

采用标准 Standards

设计制造：铸钢闸阀按照API 600 (ISO 10434)、API 6D；不锈钢闸阀按照API 603、API 600；锻钢闸阀按照API 602

检验和试验：API 598、API 600、API 6D

法兰连接：ASME B16.5 (NPS≤24)、ASME B16.47 B系列、API 605、ASME B16.47 A系列、MSS SP-44 (NPS > 24)

对焊端：ASME B16.25

承插焊端：ASME B16.11

结构长度：ASME B16.10

温压等级：ASME B16.34

Design and Manufacture: Cast steel gate valve to API 600 (ISO 10434) or API 6D; Cast stainless steel gate valve to API 603 or API 600;
Forged steel gate valve to API 602.

Inspection and Test: API 598, API 6D.

End flange dimension: ASME B16.5 (for NPS≤24)、ASME B16.47 series B、API 605 or ASME B16.47 series A、MSS SP-44 (for NPS > 24).

BW end dimension: ASME B16.25.

Socket-weld dimension: ASME B16.11.

Face to face and end to end: ASME B16.10.

Pressure-temperature ratings: ASME B16.34.

阀盖垫片形式 Bonnet Gasket Style

Class150闸阀采用不锈钢石墨复合垫片；Class300闸阀采用不锈钢石墨缠绕垫片；Class600闸阀可用不锈钢石墨缠绕垫片也可采用金属环垫片；Class900闸阀可采用金属环垫片；Class1500~Class2500闸阀采用自压密封金属环。

Stainless steel and graphite combined gasket is used for Class 150 gate valve; Stainless steel and graphite wounded gasket is used for Class 300 gate valve; Stainless steel and graphite wounded gasket is used for Class 600 gate valve, and metal ring gasket is also an optional for Class 600 gate valve; Metal ring gasket is used for Class 900 gate valve; Pressure seal design is used for Class 1500~Class2500 gate valve.

填料密封 Packing Seal

通常采用柔性石墨作为填料材料，可根据用户需求提供PTFE或者复合填料材料。填料与填料函接触的表面粗糙 $3.2\ \mu\text{m}$ ，可以保证阀杆与填料接触面接合紧密但是旋转自如，经过精密的机械加工的阀杆密封面粗糙度 $0.8\ \mu\text{m}$ 可以保证阀杆可靠的密封。

As usual, flexible graphite is used for packing material. PTFE or combined packing material can be also used if being requested by the customer. The surface roughness between the packing and packing seat is $Ra\ 3.2\ \mu\text{m}$ so that the stem contact the packing surface tightly but rotate freely. The roughness of stem sealing face is $Ra\ 0.8\ \mu\text{m}$ after being precisely machined to ensure the reliable tightness.

阀体和阀盖连接形式 Body and Bonnet Connection

Class150~Class 900 采用栓接阀盖；Class1500~Class 2500采用自压密封式阀盖。

Class 150~Class 900 gate valves are usually used to bolted bonnet design. Class 1500~Class 2500 gate valves are usually used to pressure seal bonnet design.

弹簧加载填料冲击系统 Spring Loaded Packing Impacting System

如果客户要求，可采用弹簧加载填料冲击系统提高填料密封的持久性和可靠性。

If being requested by the customer, the spring loaded packing impacting system can be adopted for enhancing the durability and reliability of the packing seal.

操作形式 Operation

一般情况下采用手轮驱动或者齿轮传动方式，可根据用户需要采用链轮传动或者电装驱动。

Handwheel or bevel gear is usually used for gate valve operation. Chain wheel and electric actuator can be also used for gate valve operation if being requested by the customers.

闸板设计 Disc Design

NPS \geq 2"弹性闸板；NPS < 2"刚性闸板。

NPS \geq 2 Gate valves are flexible wedge gate; NPS < 2 Gate valves are solid gate.

倒密封设计 Backseat Design

我们飞球公司提供的的所有闸阀都有倒密封设计，通常情况下，碳钢闸阀的阀座设计采用分离式倒密封结构，不锈钢闸阀的倒密封是直接加工或者是焊后加工。当阀门在全开位置时，倒密封的密封面非常可靠。虽然按照标准API 600中有倒密封，但这不作为在带压情况下更换填料的依据。

All Feiqiu gate valves have backseat design. In most cases, the backseat of carbon steel gate valve is renewable. For stainless steel gate valve, the backseat is machined directly on the bonnet or it is machined after welding. When the gate valve is at fully open position, the sealing of backseat can be very reliable. It is not advisable to replace the packing when the valve includes pressure though API 600 has the backseat explanation.

阀杆设计 Stem Design

采用整体锻造工艺制成，按照标准要求确定最小直径，阀杆和阀瓣采用T型结构连接。阀杆结合面的强度大于阀杆T型螺纹部分的强度，强度试验按照API 591进行。

The stem is integral forged design. The minimum diameter of the stem shall be as per the standard requirement. The connection of the stem and disc is T type. The strength of the connecting area is bigger than that of the stem T threaded part. The strength test of that area conforms to API 591.

阀杆螺母 Stem Nut

通常情况下，阀杆螺母材料采用ASTM A439 D2。可以根据用户要求采用铜合金等材料，对于大口径的闸阀(NPS \geq 10" Class150; NPS \geq 8" Class300; NPS \geq 6" Class600; NPS \geq 5" Class900)，阀杆螺母和阀杆之间设计有滚动轴承，可以有效减小闸阀的开启力矩使阀门可以轻松开关。

Usually, the stem nut is made of ASTM A439 D2. It is also can be made of Cu alloy or other materials if being requested by the customer. For large sized gate valves (NPS \geq 10" Class150; NPS \geq 8" Class300; NPS \geq 6" Class600; NPS \geq 5" Class900), rolling bearing is fitted between stem nut and stem in order to minimize the torque for easy operation.

阀座 Seat

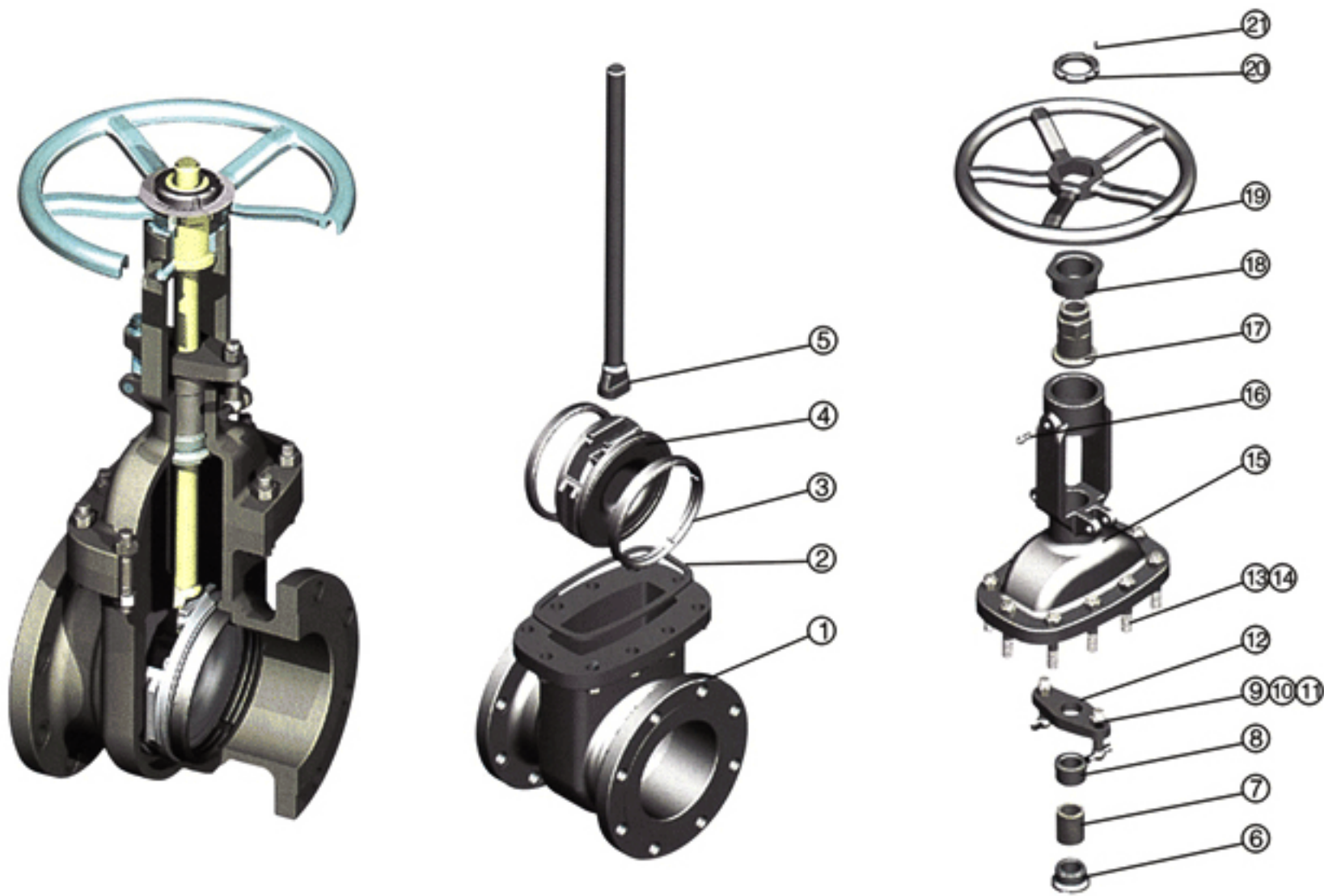
碳钢闸阀阀座通常采用锻钢材料，阀座密封面可根据客户要求喷焊硬质合金，NPS \leq 10"的闸阀采用分离式螺纹旋入式阀座，如果用户需要焊阀座结构也可提供；NPS \geq 12"闸阀采用焊阀座结构；不锈钢闸阀的阀座一般采用整体式或者在本体上焊硬质合金后直接加工阀座。如果用户有需求，不锈钢闸阀阀座也可采用分离式螺纹旋入式和焊接阀座结构。

For carbon steel gate valve, the seat is usually forged steel. The seat sealing surface is spray welded with hard alloy that specified by the customer. The renewable threaded seat is used for NPS \leq 10 gate valves, and welded on seat can be also optional if being requested by the customer. Welded seat is used for NPS \leq 12 carbon steel gate valves. For stainless steel gate valves, the seat is integral with body or it can be machined directly after hard alloy welded. The renewable threaded seat or welded type seat is also optional for stainless steel gate valve if being requested by the customer.

特殊闸阀 Special Gate Valve

除通用闸阀外，我们公司还可以提供低温闸阀、波纹管闸阀、夹套闸阀，地下安装的加长阀杆闸阀等等。

Besides the general gate valves, our company also makes cryogenic gate valve, jacketed gate valve, bellow sealed gate valve, extended stem gate valve for underground installation application, etc.



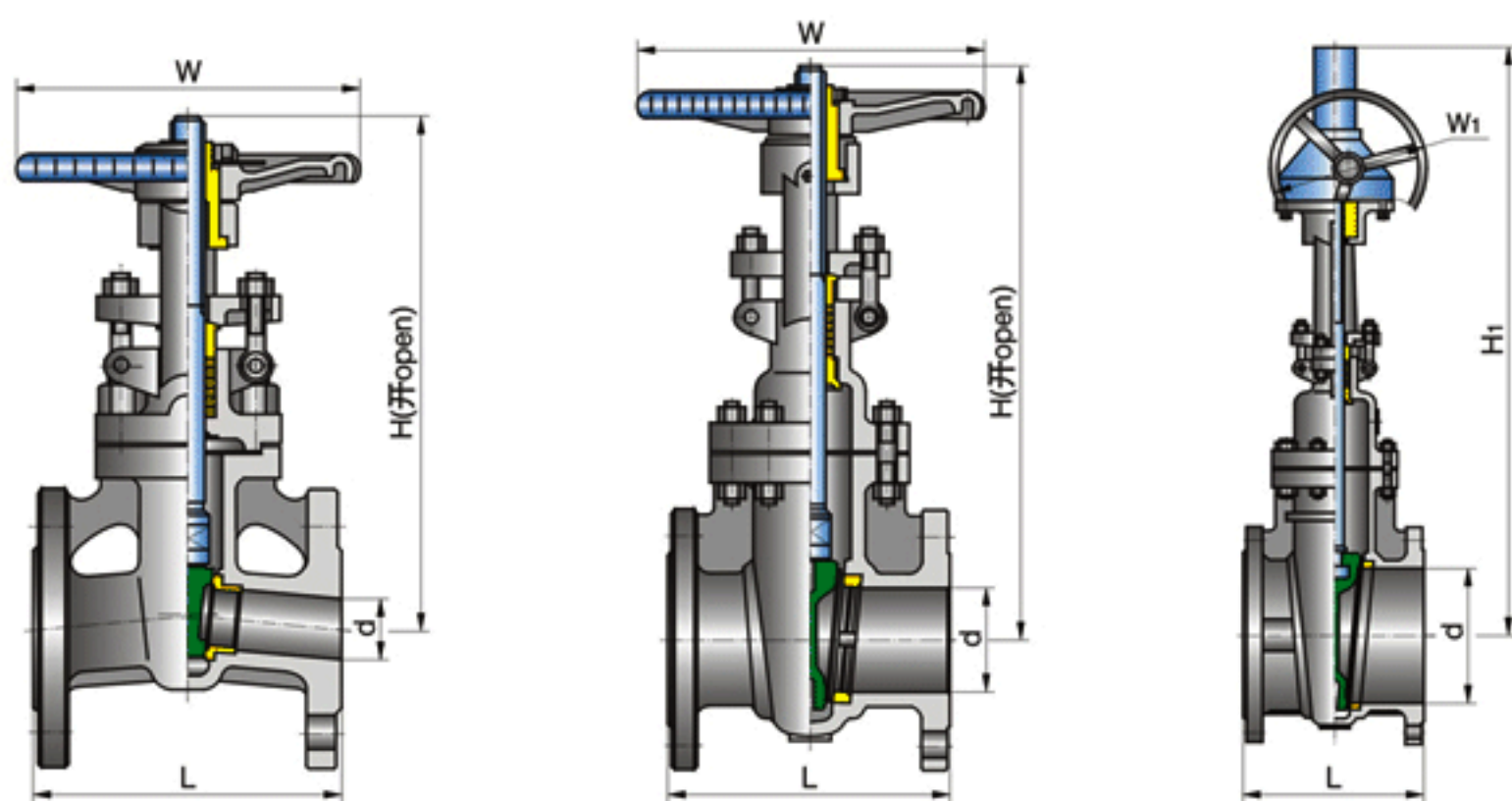
主要零件材料 Parts and Material List

序号 Parts No.	零件名称 Parts Name	材料 Materials				
		WCB/Trim 1	WCB/Trim 5	WCB/Trim 8	CF8/304	CF8M/316
1	阀体 Body	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
2	垫片 Gasket	Soft Iron + Graphite or 304 + Graphite			304 + Graphite	316 + Graphite
3	阀座 Seat ring	A105 + 13Cr	A105 + STL	A105 + STL	ASTM A351 CF8	ASTM A351 CF8M
4	闸板 Gate	ASTM A216 WCB + 13Cr	ASTM A216 WCB + STL	ASTM A216 WCB + 13Cr	ASTM A351 CF8	ASTM A351 CF8M
5	阀杆 Stem	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316
6	上密封座 Backseat bushing	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F6a	ASTM A351 CF8	ASTM A351 CF8M
7	填料 Packing	柔性石墨 Graphite	柔性石墨 Graphite	柔性石墨 Graphite	柔性石墨 Graphite	柔性石墨 Graphite
8	填料压套 Gland	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316
9	压盖螺钉 Gland eyebolt	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8M
10	螺母 Eyebolt nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
11	销 Eyebolt pin	ASTM A36	ASTM A36	ASTM A36	304ss	316ss
12	填料压板 Gland flange	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
13	螺柱 Bonnet bolt	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8M
14	阀盖螺母 Bonnet nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
15	阀盖 Bonnet	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
16	油杯 Nipple	碳钢 Carbon steel	碳钢 Carbon steel	碳钢 Carbon steel	碳钢 Carbon steel	碳钢 Carbon steel
17	阀杆螺母 Stem nut	ASTM A439 D2	ASTM A439 D2	ASTM A439 D2	ASTM A439 D2	ASTM A439 D2
18	压盖螺母 Yoke sleeve nut	碳钢 Carbon steel	碳钢 Carbon steel	碳钢 Carbon steel	碳钢 Carbon steel	碳钢 Carbon steel
19	手轮 Hand wheel	球墨铸铁 Ductile Iron	球墨铸铁 Ductile Iron	球墨铸铁 Ductile Iron	球墨铸铁 Ductile Iron	球墨铸铁 Ductile Iron
20	锁紧螺母 Hand wheel nut	碳钢 Carbon steel	碳钢 Carbon steel	碳钢 Carbon steel	碳钢 Carbon steel	碳钢 Carbon steel
21	螺钉 Set screw	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7

注：上表仅列出了铸钢闸阀零部件材料的最常用配置，根据用户要求或阀门的实际使用工况，我公司可以提供其他多种不同的零部件材料配置。

Note: The chart above only lists out the commonest materials formulation for cast steel gate valves. We may provide other different parts materials according to the customer's request or the actual valve working condition.

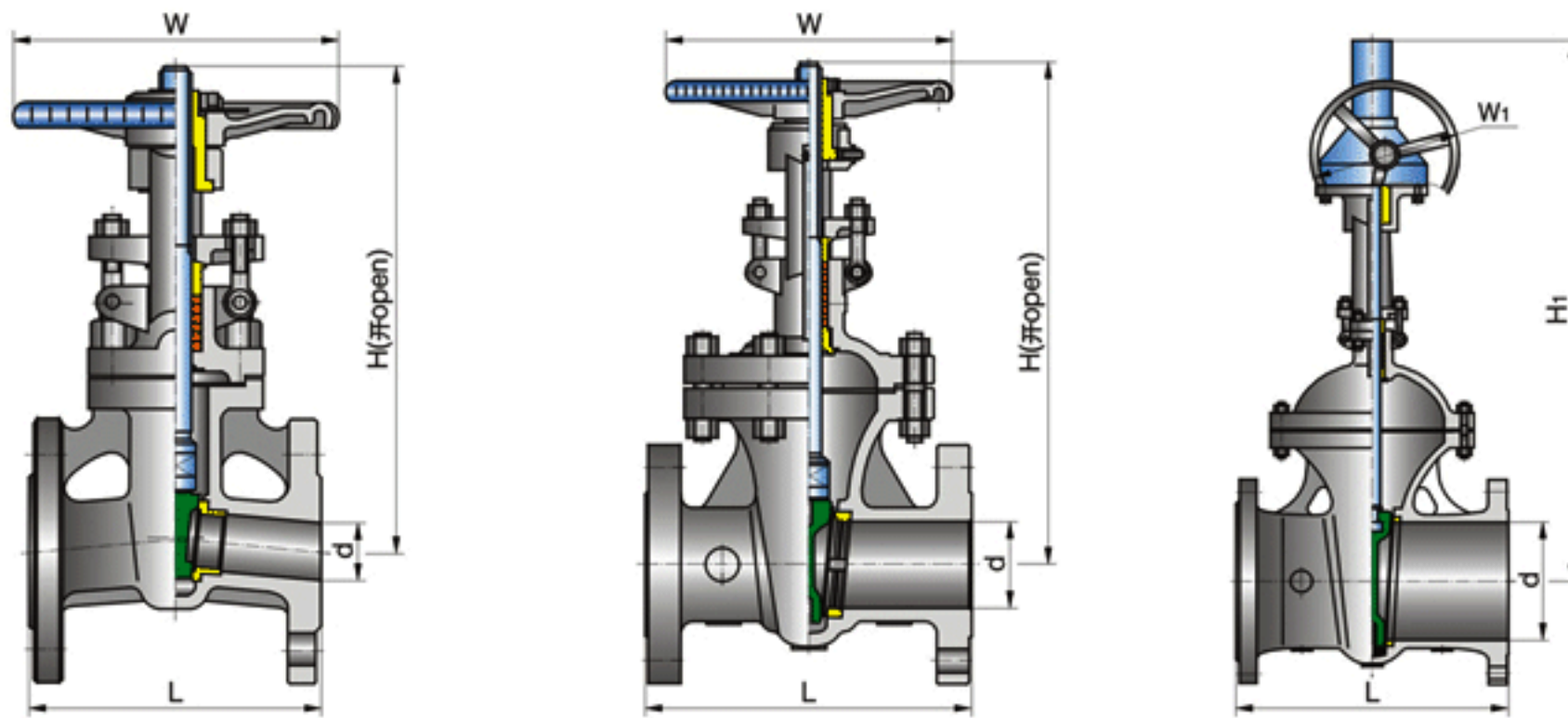
Class150



主要外形尺寸及重量 Main Outline Dimensions & Weight

磅级 Class	口径 Size		尺寸 Dimensions(mm)								重量 Weight(kg)	
	NPS	DN	L			d	H	H ₁	W	W ₁	手轮 Handwheel	齿轮传动 Bevel Gear
			RF	RTJ	BW							
Class150	1/2	15	108	119	108	13	195	-	120	-	4	-
	3/4	20	117	130	117	19	210	-	120	-	5	-
	1	25	127	140	127	25	240	-	140	-	7	-
	1 1/4	32	140	153	140	32	300	-	180	-	10	-
	1 1/2	40	165	178	165	38	395	-	200	-	14	-
	2	50	178	191	216	51	400	-	200	-	19	-
	2 1/2	65	191	203	241	64	435	-	200	-	25	-
	3	80	203	216	283	76	515	-	250	-	33	-
	4	100	229	241	305	102	595	-	280	-	49	-
	5	125	254	267	381	127	725	-	280	-	62	-
	6	150	267	279	403	152	780	820	300	310	77	104
	8	200	292	305	419	203	975	1020	350	310	123	150
	10	250	330	343	457	254	1150	1200	400	310	188	215
	12	300	356	368	502	305	1380	1430	450	310	288	315
	14	350	381	394	572	337	1545	1580	500	310	385	435
	16	400	406	419	610	387	1733	1780	500	460	500	552
	18	450	432	445	660	438	1915	1990	500	460	601	653
	20	500	457	470	711	489	2122	2220	600	460	764	816
	24	600	508	521	813	591	2520	2600	600	460	1007	1185
	26	650	559	-	864	633	-	2800	-	600	-	1550
28	700	610	-	914	684	-	3050	-	600	-	1880	
30	750	610	-	914	735	-	3130	-	600	-	2300	
32	800	711	-	965	779	-	3280	-	600	-	2550	
34	850	762	-	1016	830	-	3500	-	600	-	2950	
36	900	711	-	1016	874	-	3720	-	600	-	3390	

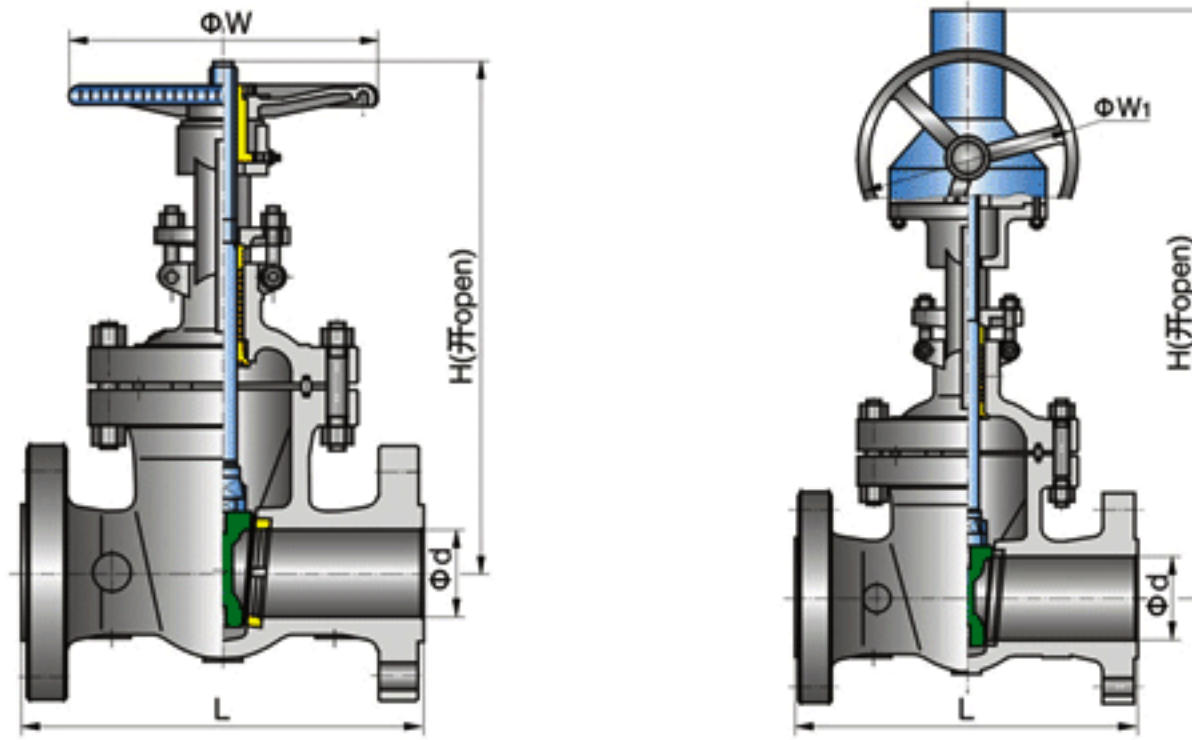
Class300



主要外形尺寸及重量 Main Outline Dimensions & Weight

磅级 Class	口径 Size		尺寸 Dimensions(mm)								重量 Weight(kg)	
	NPS	DN	L			d	H	H ₁	W	W ₁	手轮 Handwheel	齿轮传动 Bevel Gear
			RF	RTJ	BW							
Class300	1/2	15	140	151	140	13	198	-	120	-	6	-
	3/4	20	152	165	152	19	215	-	140	-	7	-
	1	25	165	178	165	25	245	-	160	-	10	-
	1 1/4	32	178	191	178	32	306	-	180	-	15	-
	1 1/2	40	190	203	190	38	400	-	200	-	21	-
	2	50	216	232	216	51	420	-	200	-	25	-
	2 1/2	65	241	257	241	64	446	-	200	-	30	-
	3	80	283	298	283	76	537	-	250	-	48	-
	4	100	305	321	305	102	619	650	280	310	73	100
	5	125	381	397	381	127	722	750	300	310	99	126
	6	150	403	419	403	152	806	835	350	310	130	186
	8	200	419	435	419	203	1000	1030	400	310	208	235
	10	250	457	473	457	254	1240	1280	450	310	334	386
	12	300	502	518	502	305	1425	1460	500	310	450	502
	14	350	762	778	762	337	1585	1620	600	460	704	756
	16	400	838	854	838	387	1790	1830	500	460	923	965
	18	450	914	930	914	438	1960	2000	650	460	1131	1224
	20	500	991	1010	991	479	2158	2220	750	460	1345	1400
	24	600	1143	1165	1143	589	2576	2620	900	600	2122	2385
	26	650	1245	1270	1245	635	-	2850	-	600	-	3000
28	700	1346	1372	1346	686	-	3080	-	600	-	3300	
30	750	1397	1422	1397	737	-	3180	-	600	-	3550	
32	800	1524	1553	1524	779	-	3300	-	600	-	4400	
34	850	1626	1654	1626	830	-	3550	-	600	-	5200	
36	900	1727	1756	1727	874	-	3760	-	600	-	6050	

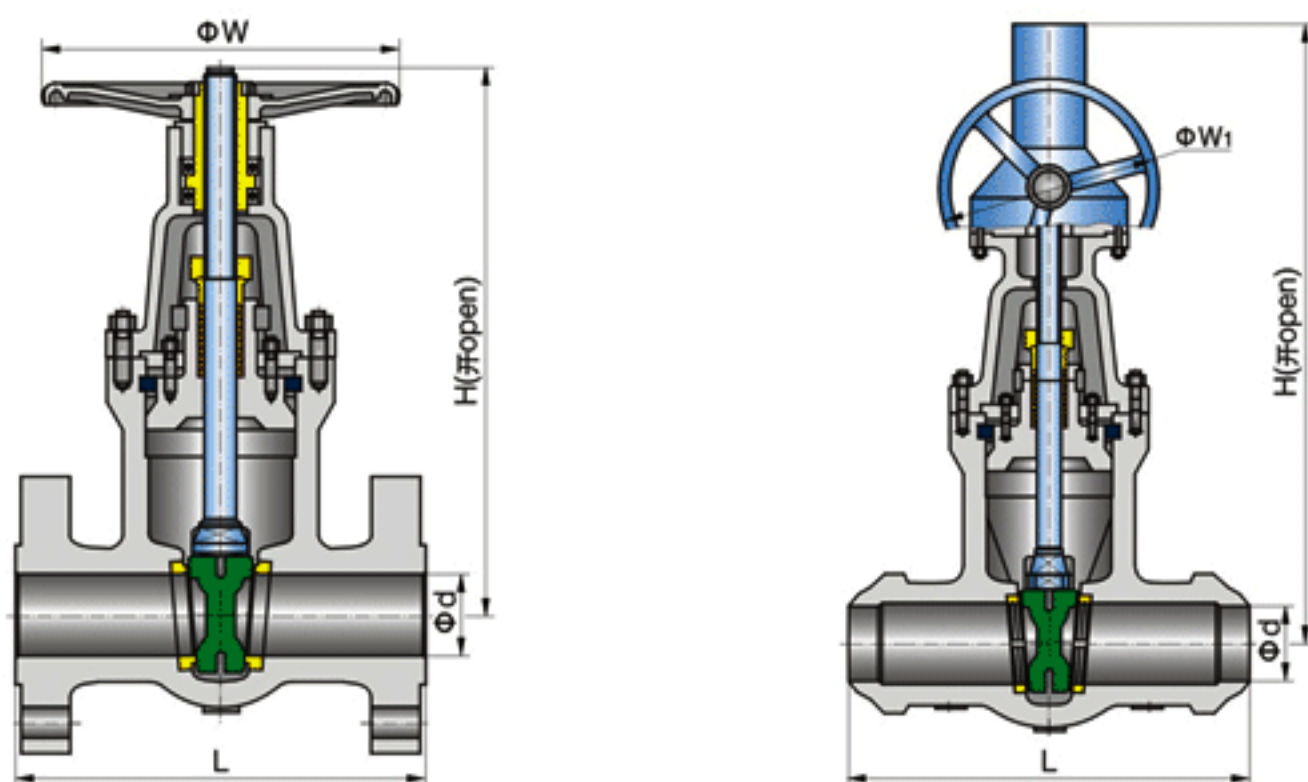
Class600 & Class900



主要外形尺寸及重量 Main Outline Dimensions & Weight

磅级 Class	口径 Size		尺寸 Dimensions(mm)								重量 Weight(kg)	
	NPS	DN	L			d	H	H ₁	W	W ₁	手轮 Handwheel	齿轮传动 Bevel Gear
			RF	RTJ	BW							
Class600	2	50	292	295	292	51	444	-	200	-	32	-
	2 1/2	65	330	333	330	64	500	-	250	-	52	-
	3	80	356	359	356	76	558	585	280	310	60	87
	4	100	432	435	432	102	665	695	300	310	107	134
	5	125	508	511	508	127	760	790	350	310	175	227
	6	150	559	562	559	152	868	900	450	310	216	268
	8	200	660	664	660	200	1073	1110	500	310	399	451
	10	250	787	791	787	248	1263	1300	650	460	605	657
	12	300	838	841	838	298	1600	1650	700	460	851	893
	14	350	889	892	889	327	1705	1750	900	460	1177	1232
	16	400	991	994	991	375	1835	1900	900	460	1513	1568
	18	450	1092	1095	1092	419	-	2020	-	600	-	1980
	20	500	1194	1200	1194	464	-	2172	-	600	-	2460
	24	600	1397	1407	1397	559	-	2650	-	600	-	3650
Class900	2	50	368	371	368	47	500	-	280	-	70	-
	2 1/2	65	419	422	419	57	550	-	280	-	110	-
	3	80	381	384	381	73	610	660	300	310	140	167
	4	100	457	460	457	98	702	750	350	310	200	227
	5	125	559	562	559	121	850	900	400	310	258	285
	6	150	610	613	610	146	980	1060	500	460	358	410
	8	200	737	740	737	190	1100	1140	650	460	550	600
	10	250	838	841	838	234	1320	1370	700	460	1000	1100
	12	300	965	968	965	282	1500	1560	900	460	1215	1310
	14	350	1029	1038	1029	311	1900	1950	900	600	1600	1700
16	400	1130	1140	1130	354	2050	2100	900	600	2150	2330	

Class1500 & Class2500



主要外形尺寸及重量 Main Outline Dimensions & Weight

磅级 Class	口径 Size		尺寸 Dimensions(mm)								重量 Weight(kg)	
	NPS	DN	L			d	H	H ₁	W	W ₁	手轮 Handwheel	齿轮传动 Bevel Gear
			RF	RTJ	BW							
Class 1500	2	50	368	371	368	47	510	-	280	-	70	-
	2 1/2	65	419	422	419	57	560	-	300	-	110	-
	3	80	470	473	470	70	620	670	350	310	175	202
	4	100	546	549	546	92	728	770	400	310	270	300
	5	125	673	676	673	111	870	920	450	310	378	405
	6	150	705	711	705	136	1000	1070	500	460	520	575
	8	200	832	841	832	174	1130	1180	750	460	820	915
	10	250	991	1000	991	222	1360	1410	900	600	1560	1750
	12	300	1130	1146	1130	263	-	1620	-	600	-	2120
	14	350	1257	1276	1257	289	-	2020	-	600	-	2600
16	400	1384	1407	1384	330	-	2180	-	600	-	3450	
Class 2500	2	50	451	454	451	35	530	580	280	310	100	130
	2 1/2	65	508	514	508	47	580	630	300	310	150	180
	3	80	578	584	578	57	650	700	350	310	245	275
	4	100	673	683	673	73	750	800	400	310	390	420
	5	125	794	807	794	92	900	960	500	460	550	580
	6	150	914	927	914	111	1040	1100	600	460	780	835
	8	200	1022	1038	1022	146	1150	1200	750	460	1260	1355
	10	250	1270	1292	1270	184	1400	1460	900	600	2380	2565
12	300	1422	1445	1422	219	-	1660	-	600	-	3250	

采用标准 Standards

设计制造：铸钢截止阀按照BS 1873 and ASME B16.34；锻钢截止阀按照API 602

检验和试验：API 598

法兰连接尺寸：ASME B16.5

对焊端：ASME B16.25

承插焊端：ASME B16.11

结构长度：ASME B16.10

温压等级：ASME B16.34.

Design and manufacture: Cast steel globe valves according to BS 1873 and ASME B16.34; Forged steel globe valves according to API 602.

Inspection and test: API 598.

End flange dimension: ASME B16.5 .

BW end dimension: ASME B16.25.

Socket-weld dimension: ASME B16.11.

Face to face or end to end: ASME B16.10.

Pressure-temperature ratings: ASME B16.34.

操作形式 Operation

一般情况下采用手轮或者齿轮传动方式，可根据用户需要采用链轮传动或者电装驱动。

In most of cases, handwheel & gearbox is usually used for globe valve operation. Chain wheel and electric actuator can be also used for globe valve operation if being requested by the customers.

阀体和阀盖连接形式 Body and Bonnet Connection

Class150 ~ Class900通常采用栓接阀盖；Class1500 ~ Class2500采用自压密封式阀盖。

Class150 ~ Class900 globe valves are usually bolted bonnet. For Class1500 ~ Class2500 globe valves are usually used to pressure seal bonnet design.

阀盖垫片形式 Bonnet Gasket Style

Class150 ~ Class300截止阀采用不锈钢石墨缠绕垫片；Class600截止阀可用不锈钢石墨缠绕垫片，也可采用金属环垫片；Class900截止阀可采用金属环垫片；Class1500 ~ Class250截止阀采用自压密封金属环。

Stainless steel and flexible graphite wounded gasket is used for Class150 and Class300 globe valve; Stainless steel and flexible graphite wounded gasket is used for Class600, and metal ring gasket is also optional for Class600; The metal ring gasket is used for Class900 globe valve; Pressure seal design is used for Class1500 ~ Class2500 globe valve.

填料密封 Packing Seal

通常采用成型柔性石墨作为填料材料，可根据用户需求提供PTFE或者复合填料材料。填料与填料函接触的表面粗糙度为 $3.2\mu\text{m}$ ，可以保证阀杆与填料接触面接合紧密但是旋转自如，经过精密的机械加工的阀杆密封面粗糙度 $0.8\mu\text{m}$ ，可以保证阀杆可靠的密封。

As usual, flexible graphite is used for packing material. PTFE or combined packing material can be also used if being requested by the customer. The surface roughness between the packing and packing seat is $Ra\ 3.2\ \mu\text{m}$ so that the stem contact the packing surface tightly but rotate freely. The roughness of stem sealing face is $Ra\ 0.8\ \mu\text{m}$ after being precisely machined to ensure the reliable tightness.

截止阀结构特点 The Features of Globe Valve

栓接阀盖，明杆支架和升降式阀杆金属密封面。

Bolted Bonnet; Outside Screw and Yoke; Rising stems; Metallic seating surfaces.

阀杆设计 Stem Design

采用整体锻造工艺制成，按照标准要求确定最小直径。

The stem is integral forged design. The minimum diameter of the stem shall be as per the standard requirement.

弹簧加载填料冲击系统 Spring Loaded Packing Impacting System

如果客户要求，可采用弹簧加载填料冲击系统提高填料密封的持久性和可靠性。

If being requested by the customer, the spring loaded packing impacting system can be adopted for enhancing the durability and reliability of the packing seal.

上密封座设计 Backseat Design

我们公司提供的截止阀都有倒密封设计，通常情况下，碳钢截止阀的阀座设计采用分离式倒密封结构，不锈钢截止阀的倒密封是直接加工或者是焊后加工。当阀门在全开位置时，倒密封的密封面非常可靠。虽然按照标准API600中有倒密封，但这不作为在带压情况下更换填料的依据。

All Feiqiu globe valves have backseat design. In most cases, the backseat of carbon steel gate valve is renewable. For stainless steel globe valve, the backseat is machined directly on the bonnet or it is machined after welding. When the globe valve is at fully open position, the sealing of backseat can be very reliable. It is not advisable to replace the packing when the valve includes pressure though API 600 has the backseat explanation.

阀座 Seat

碳钢截止阀阀座通常采用锻钢材料，阀座密封面可根据客户要求喷焊硬质合金，NPS≤10"的截止阀采用分离式螺纹旋入式阀座，如果用户需要焊阀座结构也可提供；NPS≥12"截止阀采用焊阀座结构；不锈钢截止阀的阀座一般采用整体式或者在本体上焊硬质合金后直接加工阀座。如果用户有需求，不锈钢截止阀阀座也可采用分离式螺纹旋入式和焊接阀座结构。

For carbon steel globe valve, the seat is usually forged steel. The sealing surface of the seat is spray welded with hard alloy specified by the customer. Renewable threaded seat is used for NPS≤10 globe valves, and welded on seat can be also optional if being requested by the customer. Welded on seat is used for NPS≥12 carbon steel globe valves. For Stainless steel globe valve, integral seat is usually adopted, or to weld hard alloy directly integrally. Threaded or welded on seat is also optional for stainless steel globe valve if being requested by the customer.

阀杆螺母 Stem Nut

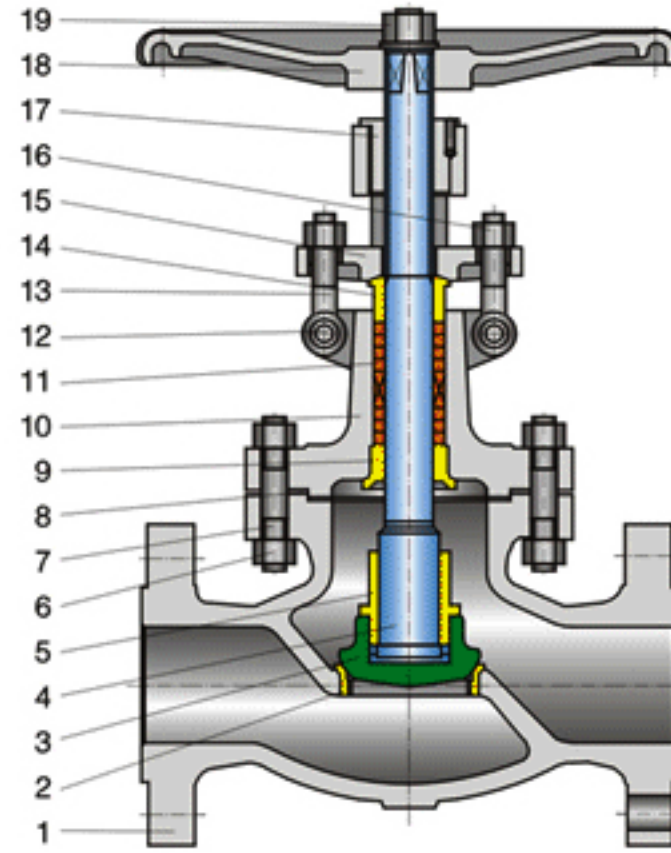
通常情况下，阀杆螺母材料采用ASTM A439 D2，同时可以根据用户要求采用铜合金等材料，对于大口径的截止阀，装滚动轴承，可以有效减小截止阀的开启力矩使阀门可以轻松开关。

Usually, the stem nut is made of ASTM A439 D2. it is also can be made of Cu alloy or other materials if being requested by the customer. For large sized globe valve, if the rolling bearing is fitted, it is effective to reduce the torque of globe valve for easy operation.

特殊截止阀 Special Globe Valve

除通用截止阀外，还可以提供低温截止阀、波纹管截止阀和夹套截止阀等等。

Besides the general globe valves, we also makes cryogenic globe valve, bellow sealed globe valve, jacketed globe valve, etc.



标准 Standards

设计制造 Design and manufacture: BS1873 or ASME B16.34

检验与试验 Inspection and test: API 598

法兰连接尺寸 End flange dimension: ASME B16.5

对焊端 BW end dimension: ASME B16.25

承插焊端 Socket-weld dimension: ASME B16.11

结构长度 Face to face or end to end: ASME B16.10

高压等级 Pressure-temperature ratings: ASME B16.34

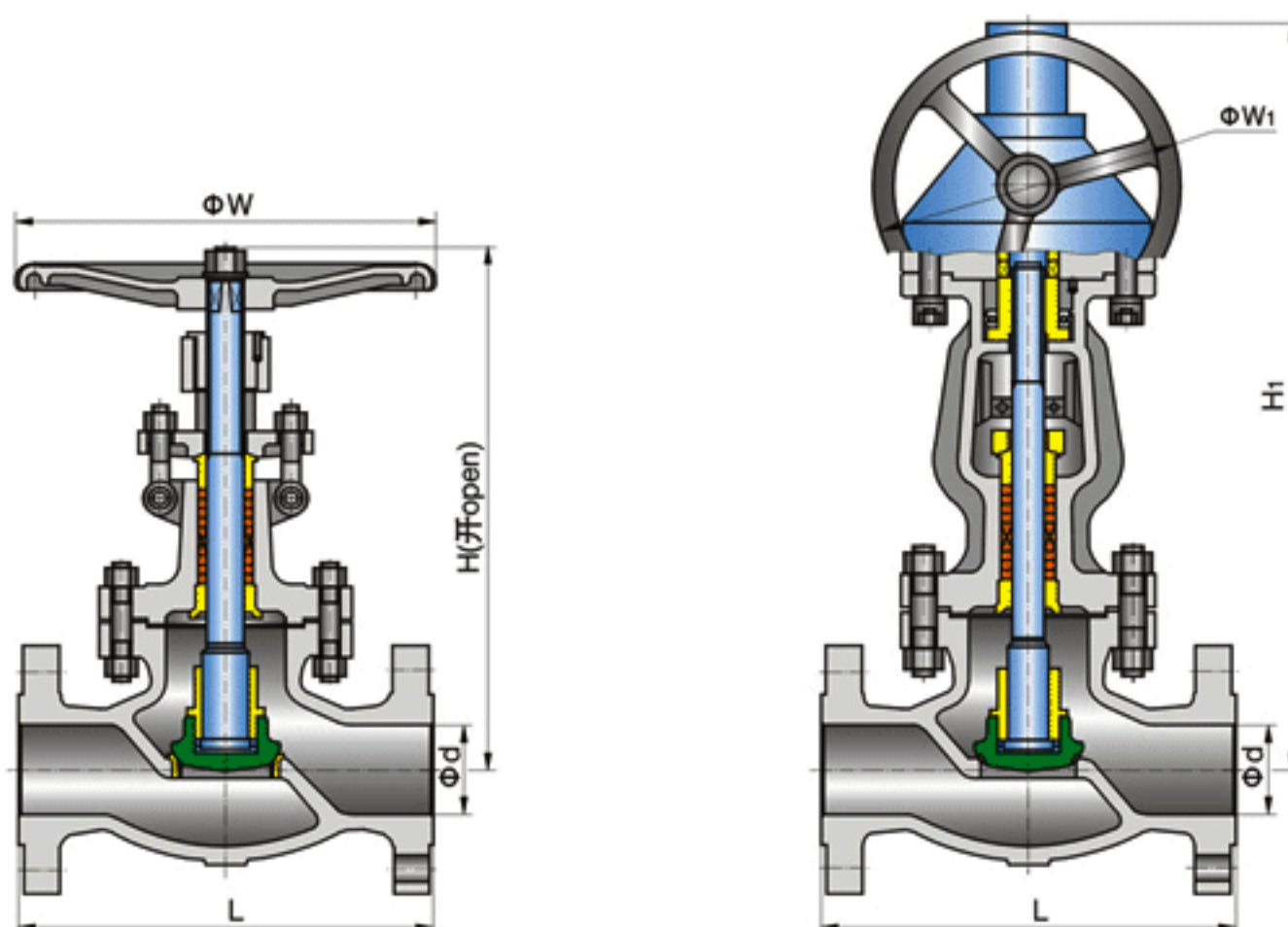
主要零件名称及材料 Parts and Material List

Parts No.	Parts Name	Materials				
		WCB/Trim 1	WCB/Trim 5	WCB/Trim 8	CF8/304	CF8M/316
1	阀体 Body	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
2	阀座 Seat ring	A105 + 13Cr	A105 + STL	A105 + STL	ASTM A351 CF8	ASTM A351 CF8M
3	阀瓣 Disc	ASTM A216 WCB + 13Cr	ASTM A216 WCB + STL	ASTM A216 WCB + 13Cr	ASTM A351 CF8	ASTM A351 CF8M
4	阀杆 Stem	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316
5	阀瓣盖 Disc nut	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
6	阀盖螺母 Bonnet nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
7	阀盖螺柱 Bonnet bolt	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8M
8	垫片 Gasket	304SS + Graphite	304SS + Graphite	304SS + Graphite	304SS + Graphite	316SS + Graphite
9	上密封座 Backseat bushing	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F6a	ASTM A351 CF8	ASTM A351 CF8M
10	阀盖 Bonnet	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
11	填料 Packing	Graphite	Graphite	Graphite	Graphite	Graphite
12	圆柱销 Eyebolt pin	ASTM A36	ASTM A36	ASTM A36	304ss	316ss
13	螺钉 Gland eyebolt	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8M
14	填料压套 Gland	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316
15	填料压板 Gland flange	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
16	吊环螺母 Eyebolt nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
17	阀杆螺母 Stem nut	ASTM A439 D2	ASTM A439 D2	ASTM A439 D2	ASTM A439 D2	ASTM A439 D2
18	手轮 Hand wheel	Ductile Iron	Ductile Iron	Ductile Iron	Ductile Iron	Ductile Iron
19	手轮螺母 Hand wheel nut	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel

注：上表仅列出了铸钢截止阀零部件材料的最常用配置，根据用户要求或阀门的实际使用工况，我公司可以提供其他多种不同的零部件材料配置。

Note: The chart above only lists out the commonest materials formulation for steel globe valves. We may provide other different parts materials according to the customer's request or the actual valve working condition.

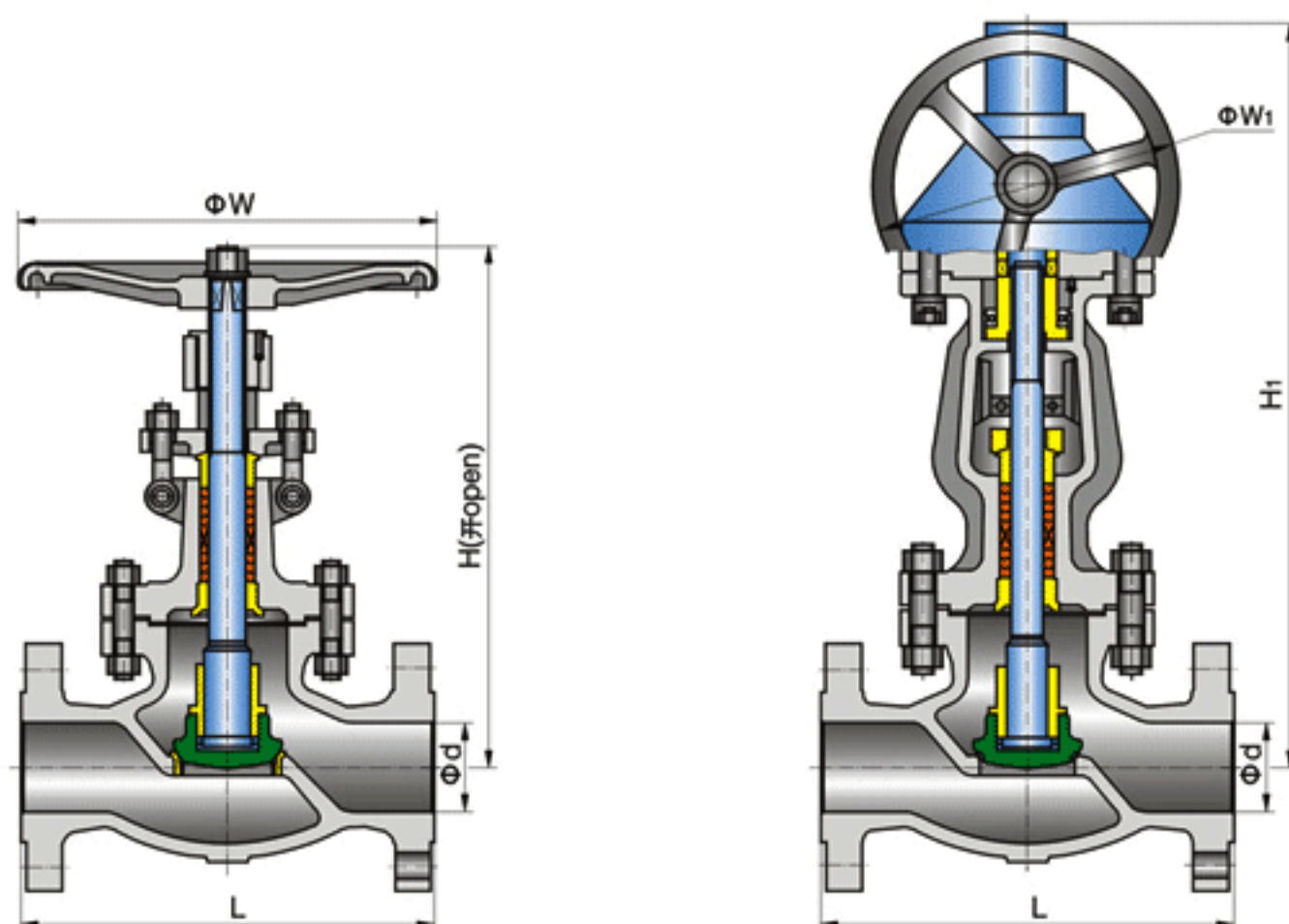
Class150 & JIS10K



主要外形尺寸及重量 Main Outline Dimensions & Weight

磅级 Class	口径 Size		尺寸 Dimensions(mm)								重量 Weight(kg)	
	NPS	DN	L			d	H	H ₁	W	W ₁	手轮 Handwheel	传动装置 Bevel Gear
			RF	RTJ	BW							
150	1/2	15	108	119	108	13	182	-	100	-	3	-
	3/4	20	117	130	117	19	193	-	100	-	4	-
	1	25	127	140	127	25	217	-	100	-	5	-
	1 1/4	32	140	152	140	32	235	-	135	-	8	-
	1 1/2	40	165	178	165	38	258	-	135	-	9	-
	2	50	203	216	203	51	330	-	200	-	19	-
	2 1/2	65	216	229	216	64	360	-	250	-	27	-
	3	80	241	254	241	76	390	-	280	-	36	-
	4	100	292	305	292	102	445	-	300	-	53	-
	5	125	356	369	356	127	480	-	350	-	75	-
	6	150	406	419	406	152	520	556	350	310	94	126
	8	200	495	508	495	203	600	658	400	310	148	180
10	250	622	635	622	254	773	805	450	460	242	291	
12	300	698	711	698	305	880	955	500	460	438	480	

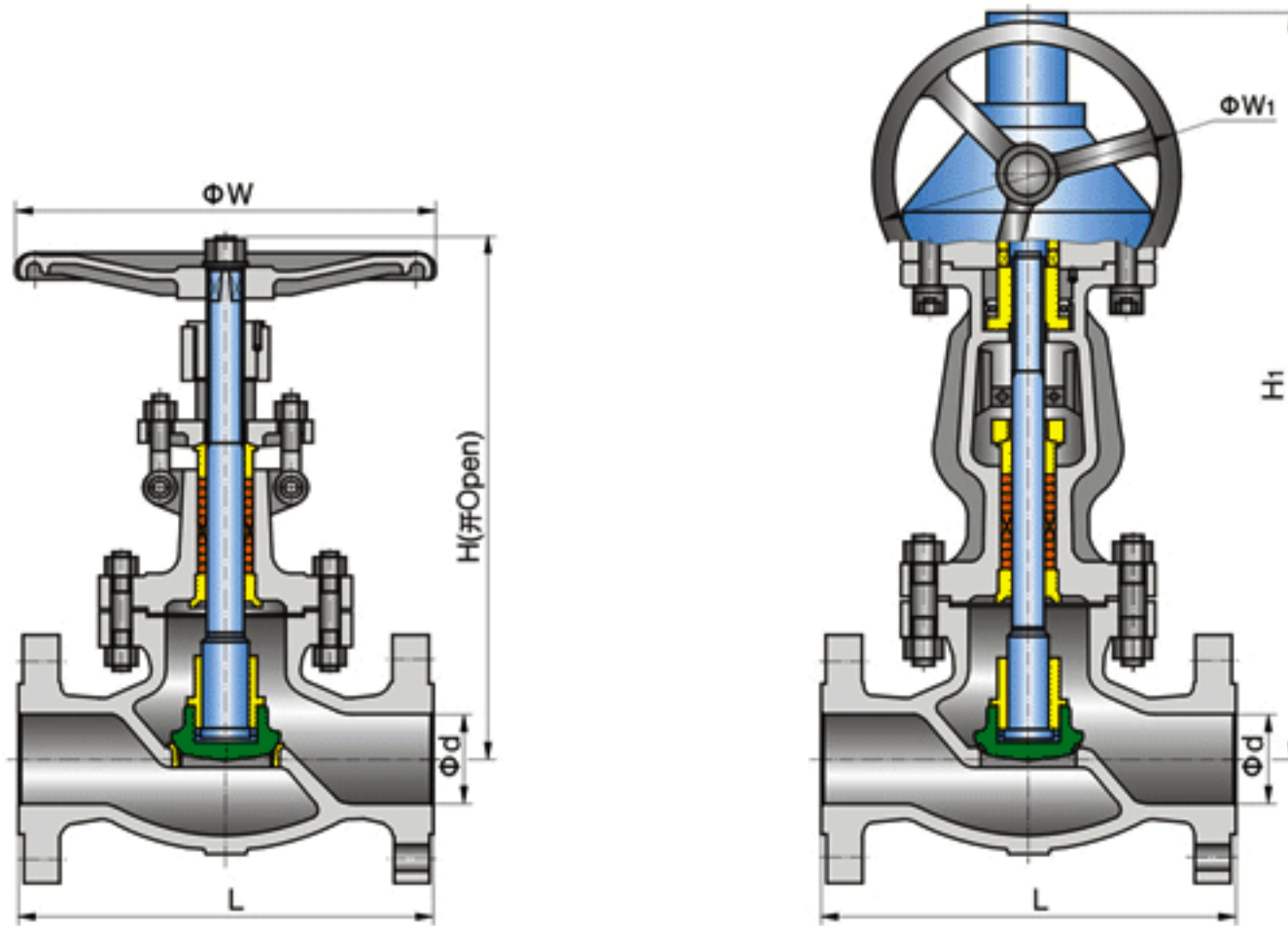
Class300 & JIS20K



主要外形尺寸及重量 Main Outline Dimensions & Weight

磅级 Class	口径 Size		尺寸 Dimensions(mm)								重量 Weight(kg)	
	NPS	DN	L			d	H	H ₁	W	W ₁	手轮 Handwheel	传动装置 Bevel Gear
			RF	RTJ	BW							
300	1/2	15	152	164	152	13	185	-	100	-	5	-
	3/4	20	178	191	178	19	195	-	100	-	7	-
	1	25	203	216	203	25	220	-	135	-	10	-
	1 1/4	32	216	229	216	32	240	-	135	-	14	-
	1 1/2	40	229	241	229	38	260	-	160	-	19	-
	2	50	267	283	267	51	385	-	200	-	25	-
	2 1/2	65	292	308	292	64	420	-	200	-	42	-
	3	80	318	333	318	76	440	-	280	-	46	-
	4	100	356	371	356	102	515	-	350	-	74	-
	5	125	400	416	400	127	580	-	350	-	111	-
	6	150	444	460	444	152	660	690	400	310	165	195
	8	200	559	575	559	203	900	950	550	460	275	327
10	250	622	638	622	254	950	990	600	460	400	452	
12	300	711	727	711	305	1030	1080	700	460	624	725	

Class600 & Class900



主要外形尺寸及重量 Main Outline Dimensions & Weight

磅级 Class	口径 Size		尺寸 Dimensions(mm)								重量 Weight(kg)	
	NPS	DN	L			d	H	H ₁	W	W ₁	手轮 Handwheel	传动装置 Bevel Gear
			RF	RTJ	BW							
600	2	50	292	295	292	51	360	-	250	-	32	-
	2 1/2	65	330	333	330	64	410	-	280	-	42	-
	3	80	356	359	356	76	465	-	300	-	63	-
	4	100	432	435	432	102	545	575	400	310	107	138
	5	125	508	511	508	127	625	660	500	310	185	215
	6	150	559	562	559	152	785	820	550	460	290	342
900	2	50	368	371	368	47	480	-	350	-	55	-
	2 1/2	65	419	422	419	57	520	-	350	-	68	-
	3	80	381	384	381	73	564	630	400	310	95	128
	4	100	457	460	457	98	685	720	450	310	160	210
	5	125	559	562	559	121	780	840	550	460	270	325
	6	150	610	613	610	146	950	1015	650	460	410	480

采用标准 Standards

设计制造：铸钢止回阀按照BS 1868、ASME B16.34、API 6D；锻钢止回阀按照API 602

验收和检验：API 598、API 6D

法兰连接尺寸：ASME B16.5 (NPS≤24)、ASME B16.47 B系列、API 605、ASME B16.47 A系列、MSS SP-44 (NPS>24)

对焊端：ASME B16.25

承插焊端：ASME B16.11

结构长度：Face to face and end to end: ASME B16.10

温压等级：ASME B16.34

壁厚标准：API 600、BS 1868

Design and manufacture: Cast steel check valve according to BS 1868, ASME B16.34 and API 6D; Forged steel check valve according to API 602.

Inspection and test: API 598 or API 6D.

End flange dimension: ASME B16.5 (for NPS≤24)、ASME B16.47 series B、API 605 or ASME B16.47 series A、MSS SP-44 (for NPS > 24).

BW end dimension: ASME B16.25.

Socket-weld dimension: ASME B16.11.

Face to face and end to end: ASME B16.10.

Pressure-temperature ratings: ASME B16.34.

Shell wall thickness: API 600 and BS 1868.

止回阀结构特点 The Features of Check Valve

栓接阀盖、旋启式和升降式阀瓣、金属阀座密封面。

Bolted Bonnet; Swing and lift disc; Metallic seating surfaces.

阀体和阀盖连接形式 Body and Bonnet Connection

Class150 ~ Class900采用栓接阀盖；Class1500 ~ Class2500采用自压密封式阀盖。

Class150 ~ Class900 check valves are usually bolted bonnet. Class1500 ~ Class2500 check valves are usually pressure seal bonnet design.

中法兰密封垫片 Cover Gasket Style

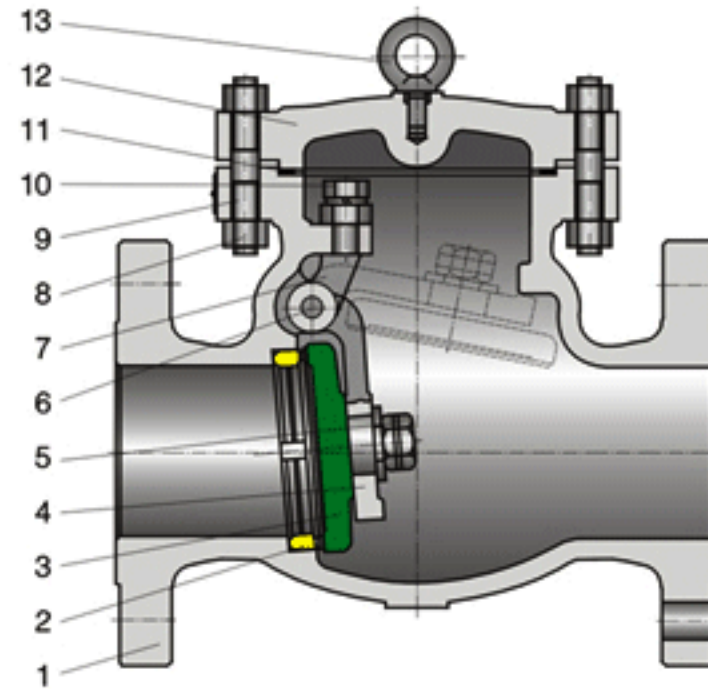
Class150 ~ Class300止回阀采用不锈钢石墨缠绕垫片；Class600止回阀采用不锈钢石墨缠绕垫片，也可采用金属环垫片；Class900止回阀可采用金属环垫片；Class1500 ~ Class2500止回阀采用自压密封金属环。

Stainless steel and flexible graphite wounded gasket is used for Class150 and Class300 check valve; Stainless steel and flexible graphite wounded gasket is used for Class600 check valve, and metal gasket is also optional for Class600 check valve; The metal ring gasket is used for Class900 check valve; The pressure seal bonnet design is used for Class1500 ~ Class2500 check valve.

阀座 Seat

碳钢止回阀阀座通常采用锻钢材料，阀座密封面可根据客户要求喷焊硬质合金，NPS≤10"的止回阀采用分离式螺纹旋入式阀座，如果用户需要焊阀座结构也可提供；NPS≥12"止回阀采用焊阀座结构；不锈钢止回阀的阀座一般采用整体式或者在本体上焊硬质合金后直接加工阀座。如果用户有需求，不锈钢止回阀座也可采用分离式螺纹旋入式和焊接阀座结构。

For carbon steel check valve, the seat is usually forged steel. The seat sealing surface may be spray-welded with hard alloy if specified by the customer. The renewable threaded seat is used for NPS≤10 check valves, and the welded type seat can be also optional if being requested by the customer. The welded type seat is used for NPS≥12 carbon steel check valves. For Stainless steel check valve, integral seat is usually adopted, or it can be machined integrally after hard alloy welded. The threaded or welded type seat is also optional for stainless steel check valve if being requested by the customer.



标准 Standards

设计和制造 Design and manufacture: BS1868 or API 6D

检验和试验 Inspection and test: API 598 or API 6D

法兰连接尺寸 End flange dimension: ASME B16.5、ASME B16.47 A、MSS SP-44; ASME B16.47 B、API 605

对焊接 BW end dimension: ASME B16.25

结构长度 Face to face and end to end: ASME B16.10

温压等级 Pressure-temperature ratings: ASME B16.34

壁厚尺寸 Wall thickness dimension: API 600 and BS 1868

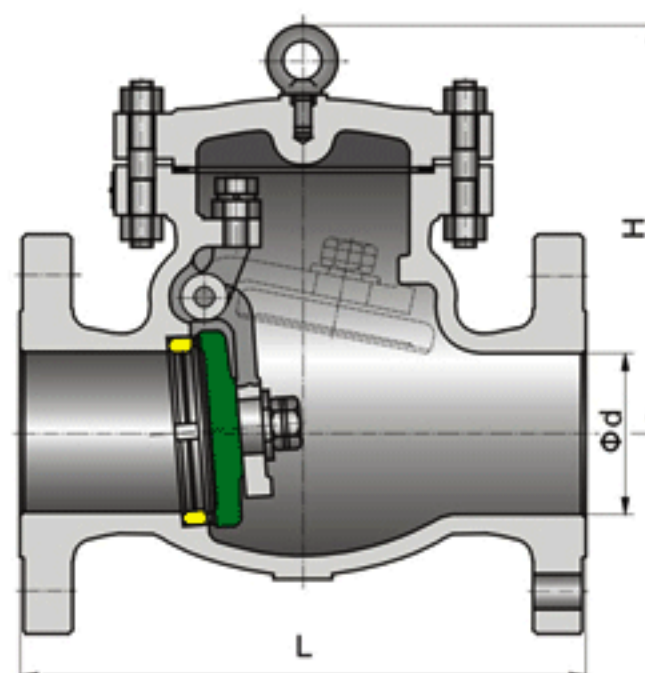
主要零件名称及材料 Parts and Material List

序号 Parts No.	零件名称 Parts Name	材料 Materials				
		WCB/Trim 1	WCB/Trim 5	WCB/Trim 8	CF8/304	CF8M/316
1	阀体 Body	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
2	阀座 Seat ring	A105 + 13Cr	A105 + STL	A105 + STL	ASTM A351 CF8	ASTM A351 CF8M
3	阀瓣 Disc	ASTM A216 WCB + 13Cr	ASTM A216 WCB + STL	ASTM A216 WCB + 13Cr	ASTM A351 CF8	ASTM A351 CF8M
4	摇臂 Arm	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
5	螺母 Nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
6	销 Arm pin	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316
7	支架 Yoke	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
8	阀盖螺母 Bonnet nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
9	阀盖螺柱 Bonnet bolt	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8M
10	螺栓 Bolt	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8M
11	垫片 Gasket	304SS + Graphite	304SS + Graphite	304SS + Graphite	304SS + Graphite	316SS + Graphite
12	阀盖 Bonnet	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
13	活节螺栓 Eye bolt	ASTM A181	ASTM A181	ASTM A181	ASTM A181	ASTM A181

注：注：上表仅列出了铸钢止回阀零部件材料的最常用配置，根据用户要求或阀门的实际使用工况，我公司可以提供其他多种不同的零部件材料配置。

Note: The chart above only lists out the commonest materials formulation for cast steel check valves. We may provide other different parts materials according to the customer's request or the actual valve working condition.

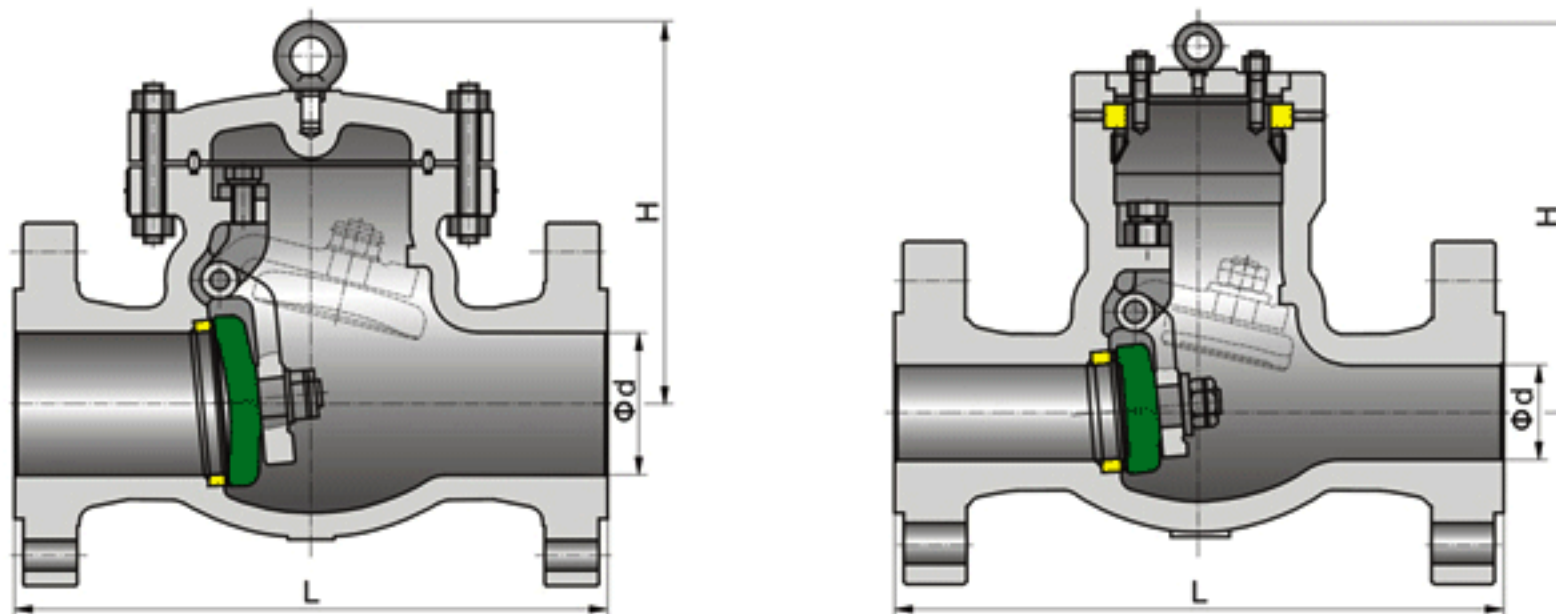
Class150 & Class300



主要外形尺寸及重量 Main Outline Dimensions & Weight

规格 Size		Class 150						Class 300					
NPS	DN	尺寸 Dimensions(mm)					重量 Weight (kg)	尺寸 Dimensions(mm)					重量 Weight (kg)
		L			d	H		L			d	H	
		RF	RTJ	BW				RF	RTJ	BW			
2	50	203	216	203	51	132	15	267	283	267	51	144	20
2 1/2	65	216	229	216	64	147	20	292	308	292	64	169	35
3	80	241	254	241	76	176	27	318	333	318	76	210	40
4	100	292	305	292	102	198	45	356	371	356	102	260	61
5	125	330	343	330	127	255	58	400	416	400	127	295	80
6	150	356	368	356	152	320	69	445	460	445	152	326	130
8	200	495	508	495	203	380	131	533	549	533	203	380	190
10	250	622	635	622	254	440	219	622	638	622	254	440	296
12	300	699	711	698	305	480	321	711	727	711	305	520	450
14	350	787	800	787	337	530	380	838	854	838	337	540	640
16	400	864	876	864	387	580	560	864	879	864	387	588	850
18	450	978	991	978	438	618	630	978	994	978	438	670	1030
20	500	978	991	978	489	657	770	1016	1035	1016	489	720	1330
24	600	1295	1308	1295	591	760	960	1346	1368	1346	591	850	1950
26	650	1295	-	1295	633	840	1250	1346	1372	1346	633	920	2300
28	700	1448	-	1448	684	920	1580	1499	1524	1499	684	1150	2600
30	750	1524	-	1524	735	980	1950	1594	1619	1594	735	1260	3200

Class600 ~ Class2500

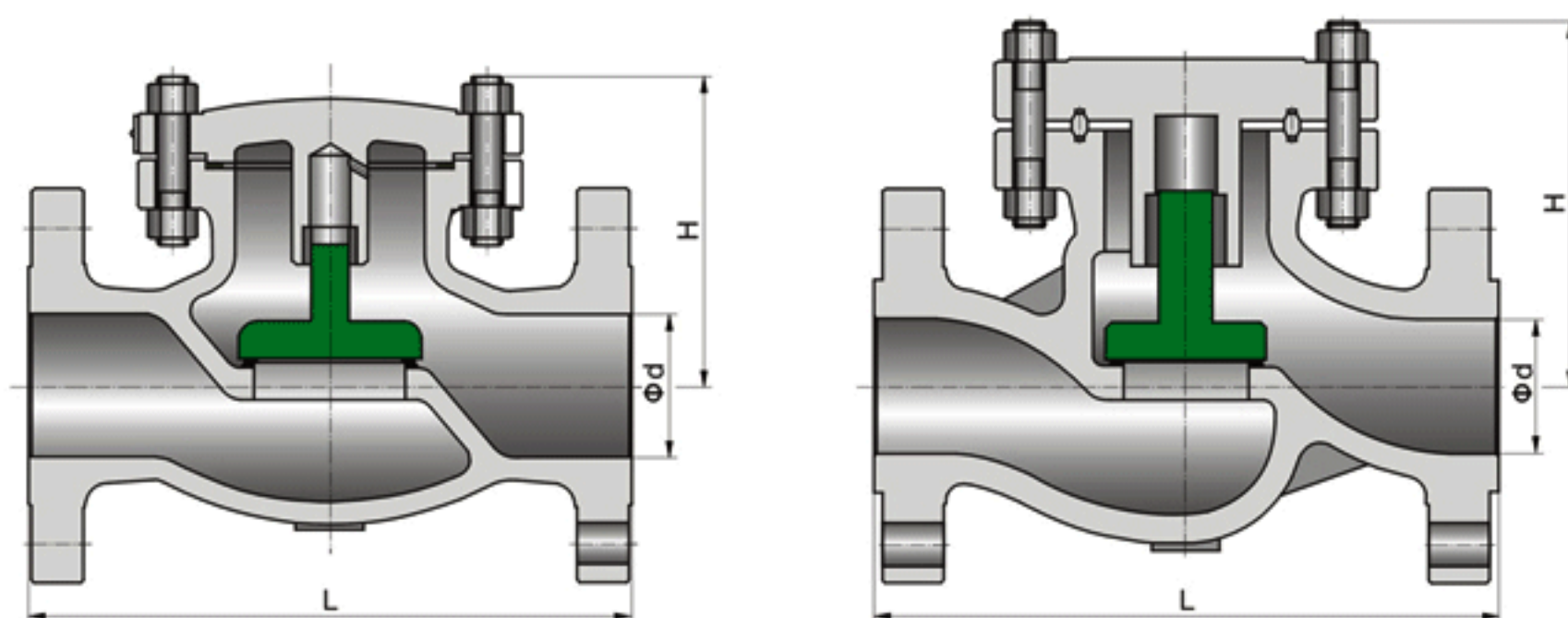


主要外形尺寸及重量 Main Outline Dimensions & Weight

规格 Size		Class 600						Class 900					
NPS	DN	尺寸 Dimensions(mm)					重量 Weight (kg)	尺寸 Dimensions(mm)					重量 Weight (kg)
		L			d	H		L			d	H	
		RF	RTJ	BW				RF	RTJ	BW			
2	50	292	295	292	51	170	28	368	371	368	47	200	48
2 1/2	65	330	333	330	64	178	40	419	422	419	57	220	75
3	80	356	359	356	76	246	68	381	384	381	73	280	95
4	100	432	435	432	102	290	117	457	460	457	98	320	135
5	125	508	511	508	127	320	155	559	562	559	121	360	200
6	150	559	562	559	152	360	192	610	613	610	146	400	264
8	200	660	664	660	200	430	340	737	740	737	190	480	424
10	250	787	791	787	248	502	515	838	841	838	234	560	730
12	300	838	841	838	298	554	750	965	968	965	282	632	1070
14	350	889	892	889	327	595	890	1029	1038	1029	311	680	1180
16	400	991	994	991	375	680	1303	1130	1140	1130	354	780	1790
18	450	1092	1095	1092	419	778	1800	1219	1232	1219	400	880	2500
20	500	1194	1200	1194	464	970	2150	1321	1334	1321	444	1050	3080
24	600	1397	1407	1397	559	1100	3200	1549	1568	1549	533	1200	4600

规格 Size		Class 1500						Class 2500					
NPS	DN	尺寸 Dimensions(mm)					重量 Weight (kg)	尺寸 Dimensions(mm)					重量 Weight (kg)
		L			d	H		L			d	H	
		RF	RTJ	BW				RF	RTJ	BW			
2	50	368	371	368	47	210	48	451	454	451	35	230	68
2 1/2	65	419	422	419	57	240	75	508	514	508	47	260	100
3	80	470	473	470	70	303	120	578	584	578	57	330	165
4	100	546	549	546	92	340	180	673	683	673	73	370	260
5	125	673	676	673	111	380	294	794	807	794	92	410	440
6	150	705	711	705	136	430	385	914	927	914	111	460	580
8	200	832	841	832	174	500	634	1022	1038	1022	146	530	970
10	250	991	1000	991	222	590	1140	1270	1292	1270	184	620	1700
12	300	1130	1146	1130	263	660	1650	1422	1445	1422	219	690	2600
14	350	1257	1276	1257	289	710	2000	-	-	-	-	-	-
16	400	1384	1407	1384	330	820	2700	-	-	-	-	-	-

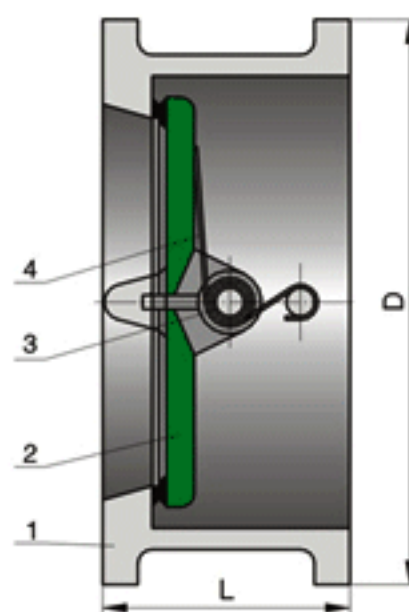
Class150 ~ Class900



主要外形尺寸及重量 Main Outline Dimensions & Weight

规格 Size		Class 150						Class 300					
NPS	DN	尺寸 Dimensions(mm)					重量 Weight (kg)	尺寸 Dimensions(mm)					重量 Weight (kg)
		L			d	H		L			d	H	
		RF	RTJ	BW				RF	RTJ	BW			
1/2	15	108	119	108	13	76	3	152	162	152	13	78	5
3/4	20	117	130	117	19	76	4	178	191	178	19	82	6
1	25	127	140	127	25	98	5	203	216	203	25	102	8
1 1/4	32	140	153	140	32	102	7	216	229	216	32	106	11
1 1/2	40	165	178	165	38	115	8	229	242	229	38	118	13
2	50	203	216	203	51	140	15	267	283	267	51	140	26
2 1/2	65	216	229	216	64	162	22	292	308	292	64	164	33
3	80	241	254	241	76	168	28	318	333	318	76	178	50
4	100	292	305	292	102	194	42	356	371	356	102	195	86
5	125	356	368	356	127	210	60	400	416	400	127	223	120
6	150	406	419	406	152	226	75	445	460	445	152	245	180
8	200	495	508	495	203	250	118	533	549	533	203	280	220
10	250	622	635	622	254	275	194	622	638	622	254	336	310
12	300	699	711	699	305	332	320	711	727	711	305	380	510

规格 Size		Class 600						Class 900					
NPS	DN	尺寸 Dimensions(mm)					重量 Weight (kg)	尺寸 Dimensions(mm)					重量 Weight (kg)
		L			d	H		L			d	H	
		RF	RTJ	BW				RF	RTJ	BW			
2	50	292	295	292	51	152	32	368	371	368	50	180	50
2 1/2	65	330	333	330	64	167	45	419	422	419	64	200	65
3	80	356	359	356	76	178	68	381	384	381	74	235	88
4	100	432	435	432	102	215	98	457	460	457	100	270	140
5	125	508	511	508	125	240	155	559	562	559	125	300	210
6	150	559	562	559	152	279	230	610	613	610	150	350	300
8	200	660	664	660	200	328	300	737	740	737	200	400	390



产品采用标准 Technical Specification

结构形式 Structural feature	双瓣旋启式止回阀 Dual-plate butterfly type check valve
设计标准 Design standard	API 594
结构长度 Face to face	ASME B16.0
连接法兰 Flanged ends	ASME B16.5
试验和检验 Test & inspection	API 598

注：阀门连接法兰及对焊端尺寸可根据用户要求设计制造。

Notes: The dimensions of valve connecting flange and butt-welding ends can be designed according to customer's requirement.

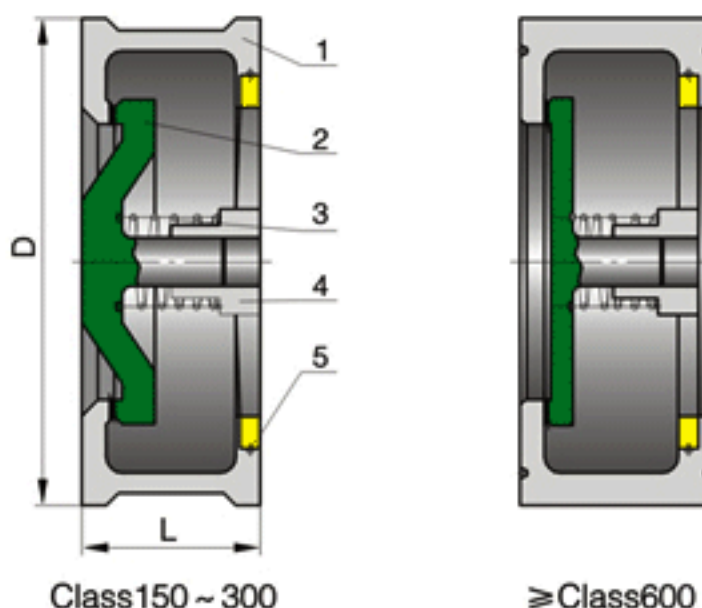
主要零件材料 Major Parts Material Form

序号 No.	零件名称 Parts name	材质 Material
1	阀体 Body	ASTM A216-WCB、ASTM A352-LCB、ASTM A351-CF8、CF8M、CF8C、CF3、CF3M
2	阀瓣 Disc	ASTM A216-WCB、ASTM A352-LCB、ASTM A351-CF8、CF8M、CF8C、CF3、CF3M
3	销轴 Pivot	ASTM A182 Gr.F6a、ASTM A182 F22、ASTM A182-F304、F316、F321、F304L、F316L
4	弹簧 Spring	AISI 9260、AISI 6150、ASTM A182-F304、F316、F321、F304L、F316L、Inconel X-750

主要外形尺寸及重量 Main Outline Dimensions & Weight

型号 Model: H76H、H76Y

Class	DN (mm)	NPS (in)	尺寸 Dimensions(mm)		重量 Weight (kg)	Class	DN (mm)	NPS (in)	尺寸 Dimensions(mm)		重量 Weight (kg)	Class	DN (mm)	NPS (in)	尺寸 Dimensions(mm)		重量 Weight (kg)
			L	D					L	D					L	D	
150	50	2	60	103	2	300	50	2	60	110	3.5	600	50	2	60	110	3.5
	65	2½	67	122	3.2		65	2½	67	148	5		65	2½	67	129	5
	80	3	73	135	4		80	3	73	248	7		80	3	73	148	7
	100	4	73	173	6		100	4	73	180	10		100	4	79	192	12
	125	5	86	196	9		125	5	86	215	18.5		125	5	105	240	22.5
	150	6	98	222	12		150	6	98	250	19		150	6	137	265	35
	200	8	127	279	22		200	8	127	307	33		200	8	165	319	45
	250	10	146	339	38		250	10	146	361	54		250	10	213	399	77
	300	12	181	409	54		300	12	181	422	88		300	12	229	456	110
	350	14	184	450	80		350	14	222	485	128		350	14	273	489	135
	400	16	191	514	118		400	16	232	539	169		400	16	305	562	163
	150	450	18	203	549		210	150	250	10	146		361	54	900	50	2
500		20	219	606	240	300	12		181	422	88	65	2½	83		164	9
600		24	222	717	410	350	14		222	485	128	80	3	83		167	14
						400	16		232	539	169	100	4	102		205	24
												150	6	159		288	43
												200	8	206		358	56



产品采用标准 Technical Specification

结构形式 Structural feature	对夹升降立式止回阀 Wafer lifting vertical type check valve
设计标准 Design standard	API 594
结构长度 Face to face	ASME B16.10
连接法兰 Flanged ends	ASME B16.5
试验和检验 Test & inspection	API 598

注：阀门连接法兰及对焊端尺寸可根据用户要求设计制造。

Notes: The dimensions of valve connecting flange and butt-welding ends can be designed according to customer's requirement.

主要零件材料 Major Parts Material Form

序号 No.	零件名称 Parts name	材质 Material
1	阀体 Body	ASTM A216-WCB、ASTM A352-LCB、ASTM A351-CF8、CF8M、CF8C、CF3、CF3M
2	阀瓣 Disc	ASTM A216-WCB、ASTM A352-LCB、ASTM A351-CF8、CF8M、CF8C、CF3、CF3M
3	弹簧 Spring	AISI 9260、AISI 6150、ASTM A182-F304、F316、F321、F304L、F316L
4	压板 Plate	ASTM A216-WCB、ASTM A351-CF8、CF8M、CF8C、CF3、CF3M
5	挡圈 Lock ring	AISI 9260、AISI 6150、ASTM A182-F304、F316、F321、F304L、F316L、Inconel X-750

主要外形尺寸及重量 Main Outline Dimensions & Weight

型号 Model: H72H、H72Y

Class		150			300			600			900		
DN (mm)	NPS (in)	尺寸 Dimensions(mm)		重量 Weight (kg)	尺寸 Dimensions(mm)		重量 Weight (kg)	尺寸 Dimensions(mm)		重量 Weight (kg)	尺寸 Dimensions(mm)		重量 Weight (kg)
		L	D		L	D		L	D		L	D	
15	1/2	16	47	0.2	25	53	0.23	25	53	0.25	25	63	0.3
20	3/4	19	57	0.3	31.5	65	0.36	31.5	65	0.38	31.5	69	0.4
25	1	22	66	0.45	35.5	72	0.52	35.5	72	0.55	35.5	78	0.6
32	1 1/4	28	75	0.6	40	81	0.75	40	81	0.8	40	88	1.0
40	1 1/2	31.5	85	0.8	45	95	1.1	45	95	1.2	45	98	1.5
50	2	40	103	1.2	56	110	1.95	56	110	2.0	56	142	2.5
65	2 1/2	46	122	2.3	63	129	2.9	63	129	2.0	63	164	4.0
80	3	50	135	3.0	71	148	5.5	71	148	6.0	71	167	8.0
100	4	60	173	7.0	80	180	9.0	80	192	10	80	205	13
125	5	90	196	12	110	215	15	110	240	17	110	247	20
150	6	106	222	15	125	250	20	125	265	22	125	288	25

产品结构特点 Products design features

- 阀体有铸造和焊接两种结构。

Cast and weld two structures for the body construction

- 阀座采用O形密封圈密封和施加预紧力的浮动阀座结构，使阀门进出口双向密封；并且该结构的启闭力矩仅为普通阀门的1/2，能达到轻松开、关阀门。

The seat ring uses the floating seat ring structure with o-seal ring sealed and pre-tightening force applied to have inlet and outlet dual-way sealed; and the open-close moment with this structure is 1/2 that of the common valves only, able to lightly open and close valves.

- 阀座采用密封面上镶嵌PTFE，具有PTFE对金属和金属对金属的双重密封，PTFE密封面同时清除闸板脏物的作用。

The seat ring uses the sealing face inlaid with PTFE, so has dual seals of PTFE to metal and metal to metal, the PTFE sealing face also acts as removing the dirt on the wedge disc.

- 金属对金属密封的阀门，阀体外部设有注油脂结构，油脂通过注脂器、阀座进入阀门密封面，使阀门达到零泄漏。

For the valve with the metal to metal seal, there is grease injector outside of it, grease gets into the sealing face through the injector and the seat ring to have the valve up to null leak.

- 带导流孔阀门的闸板，无论是全开或是全关始终与密封面吻合，密封面得到保护不受介质直接冲刷，从而延长使用寿命。

The wedge disc of the valve with flow guide hole is always fitted with the sealing face whether in full open or full close status to have the sealing face protected without being directly eroded by the medium so as to extend the duration.

- 阀门在全开时，通道平滑为直线，流阻系数极小，无压力损失，可通毛球清扫管线。

When fully opened, the valve's channel is smooth and linear, with an extremely small flow resisting coefficient and no pressure loss, and the pipeline can be cleaned with hair-ball through it.

- 本阀门采用带自密封能力的填料结构，无需经常调节，开、关极为轻便，且密封性可靠，填料函处设有辅助密封油脂注入结构，密封性能绝对可靠，真正达到零泄漏；解决了通用阀门填料处最容易外漏的弊病。

This valve uses the packing structure with the ability of self-seal, needs no constant adjustment, features very light open and close and a reliable seal. An assisting sealing grease injection structure is set in the packing to have the sealing performance absolutely reliable and get a true null leak, settling the problem for the packing place of universal valves to be easiest leak outward.

- 阀门关闭时能自动卸掉内腔高压(详见工作原理图)，保证使用安全。

Automatic removal of the high pressure in the internal cavity when the valve is about to close (see the working principle diagram for the details) so as to ensure safety.

- 全封闭结构，防护性能好，可适应全天候要求。

Fully sealed structure leaves a good protective property, suitable for the requirement of 24-hour duty.

- 阀门设有指示杆或观察窗以表示阀门的启闭情况。

An indication rod or viewing window is set with the valve to show the open-close condition.

产品性能规范 Products performance specification

压力等级 Pressure	常温试验压力(MPa) Testing pressure at ambient temperature (Mpa)				适用温度 Applicable temperature	适用介质 Applicable medium	
	壳体试验 Shell test	左密封 Left seal test	右密封 Right seal test	低压气密封 Low pressure air test		普通型 Ordinary type	抗硫型 Anti-sulphur type
公称压力 (MPa) Nominal pressure (PN)	1.6	2.4	1.76	1.76	-29~121℃ 或按用户要求	石油、天然气、水 等非腐蚀性介质	含H ₂ S、CO ₂ 的石油、天然气、水等腐蚀性介质
	2.5	3.75	2.75	2.75			
	4.0	6.0	4.4	4.4			
	6.4	9.6	7.04	7.04			
	10.0	15.0	11.0	11.0			
	16.0	24.0	17.6	17.6			
磅级(Lb) Pound grade (Class)	150	3.0	2.2	2.2	-29~121℃ or upon the user requirement	Petroleum, natural gas, water etc. non-corrosive media	Petroleum, natural gas, water etc. containing H ₂ S, CO ₂ corrosive media
	300	7.5	5.5	5.5			
	600	15.0	11.0	11.0			
	900	22.5	17.5	17.5			



产品采用标准 Technical specification

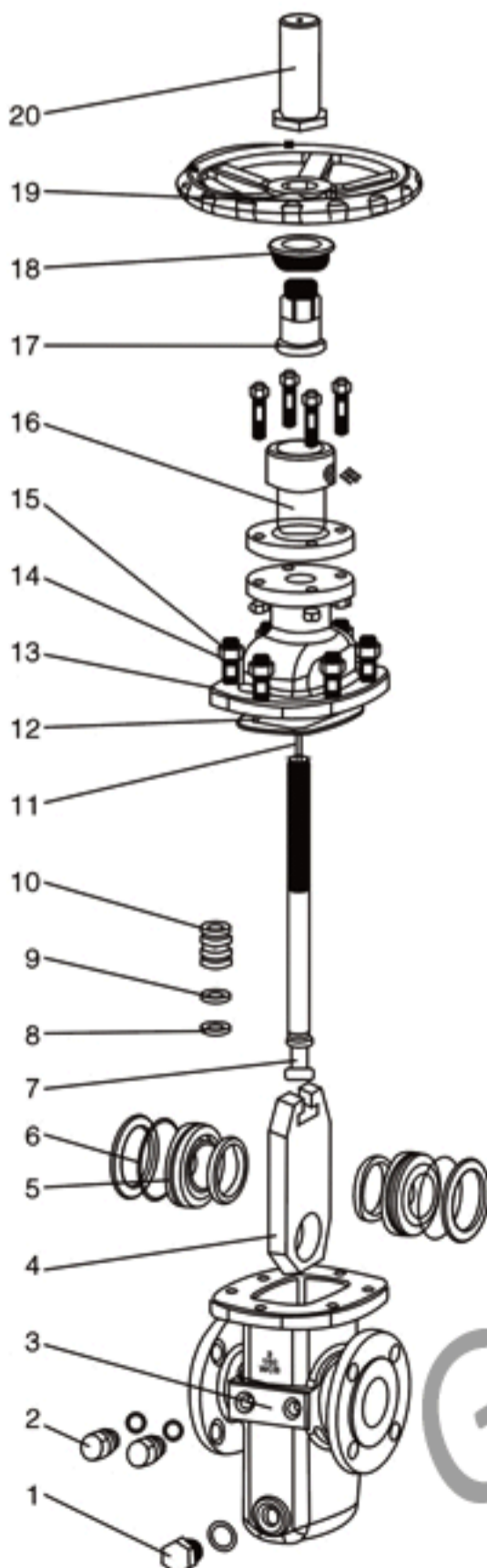
设计依据 Design reference		GB	API
设计标准 Design standard		JB/T5298 GB/T19672	API 6D ASME B16.34
结构长度 Structural length	法兰 Flanged	GB/T 12221 GB/T19672、JB/T 5298	API 6D ASME B16.10
	焊接 Welded connection	GB/T15188.1 GB/T19672	
连接法兰 Flanged ends		GB/T9113 JB/T 79	ASME B16.5 MSS SP44
对焊端 Butt-welding ends		GB/T 12224	ASME B16.25
试验和检验 Test & inspection		JB/T 9092	API 6D API 598

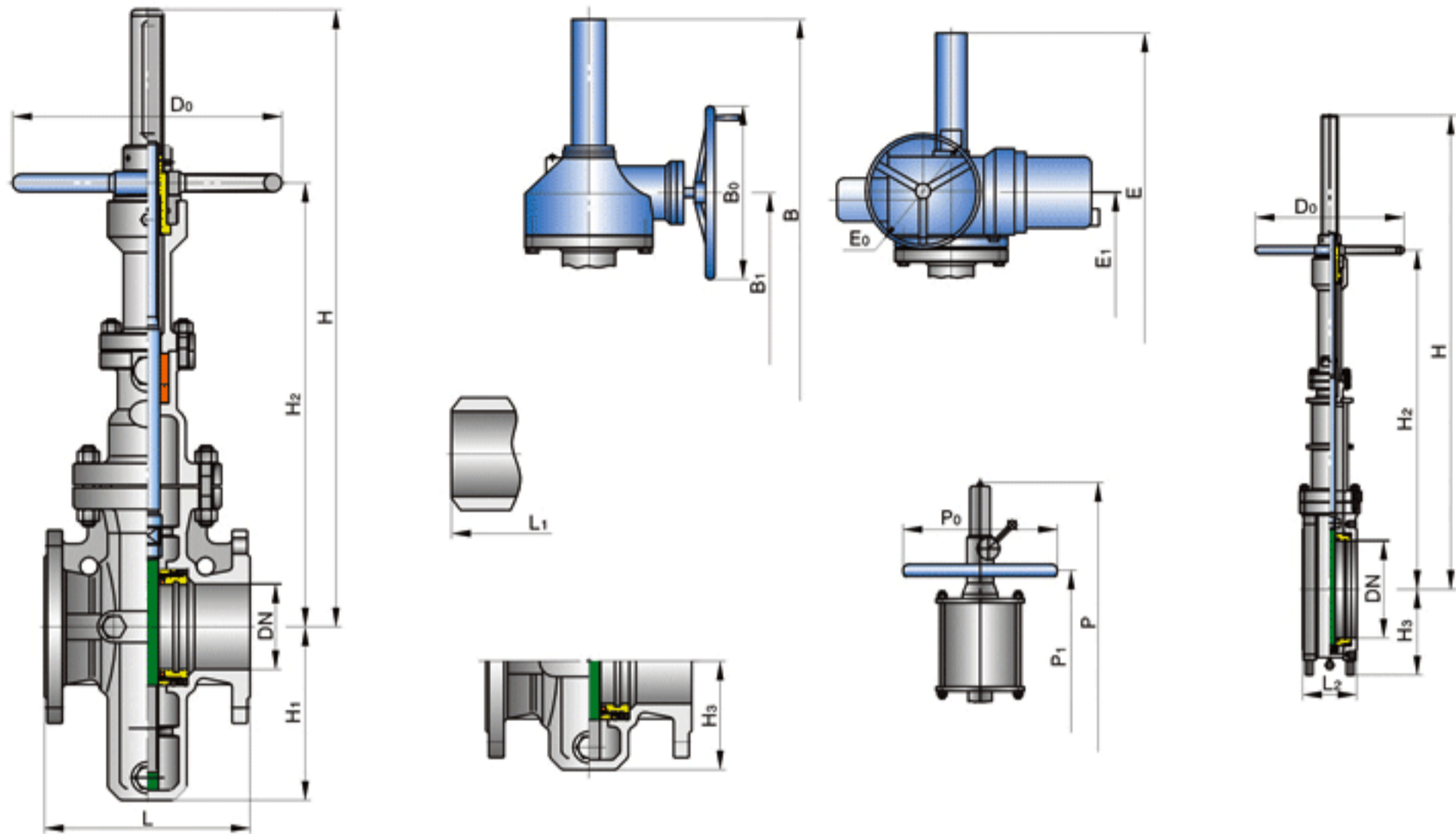
注：阀门连接法兰尺寸可根据用户要求设计制造。
Note: The dimensions of valve connecting flange can be designed according to customers' requirement.

主要零件材料 Major parts material form

序号 No.	零件名称 Parts name	材料 Material			
		普通型 Ordinary type		抗硫型 Antisulphur type	
		GB	ASTM	GB	ASTM
1	排污堵头 Blowdown plug	25+Zn	A105+Zn	1Cr18Ni9	A276-304
2	注脂接头 Grease injection joint	25+Zn	A105+Zn	25+Zn	A105+Zn
3	阀体 Body	WCB	A216-WCB	WCB	A216-WCB
4	闸板 Disc	16Mn+ENP	A105+ENP	1Cr18Ni9	A276-304
5	阀座 Seat	16Mn+PTFE	A105+PTFE	1Cr18Ni9+PTFE	A276-304+PTFE
6	O形圈 O-Ring	NBR	NBR	FPM	FPM
7	阀杆 Stem	2Cr13	A276-420	1Cr18Ni9	A276-304
8	填料座 Packing seat	2Cr13	A276-420	2Cr13	A276-420
9	Y型圈 "Y" ring	NBR	NBR	FPM	FPM
10	密封套 Sealing shroud	2Cr13	A276-420	2Cr13	A276-420
11	指示杆 Indicating stem	1Cr18Ni9	A276-304	1Cr18Ni9	A276-304
12	垫片 Gasket	柔性石墨+1Cr18Ni9 Graphite+1Cr18Ni9	柔性石墨+304 Graphite+304	柔性石墨+1Cr18Ni9 Graphite+1Cr18Ni9	柔性石墨+304 Graphite+304
13	阀盖 Bonnet	WCB	A216-WCB	WCB	A216-WCB
14	螺柱 Stud	35CrMoA	A193-B7	35CrMoA	A193-B7
15	螺母 Nut	45	A194-2H	45	A194-2H
16	支架 Yoke	WCB	A216-WCB	WCB	A216-WCB
17	阀杆螺母 Stem nut	ZQA19-4	C95500	ZQA19-4	C95500
18	压盖 Gland	25	A105	25	A105
19	手轮 Handwheel	25	A536-60-40-18	25	A536-60-40-18
20	指示罩 Indicating cover	1Cr18Ni9	A276-304	1Cr18Ni9	A276-304

注：阀门主要零部件材质可根据实际工况条件或用户特殊要求设计选用。
Notes: The major parts of the valves can be designed and selected according to actual work condition or customers' specific requirement.

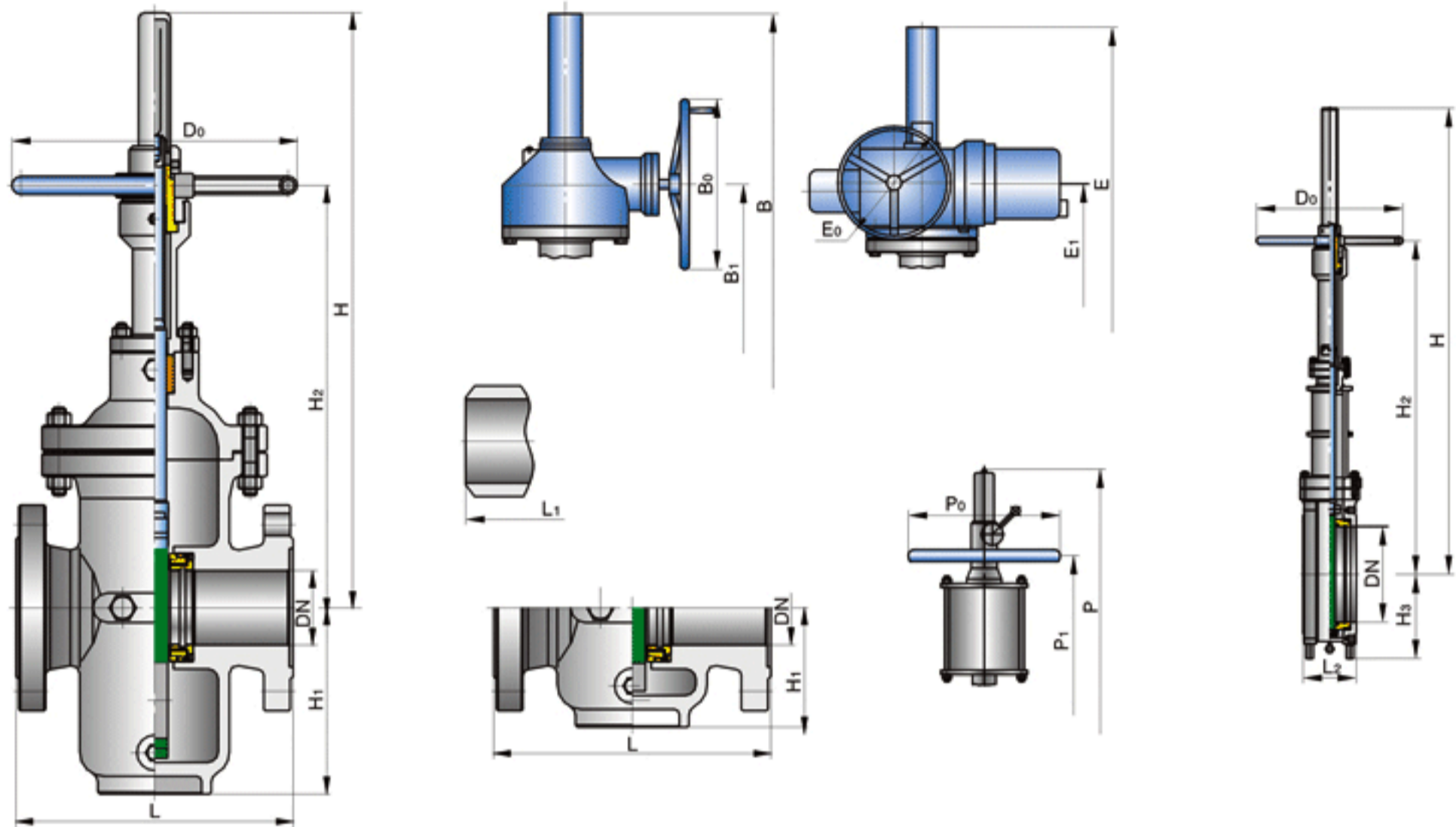




主要外形尺寸 Main Outline Dimensions

型号 Model: (K)Z5(6、9)4(6)3(4)W(P)(F、Y、D) PN1.6、2.5MPa PN2.0MPa(Class150)

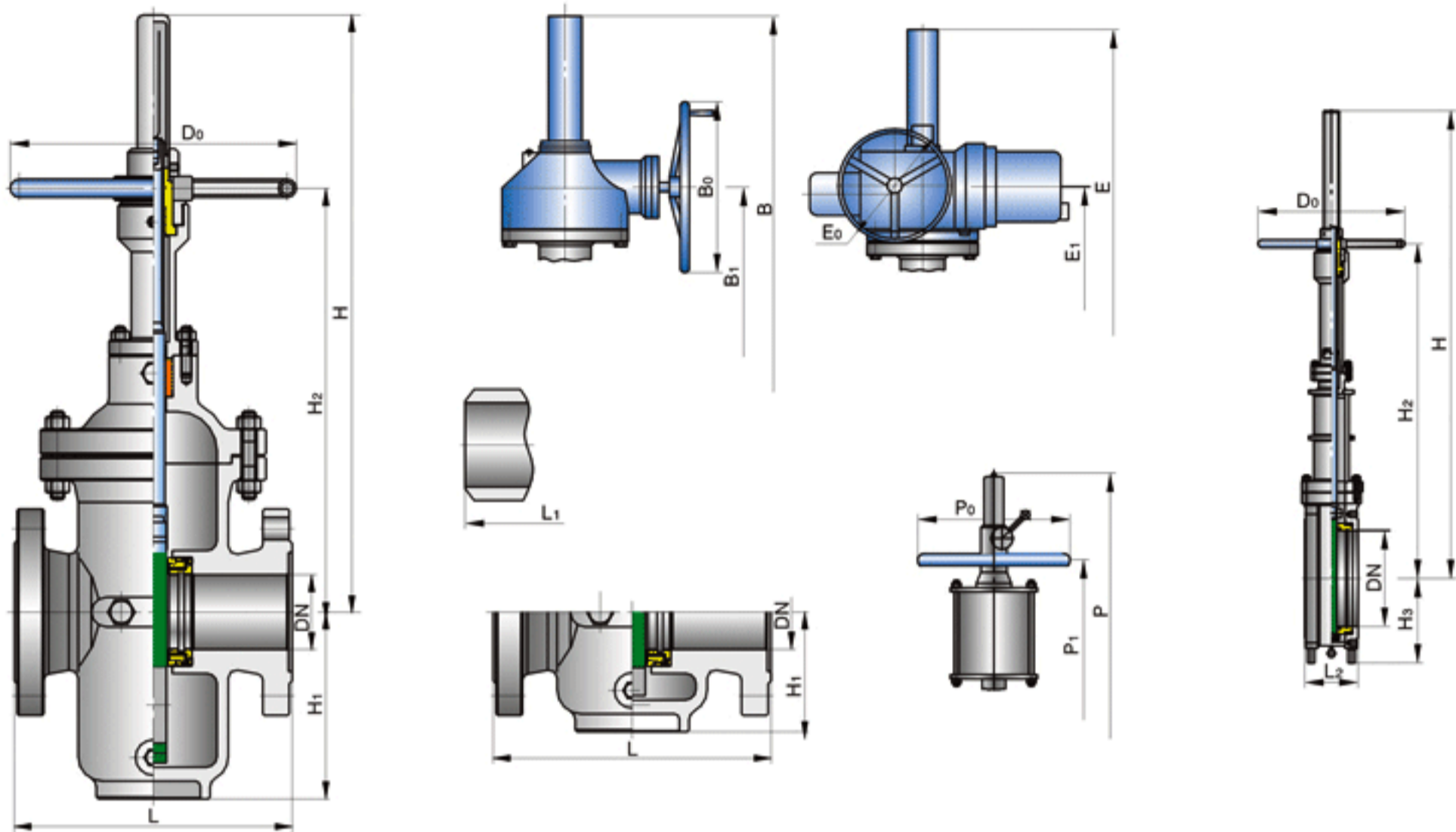
DN (mm)	NPS (in)	法兰 Flange	对焊 Butt welding	轻型 Light- duty	手动 Handwheel			齿动 Gear driving			齿动装置 Gear device	气动 液动 Pneumatic and hydraulic driving			电动 Electric driving			电动装置 Electric driving device	无导流孔 Non-diversion hole type	有导流孔 Diversion hole type
		L	L ₁	L ₂	H	H ₂	D ₀	B	B ₁	B ₀		P	P ₁	P ₀	E	E ₁	E ₀		H ₃	H ₁
25	1	127	127	-	360	250	180	-	-	-	-	-	-	-	-	-	-	-	60	85
32	1 1/4	140	140	-	375	260	180	-	-	-	-	-	-	-	-	-	-	-	71	103
40	1 1/2	165	165	-	410	290	250	-	-	-	-	-	-	-	-	-	-	-	75	115
50	2	178	216	-	450	315	250	-	-	-	-	525	430	250	-	-	-	-	85	122
65	2 1/2	190	241	-	550	420	300	-	-	-	-	648	560	300	-	-	-	-	91	154
80	3	203	283	-	610	428	300	-	-	-	-	730	630	300	-	-	-	-	109	169
100	4	229	305	150	700	494	300	770	650	310	BA-0	850	720	300	912	790	200	SMC-04	121	193
150	6	267	403	150	895	625	350	965	800	310	BA-0	1120	920	350	1107	920	500	SMC-03	178	283
200	8	292	419	180	1130	784	350	1200	960	310	BA-0	1430	1160	350	1390	1120	500	SMC-03	211	352
250	10	330	457	180	1290	937	400	1360	1080	310	BA-0	1665	1380	400	1550	1250	500	SMC-03	215	440
300	12	356	502	200	1480	1080	450	1560	1200	310	BA-0	1930	1550	450	1740	1400	305	SMC-00	245	514
350	14	381	572	200	1660	1283	500	1740	1350	460	BA-1	2185	1750	450	1913	1550	305	SMC-00	280	602
400	16	406	610	218	1850	1417	500	1930	1500	460	BA-1	2450	2000	500	2103	1620	305	SMC-00	310	678
450	18	432	660	218	2080	1489	600	2160	1680	460	BA-1	2755	2250	500	2365	1830	305	SMC-0	346	785
500	20	457	711	229	2300	1672	700	2420	1850	460	BA-1	3050	2450	600	2585	1980	305	SMC-0	363	855
600	24	508	813	248	2680	2012	800	2800	2120	460	BA-2	3580	2900	800	2990	2300	305	SMC-1	442	1045
700	28	610	914	286	3080	2250	800	3200	2450	460	BA-2	4130	3350	800	3390	2600	305	SMC-1	505	1190
800	32	660	965	286	3491	2550	1000	3640	2800	460	BA-2	-	-	-	3850	2980	305	SMC-1	560	1350
900	36	711	1016	-	3897	2850	1000	4050	3080	600	BA-3	-	-	-	4260	3200	458	SMC-2	610	1510
1000	40	811	-	-	4317	3250	1200	4467	3400	600	BA-3	-	-	-	4677	3600	458	SMC-2	715	1715



主要外形尺寸 Main Outline Dimensions

型号 Model: (K)Z5(6、9)4(6)3(4)W(P)(F、Y、D) PN4.0MPa PN5.0MPa(Class300)

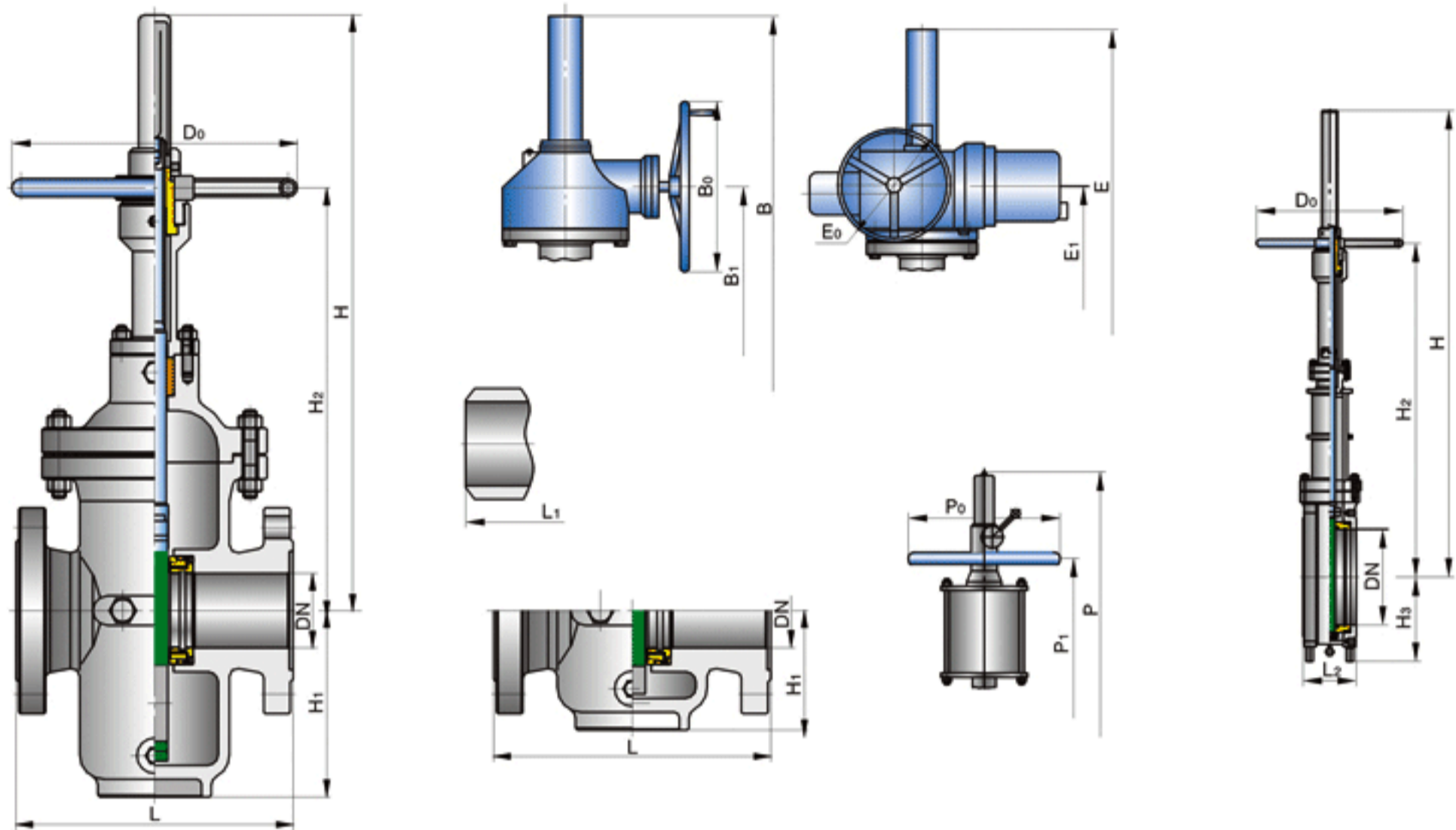
DN (mm)	NPS (in)	法兰 Flange		对焊 Butt welding	轻型 Light- duty	手动 Handwheel			齿动 Gear driving			齿动装置 Gear device	气动 液动 Pneumatic and hydraulic driving			电 动 Electric driving			电 动 装 置 Electric driving device	无导流孔 Non-diversion hole type	有导流孔 Diversion hole type
		GB	API			L	L1	L2	H	H2	D0		B	B1	B0	P	P1	P0			
25	1	165	165	165	-	370	260	180	-	-	-	-	-	-	-	-	-	-	-	70	90
32	1 1/4	178	178	178	-	385	270	180	-	-	-	-	-	-	-	-	-	-	-	80	115
40	1 1/2	190	190	190	-	420	300	250	-	-	-	-	-	-	-	-	-	-	-	85	130
50	2	216	216	216	-	458	325	250	-	-	-	-	533	435	200	-	-	-	-	100	137
65	2 1/2	241	241	241	-	555	420	300	-	-	-	-	653	565	200	-	-	-	-	106	169
80	3	283	283	283	-	615	430	300	-	-	-	-	735	635	250	-	-	-	-	124	184
100	4	305	305	305	150	710	500	300	770	650	310	BA-0	860	730	250	912	790	200	SMC-04	146	218
150	6	403	403	403	150	900	625	350	965	800	310	BA-0	1125	925	350	1155	960	500	SMC-03	206	311
200	8	419	419	419	180	1135	790	350	1200	960	310	BA-0	1435	1165	350	1390	1120	305	SMC-00	241	382
250	10	457	457	457	180	1401	1040	400	1360	1090	310	BA-0	1776	1450	400	1543	1240	305	SMC-00	251	476
300	12	502	502	502	200	1580	1150	450	1560	1200	310	BA-1	2030	1620	450	1745	1400	305	SMC-0	281	545
350	14	572	762	762	200	-	-	-	1740	1350	460	BA-1	2305	1900	500	1945	1580	305	SMC-0	325	645
400	16	610	838	838	218	-	-	-	1930	1540	460	BA-1	2558	2100	600	2135	1640	305	SMC-0	360	728
450	18	660	914	914	218	-	-	-	2160	1700	460	BA-1	2835	2320	700	2385	1840	305	SMC-1	400	800
500	20	711	991	991	229	-	-	-	2420	1850	460	BA-2	3120	2510	800	2660	2050	305	SMC-1	430	930
600	24	787	1143	1143	248	-	-	-	2800	2120	460	BA-2	3670	2980	900	3010	2310	305	SMC-1	497	1100
700	28	914	1346	1346	286	-	-	-	3200	2460	460	BA-2	-	-	-	3480	2680	458	SMC-2	560	1260
800	32	965	1524	1524	286	-	-	-	3640	2800	460	BA-2	-	-	-	3890	3020	458	SMC-2	620	1420
900	36	1016	1727	1727	-	-	-	-	4050	3080	600	BA-3	-	-	-	4260	3200	458	SMC-2	610	1510



主要外形尺寸 Main Outline Dimensions

型号 Model: (K)Z5(6、9)4(6)3(4)W(F、Y、D) PN6.4MPa (Class400)

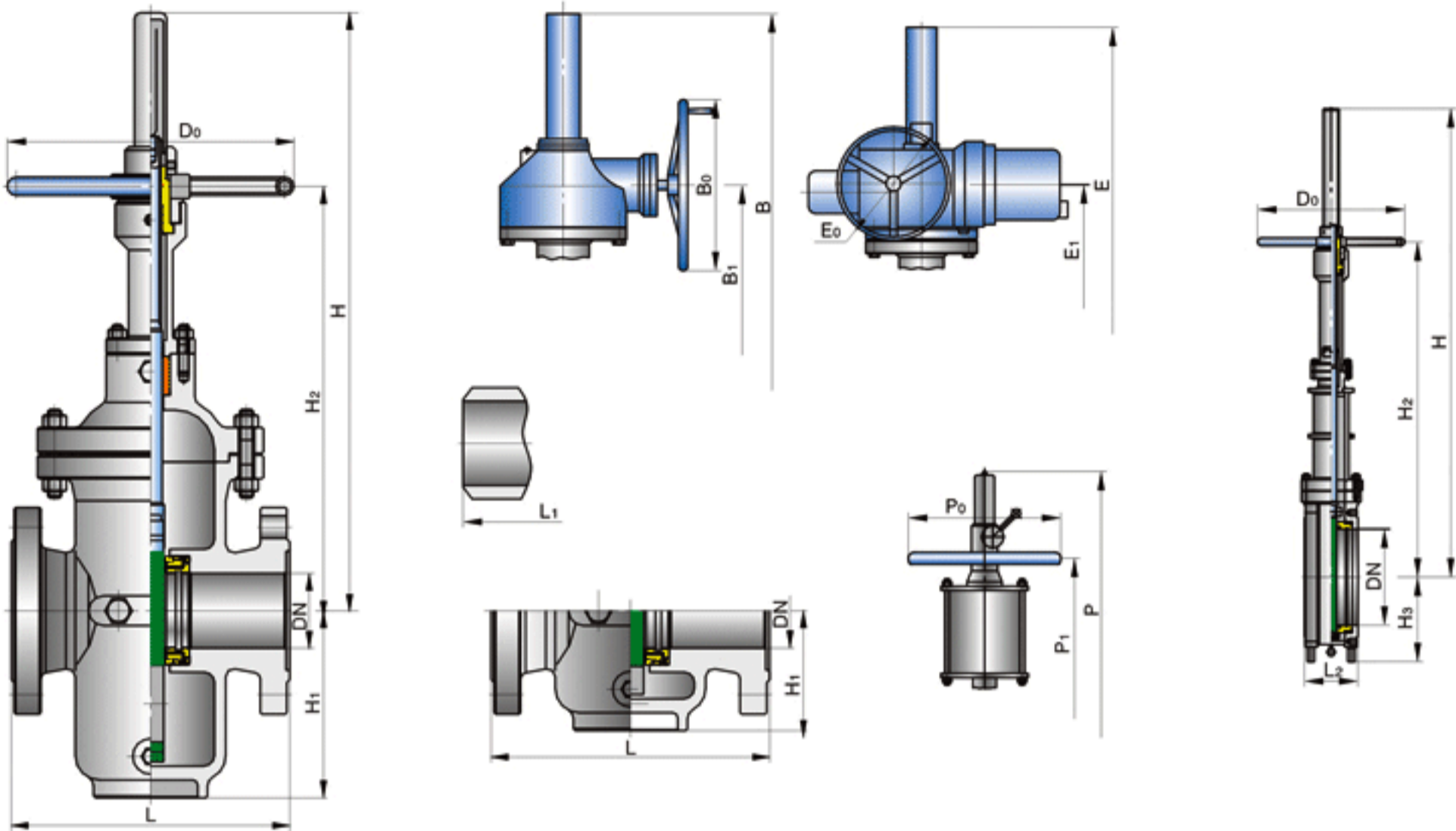
DN (mm)	NPS (in)	法兰 Flange		对焊 Butt welding L ₁	手动 Handwheel			齿 动 Gear driving			齿动装置 Gear device	气动 液动 Pneumatic and hydraulic driving			电 动 Electric driving			电动装置 Electric driving device	无导流孔	有导流孔
		GB	API		H	H ₂	D ₀	B	B ₁	B ₀		P	P ₁	P ₀	E	E ₁	E ₀		Non-diversion hole type H ₃	Diversion hole type H ₁
50	2	216	292	292	458	325	300	505	430	310	BA-0	533	435	200	647	560	200	SMC-04	108	158
65	2 1/2	241	330	330	555	420	300	560	470	310	BA-0	653	565	200	702	610	200	SMC-04	125	190
80	3	283	356	356	615	430	350	610	510	310	BA-0	735	635	250	752	650	500	SMC-03	145	225
100	4	305	406	406	710	500	350	770	650	310	BA-0	860	730	250	912	790	500	SMC-03	165	255
150	6	403	495	495	900	625	400	965	800	310	BA-0	1125	925	350	1138	950	305	SMC-00	220	330
200	8	419	597	597	1135	790	500	1200	960	310	BA-0	1435	1165	350	1373	1100	305	SMC-00	280	410
250	10	457	673	673	1401	1040	500	1370	1090	460	BA-1	1776	1450	400	1575	1280	305	SMC-0	330	490
300	12	502	762	762	1580	1150	600	1560	1200	460	BA-1	2030	1620	450	1725	1390	305	SMC-0	380	570
350	14	762	826	826	-	-	-	1740	1350	460	BA-1	2305	1900	500	1930	1570	305	SMC-1	430	650
400	16	838	902	902	-	-	-	1970	1540	460	BA-2	2558	2100	600	2210	1700	305	SMC-1	480	735
450	18	914	978	978	-	-	-	2260	1700	460	BA-2	2835	2320	700	2500	1940	305	SMC-1	530	810
500	20	991	1054	1054	-	-	-	2420	1850	460	BA-2	3120	2510	800	2630	2020	458	SMC-2	580	905
600	24	1143	1232	1232	-	-	-	2800	2120	600	BA-3	-	-	-	3050	2350	458	SMC-2	670	1070
700	28	1346	1397	1397	-	-	-	3230	2460	600	BA-3	-	-	-	3480	2680	458	SMC-2	770	1230



主要外形尺寸 Main Outline Dimensions

型号 Model: (K)Z5(6、9)4(6)3(4)W(F、Y、D) PN10.0MPa (Class600)

DN (mm)	NPS (in)	法兰 Flange		对焊 Butt welding L ₁	手动 Handwheel			齿动 Gear driving			齿动装置 Gear device	气动 液动 Pneumatic and hydraulic driving			电动 Electric driving			电动装置 Electric driving device	无导流孔	有导流孔
		GB	API		H	H ₂	D ₀	B	B ₁	B ₀		P	P ₁	P ₀	E	E ₁	E ₀		Non-diversion hole type H ₃	Diversion hole type H ₁
50	2	250	292	292	468	335	300	505	430	310	BA-0	543	445	200	647	560	200	SMC-04	108	158
65	2 1/2	280	330	330	565	430	300	560	470	310	BA-0	663	570	200	702	610	200	SMC-04	125	190
80	3	310	356	356	625	440	350	610	510	310	BA-0	745	640	250	752	650	500	SMC-03	145	225
100	4	350	432	432	720	510	350	770	650	310	BA-0	870	740	250	950	820	500	SMC-03	165	255
150	6	450	559	559	910	630	400	965	800	310	BA-0	1135	930	350	1138	950	305	SMC-0	220	330
200	8	550	660	660	1145	800	500	1200	960	310	BA-1	1445	1170	350	1403	1130	305	SMC-0	280	410
250	10	650	787	787	1411	1050	500	1370	1090	460	BA-1	1786	1460	400	1575	1280	305	SMC-0	330	490
300	12	750	838	838	1590	1160	600	1560	1200	460	BA-1	2040	1630	450	1750	1410	305	SMC-1	380	570
350	14	850	889	889	-	-	-	1740	1350	460	BA-2	-	-	-	1930	1570	305	SMC-1	430	650
400	16	950	991	991	-	-	-	1970	1540	460	BA-2	-	-	-	2210	1700	305	SMC-1	480	735
450	18	1050	1092	1092	-	-	-	2260	1700	460	BA-2	-	-	-	2500	1940	458	SMC-2	530	810
500	20	1150	1194	1194	-	-	-	2420	1850	460	BA-2	-	-	-	2630	2020	458	SMC-2	580	905



主要外形尺寸 Main Outline Dimensions

型号 Model: (K)Z5(6、9)4(6)3(4)W(F、Y、D) PN16.0MPa (Class900)

DN (mm)	NPS (in)	法兰 Flange		对焊 Butt welding	手动 Handwheel			齿 动 Gear driving			齿动装置 Gear device	气动 液动 Pneumatic and hydraulic driving			电 动 Electric driving			电动装置 Electric driving device	无导流孔	有导流孔
		L	L		L1	H	H2	D0	B	B1		B0	P	P1	P0	E	E1		E0	H3
50	2	300	368	368	473	335	300	525	450	310	BA-0	548	450	250	647	560	500	SMC-03	108	158
65	2 1/2	340	419	419	570	435	300	585	490	310	BA-0	668	580	300	702	610	500	SMC-03	125	190
80	3	380	381	381	630	445	350	635	530	310	BA-0	750	650	350	752	650	305	SMC-00	145	225
100	4	430	457	457	725	515	350	800	680	310	BA-0	875	745	400	950	820	305	SMC-00	165	255
150	6	500	610	610	915	640	400	995	830	310	BA-1	1140	940	500	1138	950	305	SMC-0	220	330
200	8	580	737	737	1150	800	500	1250	1000	460	BA-1	1450	1180	550	1403	1130	305	SMC-0	280	410
250	10	680	838	838	1416	1055	500	1420	1140	460	BA-1	1791	1465	600	1575	1280	305	SMC-1	330	490
300	12	775	965	965	1595	1165	600	1600	1230	460	BA-2	2045	1635	700	1750	1410	305	SMC-1	380	570