产品样本

SPECIFICATIONS

VNM 衬胶蝶阀

VNM Rubber-lined Butterfly Valve

VNM 衬胶蝶阀是一种结构简单，易于操作，使用寿命长且重量轻的调节阀，可用于开关和调节的场合。适用于化工、医药、食品、造纸、水处理等行业中气体、液体、浆液、固体粉末等流体的控制。

The VNM rubber-lined butterfly valve is a kind of control valve with simple structure, long service life and lightweight, easy to operate and suitable for on/off and regulation applications. It is intended for the control of various mediums including gases, liquids, slurries, and powdered solids across a range of industries such as chemical, pharmaceutical, food processing, papermaking, and water treatment.

本产品符合 GB/T4213-2008 标准。

The product conforms to GB/T4213-2008 standard.

标准规格 Standard Specifications

阀体 Body

形　　式 Type	VNM
公称通径 Nominal diameter	DN50~DN 600（2"~24"）
公称压力 Nominal pressure	PN10、16、20，Class 150，JIS5K、10K
阀板形状 Shape of valve plate	挡板型 Baffle type
连接型式 Connection type	对夹式，法兰式 Clamped, flanged
阀内件材料 Trim material 阀内件处理 Trim handling	标准材料组合及使用温度，请参照表 1 For standard material combinations and operating temperatures, refer to Table 1.
阀体及上阀盖材质 Material of body and bonnet	WCB, QT450，CF8, CF8M 等. WCB, QT450, CF8, CF8M and so on.
上阀盖形式 bonnet form	标准型（与阀体一体铸造） Standard type (cast in one piece with the body)
填　　料 Packing	O 型圈 O ring
表面涂层色 Surface coating color	碳钢时涂银灰水漆；阀体为不锈钢时，本体部不加涂层。 When the body is made of carbon steel, it shall be coated with silver gray water paint; when the body is made of stainless steel, no coating shall be applied to the body.

执行机构

Actuator

型号 Model / 规格 Specification	HCT 执行机构 HCT Actuator	HCW 执行机构 HCW Actuator
用　　途 Purpose	开关 Switch	
供气压力 Air supply pressure	400~700KPa	
接　　口 Connector	空气配管：NPT1/4”(Φ8)；NPT3/8”(Φ10)；NPT1/2”(Φ12) Air piping: NPT1/4” (Φ8); NPT3/8” (Φ10); NPT1/2” (Φ12)	
回转角度 Rotation angle	90°	
允许环境温度 Permissible ambient temperature	标准型-20~+80℃ Standard model: -20~+80℃ 高温型-15°~+120℃ High-temperature model: -15~+120℃ 低温型-52~+80℃ Low temperature model: -52~+80℃	
选购附件 Optional accessories	过虑减压阀、电磁阀、限位开关、阀位变送器、锁止阀、调速器、手动操作机构 Filtering reducing valves, solenoid valves, limit switches, valve position transmitters, locking valves, governors, and manual operating mechanisms	

型号 Model / 规格 Specification	电动执行机构 Electric actuator
	M8000
输入信号 Input signal	4~20mA・DC
电源电压 Power supply voltage	380V/AC 50/60Hz
行程角度 Travel angle	—
环境温度 Ambient temperature	-52℃~+80℃

性能

Performance

额 定 Cv 值 Rated Cv value	请参见表 3 . See Table 3.
流 量 特 性 Flow characteristics	开关 Switch
阀 座 泄 漏 量 Seat leakage	无泄漏 Without leakages
允 许 压 差 Allowable differential pressure	请参照表 4. Please refer to Table 4.

阀体、阀内件材质组合及使用温度范围（表 1）

Material Combinations of Body and Trim and Operating Temperature Range (Table 1)

表 1 阀体材质： WCB，QT450， CF8，CF8M

Table 1 Body Material: WCB, QT450, CF8, CF8M

阀体材质 Body material		WCB， CF8	CF8M
阀板 Valve plate	材质 Material	CF8	CF8M
阀杆 Stem	材质 Material	2Cr13	XM-19
阀座材质 Seat material		请参见表 2 . See Table 2.	

表 2 阀座材质及使用温度范围

Table 2 Seat Materials and Operating Temperature Range

阀座材质 Seat material	使用温度范围 Operating temperature range	适用介质 Applicable medium
天然胶 Natural rubber	-20~+85℃	酒类、饮料、奶制品等 Alcohol, beverages, dairy products, etc.
氯丁橡胶 Chloroprene rubber	-29~+94℃	水、油、缓和化学品、酸类、脂肪等 Water, oil, moderating chemicals, acids, fats, etc.
丁腈橡胶 Nitrile rubber	-23~+82℃	淡水、空气、气体、化学品、酒类等 Freshwater, air, gases, chemicals, alcohol, etc.
乙丙橡胶 Ethylene propylene rubber	-40~+135℃	水、油、饮料、奶制品等 Water, oil, beverages, dairy products, etc.
氟橡胶 Fluororubber	-23~+150℃	水、油、空气、酸类等 Water, oil, air, acids, etc.
低温硅橡胶 VMQ Low temperature silicone rubber VMQ	-52~+150℃	水、金属盐、空气、臭氧 Water, metal salts, air, ozone

表 3 额定 Cv 值

Table 3 Rated Cv values

公称通径 Nominal diameter mm	50 (2″)	65 (2.5″)	80 (3″)	100 (4″)	125 (5″)	150 (6″)	200 (8″)	250 (10″)	300 (12″)	350 (14″)	400 (16″)	450 (18″)	500 (20″)	600 (24″)
90°开度 90° opening	125	175	265	480	750	1350	2300	3800	5100	7000	9000	11340	14000	20160

可换式阀座的阀体结构

Body construction with replaceable seat

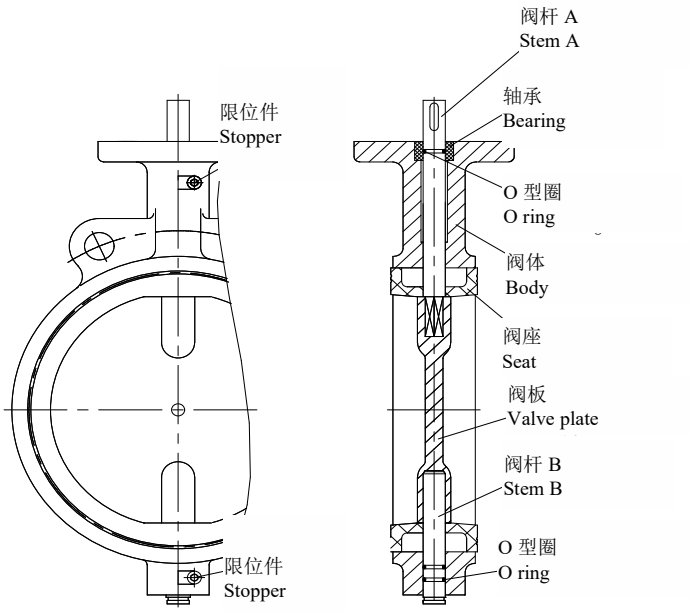


图 1-1 公称通径：DN200 以下

Fig. 1-1 Nominal Diameter: Below DN200

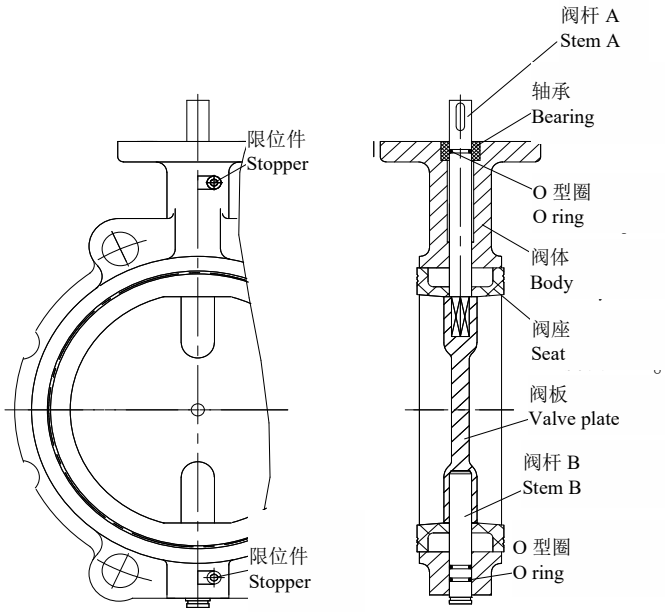


图 1-2 公称通径：DN250

Fig. 1-2 Nominal Diameter: DN250

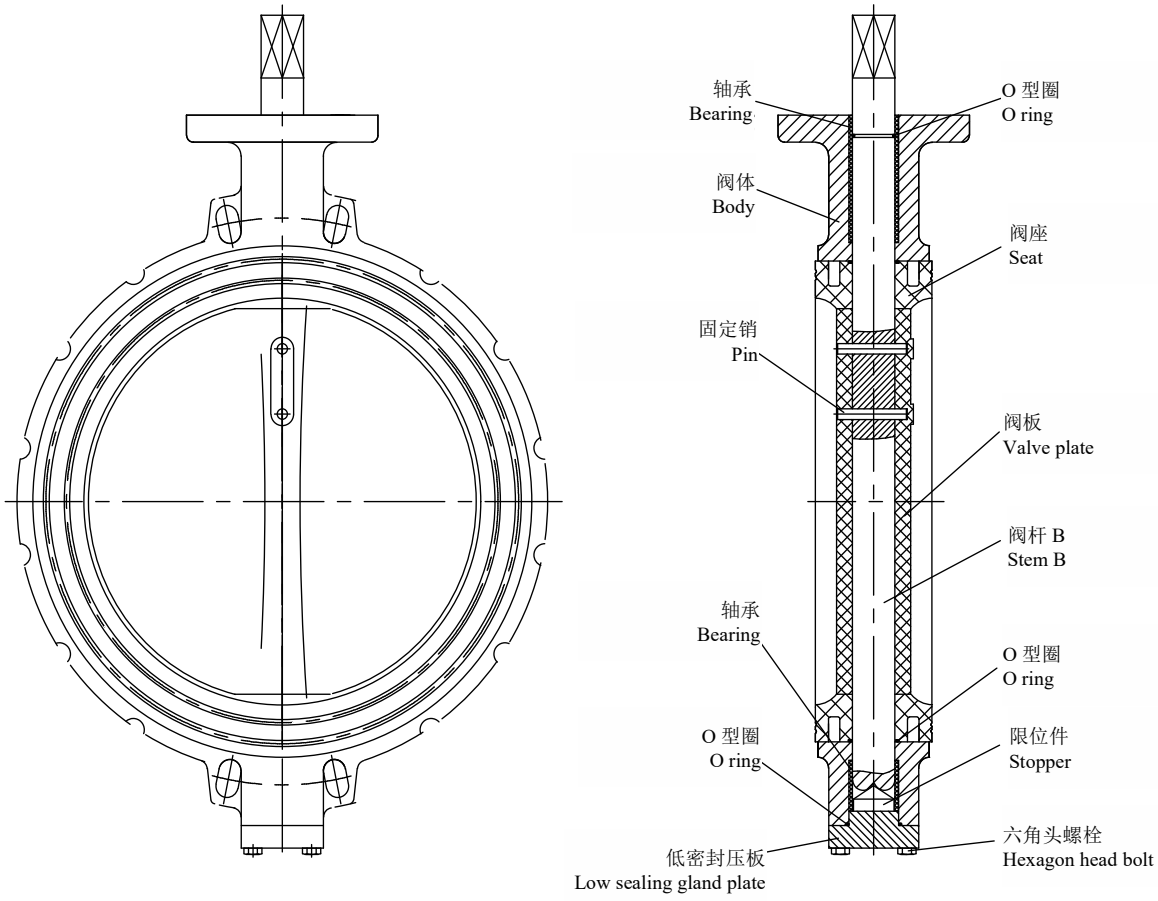


图 1-3 公称通径：DN300 以上

Fig. 1-3 Nominal Diameter: DN300 or above

执行机构配置及最大允许压差（表 4）

Actuator configuration and maximum allowable differential pressure (Table 4)

表 4－1 单作用气开（FC）执行机构/气源压力 500KPa **MPa**

Table 4-1 Single-Acting Air-to-Open (FC) Actuators/Air Supply Pressure 500 KPa **MPa**

执行机构 Actuator	输出力矩(N.m) Output torque (N.m)	公称通径 Nominal diameter													
		50	65	80	100	125	150	200	250	300	350	400	450	500	600
HCT92SR5	46.7	1.0	1.0	1.0											
HCT125SR5	104				1.0										
HCT160SR5	279					1.0	1.0								
HCT210SR5	521							1.0	1.0						
HCT270SR5	1060									1.0	1.0				
HCW18SR41	300					1.0	1.0								
HCW22SR51	650							1.0	1.0						
HCW27SR52	1270									1.0	1.0				
HCW40SR53	3580											1.0	1.0	0.6	0.5

表 4－2 单作用气关（FO）执行机构/气源压力 500KPa **MPa**

Table 4-2 Single-Acting Air-to-Close (FO) Actuator/Air Supply Pressure 500 KPa **MPa**

执行机构 Actuator	输出力矩(N.m) Output torque (N.m)	公称通径 Nominal diameter													
		50	65	80	100	125	150	200	250	300	350	400	450	500	600
HCT92SD5	46.7	1.0	1.0	1.0											
HCT125SD5	104				1.0										
HCT160SD5	279					1.0	1.0								
HCT210SD5	521							1.0	1.0						
HCT270SD5	1060									1.0	1.0				
HCW18SD41	300					1.0	1.0								
HCW22SD51	650							1.0	1.0						
HCW27SD52	1270									1.0	1.0				
HCW40SD53	3580											1.0	1.0	0.6	0.5

表 4—3 双作用气开（FC）执行机构/气源压力 500KPa **MPa**

Table 4-3 Double-Acting Air-to-Open (FC) Actuators/Air Supply Pressure 500 KPa **MPa**

执行机构 Actuator	输出力矩 (N.m) Output torque (N.m)	公称通径 Nominal diameter													
		50	65	80	100	125	150	200	250	300	350	400	450	500	600
HCT75DR0	40.3	1.0	1.0	1.0											
HCT92DR0	90.9				1.0										
HCT125DR0	205					1.0	1.0								
HCT160DR0	535							1.0	1.0						
HCT210DR0	1052									1.0	1.0				
HCT270DR0	2349											1.0	1.0		
HCT350DR0	4570													1.0	1.0
HCW18D001	680							1.0	1.0						
HCW22D002	1460									1.0	1.0				
HCW27D003	3265											1.0	1.0		
HCW35D003	5770													1.0	1.0

表 4—4 双作用气关（FO）执行机构/气源压力 500KPa **MPa**

Table 4-4 Double-Acting Air-to-Close (FO) Actuator/Air Supply Pressure 500 KPa **MPa**

执行机构 Actuator	输出力矩 (N.m) Output torque (N.m)	公称通径 Nominal diameter													
		50	65	80	100	125	150	200	250	300	350	400	450	500	600
HCT75DD0	40.3	1.0	1.0	1.0											
HCT92DD	90.9				1.0										

0															
HCT125D D0	205					1.0	1.0								
HCT160D D0	535							1.0	1.0						
HCT210D D0	1052									1.0	1.0				
HCT270D D0	2349											1.0	1.0		
HCT350D D0	4570													1.0	1.0
HCW18D001	680							1.0	1.0						
HCW22D002	1460									1.0	1.0				
HCW27D003	3265											1.0	1.0		
HCW35D003	5770													1.0	1.0

表 4－3 电动执行机构 **MPa**

Table 4-3 Electric Actuator **MPa**

执行机构 Actuator	输出力矩 (N.m) Output torque (N.m)	公称通径 Nominal diameter													
		50	65	80	100	125	150	200	250	300	350	400	450	500	600
EI008/M0□11	80	1.0	1.0	1.0											
EI016/M0□21	160				1.0										
EI025/M0□30	250					1.0	1.0								
EI050/M0□60	500							1.0	1.0						
EI080/M8□10+A8010	800									1.0					
EI120/M8□10+A8020	1200										1.0	1.0			
EI300/M8□30+A8040	3000												1.0		
EI600/M8□30+A8090	6000													1.0	1.0

注意：表格中“□”表示 3，4，5，6 其中之一。

Note: "□" in the table indicates one of 3, 4, 5 or 6.

外形尺寸

Overall dimensions

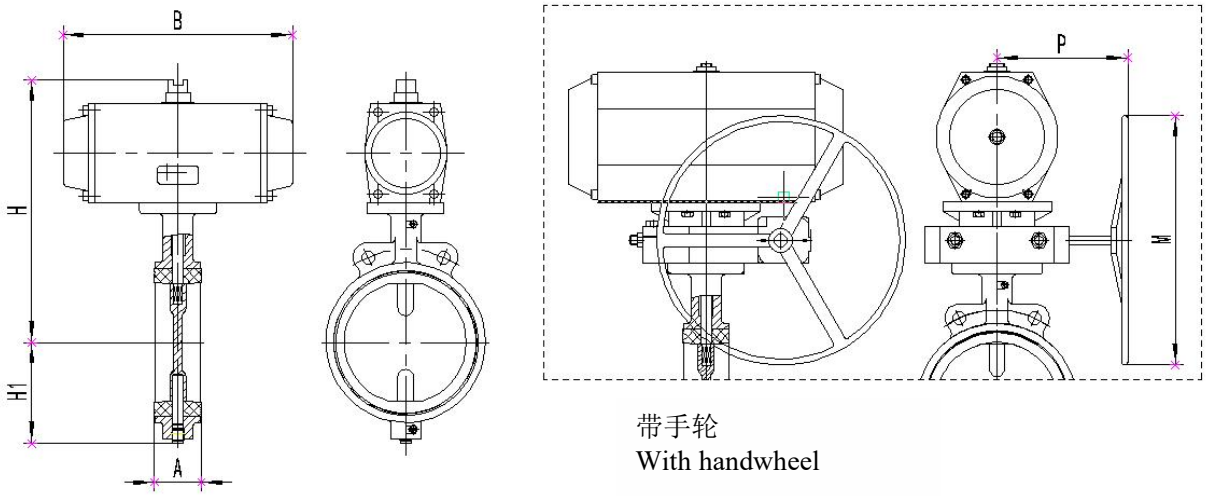


图 2 配 HCT 执行机构外形尺寸图

Fig. 2 Overall Dimensions of Valve with HCW Actuator

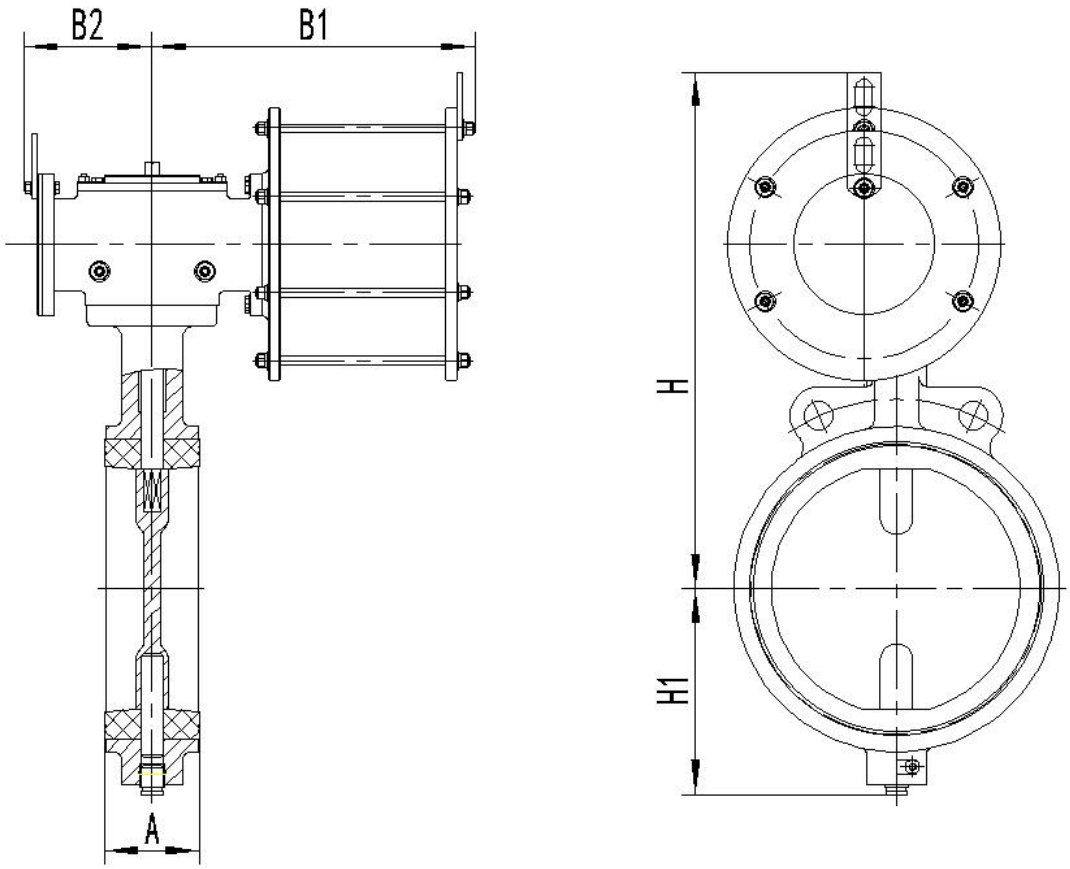


图 3.1　配 HCW18D001~HCW50D005 外形尺寸图

Fig. 3.1 Overall Dimensions of Valve with HCW18D001~HCW50D005

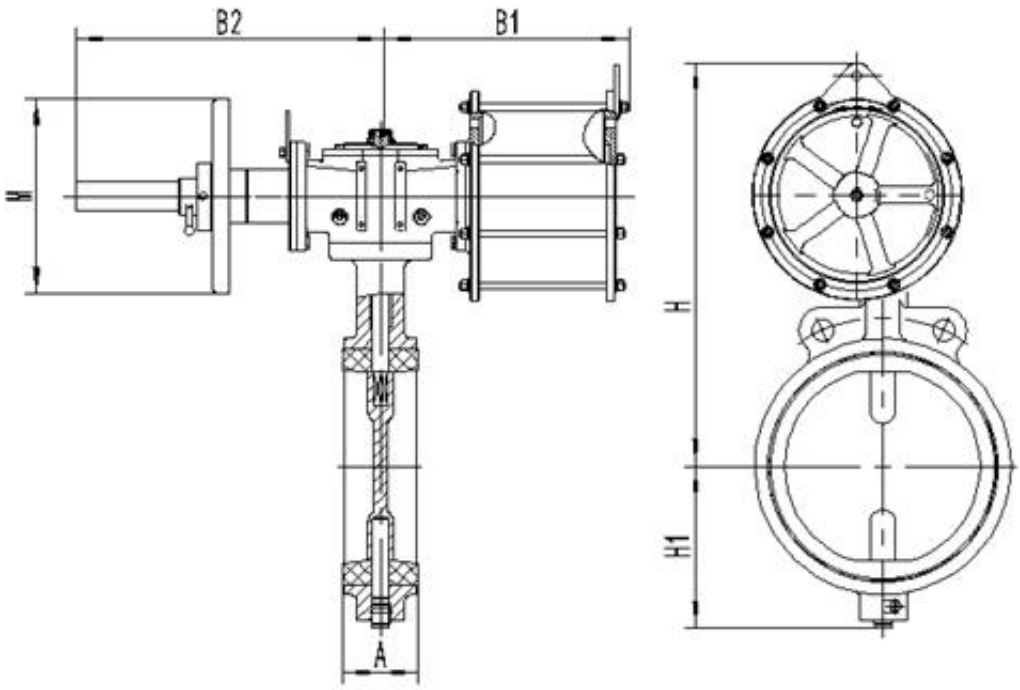


图 3.2　配 HCW18D001~HCW27D002 带丝杆手轮外形尺寸图

Fig. 3.2 Overall Dimensions of Valve with HCW18D001~HCW27D002 (with Lead Screw Handwheel)

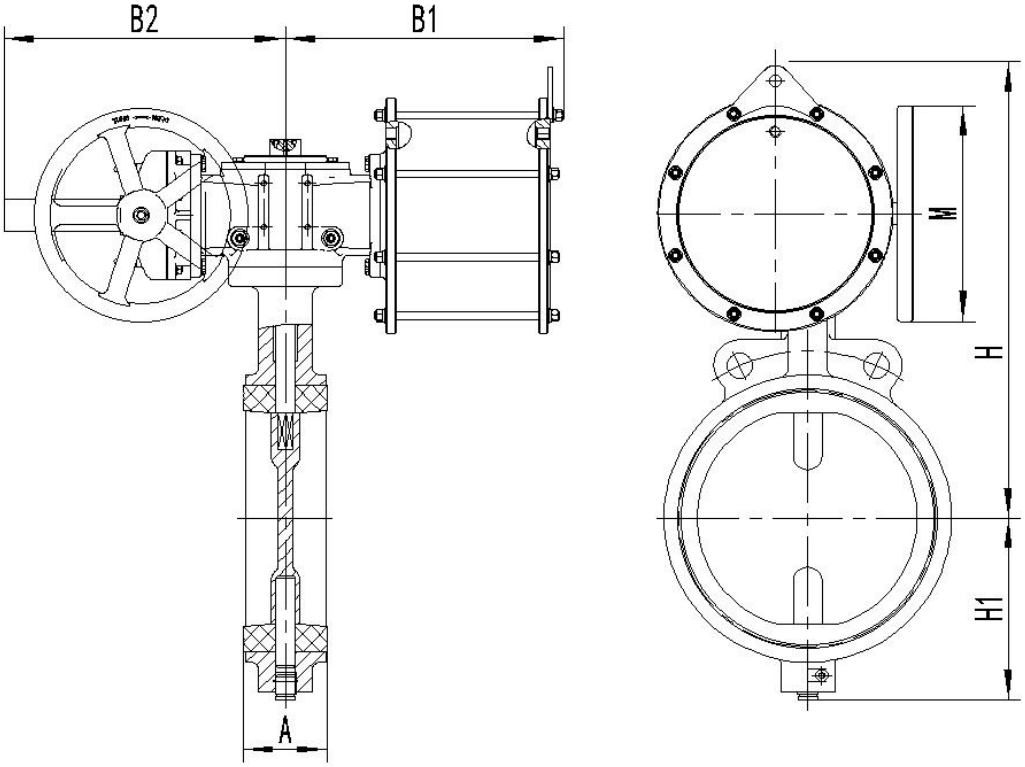


图 3.3　配 HCW27D003~HCW35D004 带伞齿手轮外形尺寸图

Fig. 3.3 Overall Dimensions of Valve with HCW27D003~HCW35D004 (with Bevel Gear Handwheel)

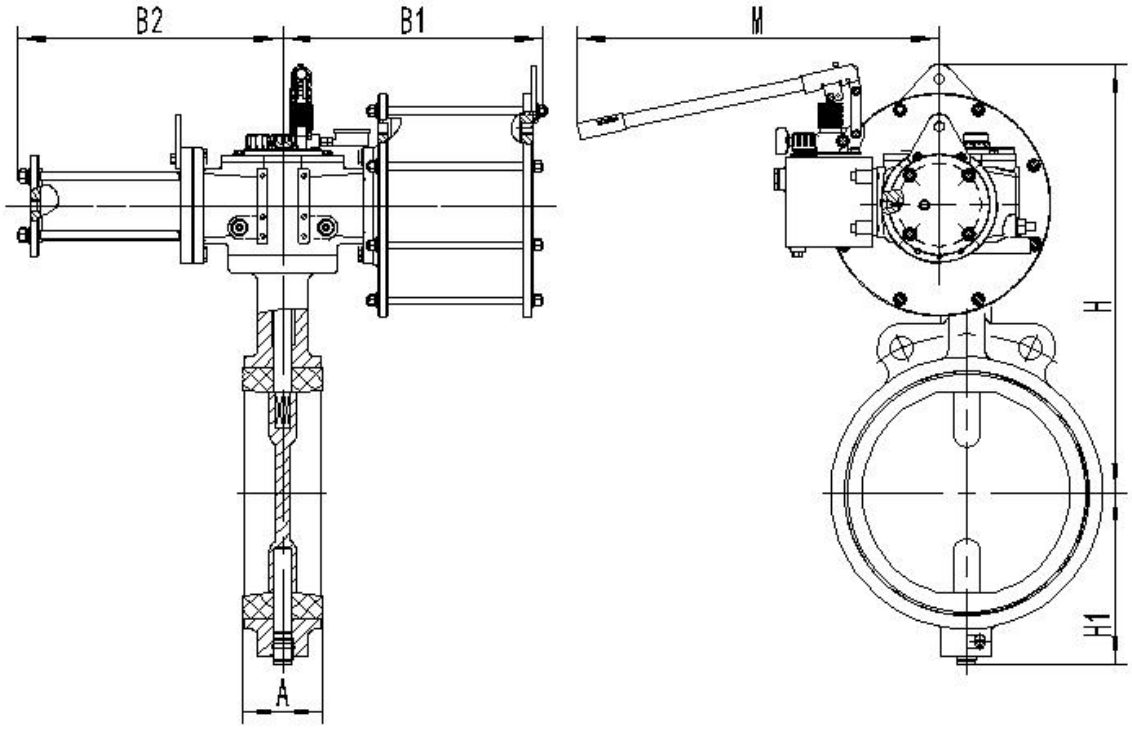


图 3.4　配 HCW40D004~HCW50D005 带液压手轮外形尺寸图

Fig. 3.4 Overall Dimensions of Valve with HCW40D004~HCW50D005 (with Hydraulic Handwheel)

图 3 配 HCW40D004~HCW50D005 双作用执行机构外形尺寸图

Fig. 3 Overall Dimensions of Valve with HCW40D004~HCW50D005 Double-Acting Actuator

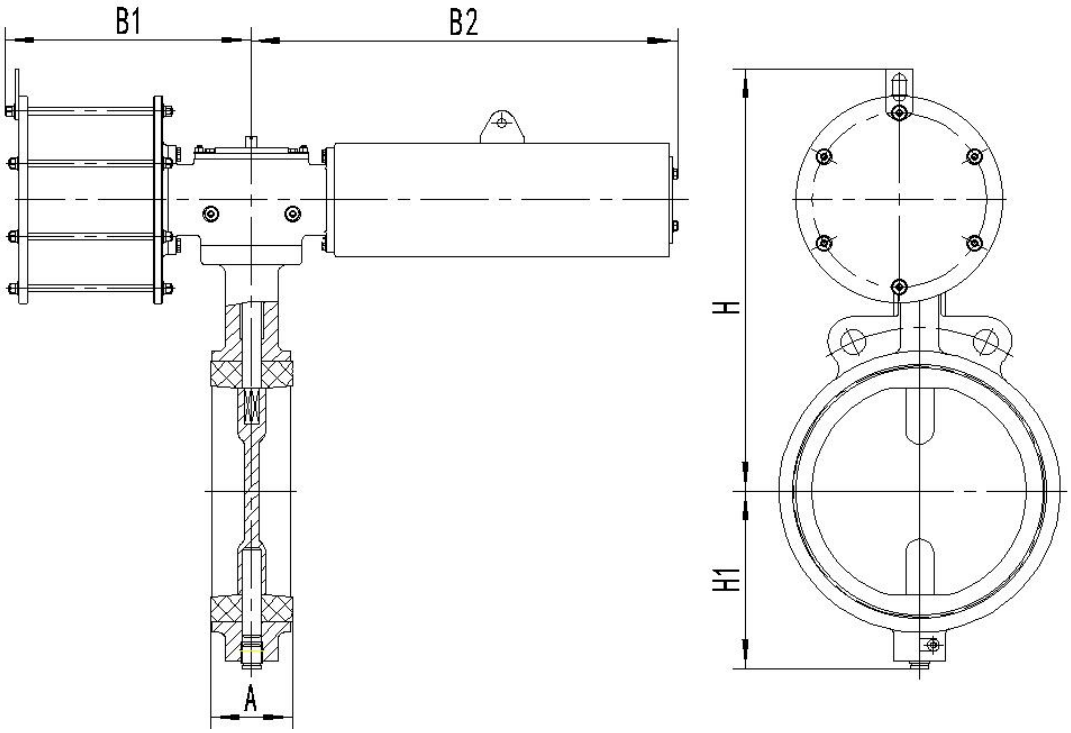


图 4.1 配 HCW18SR41~HCW55SR55 外形尺寸图 (FC)

Fig. 4.1 Overall Dimensions of Valve with HCW18SR41~HCW55SR55 (FC)

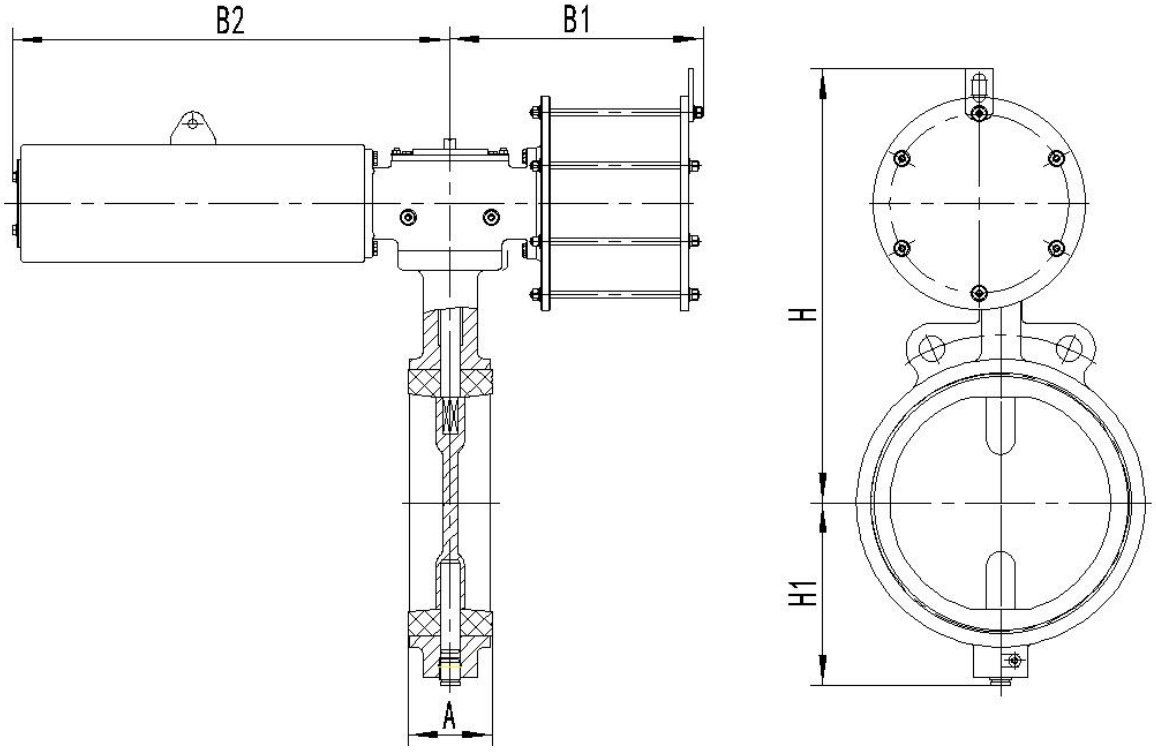


图 4.2 配 HCW18SD41~HCW55SD55 外形尺寸图 (FO)

Fig. 4.2 Overall Dimensions of Valve with HCW18SD41~HCW55SD55 (FO)

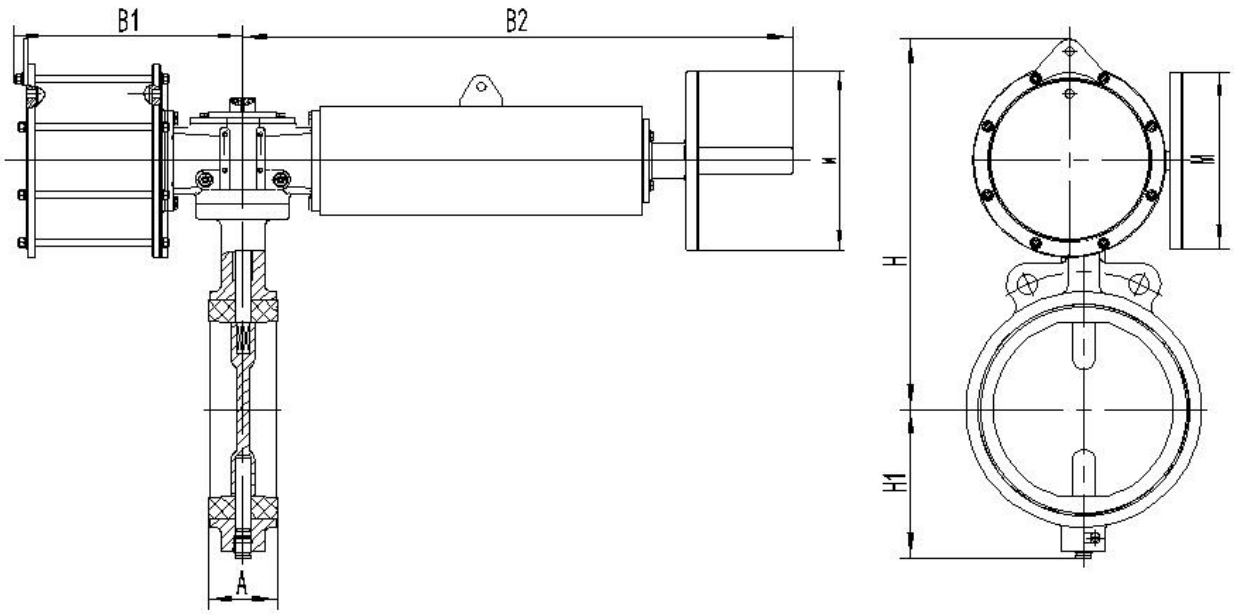


图 4.3 配 HCW18SR41~HCW27SR52 带丝杆手轮外形尺寸图 (FC)

Fig. 4.3 Overall Dimensions of Valve with HCW18SR41~HCW27SR52 (with Lead Screw Handwheel) (FC)

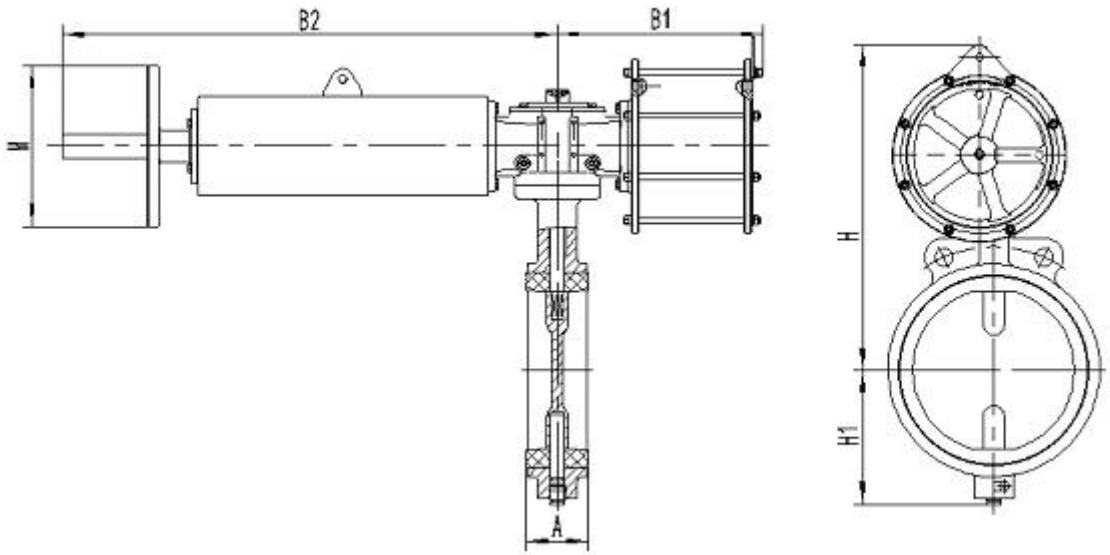


图 4.4 配 HCW18SD41~HCW27SD52 带丝杆手轮外形尺寸图 (FO)

Fig. 4.4 Overall Dimensions of Valve with HCW18SD41~HCW27SD52 (with Lead Screw Handwheel) (FO)

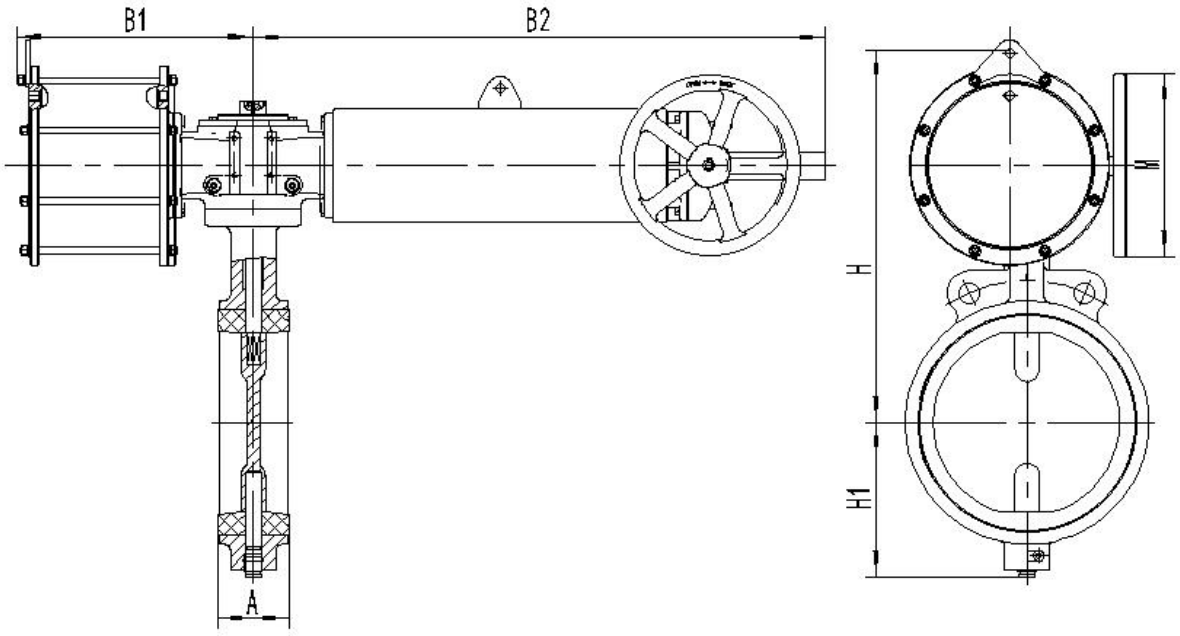


图 4.5 配 HCW27SR52~HCW40SR53 带伞齿手轮外形尺寸图 (FC)

Fig. 4.5 Overall Dimensions of Valve with HCW27SR52~HCW40SR53 (with Bevel Gear Handwheel) (FC)

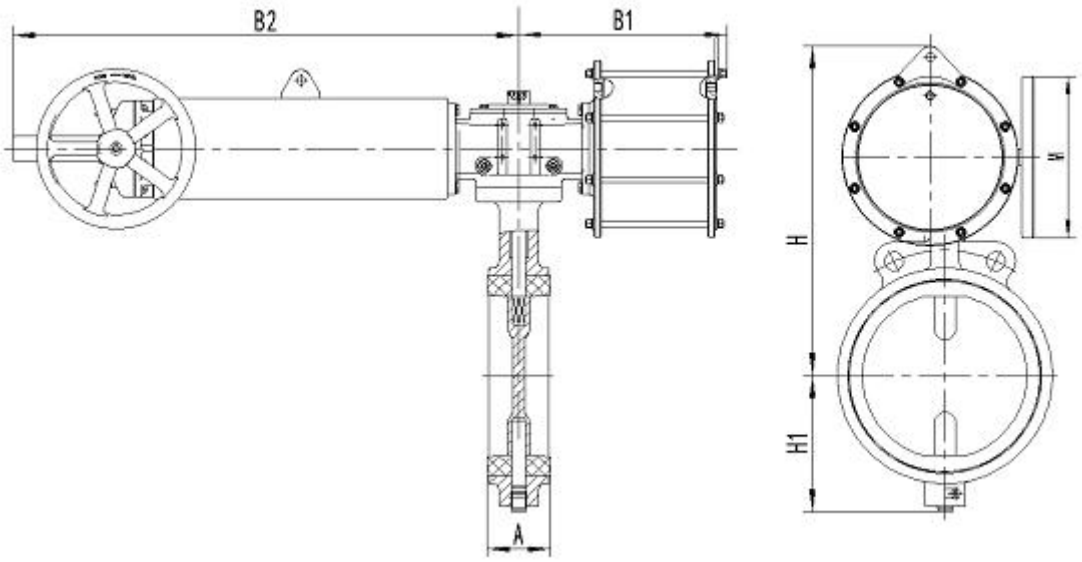


图 4.6 配 HCW27SD52~HCW40SD53 带伞齿手轮外形尺寸图 (FO)

Fig. 4.6 Overall Dimensions of Valve with HCW27SD52~HCW40SD53 (with Bevel Gear Handwheel) (FO)

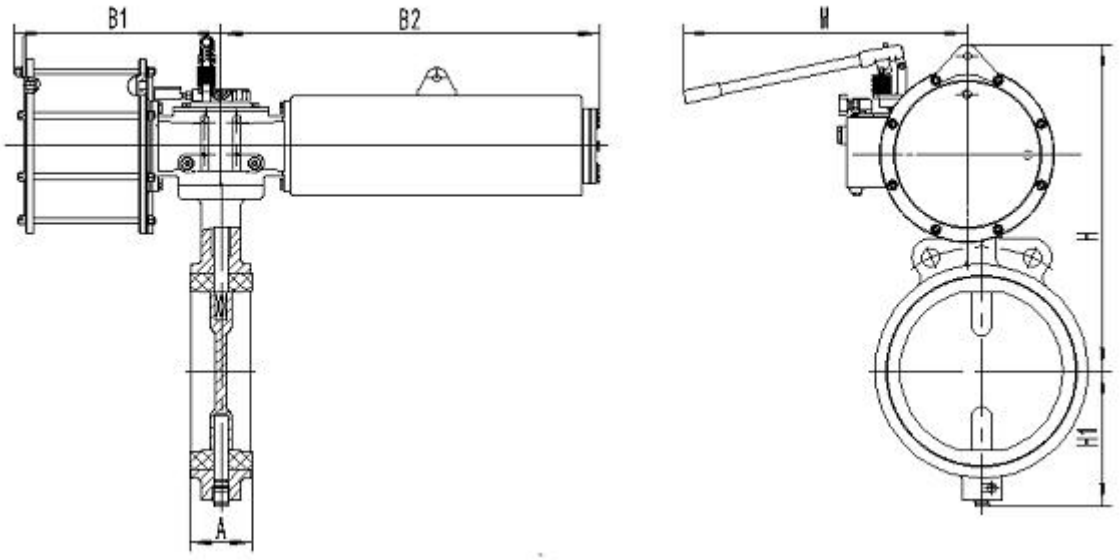


图 4.7 配 HCW45SR43~HCW55SR55 带液压手轮外形尺寸图 (FC)

Fig. 4.7 Overall Dimensions of Valve with HCW45SR43~HCW55SR55 (with Hydraulic Handwheel) (FC)

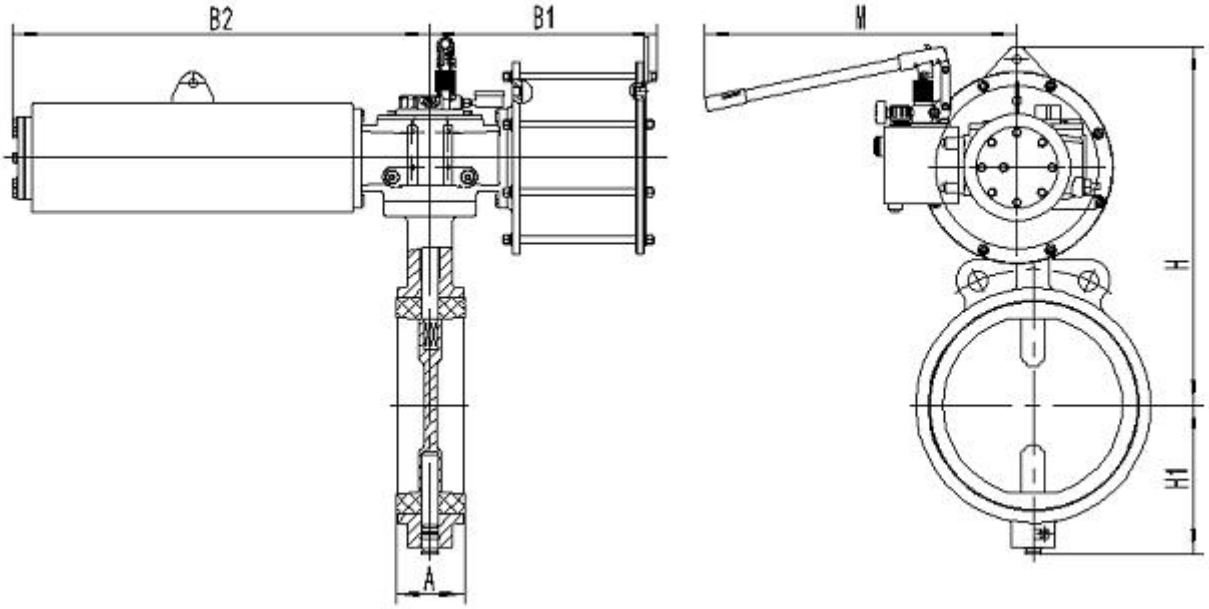


图 4.8 配 HCW45SD43~HCW55SD55 带液压手轮外形尺寸图 (FO)

Fig. 4.8 Overall Dimensions of Valve with HCW45SD43~HCW55SD55 (with Hydraulic Handwheel) (FO)

图 4 配 HCW18S~HCW55S 单作用执行机构外形尺寸图

Fig. 4 Overall Dimensions of Valve with HCW18S~HCW55S Single-acting Actuator

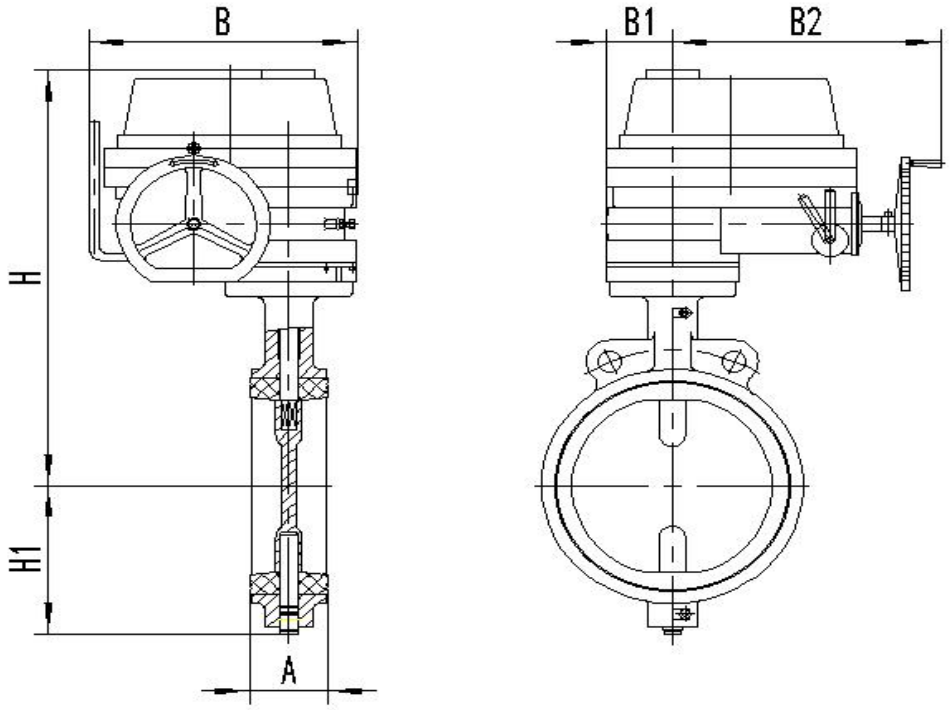


图 4 配 EI 电动执行机构外形尺寸图

Fig. 4 Overall Dimensions of Valve with EI Electric Actuator

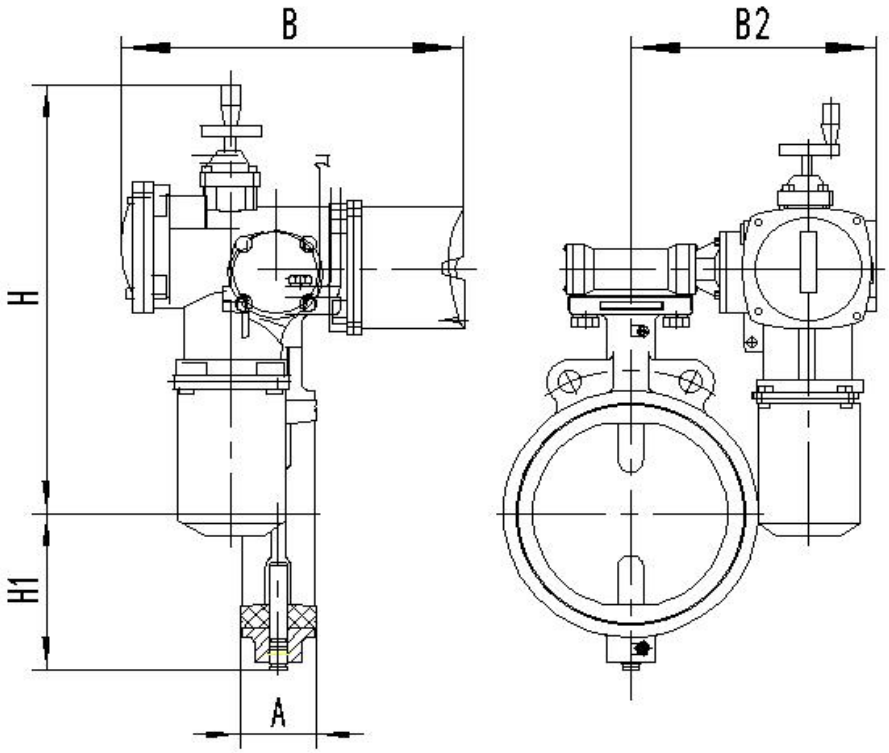


图 4 配 M 系列电动执行机构外形尺寸图

Fig. 4 Overall Dimensions of Valve with M Series Electric Actuator

法兰距、外形尺寸和重量(表 5)

Face to face dimension, overall dimensions and weight (Table 5)

表 5－1 配 HCT/HCW 执行机构外形尺寸 **mm**

Table 5-1 Overall Dimensions of Valve with HCT/HCW Actuator **mm**

公称通径 Nominal diameter (mm)	执行机构 Actuator	法兰距 A Face to face dimension A		外形尺寸 Overall dimensions								重量(kg) Weight (kg)			
							手轮 Handwheel					手轮 Handwheel			
							有 Yes			无 No		有 Yes		无 No	
		对夹式 Wafer type	法兰式 Flange type	H1	B1	B	H	B2	M	B2	H	对夹式 Wafer type	法兰式 Flange type	对夹式 Wafer type	法兰式 Flange type
2"(50)	HCT75DR0, HCT75DD0,	43	108	78	—	220	406	175	Φ180		296	16.3	19.8	7.3	10.8
	HCT92SR5, HCT92SD5,				—	275	451	175	Φ200		321	18.8	22.3	9.8	13.3
2.5" (65)	HCT75DR0, HCT75DD0	46	112	89	—	220	420	175	Φ180		310	17.3	21.3	8.3	12.3
	HCT92SR5, HCT92SD5				—	275	465	175	Φ200		335	19.8	23.8	10.8	14.8
3" (80)	HCT75DR0, HCT75DD0	46	114	95	—	220	426	175	Φ180		316	17.5	21.5	8.5	12.5
	HCT92SR5, HCT92SD5				—	275	471	175	Φ200		341	20	24	11	15
4" (100)	HCT92DR0, HCT92DD0	52	127	114	—	275	490	175	Φ200		360	20.7	25.2	11.7	16.2
	HCT125SR5, HCT125SD5				—	350	530	175	Φ280		400	27	31.5	18	22.5
5" (125)	HCT125DR0, HCT125DD0	56	140	125	—	350	543	175	Φ280		413	27	31.6	18	22.6
	HCT160SR5, HCT160SD5				—	470	618	200	Φ320		453	52	55	34	39
	HCW18SR41，HCW18SD41				520	—	433	950	Φ400	850	433	213	218	178	183
6" (150)	HCT125DR0, HCT125DD0	56	140	141	—	350	556	175	Φ280		426	29	35.2	20	26.2
	HCT160SR5, HCT160SD5				—	470	631	200	Φ320		466	54	60.2	36	42.2
	HCW18SR41，HCW18SD41				520	—	446	950	Φ400	850	446	215	221.2	180	186.2
8" (200)	HCT160DR0, HCT160DD0	60	152	175	—	470	665	175	Φ320		500	47	54.5	38	45.5
	HCT210SR5, HCT210SD5				—	560	745	250	Φ400		560	102	109.5	74	81.5
	HCW18D001				520	—	480	740	ϕ400	200	480	169	176.5	134	141.5
	HCW22SR51, HCW22SD51				520	—	480	1000	Φ400	910	480	239	246.5	214	221.5
10" (250)	HCT160DR0, HCT160DD0	68	165	200	—	470	697	175	Φ320		532	55.5	65.9	46.5	56.9
	HCT210SR5, HCT210SD5				—	560	777	250	Φ400		592	110	120.4	82	92.4
	HCW18D001				520	—	512	740	ϕ400	200	512	177	187.4	142	152.4
	HCW22SR51,				520	—	512	1000	Φ400	910	512	247	257.4	222	232.4

	HCW22SD51														
12" (300)	HCT210DR0, HCT210DD0	78	178	242	—	560	822	200	Φ400		637	100	112.5	82	94.5
	HCT270SR5, HCT270SD5				—	740	912	300	Φ600		712	200	212.5	156	168.5
	HCW22D002				650	—	557	800	Φ600	250	557	220	232.5	170	182.5
	HCW27SR52, HCW27SD52				650	—	637	1300	Φ600	1050	637	420	432.5	365	377.5
14" (350)	HCT210DR0, HCT210DD0	78	190	267	—	560	853	200	Φ400		668	120	135.5	102	117.5
	HCT270SR5, HCT270SD5				—	740	943	300	Φ600		743	218	233.5	174	189.5
	HCW22D002				650	—	588	800	Φ600	250	588	237	252.5	187	202.5
	HCW27SR52, HCW27SD52				650	—	668	1300	Φ600	1050	668	435	450.5	380	395.5
16" (400)	HCT270DR0, HCT270DD0	102	216	309	—	740	975	250	Φ500		775	207	225.2	179	197.2
	HCW27D003				700	—	700	1500	Φ700	270	700	354	372.2	304	322.2
	HCW40SR53, HCW40SD53				700	—	732	1600	Φ700	1160	732	672	690.2	622	640.2
18" (450)	HCT270DR0, HCT270DD0	114	222	328	—	740	997	250	Φ500		797	234	259	206	231
	HCW27D003				700	—	722	1500	Φ700	270	722	381	406	331	356
	HCW40SR53, HCW40SD53				700	—	742	1600	Φ700	1160	742	699	724	649	674
20" (500)	HCT350DR0, HCT350DD0	127	229	360	—	930	1165	410	Φ600		935	477	511	327	361
	HCW35D003				700	—	800	1500	Φ700	270	800	556	590	501	535
	HCW40SR53, HCW40SD53				700	—	800	1600	Φ700	1160	800	726	760	676	801
24" (600)	HCT350DR0, HCT350DD0	154	267	459	—	930	1247	410	Φ600		1017	552	601.6	402	451.6
	HCW35D003				700	—	862	1500	Φ700	270	862	631	680.6	576	625.6
	HCW40SR53, HCW40SD53				700	—	882	1600	Φ700	1160	882	801	850.6	751	800.6

表 5－2 配 EI 系列电动执行机构外形尺寸

Table 5-2 Overall Dimensions of Valve with EI Series Electric Actuator

公称通径 Nominal diameter (mm)	执行机构 Actuator	法兰距 A Face to face dimension A	H1	H	B	B2	重量 Weight kg
2"(50)	EI008	43	78	381	121	160	8
2.5" (65)		46	89	395	121	160	9
3" (80)		46	95	401	121	160	9.5
4" (100)	EI016	52	114	459	229	338	23
5" (125)	EI025	56	125	472	229	338	24
6" (150)		56	141	485	229	338	26
8" (200)	EI050	60	175	548	244	357	38
10" (250)		68	200	580	244	357	46

12" (300)	EI080	78	242	650	287	380	63
14" (350)	EI120	78	267	681	287	380	121
16" (400)		102	309	713	293	380	147
18" (450)	EI300	114	328	953	312	380	184
20" (500)	EI600	127	360	1160	375	516	290
24" (600)		154	459	1242	275	516	360

手轮机构

Handwheel mechanism

表 6-1 执行机构手轮标准配用：

Table 6-1 Standard mating of actuator handwheels:

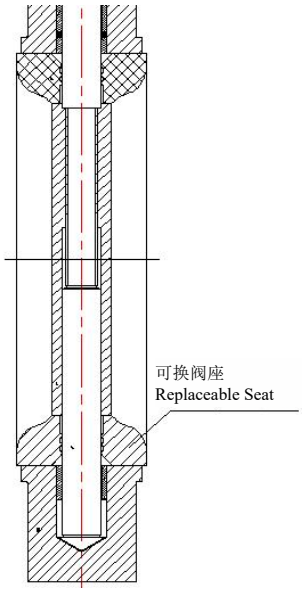
执行机构（双作用） Actuator (double acting)	执行机构（单作用） Actuator (single acting)	标准配用手轮 Standard Handwheel	执行机构（单作用） Actuator (single acting)	标准配用手轮 Standard Handwheel	执行机构（单作用） Actuator (single acting)	标准配用手轮 Standard Handwheel
HCT63D、HCT75D	HCT63S、HCT75S	SD-1	HCW18D001	丝杆 HG18D1 Lead screw HG18D1	HCW18SR41, HCW18SD41	丝杆 HG18S41 Lead screw HG18S41
HCT83D、HCT92D	HCT63S、HCT75S	SD-2	HCW22D002	丝杆 HG22D2 Lead screw HG22D2	HCW22SR51, HCW22SD51	丝杆 HG22S51 Lead screw HG22S51
HCT105D、HCT125D	HCT105S、HCT125S	SD-3	HCW27D003	伞齿 HG27D3 Bevel gear HG27D3	HCW27SR52, HCW27SD52	丝杆 HG27S52 Lead screw HG27S52
HCT140D、HCT160D	HCT140S、160S	SD-4	HCW35D003	伞齿 HG32D3 Bevel gear HG32D3	HCW32SR53, HCW32SR53	伞齿 HG32S53 Bevel gear HG32S53
HCT190D、HCT210D	HCT190S、HCT210S	SD-5	HCW40D004	液压 HG40D4 Hydraulic HG40D4	HCW40SR53, HCW40SR53	伞齿 HG40S53 Bevel gear HG40S53
HCT240D、HCT270D	HCT240S	SD-6	HCW55D005	液压 HG55D5 Hydraulic HG55D5	HCW55SR55, HCW55SD55,	液压 HG55S55 Hydraulic HG55S55
HCT300D	HCT270S、HCT300S	SD-7	HCW70D006	液压 HG70D6 Hydraulic HG70D6	HCW60SR55, HCW60SD55	液压 HG60S55 Hydraulic HG60S55
HCT350D	HCT350S	SD-8	HCW85D007	液压 HG85D7 Hydraulic HG85D7	HCW70SR55, HCW70SD55	液压 HG70S55 Hydraulic HG70S55
HCT400D	HCT400S	SD-9				

※备注：

※Remarks:

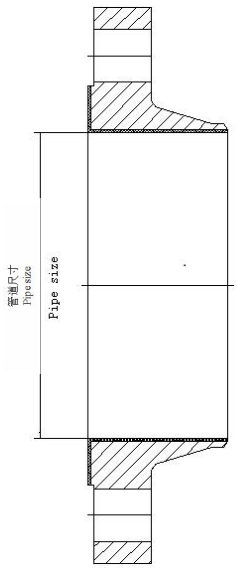
1. 衬胶蝶阀有两种结构形式，一种是阀座可换式结构，它适用于对焊法兰管道；另一种是阀座为不可换式结构，它适用于平焊法兰管道。而目前公司是按标准的可换式阀座结构供货（样本中为标准的可换式阀座结构），如需另一种结构，请重新询价，且在选型时必须落实现场管道情况和正确的管道尺寸(详见下图)。

1. The rubber-lined butterfly valve has two structural forms, one is replaceable seat structure, which is suitable for butt welding flange pipeline; the other is non-replaceable seat structure, which is suitable for flat welding flange pipeline. At present, the Company supplies according to the standard replaceable seat structure (the sample is the standard replaceable seat structure), if you need another structure, please ask for quotations again, and when selecting the type, you must realize the on-site pipeline situation and the correct pipeline size (see the following figure).



阀座为可换式结构

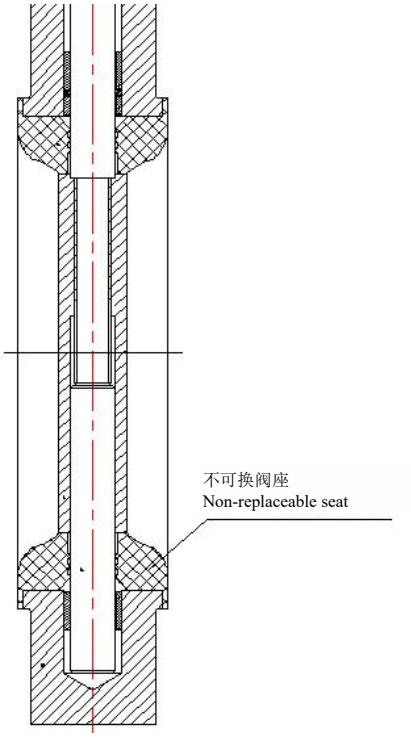
Seat is replaceable



对焊法兰

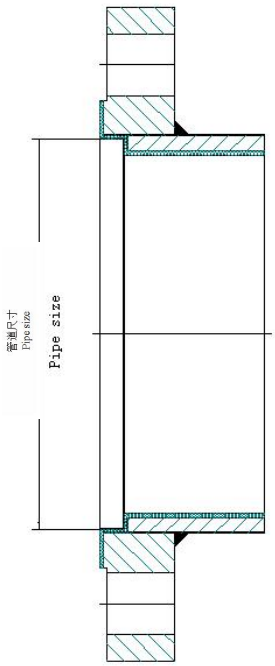
Butt weld flange

阀
Valve



座为不可换式结构

Seat is non-replaceable



平焊法兰

Flat welding flange

2. VNM 阀座结构特殊且倒装对阀座不利，不建议倒装。

2. VNM valve seat structure is special and inverted installation is unfavorable to the seat, inverted installation is not recommended.