the purpose of noise reduction. Not only can effectively prevent cavitation and cavitation phenomena of liquid, but also can significantly reduce the noise resulting from high pressure differential gas condition. The design of valve complies with the IEC534-2-1976 standards.

The leakage complies with the ANSI B16.104 standards. The control valve can be combined with multi-spring or cylinder actuator, which features with compact construction and large output force.

This product complies with the GB/T4213-2008 standards.

### 标准规格 STANDARD SPECIFICATION

#### 阀体 BODY

形式 Type	直通单座铸造球型阀 Straight-through, single seated, cast globe valve
公称通径 Normal size	25、32、40、50、65、80、100、125、150、200、250、300、350、400mm
公称压力 Pressure rating	ANSI Class900、1500、2500
连接型式 End connections	法兰型 Flanged: RF、RJ 焊接型 Welded end: SW (25~80mm) ; BW (80~400mm)
尺寸 Dimensions	请参见表 5 See Table 5
阀体及上阀盖材质 Body & Bonnet Material	SCPH2/WCB,SCPH21/WC6,SCS13A/CF8,SCS14A/CF8M,SCS16A/CF3M and other alloy steels 各种材质的使用温度·压力范围，请参见表 1 和表 2 As to the operating pressure-temperature limitation for each material, see Table 1& 2
上阀盖型式 Bonnet type	常温型 Plain type: -17~+230℃ 伸长 I 型 (EI) Extension Type I: -45~-17℃ and +230~+566℃ 伸长 II 型 (EII) Extension Type II: -100~-45℃ 注: 工作温度不准超过各种材料的允许范围。 Note: Take care not to exceed the operating temperature ranges specified for required materials.

压盖型式 Gland type	螺栓压紧式 Bolted gland
填料 Packing	聚四氟乙烯碳纤维、JM397 石墨填料 各种填料的使用温度·压力范围，请参见图 2 Teflon fiber, JM397Grafoil, see Fig.2 for selection
垫圈 Gasket	缠绕式垫圈（聚四氟乙烯/SUS316、柔性石墨/SUS316） 各种垫圈的使用温度·压力范围，请参见图 3 Spiral wound metal, with Grafoil or Teflon filler. See Fig.3 for selection
表面涂层 Surface coating	银灰色（环氧树脂）。但是阀体材质为不锈钢时，本体部不加涂层。 SLV (Epoxy resin group) is standard. In the case of stainless steel body, no painting is standard.

\* 法兰标准 Standard: JIS B2201-1984、ANSI B16.5-1981

### 阀内组件 TRIM

阀芯型式 Valve plug type	带组合密封圈或活塞环的压力平衡式阀芯 Pressure-balanced type plug with the composite seal ring or piston ring
阀内件材质 Trim materials	标准材质组合及使用温度·压力范围，请参见表 1 及图 1
阀内件处理 Trim materials	See Table 1&Fig.1 for hardening treatment and operating pressure-temperature
流量特性 Flow characteristics	等百分比特性（%V）和线性特性（LV），参见图 4 Equal percentage（%V）and Linear（LV），see Fig.4

### 执行机构 ACTUATOR

型号 Type	气动薄膜式 Pneumatic Diaphragm type	气缸活塞式 Cylinder piston type		电子式 Electronic type	智能式 Intelligent type
	HA	VA	VP	EIL	M8 系列
规格 Specification	多弹簧型 Multi-Spring type	单作用 Single acting	双作用 Double acting		
用途 Purpose	调节 Modulation	调节 Modulation		调节 Modulation	调节 Modulation
供气压力或 供给电压 Air supply or Power supply	供气压力（弹簧范围） Air supply (Spring range) 80 (80~240) kPa 400 (80~240) kPa	供气压力 Air supply 400~700kPa		电压：220/380V 50HZ Power supply:220 /380V 50Hz 输入信号 Input signal：4~20mA DC	电压：220/380V 50HZ Power supply:220 /380V 50Hz 输入信号 Input signal: 4~20mA DC
接口 Connection	空气配管：Rc1/4 Air piping: Rc1/4	空气配管 Air piping: G3/8 (VA6、VP5、VP6); G1/2 (VP7)		配线：PG13.5 Wiring:PG13.5	配线：PG13.5 Wiring:PG13.5

<b>正作用</b> <b>Direct action</b>	气压增加阀闭 Air to valve close	气压增加阀闭 Air to valve close	输入信号阀闭 Signal increase to valve shut	输入信号阀闭 Signal increase to valve shut
<b>反作用</b> <b>Reverse action</b>	气压增加阀开 Air to valve open	气压增加阀开 Air to valve open	输入信号阀开 Signal increase to valve open	输入信号阀开 Signal increase to valve open
<b>回差</b> <b>Hysteresis error</b>	$\leq 1\%FS$ (带定位器) $\leq 1\%FS$ ( With positioner)	$\leq 1\%FS$ (带定位器) $\leq 1\%FS$ (With positioner)	$\leq 1\%FS$	$\leq 1\%FS$
<b>基本误差</b> <b>Limit of intrinsic error</b>	$\leq \pm 1\%FS$ (带定位器) $\leq \pm 1\%FS$ ( With positioner)	$\leq \pm 1\%FS$ (带定位器) $\leq \pm 1\%FS$ ( With positioner)	$\leq \pm 1\%FS$	$\leq \pm 1\%FS$
<b>环境温度</b> <b>Ambient temperature</b>	标准型 Standard type-30~+70℃ 高温型 High Temp. service 0~+100℃ 低温型 Low Temp. service -40~+40℃	标准型 Standard type-20~+60℃ 高温型 High Temp. service 0~+100℃ 低温型 Low Temp. service -50~+60℃	-20~+70℃	-25~+70℃
<b>油漆颜色</b> <b>Painting</b>	蓝色 Munsell 色标 10B5/10 Blue ( Munsell color 10B5/10)	蓝色 Munsell 色标 10B5/10 Blue ( Munsell color 10B5/10)		
<b>附件</b> <b>Accessories</b>	定位器、空气过滤减压阀、保位阀、阀传送器、手轮机构等 Positioner, Air-set, Lock-up valve, Position transmitter, Hand wheel and others	定位器、空气过滤减压阀、保位阀、阀传送器、手轮机构等 Positioner, Air-set, Lock-up valve, Position transmitter, Hand wheel and others	EIL 执行机构手轮 Handwheel	M8 执行机构手轮 Handwheel

### 性能 PERFORMANCE

CV 值 及行程 Rated CV value and Stroke	请参见表 3 See Table 3
阀座泄漏量 Seat Leakage	请参见表 1 See Table 1
可调范围 Rangeability	50 : 1
允许压差 Allowable pressure drops	请参见表 4 See Table 4
产品重量 Weight	请参见表 5 See Table 5

表 1 阀体、阀内件材质组合及使用温度范围· 阀座允许泄漏量

Table 1 BODY/TRIM STANDARD MATERIAL COMBINATION, OPERATING TEMPERATURE AND SEAT LEAKAGE

- R.TFE: 强化聚四氟乙烯 Reinforced Teflon
- HT : 热处理 Heat treatment
- ST : 堆焊司太莱合金 Partial stellite
- SS : 部分堆焊司太莱合金 Stellite seat surface
- SF : 全部堆焊司太莱合金 Stellite full surface

表 1-1 阀体材质: 碳钢

Table 1-1 BODY MATERIAL: CARBON STEEL

阀体材质 Body material		SCPH2/A216-WCB,SCPH21/A217-WC6,SCPL1/A352-LCB		
套筒 Cage	材质 material	SCS24/SUS630		
	处理 treatment	HT		
节流组件 Throttling Components	材质 material	SUS410		
	处理 treatment	HT		
阀芯 Plug	材质 material	SUS410		
	处理 treatment	HT		
阀座 Valve seat	材质 material	SUS410	SUS410	SUS410
	处理 treatment	PEEK	HT	HT
平衡密封环 Balanced seal ring	材质 material	R .TFE	R .TFE	Inconel 750
	垫环 gasket ring	SUS316/哈式 C (Hastelloy C)	SUS316/哈式 C (Hastelloy C)	—
垫圈 Gasket	材质 material	SUS316L	SUS316L	—
阀座允许泄漏量 Seat Leakage		Rated Cv× 0.0001%	Class IV	Class IV
使用温度 Operating Tep. °C	SCPH2/WCB Body	-17~+270		-17~+425
	SCPH21/WC6 Body	-17~+270		-17~+566
	SCPL1/LCB Body	-45~+270		-17~+350

表 1-2 阀体材质：不锈钢

Table 1-2 BODY MATERIAL: STAINLESS STEEL

阀体材质 Body material		SCS13A/A351-CF8, SCS14A/A351-CF8M, SCS16A/A351-CF3M		
套筒 Cage	材质 material	SUS304/316/316L		
	处理 treatment	—		
节流组件 Throttling Components	材质 material	SUS316/SUS316L		
	处理 treatment	—		
阀芯 Plug	材质 material	SUS304/316/316L	SUS304/316/316L	SUS304/316/316L
	处理 treatment	SS/SF	SS/SF	SS/SF
阀座 Valve seat	材质 material	SUS304/316/316L	SUS304/316/316L	SUS304/316/316L
	处理 treatment	PEEK	SS/SF	SS/SF
平衡密封环 Balanced seal ring	材质 material	R.TFE	R.TFE	Inconel 750
	垫环 gasket ring	SUS316/哈式 C (Hastelloy C)	SUS316/哈式 C (Hastelloy C)	—
垫圈 Gasket	材质 material	SUS316L	SUS316L	—
阀座允许泄漏量 Seat Leakage		Rated Cv×0.0001%	Class IV	Class IV
使用温度 Operating Tep. °C		-75~+270		-196~+566

注：流体温度在-75℃以下，平衡密封环的材质：Fluoroloy G；垫环：Elgiloy。

**Note:**When the liquid temperature is below -75℃, the material of balanced seal ring is Fluoroloy G and backing ring is Elgiloy.

表 2 阀体材质使用温度· 压力范围

Table 2 BODY MATERIAL/OPERATING PRESSURE-TEMPERATURE RATIO UNIT:Mpa

温度 Temp.℃	ANSI900						ANSI1500						ANSI2500					
	LCB	WCB A105	WC6 F11	WC9 F22	SCS13A F304 CF8	SCS14A F316 CF8M	LCB	WCB A105	WC6 F11	WC9 F22	SCS13A F304 CF8	SCS14A F316 CF8M	LCB	WCB A105	WC6 F11	WC9 F22	SCS13A F304 CF8	SCS14A 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	15.50	14.88	14.88	23.92	25.51	25.84	25.84	24.79	24.79	39.87	42.52	43.07	43.07	41.34	41.34
50	14.18	15.01	15.33	15.35	14.34	14.43	23.64	25.02	25.55	25.58	23.90	24.04	39.40	41.70	42.59	42.64	39.84	40.07
100	13.52	13.90	14.62	14.70	12.25	12.65	22.53	23.16	24.36	24.50	20.42	21.09	37.56	38.62	40.61	40.85	34.01	35.14
150	13.18	13.56	13.90	13.98	10.89	11.54	21.96	22.60	23.18	23.30	18.16	19.24	36.60	37.66	38.61	38.84	30.26	32.07
200	12.79	13.14	13.63	13.45	9.82	10.69	21.32	21.89	22.73	22.40	16.37	17.83	35.53	36.50	37.88	37.35	27.28	29.71
250	12.17	12.51	13.33	13.26	9.15	10.02	20.28	20.84	22.22	22.10	15.26	16.68	33.80	34.75	37.03	36.83	25.43	27.80
300	11.30	11.61	12.72	12.72	8.71	9.49	18.84	19.36	21.20	21.20	14.52	15.80	31.40	32.26	35.33	35.33	24.20	26.34
350	10.78	11.08	12.06	12.06	8.42	9.12	17.96	18.46	20.11	20.11	14.02	15.20	29.95	30.78	33.51	33.51	23.36	25.36
375		10.94	11.63	11.63	8.32	8.91		18.22	19.38	19.38	13.86	14.84		30.37	32.32	32.32	23.12	24.74
400		10.34	10.98	10.98	8.23	8.72		17.24	18.28	18.28	13.72	14.55		28.73	30.47	30.47	22.87	24.25
425		8.62	10.53	10.53	8.14	8.59		14.37	17.54	17.54	13.57	14.32		23.94	29.23	29.23	22.63	23.87
450		6.01	10.13	10.13	8.06	8.42		10.02	16.89	16.89	13.42	14.03		16.68	28.16	28.16	22.37	22.79
475		4.06	9.50	9.50	7.97	8.20		6.76	15.82	15.82	13.27	13.67		11.28	26.36	26.36	22.13	22.34
500			8.33	8.33	7.81	8.05			13.89	13.89	13.02	13.40			23.15	23.15	21.71	21.47
525			6.08	6.58	7.15	7.73			10.12	10.96	11.94	12.89			16.88	18.26	19.88	20.79
550			3.83	4.91	6.54	7.49			6.38	8.17	10.91	12.48			10.63	13.63	18.17	17.85
575			2.55	3.51	6.02	7.22			4.24	5.85	10.04	12.04			7.08	9.74	16.72	15.20
600			1.75	2.29	5.01	6.43			2.94	3.82	8.35	10.71			7.90	6.36	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

图 1 阀内件材质·处理

Fig.1 TRIM MATERIAL/TREATMENT

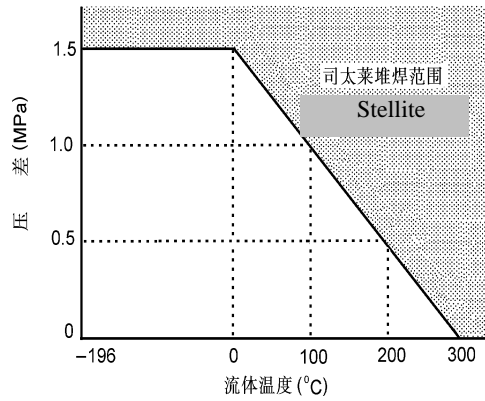


图 1-1 司太莱的工作范围  
 Fig.1-1 Temperature/normal differential pressure ranges requiring Stellite

- 注: 1. 17-4PH 不锈钢 (SCS24) 不需堆焊。  
 2. 空化、闪蒸、禁油场合, 不管温度和压力多大, 建议堆焊司太莱合金。

**Note:** 1.SCS24 (Precipitation-hardened stainless steel) requires no stellite.  
 2.For cavitation/flashing service, or oil prohibitive service, Stellite is recommended regardless of temperature or pressure drops.

图 2 填料使用温度·压力范围

Fig.2 PACKING PRESSURE · TEMPERATURE RATINGS

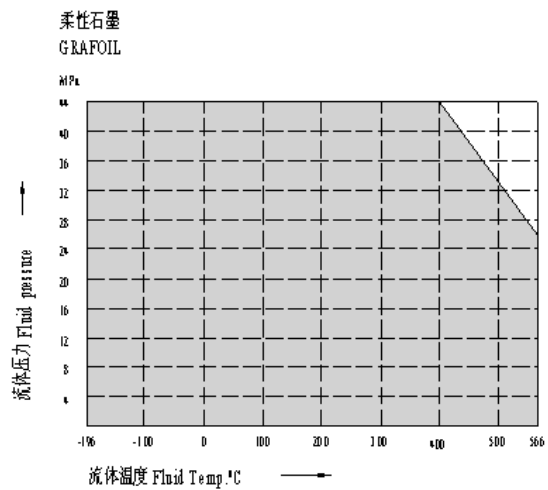
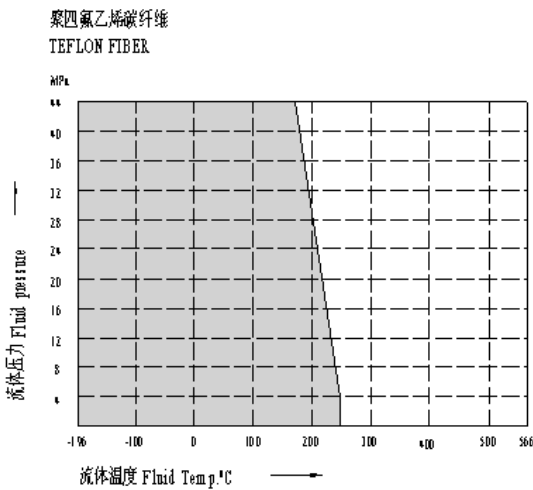


图 3 平衡密封环使用温度·压力范围

Fig.3 BALANCE SEAL PRESSURE-TEMPERATURE RATINGS

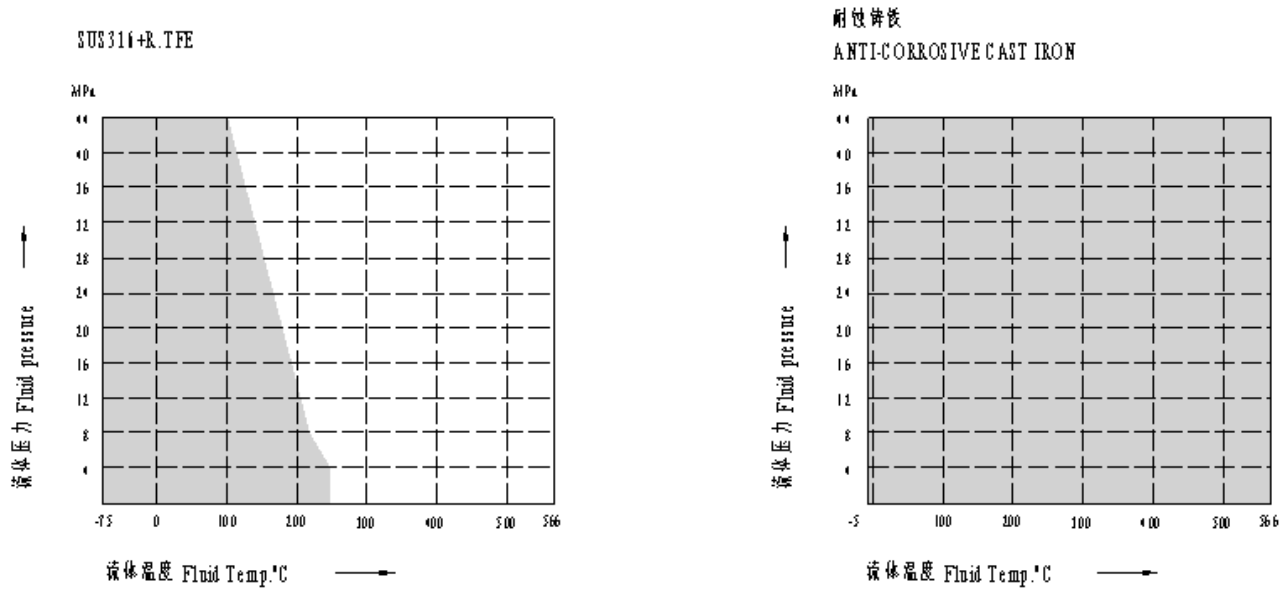




图 4 阀体部件结构  
Fig.4 BODY SECTION

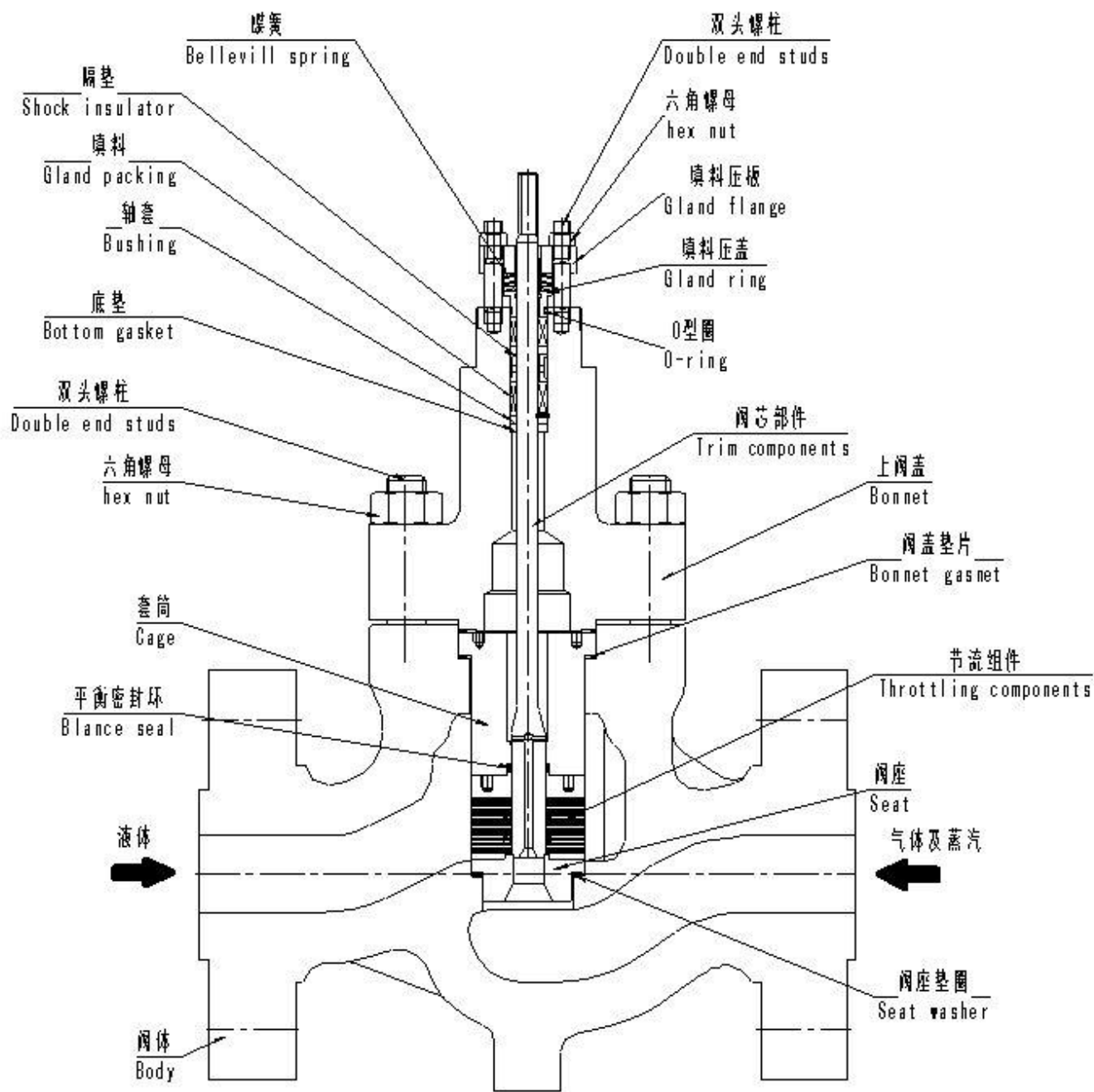


图 4-1 HKE 结构图  
Fig.4-1 CONSTRUCTION OF HKE

表 3-1 CV 值和行程(ANSI900~ANSI1500)

Table 3- 1 Rated Cv value and Travel

公称通径 Nominal size	行程 Travel	阀座直径 Seat size (mm)	额定 Rated Cv				
			8 级降压 stg	12 级降压 stg	16 级降压 stg	20 级降压 stg	24 级降压 stg
25	25	25	3.5				
			2				
允许调节压差 Allowable Pressure Drops			6~8MPa				
32	38	25		4.8			
				3.2			
允许调节压差 Allowable Pressure Drops				8~12(MPa)			
40	38	25		5.8			
				3.8			
允许调节压差 Allowable Pressure Drops				8~12(MPa)			
50	38	28		8.6	6		
				5.7	4		
允许调节压差 Allowable Pressure Drops				8~12(MPa)	12~14(MPa)		
65	50	40		14.6			
				9.7			
		32			9.7		
					6.4		
允许调节压差 Allowable Pressure Drops				8~12(MPa)	12~14(MPa)		
80	50	50		19.3			
				12.8			
		40			11		
					7.3		
允许调节压差 Allowable Pressure Drops				8~12(MPa)	12~14(MPa)		
100	50	63		23			
				15.3			
		50			17.2		
					11.4		
允许调节压差 Allowable Pressure Drops				8~12(MPa)	12~14(MPa)		
125	75	75		43.2	29		
				28.8	19.3		
		63				24	
						16	

允许调节压差 Allowable Pressure Drops				8~12(MPa)	12~14(MPa)	14~16(MPa)	
150	75	85		48	38.2		
				32	25.4		
		75				32.7	
						21.8	
允许调节压差 Allowable Pressure Drops				8~12(MPa)	12~14(MPa)	14~16(MPa)	
200	100	120		96.4	80.3		
				64.2	53.5		
		100				55.6	46.3
						37	30.8
允许调节压差 Allowable Pressure Drops				8~12(MPa)	12~14(MPa)	14~16(MPa)	16~18(MPa)
250	120	150		131	112		
				87	74.6		
		130				83.6	67.6
						55.7	45
允许调节压差 Allowable Pressure Drops				8~12(MPa)	12~14(MPa)	14~16(MPa)	16~18(MPa)
300	120	165		171	127		
				114	84.6		
		150				96.5	78.5
						64.3	52.3
允许调节压差 Allowable Pressure Drops				8~12(MPa)	12~14(MPa)	14~16(MPa)	16~18(MPa)
350	150	190		240	172		
				160	115		
		165				143	120
						95.3	79.6
允许调节压差 Allowable Pressure Drops				8~12(MPa)	12~14(MPa)	14~16(MPa)	16~18(MPa)
400	150	220		290	186		
				193	124		
		190				160	127
						106	84.6
允许调节压差 Allowable Pressure Drops				8~12(MPa)	12~14(MPa)	14~16(MPa)	16~18(MPa)

特殊 Cv 可咨询公司技术部

Special Cv value can be consult with our technical department

注：同一格内上方数字表示线性 Cv 值，下方数字表示等百分比 Cv 值。

Note: The upper figure shows the linear Cv value and the lower figures show the equal percentage Cv value within the same grid.

表 3-2 CV 值和行程(ANSI2500)

Table 3- 2Rated Cv value and Travel

公称通径 Nominal size	行程 Travel	阀座直径 Seat size (mm)	额定 Rated Cv				
			8 级降压 stg	12 级降压 stg	16 级降压 stg	20 级降压 stg	24 级降压 stg
25	25	25	3.5				
			2				
允许调节压差 Allowable Pressure Drops			6~8MPa				
32	38	25		4.8			
				3.2			
允许调节压差 Allowable Pressure Drops				8~12(MPa)			
40	38	25		5.8			
				3.8			
允许调节压差 Allowable Pressure Drops				8~12(MPa)			
50	38	28		8.6	6		
				5.7	4		
允许调节压差 Allowable Pressure Drops				8~12(MPa)	12~14(MPa)		
65	50	32		12.4			
				8.2			
		28			10		
					6.6		
允许调节压差 Allowable Pressure Drops				8~12(MPa)	12~14(MPa)		
80	50	40		19.3			
				12.8			
		32			11		
					7.3		
允许调节压差 Allowable Pressure Drops				8~12(MPa)	12~14(MPa)		
100	50	50		20			
				13.3			
		40			15		
					10		
允许调节压差 Allowable Pressure Drops				8~12(MPa)	12~14(MPa)		
125	75	63			23.7		
					15.8		
		50				19.5	
						13	

允许调节压差 Allowable Pressure Drops					12~14(MPa)	14~16(MPa)	
150	75	75			32.8		
					21.8		
		63				27	
						18	
允许调节压差 Allowable Pressure Drops					12~14(MPa)	14~16(MPa)	
200	100	100			74.1		
					49.5		
		85				50.5	39.2
						33.6	26
允许调节压差 Allowable Pressure Drops					12~14(MPa)	14~16(MPa)	16~18(MPa)
250	120	120			97.2		
					64.8		
		100				71.3	56
						47.5	37.3
允许调节压差 Allowable Pressure Drops					12~14(MPa)	14~16(MPa)	16~18(MPa)
300	120	150			120.7		
					80.5		
		130				84.5	68.5
						56.3	45.6
允许调节压差 Allowable Pressure Drops					12~14(MPa)	14~16(MPa)	16~18(MPa)

特殊 Cv 可咨询公司技术部

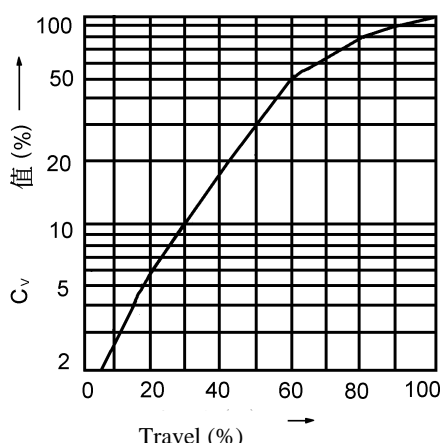
Special Cv value can be consult with our technical department

注：同一格内上方数字表示线性 Cv 值，下方数字表示等百分比 Cv 值。

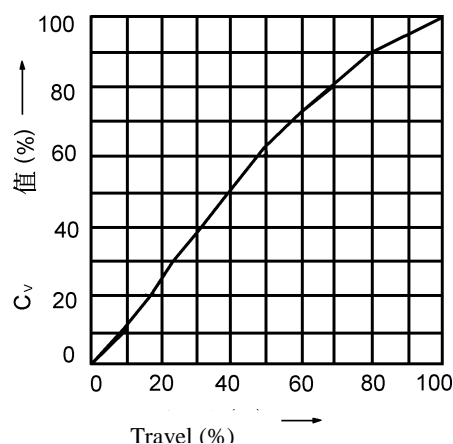
Note: The upper figure shows the linear Cv value and the lower figures show the equal percentage Cv value within the same grid.

图 5 典型流量特性曲线

Fig.5 TYPICAL FLOW CHARACTERISTICS



等百分比特性 (%V)  
Equal percentage characteristics (%V)



线性特性 (LV)  
Linear characteristics (LV)

表 4 允许切断压差

Table 4 ALLOWABLE PRESSURE DROPS

表 4-1 薄膜式执行机构 (HA)

Table 4-1 DIAPHRAGM ACTUATOR (HA)

表 4-1-1 气—关式阀

Table 4-1-1 Air-to-close

100kPa

公称压力 Pressure rating	执行机构 Actuator	供气压力 Air supply	弹簧范围 Spring range	允许压差 Allowable pressure drops												
				公称口径 Nominal size												
				25	32	40	50	65	80	100	125	150	200	250	300	
ANSI 900 ANSI 1500	HA3D	3.5	0.8~2.4	168	168	168	161	134	112							
		4.0		260	260	260	260	236	213							
	HA4D	3.5	0.8~2.4	211	211	211	207	190	176	157	140	125				
		4.0		260	260	260	260	260	260	260	252	238				
	HA5YD	4.0	1.06~2.4											260		
			0.8~2.4												193	183
ANSI 2500	HA3D	3.5	0.8~2.4	168	168	168	161	152	112							
		4.0		269	269	269	263	254	213							
	HA4D	3.5	0.8~2.4	211	211	211	207	201	176	176	157	140				
		4.0		324	324	324	319	314	288	288	269	252				
	HA5YD	4.0	1.06~2.4											420		
			0.8~2.4												225	212

- 注: 1. 黑线框内数字表示调节阀配用标准规格执行机构。  
 2. 最大允许压差不准超过 ANSI B16.34—1981 标准规定的最大值。  
 3. 进口压力 P1 不准超过阀关闭时的最大允许压差。  
 4. 表上关闭时的允许压差的条件是 P=P1 (P2=0), 全关时的压差随出口压力 P2 不同稍有变化。

**Note:** 1. The figures in gray denote the standard actuator specifications.

2. Take care not to cause the allowable maximum pressure drops to exceed the maximum operating pressure designated by ANSI B16.34—1981.  
 3. Take care not to cause the inlet pressure (P1) to exceed the maximum allowable pressure drops at valve-close.  
 4. The upper figures denote the operating allowable pressure drops; the lower denote the allowable pressure drops at full closure.  
 5. The condition of the allowable pressure drops at valve-close is P=P1(P2=0), the pressure drops will change along with the difference of export pressure P2

表 4-1-2 气—开式阀

Table 4-1-2 Air-to-open

100kPa

公称压力 Pressure rating	执行机构 Actuator	供气压力 Air supply	弹簧范围 Spring range	允许压差 Allowable pressure drops												
				公称通径 Nominal size												
				25	32	40	50	65	80	100	125	150	200	250	300	
ANSI 900 ANSI 1500	HA3R	3.5	0.8~2.4	130	130	130	123	96	74							
		4		130	130	130	123	96	74							
	HA4R	3.5	0.8~2.4	169	169	169	165	159	134	115	98	84				
		4		169	169	169	165	159	134	115	98	84				
	HA4RX2	4										260				
	HA5YR	4	1.6~3.6											260		
			1.2~3.6												109	97
	VA6R	5.0	1.9~3.5								260	260	260			
VA7R	5.0	1.9~3.5											260			
ANSI 2500	HA3R	3.5	0.8~2.4	130	130	130	123	114	74							
		4		130	130	130	123	114	74							
	HA4R	3.5	0.8~2.4	169	169	169	169	165	134	134	115	98				
		4		169	169	169	169	165	134	134	115	98				
	VA6R	5.0	1.9~3.5								361	343	315			

- 注： 1. 黑线框内数字表示调节阀配用标准规格执行机构。  
 2. 最大允许关闭压差不准超过 ANSI B16.34—1981 标准规定的最大值。  
 3. 进口压力 P1 不准超过阀关闭时的最大允许压差。  
 4. 表上关闭时的允许压差的条件是  $P=P_1$  ( $P_2=0$ )，全关时的压差随出口压力 P2 不同稍有变化。

- Note:** 1. The figures in gray denote the standard actuator specifications.  
 2. Take care not to cause the allowable maximum pressure drops to exceed the maximum operating pressure designated by ANSI B16.34—1981.  
 3. Take care not to cause the inlet pressure (P1) to exceed the maximum allowable pressure drops at valve-close.  
 4. The upper figures denote the operating allowable pressure drops; the lower denote the allowable pressure drops at full closure.  
 5. The condition of the allowable pressure drops at valve-close is  $P=P_1(P_2=0)$ , the pressure drops will change along with the difference of export pressure P2

表 4-2 气缸式执行机构 (VP)

Table 4-2 CYLINDER ACTUATOR (VP)

100kPa

公称压力 Pressure rating	执行机构 Actuator	公称口径 Nominal size	供气压力 Air supply		
			3	4	5
ANSI 900、1500	VP5	150	260	260	260
ANSI 2500			352	420	420
ANSI 900、1500	VP6	200	260	260	260
ANSI 2500			420	420	420
ANSI 900、1500	VP7	350	216	260	260
		400	208	260	260

注: 1. 如果执行机构带有辅助气源, 应选用二者中较小一个供气压力作为计算允许压差的。

2. 最大允许关闭压差不准超过 ANSI B16.34—1981 标准规定的最大值。

3. 进口压力 P1 不准超过阀关闭时的最大允许压差。

4. 表上关闭时的允许压差的条件是  $P=P_1$  ( $P_2=0$ ), 全关时的压差随出口压力 P2 不同稍有变化。

Note: 1. When the actuator with the added air supply, the lower one should be the base of calculating the allowable pressure drops.

2. Take care not to cause the allowable maximum pressure drops to exceed the maximum operating pressure designated by ANSI B16.34—1981 or JIS B2201—1984.

3. Take care not to cause the inlet pressure (P1) to exceed the maximum allowable pressure drops at valve-close.

4. The condition of the allowable pressure drops at valve-close is  $P=P_1$  ( $P_2=0$ ), the pressure drops will change along with the difference of export pressure P2 at valve full closure.

表 4-3 电子式执行机构 (EIL) 及电动式执行机构 (M8)

Table 4-3 ELECTRONIC ACTUATOR (EIL) & ELECTRIC MOTOR ACTUATOR (M8)

100kPa

执行机构 Actuator	公称压力 Pressure rating	允许压差 Allowable pressure drops									
		公称口径 Nominal size									
		40	50	80	100	150	200	250	300	350	400
EIL08 M8610+L8210	ANSI900~1500	260	260				—	—	—	—	—
	ANSI2500	282	282								
EIL20 M8620+L8220	ANSI900~1500	—	—	260	260	260		—	—	—	—
	ANSI2500			420	420	420					
EIL25 M8620+L8230	ANSI900~1500	—	—	—	—	—	260			—	—
	ANSI2500						420				
M8630+L8240	ANSI900~1500	—	—	—	—	—	—	260	260	192	183
	ANSI2500	—	—	—	—	—	—	417	398	—	—



表 5 尺寸

Table 5 DIMENSIONS

表 5-1 法兰距尺寸

Table 5-1 Fact-to-Face dimensions

mm

公称 通径 Nominal size	A						
	JIS63K	ANSI 900		ANSI 1500		ANSI 2500	
	RF	RF (SW, BW)	RJ	RF (SW, BW)	RJ	RF (SW, BW)	RJ
40	323	333	333	333	333	358	361
50	354	375	378	375	378	400	403
80	431	440	443	460	463	498	504
100	496	510	513	530	533	575	585
150	699	715	718	770	776	820	833
200	895	915	918	972	982	1020	1036
250	—	1137	1140	1327	1336	—	—
300	—	1311	1314	1400	1416	—	—
350	—	—	—	1526	1526	—	—
400	—	1520	1520	—	—	—	—

注：法兰距符合 IEC 534-3-1976 标准。

Note: Face-to-face dimensions comfort to IEC 534-3-1976 Standard.

表 5-2 外形尺寸

Table 5-2 Other dimensions

表 5-2-1 外形尺寸

Table 5-2-1 Other dimensions

mm

公称 通径 Nominal size	执行机构 Actuator	H						H1			B	B1	B2	B3	B4
		ANSI 900		ANSI 1500		ANSI 2500		ANSI 900	ANSI 1500	ANSI 2500					
		常温型 (P) Plain bonnet	伸长 I 型 (E I) Extension bonnet Type I	常温型(P) Plain bonnet	伸长 I 型 (E I) Extension bonnet Type I	常温型 (P) Plain bonnet	伸长 I 型 (E I) Extension bonnet Type I								
40	HA3D、R	835	975	835	975	880	1025	100	105	115	363	—	—	—	—
	HA4D、R	995	1135	995	1135	1040	1185				520	—	—	—	—
	EIL08	1010	1150	1010	1150	1055	1200				229	—	338	—	—
	M8610+L8210	1155	1295	1155	1295	1200	1345				—	313	350	253	350
50	HA3D、R	865	1025	865	1025	900	1060	110	120	130	363	—	—	—	—
	HA4D、R	1030	1190	1030	1190	1065	1225				520	—	—	—	—
	EIL08	1040	1205	1040	1205	1080	1240				229	—	338	—	—
	M8610+L8210	1195	1360	1195	1360	1235	1390				—	313	350	253	350
80	HA3D、R	900	1080	900	1080	935	1105	140	150	160	363	—	—	—	—
	HA4D、R	1070	1250	1070	1250	1105	1275				520	—	—	—	—
	EIL20	1445	1625	1445	1625	1480	1650				229	—	338	—	—
	M8620+L8220	1230	1410	1230	1410	1265	1435				—	313	350	253	350
100	HA3D、R	935	1115	935	1115	985	1155	160	170	180	363	—	—	—	—
	HA4D、R	1100	1280	1100	1280	1145	1315				520	—	—	—	—
	VA6R	1345	1525	1345	1525	1385	1560				475	—	—	—	—
	EIL20	1480	1660	1480	1660	1520	1690				258	—	356	—	—
	M8620+L8220	1265	1445	1265	1445	1305	1480				—	313	350	253	350

150	HA3D、R	995	1175	995	1175	1035	1210	210	225	260	363	—	—	—	—
	HA4D、R	1155	1335	1155	1335	1195	1370				520	—	—	—	—
	VA6R	1930	2010	1930	2010	1870	2050				475	—	—	—	—
	VP5	1355	1535	1355	1535	1395	1570				382	—	—	—	—
	EIL20	1315	1495	1315	1495	1355	1530				258	—	356	—	—
	M8620+L8220	1395	1575	1395	1575	1435	1610				—	313	350	253	350
200	HA4D、R	1280	1460	1280	1460	1335	1515	320	335	330	520	—	—	—	—
	HA5YD、R	1605	1780	1605	1780	1655	1835				605	—	—	—	—
	VP6	1585	1765	1585	1765	1640	1820				445	—	—	—	—
	EIL25	1655	1835	1655	1835	1710	1890				258	—	356	—	—
	M8620+L8230	1625	1805	1625	1805	1680	1860				—	313	350	253	350
250	HA5YD、R	1780	1825	1575	1825	—	—	338	380	—	605	—	—	—	—
	VP7	1720	1840	1590	1840	—	—				580	—	—	—	—
	EIL25	1655	1680	1430	1680	—	—				258	—	356	—	—
	M8620+L8230	1700	1870	1620	1870	—	—				—	313	350	253	350
300	HA5YD、R	1760	1830	1580	1830	—	—	407	380	—	605	—	—	—	—
	VP7	1720	1830	1580	1830	—	—				580	—	—	—	—
	EIL25	1655	1660	1410	1660	—	—				258	—	356	—	—
	M8620+L8230	1695	1860	1610	1860	—	—				—	313	350	253	350
350	VP8	2040	2290	2165	2290	—	—	550	545	—	705	—	—	—	—
	M8630+L8240	1995	2245	1995	2245	—	—				—	313	350	253	350
400	VP8	1920	2170	1920	2170	—	—	520	520	—	705	—	—	—	—
	M8630+L8240	1900	2150	1900	2150	—	—				—	313	350	253	350

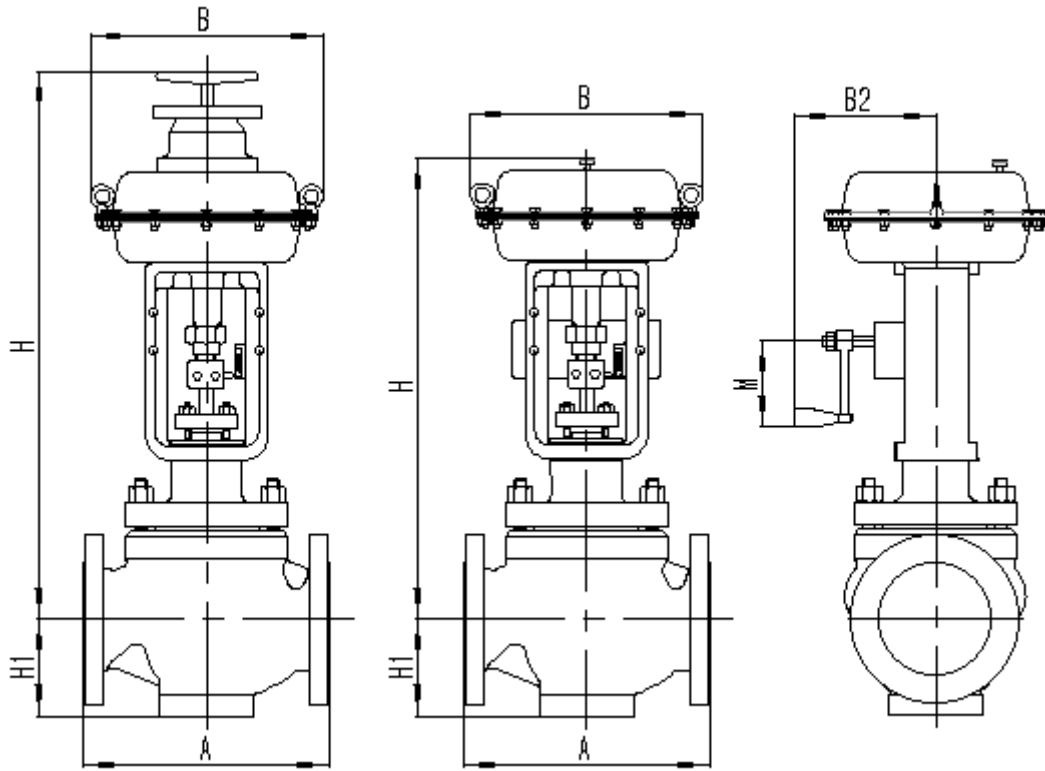
表 5-2-2 外形尺寸

Table 5-2-2 Other dimensions mm

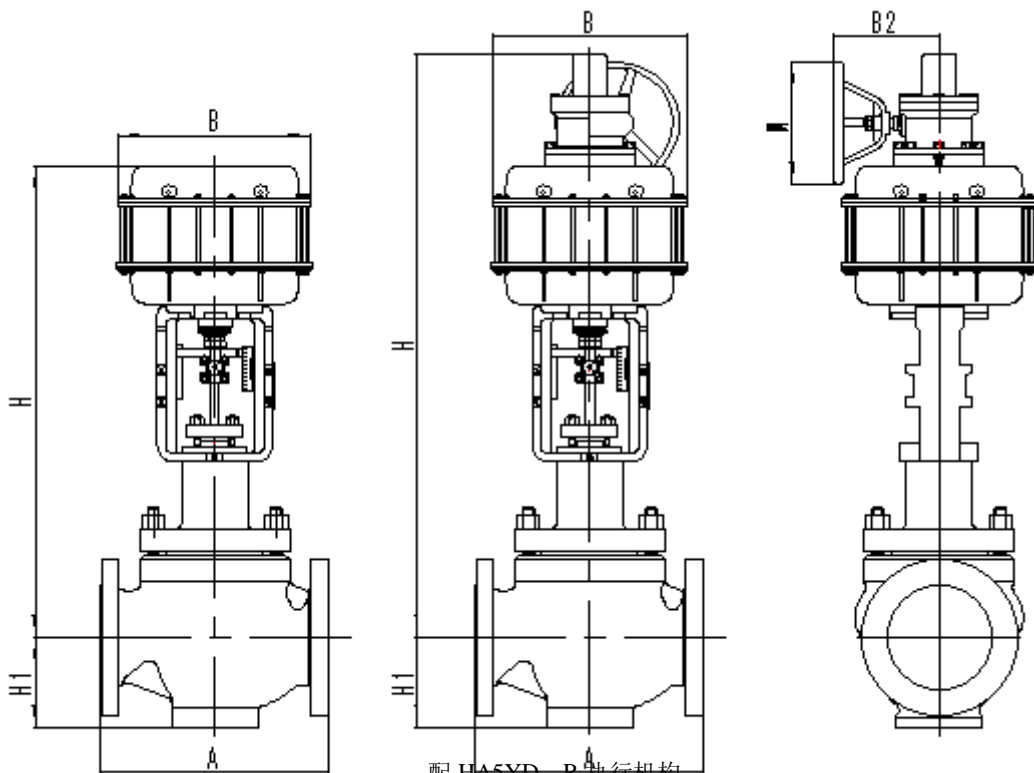
公称 通径 Nominal size	执行机构 Actuator	H												B2	M
		侧装手轮						顶装手轮							
		ANSI 900		ANSI 1500		ANSI 2500		ANSI900		ANSI1500		ANSI2500			
		常温型 (P) Plain bonnet	伸长 I 型 (E I) Extension bonnet Type I	常温 型(P) Plain bonnet	伸长 I 型 (E I) Extension bonnet Type I	常温 型(P) Plain bonnet	伸长 I 型 (E I) Extension bonnet Type I	常温型 (P) Plain bonnet	伸长 I 型 (E I) Extension bonnet Type I	常温 型(P) Plain bonnet	伸长 I 型 (E I) Extension bonnet Type I	常温 型(P) Plain bonnet	伸长 I 型 (E I) Extension bonnet Type I		
40	HA3D、R	835	975	835	975	880	1025	1125	1265	1125	1265	1170	1315	278.5	175
	HA4D、R	995	1135	995	1135	1040	1185	1395	1535	1395	1535	1440	1585	303	φ320
50	HA3D、R	865	1025	865	1025	900	1060	1155	1315	1155	1315	1190	1350	278.5	175
	HA4D、R	1030	1190	1030	1190	1065	1225	1430	1590	1430	1590	1465	1625	303	φ320
80	HA3D、R	900	1080	900	1080	935	1105	1190	1370	1190	1370	1225	1395	278.5	175
	HA4D、R	1070	1250	1070	1250	1105	1275	1470	1650	1470	1650	1505	1675	303	φ320
100	HA3D、R	935	1115	935	1115	985	1155	1225	1405	1225	1405	1275	1445	278.5	175
	HA4D、R	1100	1280	1100	1280	1145	1315	1500	1780	1500	1780	1545	1715	303	φ320
	VA6R	1470	1650	1470	1540	1510	1685	—	—	—	—	—	—	384	φ380
150	HA3D、R	995	1175	995	1175	1035	1210	1285	1465	1285	1465	1325	1500	278.5	175
	HA4D、R	1155	1335	1155	1335	1195	1370	1555	1735	1555	1735	1595	1770	303	φ320
	VA6R	2055	2135	2055	2135	1995	2175	—	—	—	—	—	—	384	φ380
	VP5	1465	1645	1465	1645	1505	1680	—	—	—	—	—	—	324	φ380
200	HA4D、R	1280	1460	1280	1460	1335	1515	1680	1860	1680	1860	1735	1915	303	φ320
	HA5DY、R	1950	2125	1950	2125	2000	2180	—	—	—	—	—	—	380	φ325
	VP6	1710	1890	1710	1890	1765	1945	—	—	—	—	—	—	384	φ380
250	HA5YD、R	1780	1825	1575	1825	—	—	—	—	—	—	—	—	380	φ325
	VP7	1720	1840	1590	1840	—	—	—	—	—	—	—	—	384	φ380
300	HA5YD、R	1760	1830	1580	1830	—	—	—	—	—	—	—	—	380	φ325
	VP7	1720	1830	1580	1830	—	—	—	—	—	—	—	—	384	φ380
350	VP8	2185	2435	2310	2435	—	—	—	—	—	—	—	—	440	φ380
400	VP8	2065	2315	2065	2315	—	—	—	—	—	—	—	—	440	φ380

注：表 5-2-2 上 H 栏尺寸气动执行机构（带手轮）调节阀高度。

Note: The size of H in Table 5-2-2 shows the height of the valve and pneumatic actuator (with handwheel) combined



With type HA



配 HA5YD、R 执行机构  
With type HA5YD、R

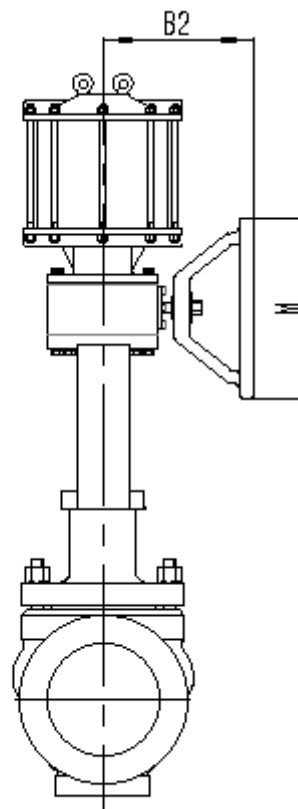
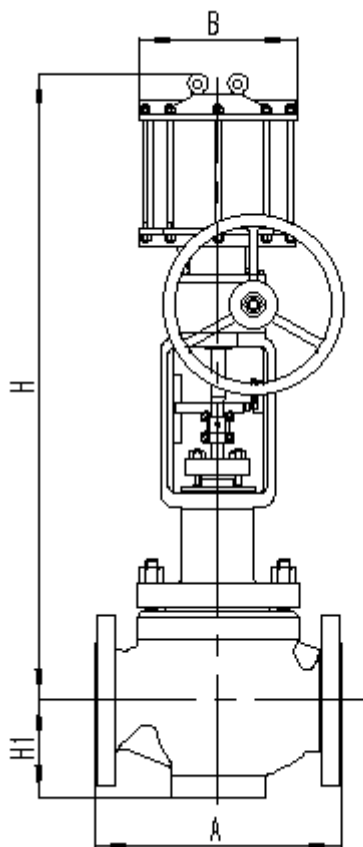
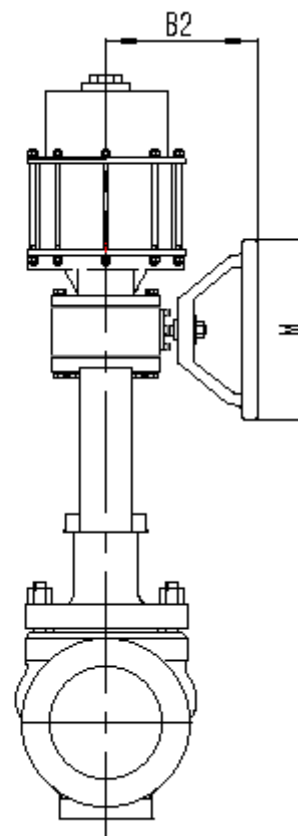
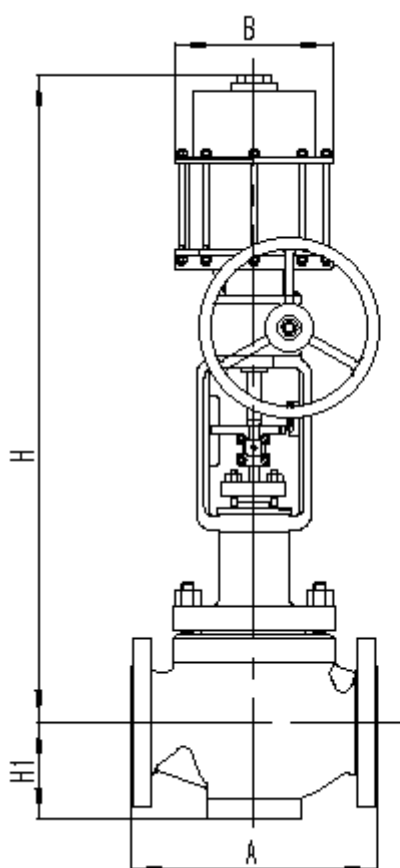
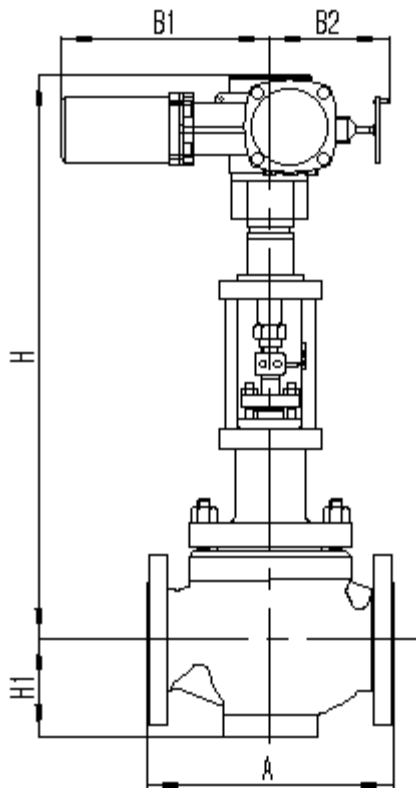


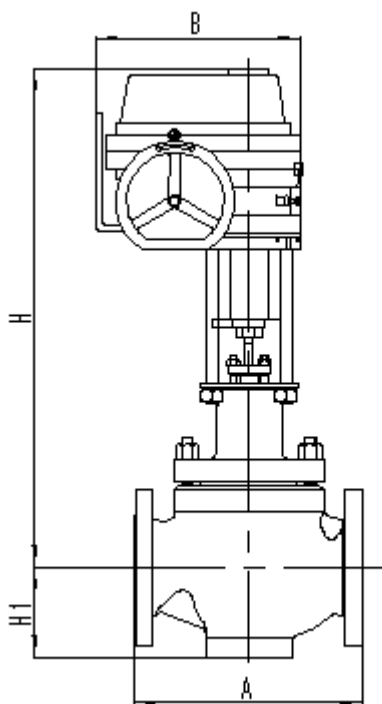
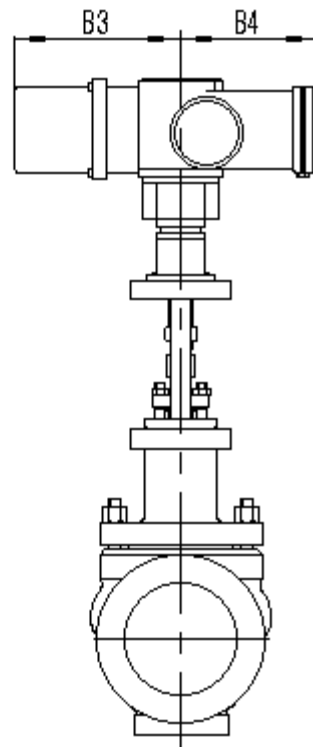
图 1 型 VA



配 VA 执行机构  
With type VA



配 M8 执行机构  
With type M8



配 EIL 执行机构  
With type EIL

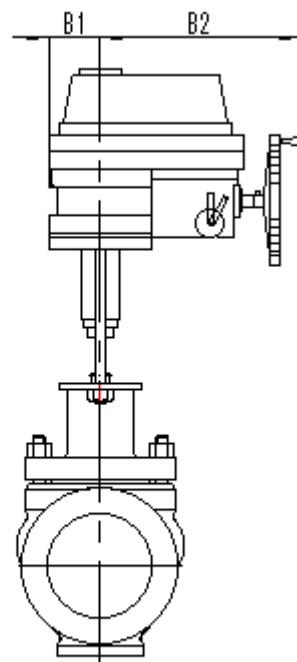


图 5 法兰距及外形尺寸  
Fig.5 Face-to-Face dimension and Other dimensions

表 6 重量

Table 6 WEIGHT

kg

公称 通径 Nominal size	执行机构 Actuator	法兰连接 Flanged type						焊接连接 Welded type					
		ANSI 900		ANSI 1500		ANSI 2500		ANSI 900		ANSI 1500		ANSI 2500	
		常温型 (P) Plain bonnet	伸长型 (E I) Extension bonnet Type I	常温型 (P) Plain bonnet	伸长型 (E I) Extension bonnet Type I	常温型 (P) Plain bonnet	伸长型 (E I) Extension bonnet Type I	常温型 (P) Plain bonnet	伸长型 (E I) Extension bonnet Type I	常温型 (P) Plain bonnet	伸长型 (E I) Extension bonnet Type I	常温型 (P) Plain bonnet	伸长型 (E I) Extension bonnet Type I
40	HA3D、R	60	65	65	70	90	95	50	55	55	60	75	80
	HA4D、R	90	95	95	100	125	130	80	85	85	90	105	110
	EIL08	43	48	48	53	73	78	33	38	38	43	58	63
	M8610+L8210	90	95	95	100	120	125	80	85	85	90	105	110
50	HA3D、R	70	80	75	85	110	120	55	65	60	70	85	95
	HA4D、R	100	110	105	115	140	150	85	95	90	100	115	125
	EIL08	53	63	58	68	93	103	38	48	43	53	68	98
	M8610+L8210	100	110	105	115	140	150	85	95	90	100	115	125
80	HA3D、R	105	115	140	160	225	245	85	95	110	130	170	190
	HA4D、R	135	145	170	190	255	275	115	125	140	160	200	220
	EIL20	87	97	122	142	207	227	67	77	92	112	152	172
	M8620+L8220	135	145	170	190	255	275	115	125	140	160	200	220
100	HA3D、R	135	160	195	225	315	345	105	130	155	185	230	260
	HA4D、R	165	190	225	255	345	375	135	160	185	215	260	290
	VA6R	305	330	365	395	485	515	275	300	325	355	400	430
	EIL20	117	142	177	207	297	327	87	112	137	167	212	382
	M8620+L8220	165	190	225	255	345	375	135	160	185	215	260	290
150	HA3D、R	345	380	525	570	875	915	285	320	435	480	660	700
	HA4D、R	395	410	555	600	905	945	315	350	465	510	690	730
	VA6R	515	550	695	740	1045	1085	455	490	605	650	830	870
	VP5	390	425	570	615	920	960	330	365	480	525	705	745
	EIL20	347	362	507	552	857	897	267	302	417	462	642	682
	M8620+L8220	395	410	555	600	905	945	315	350	465	510	690	730
200	HA4D、R	633	678	1065	1115	1500	1545	535	580	910	958	1193	1240
	HA5YD、R	1080	1180	1215	1265	1650	1695	685	730	1060	1100	1345	1390
	VP6	970	1070	1155	1025	1590	1635	625	670	1000	1050	1285	1330
	EIL25	585	630	1017	1067	1452	1497	487	532	862	910	1145	1192
	M8620+L8230	653	698	1265	1315	1520	1565	555	600	930	978	1213	1260
250	HA5YD、R	1595	1695	—	—	—	—	—	—	—	—	—	—
	VP7	1710	1810	—	—	—	—	—	—	—	—	—	—
	EIL25	—	—	—	—	—	—	—	—	—	—	—	—
	M8620+L8230	—	—	—	—	—	—	—	—	—	—	—	—
300	HA5D、R	—	—	—	—	—	—	—	—	—	—	—	—
	VP7	2250	—	3250	—	—	—	—	—	—	—	—	—
	EIL25	—	—	—	—	—	—	—	—	—	—	—	—
	M8620+L8230	—	—	—	—	—	—	—	—	—	—	—	—
350	VP8	—	—	4250	—	—	—	—	—	—	—	—	—
	M8630+L8240	—	—	—	—	—	—	—	—	—	—	—	—
400	VP8	3900	—	—	—	—	—	—	—	—	—	—	—
	M8630+L8240	—	—	—	—	—	—	—	—	—	—	—	—