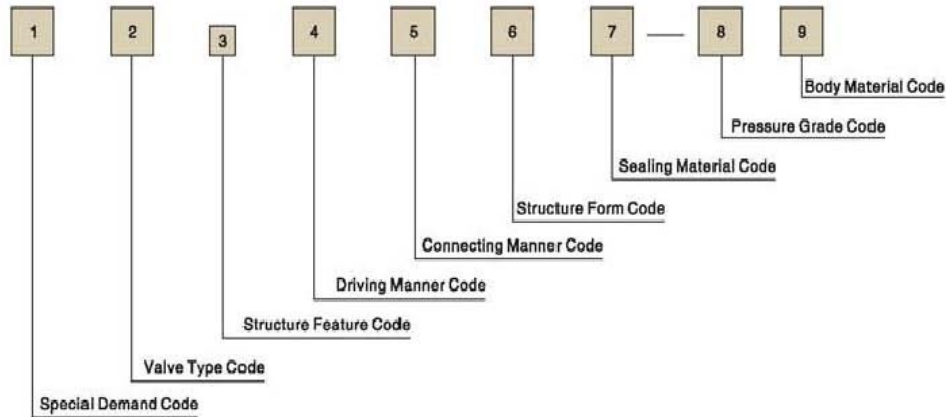


# Deseen International

## Cast steel valve and Stainless valve



- |                            |   |                                  |
|----------------------------|---|----------------------------------|
| 1, Special Demand Code:    | K-anti-sulphur type   | D-low-temperature type           |
|                            | L-Lengthened rod type   | O-oxygen specific type           |
| 2, Valve Type Code:        | Q-ball valve  |                                  |
| 3, Structure Feature Code: | W-Welding Structure   | T-Track Type J-Jacketed Type     |
| 4, Driving manner Code:    | 3-worm wheel and screw transmission                               | 6-air-operated                   |
|                            | 7-hydro dynamically operated                                      | 8-air-hydro operated             |
|                            | 9(B)-electric driving(explosion-proof)/(handle transmission)      |                                  |
| 5, Connecting Manner Code: | 1-internal thread connecting                                      | 2-external thread connecting     |
|                            | 4-flange connecting   | 6-welded connection              |
|                            | 7-wafer type  | 8-buckle connecting              |
| 6, Structure Form Code:    | 1-Straight-through Floating Type                                  | 4-Floating Type*L*mode Three-way |
|                            | 5-Floating Type*T*mode Three-way                                  | 7-Staight-through Fixed Type     |
|                            | 8-Fixed Type*T*model Three-way                                    | 9-Fixed Type*L*model Three-way   |
| 7, Sealing material Code:  | Y-hard alloy  | F-polytetrafluoroethylene(PTFE)  |
|                            | N-nylon P-Pata-position polyphenylene                             |                                  |
| 8, Pressure Grade Code:    | 10x nominal rating pressure MPa, the pound grade is actual number |                                  |
| 9, Valve Material Code:    | C-WCB   | I-WC6, ZG1Cr5Mo                  |
|                            | V-WC9, ZG20CrMoV  | P-CF8, ZG1Cr18Ni9Ti              |
|                            | R-CF8M, ZG1Cr18Ni12Mo2Ti  | S-CF3                            |
|                            | L-CF3M F-LCB  | N-LC3                            |

Notes: PN $\geq$ 2.5MPa and pressure $\geq$ Class150 carbon steel valve body omits the code.

Example1: Q647Y-64R

denotes 6.4 MPa nominal rating pressure, air-oper, flange-connecting, full bore trunnion type ball valve, CF8M valve material, and hard-alloy sealing material;

Example2: QW967F-150

denotes Class150 pressure grade electric driving, welded connection, fixed type & welded structure, carbon steel body material and PTFE sealing material.

# Deseen International

## Cast steel valve and Stainless valve



### Product design features

Serial floating ball valves are mainly applied to natural gas, oil products, chemical engineering, metallurgy, city building, environment protection, pharmacy and food industries, among which the anti-sulphur series are used for long delivery pipes of natural gas that contains hydrogen sulphide medium, a lot of impurity and corrosive substances.

**The design features of the floating ball valves include:**

**Specific Sealing Structure of Valve Base**

Double cant elastic sealing or V-shaped groove seal ring structural design is adopted to ensure sealing reliability. As for low-pressure, ultra-low pressure or vacuum-operated ball valves, a plate spring-loaded sealing structure of valve base is adopted to ensure their long-term sealing reliability. As for moderate or high temperature ball valves, Para-Position polyphenylene or metal can be adopted for valve base material.

**Automatic pressure relief structure**

When the pressure in cloaca cavity increases singularly, the cavity medium can push valve base by its own thrusting force, which results in automatic pressure relief and valve security assurance.

**Reliable Sealing of Valve Rod**

The valve rod adopts downward installation structure with back sealing. The sealing force will increase together with the tightening of medium pressure, which can ensure the sealing reliability. Moreover, even if the pressure in valve cavity increases singularly, the valve rod will not burst out.

**Fire-resistant Structure**

According to the operating condition and users requirement, ball valve can be designed with a fire resistant structure up to the fire-resistant standards of API607 and JB/T6899. Once the soft seal ring is burnt out on fire, the structure can avoid serious leaking of the medium and prevent the fire from scaling up.

**Anti-static Structure**

While operating the valve, the friction between the sphere and the base will produce static charges accumulating on the sphere. To avoid static sparkle, the fire-resistant device is designed to derive the accumulated static sparkle, charges from the sphere.

**Locking Device**

A locking structure is designed on the full-open and full-close spots of manual ball valves to avoid abnormal open-and-close produced by misoperation or unoperation or unpredictable circuit vibration. On production lines of petroleum and chemicals of flammable mediums, and during the course of outdoor piping, the design is especially advantageous and practical.

**Full Bore Structure and Reduced Bore Structure**

The two structure series are produced to meet different requirement of users. The passage inside diameter of full ball valves is the same as that of valve pipe, which is convenient for pipe cleaning. The weight of retractive diameter ball valves is relatively lighter, but the fluid resistance is just 1/7 that of stop valves with the same caliber. Therefore, the application prospects of retractive diameter series is much better.

### Products performance specification

Pressure		Nominal ( PN )					Pound ( Class )			
		1.6	2.5	4.0	6.4	10.0	150	300	400	600
Test pressure ( MPa )	Shell test	2.4	3.75	6.0	9.6	15.0	3.1	7.5	10.2	15.0
	Sealing test	1.76	2.75	4.4	7.04	11.0	2.2	5.5	7.48	11.0
Applicable temperature		-196℃-560℃ ( Different materials for different operating temperature )								
Applicable medium	Ordinary type	Water, oil and natural gas								
	Antisulphur type	Natural gas containing H <sub>2</sub> S and CO, petroleum								

# Deseen International

## Cast steel valve and Stainless valve



### 产品规格 Products specification

系列型号 Serial Model	(K) Q41、(K) 341、(K) Q641、(K) Q741、(K) Q841、(K) Q941				
	(K) Q61、(K) Q361、(K) Q661、(K) Q761、(K) Q861、(K) Q961				
压力等级范围 Pressure Grade Range	PN1.6-10MPa		CLASS150-600		
公称通径范围 Nominal size	DN15-200mm		1/2"-8"		
驱动方式及 适用范围 Driving Manner and Scope of Application	手柄驱动 Handle driving	PN1.6-10MPa		CLASS150-600	
		DN15-300mm		1/2"-12"	
	蜗轮蜗杆 驱动 Worm gear and screw driving	PN1.6-4.0MPa	PN6.4-10.0MPa	CLASS150-300	CLASS400-800
		DN150-200mm	DN80-100mm	6"-12"	3"-4"
	气动、液动 Air-operating and fluid driving	PN1.6-10MPa		CLASS150-600	
		DN15-300mm		1/2"-12"	
电动 Electric Driving	PN1.6-4.0MPa	PN6.4-10.0MPa	CLASS150-300	CLASS400-800	
	DN150-200mm	DN50-100mm	2"-12"	2"-4"	

注：本公司可根据用户要求提供产品  
Notes: our company can provide products at customers' requirement.

### 浮动式球阀力矩表 (N.M) Floating ball valve torque form

压力(MPa) Pressure	通径(mm) Size	15	20	25	40	50	65	80	100	125	150	200
1.6	3	3	5	10	16	25	50	65	125	250	340	485
2.5	3	3	5	11	18	30	60	80	140	300	400	660
4.0	5	5	10	24	35	50	100	150	250	450	585	996
6.4	15	15	30	50	80	100	200	300	400	-	-	-
10.0	19	19	35	68	130	190	360	460	770	-	-	-

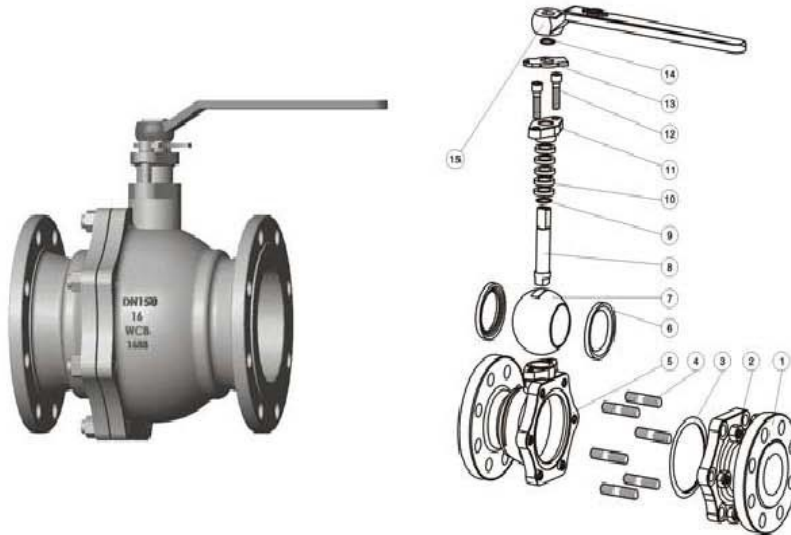
注：表中所列数据未经实际测定，仅供参考。  
Notes: The data in the form are not practically measured, and just for reference.

压力(MPa) Pressure	通径(mm) Size	1/2	3/4	31	1 1/2	2	2 1/2	3	4	5	6	8
150	3	3	5	11	16	50	50	65	125	250	410	700
300	7	7	12	26	38	120	120	180	280	600	950	1550
400	15	15	30	50	80	240	240	350	540	-	-	-
600	19	19	35	68	130	360	360	460	770	-	-	-

注：表中所列数据未经实际测定，仅供参考。  
Notes: The data in the form are not practically measured, and just for reference.

# Deseen International

## Cast steel valve and Stainless valve



### 技术规范 Technical specification

设计依据 Design Reference	GB	API	ANSI
设计标准 Design Standard	GB/T 12237	API 6D	ANSI B16.34
结构长度 Face to Face	法兰连接 Flange connecting	GB/T 12221	ANSI B16.10
	焊接 Welded connection	GB/T 15188.1	
连接法兰 Flanged ends	GB/T 9113 JB/T 79	ANSI B16.5、B16.47	
对焊端 Butt-welding ends	GB/T 12224	ANSI B16.25	
试验和检验 Test & Inspection	JB/T 9092	API 6D	API 598

注：系列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 sizes of serial valve connecting flange and butt-welding terminal can be designed according to customer's requirement.

### 主要零件材质表 Form of major parts materials

序号 No	零件名称 Accessory name	材质 Material		序号 No	零件名称 Accessory name	材质 Material	
		GB	ANSI			GB	ANSI
1	右体 Bonnet	WCB	A216-WCB	9	垫片 Gasket	PTFE	PTFE
2	螺母 Nut	35	A194-2H	10	填料 Packing	柔性石墨 Graphite	柔性石墨 Graphite
3	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel	ASME B12.10-304/F.G.	11	填料压盖 Gland	WCB	A216-WCB
4	螺栓 Bolt	35CrMoA	A193-B7	12	螺钉 Screw nail	35	A194-2H
5	阀体 Body	WCB	A216-WCB	13	定位片 Locating piece	Q235A	Carbon steel
6	阀座 Seat	PTFE 25+HCr	PTFE	14	挡圈 ring	65Mn	AISI 1566
7	球体 Ball	1Cr13	A105+HCr	15	手柄 Wrench	KT33	A47-867 Gr.32510
8	阀杆** Stem	1Cr13	A276-410				

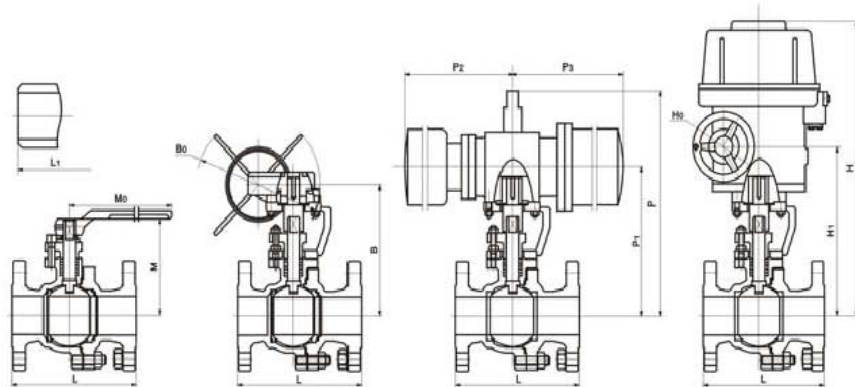
注：\*抗硫型阀门该零件的材质为GB (1Cr18Ni9+Ni.P)、ASTM (A182-304+Ni.P)；\*\*抗硫型阀门该零件的材质为GB (1Cr18Ni9)、ASTM (A276-321)；系列阀门主要零部件及密封面的材质可根据实际工况条件或用户特殊要求设计选用。  
Notes: \*The material of this part about the anti-sulphur type valve is GB (1Cr18Ni9+Ni.P)、ASTM (A182-304+Ni.P)；\*\*The material of this part about the anti-sulphur type valve is GB (1Cr18Ni9)、ASTM (A276-321)；Major parts of the valve series and materials of sealing surface differ according to actual working condition and customer's special requirement.

# Deseen International

## Cast steel valve and Stainless valve



(K)Q(3, 7, 8, 9)4(6)1F(V, N, P)



**主要外形尺寸 Main size of outside**

PN1.6Mpa CLASS150

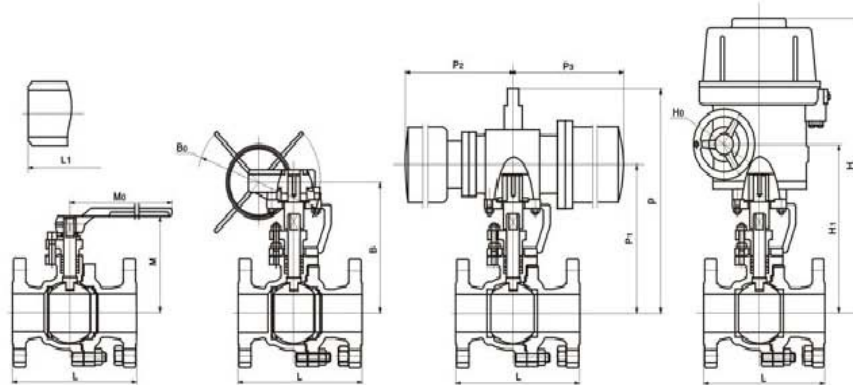
DN	mm	15	20	25	40	50	65	80	100	125	150	200
NPS	in	1/2	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8
法兰 Flange	L	108	117	127	165	178	191	203	229	356	394	457
对焊 Butt Welding	L1	140	152	165	190	216	241	283	305	381	457	521
手动 Hand-Operated	M	59	63	75	95	107	142	152	178	252	272	342
	Mo	130	130	160	230	230	400	400	650	1050	1050	1410
蜗轮 蜗杆 传动 Worm gear and Screw operated	B	-	-	-	-	-	-	-	-	-	292	398
	B0	-	-	-	-	-	-	-	-	-	400	600
	型号Type	-	-	-	-	-	-	-	-	-	A	B
气动 液动 Air-operating and fluid driving	P	200	204	257	264	340	370	389	594	646	646	761
	P1	122	126	162	169	209	239	258	337	437	437	537
	P2	326	326	347	420	426	426	590	523	610	610	885
	P3	136	136	181	181	257	257	257	287	378	378	530
	型号Type	AG06	AG09	AG09	AG13	AG13	AG13	AG13	AW13	AW17	AW17	AW20
电动 Electric Driving	H	-	-	-	-	472	486	579	595	650	739	799
	H1	-	-	-	-	377	391	484	500	500	589	649
	H0	-	-	-	-	190	190	190	190	400	400	400
	型号Type	-	-	-	-	Q60-1	Q60-1	Q60-1	Q60-1	Q120-1	Q120-1	Q120-1

# Deseen International

## Cast steel valve and Stainless valve



(K)Q(3, 7, 8, 9)4(6)1F(Y, N, P)



**主要外形尺寸 Main size of outside**

PN2.5 4.0Mpa CLASS300

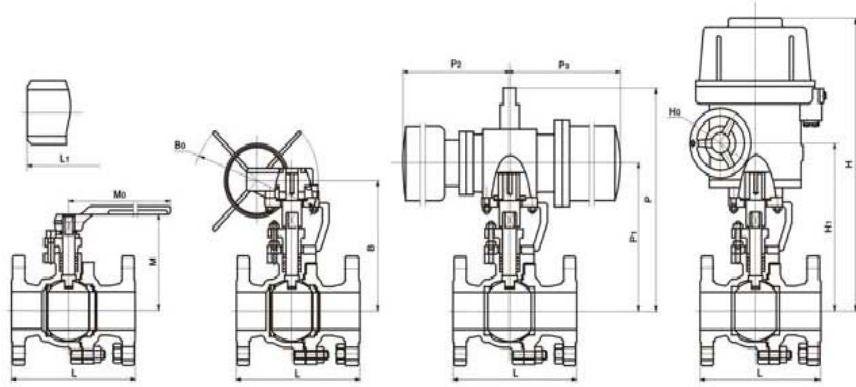
DN	mm	15	20	25	40	50	65	80	100	125	150	200
NPS	in	1/2	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8
法兰 Flange	L	140	152	165	190	216	241	283	305	381	403	502
对焊 Butt Welding	L1	140	152	165	190	216	241	283	305	381	457	521
手动 Hand-Operated	M	59	63	75	95	167	142	152	178	252	272	342
	M0	130	130	160	230	230	400	400	650	1050	1050	1410
蜗轮 蜗杆 传动 Worm gear and Screw operated	B	-	-	-	-	-	-	-	-	-	292	398
	B0	-	-	-	-	-	-	-	-	-	400	600
	型号Type	-	-	-	-	-	-	-	-	-	A	B
气动 液动 Air-operating and fluid driving	P	200	204	257	264	340	379	452	594	646	744	920
	P1	122	126	162	169	209	246	295	375	437	500	615
	P2	326	326	347	420	426	426	590	523	610	610	885
	P3	136	136	181	181	257	257	257	287	378	378	530
	型号Type	AG06	AG09	AG09	AG13	AG13	AG13	AG13	AW13	AW17	AW17	AW20
电动 Electric Driving	H	-	-	-	-	472	472	579	595	650	739	799
	H1	-	-	-	-	377	391	484	500	500	589	649
	H0	-	-	-	-	190	190	190	190	400	400	400
	型号Type	-	-	-	-	Q60-1	Q60-1	Q60-1	Q60-1	Q120-1	Q120-1	Q120-1

# Deseen International

## Cast steel valve and Stainless valve



(K)Q(3, 7, 8, 9)4(6)1F(Y, N, P)



**主要外形尺寸 Main size of outside**

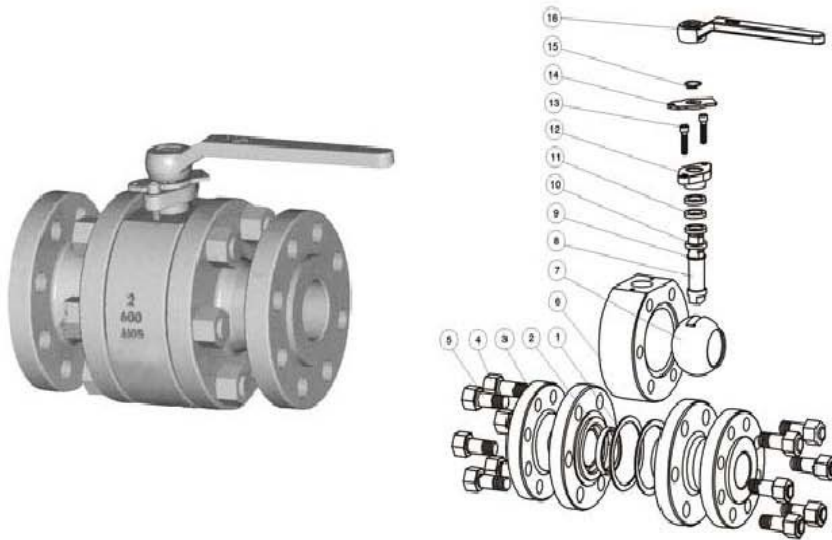
PN6.4 10.0Mpa CLASS400 600

DN	mm	15	20	25	40	50	65	80	100	125	150	200
NPS	in	1/2	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8
法兰 Flange	L	165	190	216	241	292	330	356	406(432)*	-	-	-
对焊 Butt Welding	L1	165	191	216	241	292	330	356	406(432)*	-	-	-
手动 Hand-Operated	M	59	63	75	95	167	180	198	198	-	-	-
	Mo	160	180	230	400	400	650	650	1050	-	-	-
蜗轮 蜗杆 传动 Worm gear and Screw operated	B	-	-	-	-	-	-	292	398	-	-	-
	B0	-	-	-	-	-	-	400	600	-	-	-
	型号Type	-	-	-	-	-	-	A	B	-	-	-
气动 液动 Air-operating and fluid driving	P	200	204	241	284	340	379	452	584	-	-	-
	P1	122	145	146	169	209	248	295	375	-	-	-
	P2	283	283	283	350	590	590	523	610	-	-	-
	P3	136	181	181	181	257	257	287	378	-	-	-
	型号Type	AG09	AG09	AG09	AG09	AG13	AG13	AG13	AW17	-	-	-
电动 Electric Driving	H	-	-	-	-	472	599	599	632	-	-	-
	H1	-	-	-	-	377	449	449	472	-	-	-
	H0	-	-	-	-	190	190	190	1900	-	-	-
	型号Type	-	-	-	-	Q120-1	Q120-1	Q120-1	Q120-1	-	-	-

\* ( ) 内为PN10.0Mpa, Class600尺寸

# Deseen International

## Cast steel valve and Stainless valve



### 技术规范 Technical specification

设计依据 Design Reference		GB	API	ANSI
设计标准 Design Standard		GB/T 12237	API 6D	ANSI B16.34
结构长度 Face to Face	法兰连接 Flange connecting	GB/T 12221	API 6D	ANSI B16.10
	焊接 Welded connection	GB/T 15188.1		
连接法兰 Flanged ends		GB/T 9113 JB/T 79	ANSI B16.5, B16.47	
对焊端 Butt-welding ends		GB/T 12224	ANSI B16.25	
试验和检验 Test & Inspection		JB/T 9082	API 6D	API 598

注：系列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 sizes of serial valve connecting flange and butt-welding terminal can be designed according to customer's requirement.

### 主要零件材质表 Form of major parts materials

序号 No	零件名称 Accessory name	材质 Material		序号 No	零件名称 Accessory name	材质 Material	
		GB	ASTM			GB	ASTM
1	垫片 Gasket	柔性石墨-不锈钢 Graphite+stainless steel	B12.10-304/F.G.	9	垫片 Gasket	PTFE	PTFE
2	阀座 Seat	PTFE	PTFE	10	填料盖 Packing seat	1Cr13	A270-410
3	右体 Bonnet	25	A105	11	填料 Packing	柔性石墨 Graphite	柔性石墨 Graphite
4	螺母 Nut	35	A194-2H	12	填料压盖 Gland	WCB	A216-WCB
5	螺栓 Stud	35CrMoA	A193-B7	13	螺栓 Bolt	35CrMoA	A193-B7
6	阀体 Body	25	A105	14	定位片 Locating piece	Q235A	Carbon steel
7	球体 Ball	25+HCr	A105+HCr	15	挡圈 ring	65Mn	AlSi 1566
8	阀杆 Stem	1Cr13	A270-410		手柄 Wrench	KT33	A47-867 Gr.32510

注：\*抗硫型阀门该零件的材质为GB (1Cr18Ni9+Ni.P)、ASTM (A182-304+Ni.P)；\*\*抗硫型阀门该零件的材质为GB (1Cr18Ni9)、ASTM (A276-321)；系列阀门主要零部件及密封面的材质可根据实际工况条件或用户特殊要求设计选用。  
Notes: \*The material of this part about the anti-sulphur type valve is GB (1Cr18Ni9+Ni.P)、ASTM (A182-304+Ni.P)；\*\*The material of this part about the anti-sulphur type valve is GB (1Cr18Ni9)、ASTM (A276-321)；Major parts of the valve series and materials of sealing surface differ according to actual working condition and customer's special requirement.

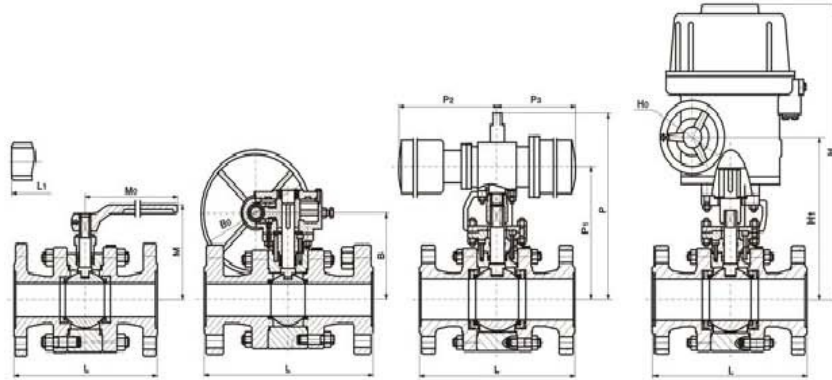


# Deseen International

## Cast steel valve and Stainless valve



(K)Q(3, 7, 8, 9)4(6)1F(Y, N, P)



**主要外形尺寸 Main size of outside**

PN1.6Mpa CLASS150

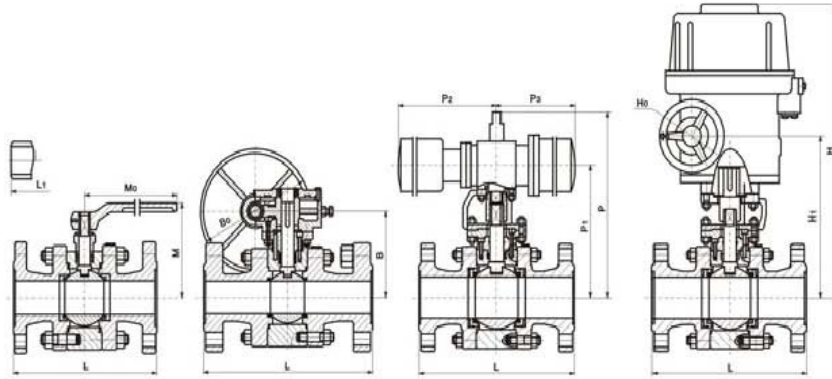
DN	mm	15	20	25	40	50	65	80	100	125	150	200
NPS	in	1/2	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8
法兰 Flange	L	108	117	127	165	178	191	203	229	356	394	457
对焊 Butt Welding	L1	140	152	165	190	216	241	283	305	381	457	521
手动 Hand-Operated	M	73	78	88	102	130	142	191	200	226	242	521
	M0	130	130	160	108	230	400	400	650	750	750	285
蜗轮 蜗杆 传动 Worm gear and Screw operated	B	-	-	-	-	-	-	-	-	-	260	950
	B0	-	-	-	-	-	-	-	-	-	400	300
	型号Type	-	-	-	-	-	-	-	-	-	A	B
气动 液动 Air-operating and fluid driving	P	203	234	242	326	354	366	415	485	607	623	742
	P1	125	139	247	195	223	235	284	328	398	414	498
	P2	326	326	347	420	426	426	590	523	610	610	865
	P3	136	136	181	181	257	257	257	287	378	378	530
	型号Type	AG06	AG09	AG09	AG13	AG13	AG13	AG13	AG13	AW13	AW17	AW17
电动 Electric Driving	H	-	-	-	-	432	443	454	493	574	646	678
	H1	-	-	-	-	377	348	359	398	424	496	528
	H0	-	-	-	-	190	190	190	190	400	400	400
	型号Type	-	-	-	-	Q60-1	Q60-1	Q60-1	Q60-1	Q120-1	Q120-1	Q120-1

# Deseen International

## Cast steel valve and Stainless valve



(K)Q(3, 7, 8, 9)4(6)1F(Y, N, P)



**主要外形尺寸 Main Size of outside** PN2.5 4.0Mpa CLASS300

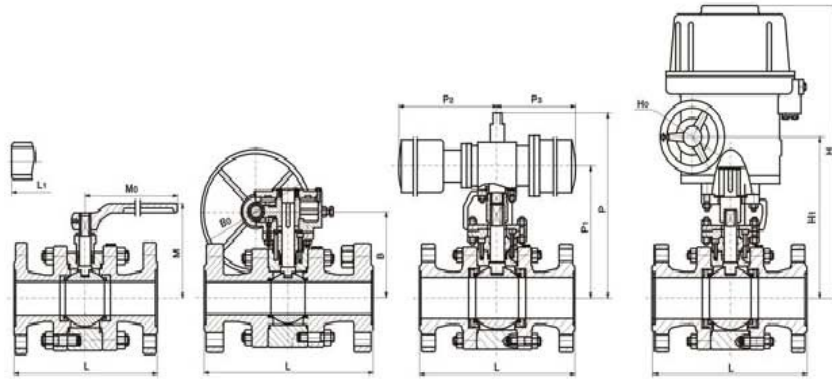
DN	mm	15	20	25	40	50	65	80	100	125	150	200
NPS	In	1/2	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8
法兰 Flange	L	140	152	165	190	216	241	283	305	381	403	502
对焊 Butt Welding	L <sub>1</sub>	140	152	165	190	216	241	283	305	381	457	521
手动 Hand-Operated	M	73	80	86	102	136	164	191	223	240	253	307
	M <sub>0</sub>	140	140	180	230	240	400	400	750	750	900	1200
蜗轮蜗杆传动 Worm gear and Screw operated	B	-	-	-	-	-	-	-	-	-	325	387
	B <sub>0</sub>	-	-	-	-	-	-	-	-	-	400	600
	型号Type	-	-	-	-	-	-	-	-	-	A	B
气动 液动 Air-operating and fluid driving	P	204	236	242	326	359	388	415	508	621	675	824
	P <sub>1</sub>	126	141	147	195	228	257	284	351	412	466	580
	P <sub>2</sub>	326	326	347	420	426	426	590	523	610	610	885
	P <sub>3</sub>	136	136	181	181	257	257	257	287	378	378	530
	型号Type	AG06	AG09	AG09	AG13	AG13	AG13	AG13	AW13	AW17	AW17	AW20
电动 Electric Driving	H	-	-	-	-	432	443	454	493	574	646	678
	H <sub>1</sub>	-	-	-	-	337	348	359	398	424	496	528
	H <sub>0</sub>	-	-	-	-	190	190	190	190	400	400	400
	型号Type	-	-	-	-	Q60-1	Q60-1	Q60-1	Q60-1	Q120-1	Q120-1	Q120-1

# Deseen International

## Cast steel valve and Stainless valve



(K)Q(3, 7, 8, 9)4(6)1F(Y, N, P)



**主要外形尺寸 Main size of outside**

PN6.4 10.0Mpa CLASS400 600

DN	mm	15	20	25	40	50	65	80	100	125	150	200
NPS	in	1/2	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8
法兰 Flange	L	165	191	216	241	292	330	3356	406(432)*	-	-	-
对焊 Butt Welding	L1	165	191	216	241	292	330	356	406(432)*	-	-	-
手动 Hand-Operated	M	73	80	86	110	142	171	185	220	-	-	-
	Mo	160	180	230	400	400	650	650	1050	-	-	-
蜗轮 蜗杆 传动 Worm gear and Screw operated	B	-	-	-	-	-	-	182	217	-	-	-
	B0	-	-	-	-	-	-	280	400	-	-	-
	型号Type	-	-	-	-	-	-	O	A	-	-	-
气动 液动 Air-operating and fluid driving	P	229	236	242	266	366	395	470	601	-	-	-
	P1	194	141	147	171	235	264	313	392	-	-	-
	Pz	283	283	283	350	590	590	523	610	-	-	-
	Ps	196	181	181	181	257	257	287	378	-	-	-
	型号Type	AG09	AG09	AG09	AG09	AG13	AG13	AG13	AW17	-	-	-
电动 Electric Driving	H	-	-	-	-	500	520	545	558	-	-	-
	H1	-	-	-	-	350	370	395	408	-	-	-
	Ho	-	-	-	-	190	190	190	190	-	-	-
	型号Type	-	-	-	-	Q120-1	Q120-1	Q120-1	Q120-1	-	-	-

\* ( ) 内为PN10.0Mpa、Class600尺寸

# Deseen International

## Cast steel valve and Stainless valve



### Product design features

Serial floating ball valves are mainly applied to natural gas, oil products, chemical engineering, metallurgy, city building, environment protection, pharmacy and food industries, among which the anti-sulphur series are used for long delivery pipes of natural gas that contains hydrogen sulphide medium, a lot of impurity and corrosive substances.

**The design features of the floating ball valves include:**

**Construction of the shell**

The valve bush of the stationary ball valve can be designed to three types: casting construction, forging construction, and full welding construction, according to user's demand or different working condition. And the ball valve of the full welding construction is mainly applied to underground operation.

**The unique sealed structure of Valve seat**

Pre-ball sealed structure, post-ball sealed structure or pre-post-ball double sealed structures are available for choosing to different pressure, medium properties, and sealing requirements of the fixed ball valves.

**Automatic pressure relief structure**

When an abnormal rising of pressure appear in the hollow cavity, the single sealed-structure takes on the function of automatic pressure relieving, while the double-sealed structure can finish the job through a attached pressure-relieving device to the valve body.

**Emergent repairman for the sealed structure**

When leaking was caused by damage on the valve seat or valve stick, the sealed grease injected through the grease feeding valve can seal the valve at once.

**Fire-resistant Structure**

According to the operating condition and users requirement, ball valve can be designed with a fire resistant structure up to the fire-resistant standards of API 607 and JB/T 6899. Once the soft seal ring is burnt out on fire, the structure can avoid serious leaking of the medium and prevent the fire from scaling up.

**Anti-static Structure**

While operating the valve, the friction between the sphere and the base will produce static charges accumulating on the sphere. To avoid static sparkle, the fire-resistant device is designed to derive the accumulated static sparkle, charges from the sphere.

**Jam and release**

When the valve is close, the valve seats will stop the effluence, and the precipitate in the cavity can be released through the releasing device.

**Locking Device**

A locking structure is designed on the full-open and full-close spots of manual ball valves to avoid abnormal open-and-close produced by misoperation or unoperation or unpredictable circuit vibration, On production lines of petroleum and chemicals of flammable mediums, and during the course of outdoor piping, the design is especially advantageous and practical.

**Full Bore Structure and Reduced Bore Structure**

The two structure series are produced to meet different requirement of users. The passage inside diameter of full ball valves is the same as that of valve pipe, which is convenient for pipe cleaning. The weight of retractive diameter ball valves is relatively lighter, but the fluid resistance is just 1/7 that of stop valves with the same caliber. Therefore, the application prospects of retractive diameter series is much better.

### Products performance specification

Pressure		Nominal ( PN )						Pound ( Class )						
		1.6	2.5	4.0	6.4	10.0	15.0	25.0	150	300	400	600	900	1500
Test pressure (MPa)	Shell test	2.4	3.75	6.0	9.6	15.0	22.5	37.5	3.03	7.5	10.2	15.0	22.5	37.5
	Sealing test	1.76	2.75	4.4	7.04	11.0	16.5	27.5	2.2	5.5	7.48	11.0	16.5	27.5
Applicable temperature		-196℃-550℃ ( Different materials for different operating temperature )												
Applicable medium	Ordinary type	Water, oil and natural gas												
	Antisulphur type	Natural gas containing H <sub>2</sub> S and CO, petroleum												

# Deseen International

## Cast steel valve and Stainless valve



### 产品规格 Products specification

系列型号 Serial Model	(K) Q47、(K) Q347、(K) Q647、(K) Q847、(K) Q947				
	(K) Q67、(K) Q367、(K) Q667、(K) Q767、(K) Q867、(K) Q967				
压力等级范围 Pressure Grade Range	PN1.6-10MPa		CLASS150-1500		
公称通径范围 Nominal size	DN50-800mm		2"-32"		
驱动方式及 通用范围 Driving Manner and Scope of Application	手柄驱动 Handle driving	PN1.6-4.0MPa	PN6.4-25.0MPa	CLASS150-300	CLASS400-1500
		DN50-150mm	DN50-80mm	2"-6"	2"-3"
	蜗轮蜗杆 驱动 Worm gear and screw driving	PN1.6-4.0MPa	PN6.4-25.0MPa	CLASS150-300	CLASS400-1500
		DN1200-1500mm	DN100-1500mm	8"-60"	4"-60"
	气动、液动 Air-operating and fluid driving	PN6.4-25.0MPa	CLASS150-400	CLASS600	CLASS900-1500
		DN50-1000mm	2"-40"	2"-28"	2"-24"
电动 Electric Driving	PN6.4-25.0MPa		CLASS150-600	CLASS900-1500	
	DN150-1500mm		6"-60"	4"-24"	

注：本公司可根据用户需求提供产品  
Notes: our company can provide products at customers' requirement.

### 固定式球阀力矩表 (N.M) Trunnion type ball valve torque form

压力(Mpa) Pressure	通径(mm) Size	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800
PN1.6		25	50	65	125	250	340	485	810	1310	1810	2860	4500	5860	8920	13320	24000
PN2.5		30	60	80	140	300	400	680	1140	1870	2740	4150	6500	7800	13210	19830	35420
PN4.0		50	100	150	250	450	585	998	1690	2800	4110	6300	8900	12000	20380	30870	55200
PN6.4		100	200	300	400	650	890	1500	2560	4290	6320	9750	13500	18660	31820	48020	86830
PN10.0		190	360	460	770	1050	1980	3280	5250	7200	9860	14500	19600	29000	42500	58000	82000

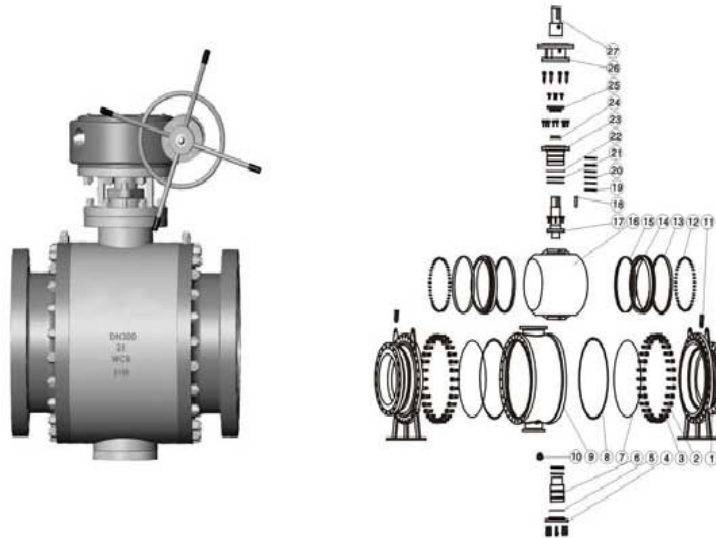
注：表中所有数据未经实际测定，仅供参考。  
Notes: The data in the form are not practically measured, and just for reference.

压力(Lb) Class	通径(mm) Size	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24	28	32	36	40
150		25	50	65	125	250	410	700	1100	1750	2600	3900	6200	7500	10500	14500	21000	28000	35000
300		60	120	160	280	600	950	1550	2000	3300	5000	7500	11800	14400	19600	28200	29800	40000	45000
400		140	240	350	540	740	1260	1910	32500	5340	7500	10000	12400	18500	29500	40500	53000	51000	71000
600		190	360	460	770	1050	1980	3280	5250	7200	9860	14500	19600	29000	42500	58000	62000	75000	105000

注：表中所有数据未经实际测定，仅供参考。  
Notes: The data in the form are not practically measured, and just for reference.

# Deseen International

## Cast steel valve and Stainless valve



### 技术规范 Technical specification

设计依据 Design Reference	GB	API	ANSI
设计标准 Design Standard	JB/T7745 GB/T12237	API 6D	ANSI B16.34
结构长度 Face to Face	GB/T12221	API 6D	ANSI B16.10
连接法兰 Flanged ends	GB/T9113、JB/T79	ANSI B16.5、B16.47	
试验和检验 Test & Inspection	JB/T9092	API 6D	API 598

注：1、系列阀门连接法兰端尺寸可根据用户要求设计制造。2、DN>1000（40"）阀门设计标准按《长输管线阀门技术条件》  
Notes:1.The sizes of serial valve connecting flange ends can be designed according to customer's requirement.  
2.DN>1000（40"）,the design standard is accordance with 《Specification of the length pipe valve》.

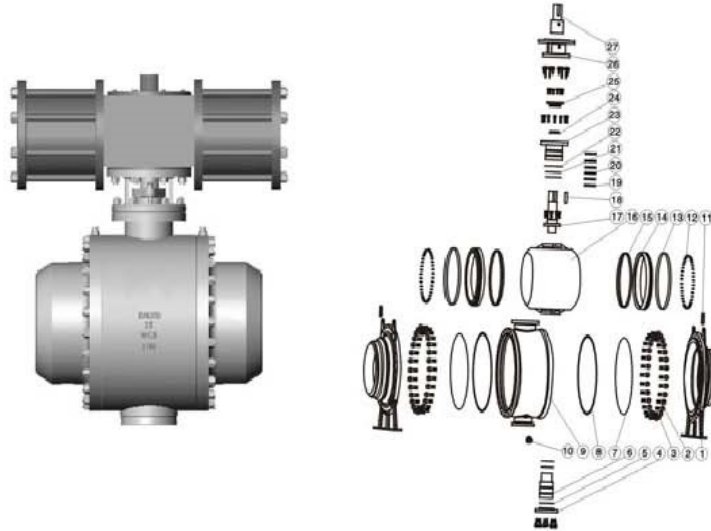
### 主要零件材质表 Form of major parts materials

序号 No	零件名称 Accessory name	材质 Material		序号 No	零件名称 Accessory name	材质 Material	
		GB	ASTM			GB	ASTM
1	左右体 Bonnet	WCB	A216-WCB	15	密封圈 Sealing ring	PTFE	PTFE
2	螺栓 Stud	35CrMoA	A193-B7	16	球体**Ball	WCB+HCr	WCB+HCr
3	螺母 Nut	95	A194-2H	17	上阀杆* Stem	1Cr13	A270-410
4	底座 Bottom Cover	25	A105	18	键 Key	45	AISI C1045
5	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel	B12.10-304/F.G.	19	填料盖 Packing seat	1Cr13	A270-410
6	下阀杆* Stem	1Cr13	A270-410	20	填料 Packing	柔性石墨 Graphite	柔性石墨 Graphite
7	O型圈 *O' Ring	橡胶 Rubber	橡胶 Rubber	21	O型圈 *O' Ring	橡胶 Rubber	橡胶 Rubber
8	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel	B12.10-304/F.G.	22	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel	B12.10-304/F.G.
9	阀体 Body	WCB	A216-WCB	23	阀盖 Cover	25	A105
10	排污堵头 Blow down stopple	25	A105	24	O型圈 *O' Ring	橡胶 Rubber	橡胶 Rubber
11	注脂阀 Grease injection valve	1Cr13	A270-410	25	填料压盖 Gland	WCB	A216-WCB
12	弹簧 Spring	60Si2Mn	ANSI 9260	26	支架 Yoke	WCB	A216-WCB
13	O型圈 *O' Ring	橡胶 Rubber	橡胶 Rubber	27	连接套 Connection set	45	ANSI 1045
14	阀座* Seat	25	A105				

注：\*抗硫型阀门该零件的材质为GB（1Cr18Ni9）、ASTM（A276-321）；\*\*抗硫型阀门该零件的材质为GB（1Cr18Ni9、CF8+Ni.P）、ASTM（A182-304、CF+Ni.P）；系列阀门主要零部件及密封面的材质可根据实际工况条件或用户特殊要求设计选用。  
Notes:\*The material of this part about the anti-sulphur type valve is GB（1Cr18Ni9）、ASTM（A276-321）；\*\*The material of this part about the anti-sulphur type valve is（1Cr18Ni9、CF8+Ni.P）、ASTM（A182-304、CF+Ni.P）；Major parts of the valve series and materials of sealing surface differ according to actual working condition and customer's special requirement.

# Deseen International

## Cast steel valve and Stainless valve



### 技术规范 Technical specification

设计依据 Design Reference	GB	API	ANSI
设计标准 Design Standard	JB/T7745 GB/T12237	API 6D	ANSI B16.34
结构长度 Face to Face	GB/T15188.1	API 6D	ANSI B16.10
对焊端 Butt-welding ends	GB/T12224	ANSI B18.25	
试验和检验 Test & Inspection	JB/T9082	API 6D	API 598

注：1、系列阀门连接法兰端尺寸可根据用户要求设计制造。2、DN>1000 (40") 阀门设计标准按《长输管线阀门技术条件》  
Notes:1.The sizes of serial valve connecting flange ends can be designed according to customer's requirement.  
2.DN>1000 (40") ,the design standard is accordance with 《Specification of the length pipe valve》.

### 主要零件材质表 Form of major parts materials

序号 No	零件名称 Accessory name	材质 Material		序号 No	零件名称 Accessory name	材质 Material	
		GB	ASTM			GB	ASTM
1	左右体 Bonnet	WCB	A216-WCB	15	密封圈 Sealing ring	PTFE	PTFE
2	螺栓 Stud	35CrMoA	A193-B7	16	球体**Ball	WCB+HCr	WCB+HCr
3	螺母 Nut	35	A194-2H	17	上阀杆* Stem	1Cr13	A270-410
4	底盖 Bottom Cover	25	A105	18	键 Key	45	AISI C1045
5	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel	B12.10-304/F.G.	19	填料垫 Packing seat	1Cr13	A270-410
6	下阀杆* Stem	1Cr13	A270-410	20	填料 Packing	柔性石墨 Graphite	柔性石墨 Graphite
7	O型圈*O' Ring	橡胶 Rubber	橡胶 Rubber	21	O型圈*O' Ring	橡胶 Rubber	橡胶 Rubber
8	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel	B12.10-304/F.G.	22	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel	B12.10-304/F.G.
9	阀体 Body	WCB	A216-WCB	23	阀盖 Cover	25	A105
10	排污堵头 Blow down stopple	25	A105	24	O型圈*O' Ring	橡胶 Rubber	橡胶 Rubber
11	注脂阀 Grease injection valve	1Cr13	A270-410	25	填料压盖 Gland	WCB	A216-WCB
12	弹簧 Spring	60Si2Mn	ANSI 9260	26	支架 Yoke	WCB	A216-WCB
13	O型圈*O' Ring	橡胶 Rubber	橡胶 Rubber	27	连接套 Connection set	45	ANSI 1045
14	阀座* Seat	25	A105				

注：\*抗硫型阀门该零件的材质为GB (1Cr18Ni9)、ASTM (A276-321)；\*\*抗破型阀门该零件的材质为GB (1Cr18Ni9、CF8+Ni.P)、ASTM (A182-304、CF+Ni.P)；系列阀门主要零部件及密封面的材质可根据实际工况条件或用户特殊要求设计选用。  
Notes:\*The material of this part about the anti-sulphur type valve is GB (1Cr18Ni9)、ASTM (A276-321)；\*\*The material of this part about the anti-sulphur type valve is (1Cr18Ni9、CF8+Ni.P)、ASTM (A182-304、CF+Ni.P)；Major parts of the valve series and materials of sealing surface differ according to actual working condition and customer's special requirement.

# Deseen International

## Cast steel valve and Stainless valve



### 技术规范 Technical specification

设计依据 Design Reference	GB	API	ANSI
设计标准 Design Standard	JB/T7745 GB/T12237	API 6D	ANSI B16.34
结构长度 Face to Face	GB/T12221	API 6D	ANSI B16.10
连接法兰 Flanged ends	GB/T9113、JB/T79	ANSI B16.5、B16.47	
试验和检验 Test & Inspection	JB/T9092	API 6D	API 598

注：1、系列阀门连接法兰端尺寸可根据用户要求设计制造。2、DN>1000 (40") 阀门设计标准按《长输管线阀门技术条件》  
Notes: 1. The sizes of serial valve connecting flange ends can be designed according to customer's requirement.  
2. DN>1000 (40"), the design standard is accordance with 《Specification of the length pipe valve》.

### 主要零件材质表 Form of major parts materials

序号 No	零件名称 Accessory name	材质 Material		序号 No	零件名称 Accessory name	材质 Material	
		GB	ASTM			GB	ASTM
1	O型圈 O' Ring	橡胶 Rubber	橡胶 Rubber	13	球体**Ball	25+HCr	A105+HCr
2	密封圈 Sealing ring	PTFE	PTFE	14	衬套 Bushing	PTFE & stainless steel	PTFE & stainless steel
3	阀座** Seat	25	A105	15	上阀杆* Stem	1Cr13	A270-410
4	弹簧 Spring	60Si2Mn	AISI 9260	16	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel	B12.10-304/F.G.
5	螺栓 Stud	35CrMoA	A193-B7	17	阀盖 Cover	25	A105
6	左右体 Bonnet	25	A105	18	填料 Packing	柔性石墨 Graphite	柔性石墨 Graphite
7	注脂阀 Grease injection valve	1Cr13	A270-410	19	支架 Yoke	WCB	A216-WCB
8	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel	B12.10-304/F.G.	20	驱动装置 Driving		
9	下阀杆* Stem	1Cr13	A270-410	21	连接套 Connection set	45	AISI C 1045
10	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel	B12.10-304/F.G.	22	填料压盖 Gland	WCB	A216-WCB
11	衬套 Bushing	PTFE & stainless steel	PTFE & stainless steel	23	定位销 Fitting pin	1Cr13	A270-410
12	阀体 Body	25	A105	24	排污堵头 Blow down stopple	25	A105

注：\*抗硫型阀门该零件的材质为GB (1Cr18Ni9)、ASTM (A276-321)；\*\*抗硫型阀门该零件的材质为GB (1Cr18Ni9、CF8+Ni.P)、ASTM (A182-304、CF+Ni.P)；系列阀门主要零部件及密封面的材质可根据实际工况条件或用户特殊要求设计选用。  
Notes: \*The material of this part about the anti-sulphur type valve is GB (1Cr18Ni9)、ASTM (A276-321)；\*\*The material of this part about the anti-sulphur type valve is (1Cr18Ni9、CF8+Ni.P)、ASTM (A182-304、CF+Ni.P)；Major parts of the valve series and materials of sealing surface differ according to actual working condition and customer's special requirement.



# Deseen International

## Cast steel valve and Stainless valve



### 技术规范 Technical specification

设计依据 Design Reference	GB	API	ANSI
设计标准 Design Standard	JB/T7745 GB/T12237	API 6D	ANSI B16.34
结构长度 Face to Face	GB/T15188.1	API 6D	ANSI B16.10
对焊连接 Butt-welding ends	GB/T12224	ANSI B16.25	
试验和检验 Test & Inspection	JB/T9092	API 6D	API 598

注：1、系列阀门连接法兰端尺寸可根据用户要求设计制造。2、DN>1000 (40") 阀门设计标准按《长输管线阀门技术条件》  
 Notes: 1. The sizes of serial valve connecting flange ends can be designed according to customer's requirement.  
 2. DN>1000 (40"), the design standard is accordance with 《Specification of the length pipe valve》.

### 主要零件材质表 Form of major parts materials

序号 No	零件名称 Accessory name	材质 Material		序号 No	零件名称 Accessory name	材质 Material	
		GB	ASTM			GB	ASTM
1	O型圈 O-Ring	橡胶 Rubber	橡胶 Rubber	13	球体**Ball	25+HCr	A105+HCr
2	密封圈 Sealing ring	PTFE	PTFE	14	衬套 Bushing	PTFE & stainless steel	PTFE & stainless steel
3	阀座** Seat	25	A105	15	上阀杆* Stem	1Cr13	A270-410
4	弹簧 Spring	60Si2Mn	AISI 9260	16	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel	B12.10-304/F.G.
5	螺栓 Stud	35CrMoA	A193-B7	17	阀盖 Cover	25	A105
6	左右体 Bonnet	25	A105	18	填料 Packing	柔性石墨 Graphite	柔性石墨 Graphite
7	注脂阀 Grease injection valve	1Cr13	A270-410	19	支架 Yoke	WCB	A216-WCB
8	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel	B12.10-304/F.G.	20	驱动装置 Driving		
9	下阀杆* Stem	1Cr13	A270-410	21	连接套 Connection set	45	AISI C1045
10	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel	B12.10-304/F.G.	22	填料压盖 Gland	WCB	A216-WCB
11	衬套 Bushing	PTFE & stainless steel	PTFE & stainless steel	23	定位销 Fitting pin	1Cr13	A270-410
12	阀体 Body	25	A105	24	排污堵头 Blow down stopple	25	A105

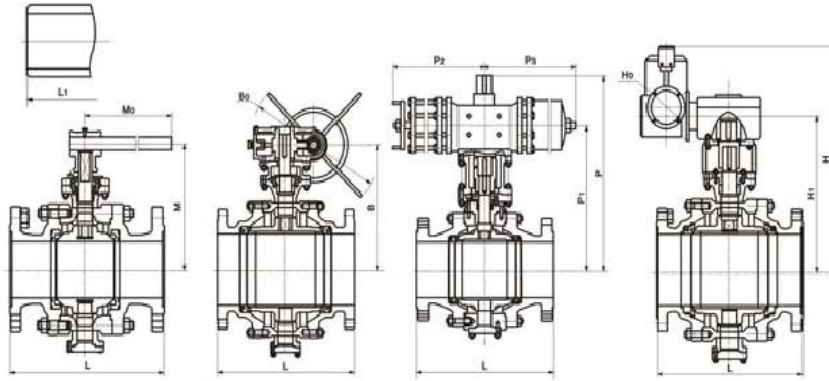
注：\*抗硫型阀门该零件的材质为GB (1Cr18Ni9)、ASTM (A276-321)；\*\*抗硫型阀门该零件的材质为GB (1Cr18Ni9、CF8+Ni.P)、ASTM (A182-304、CF+Ni.P)；系列阀门主要零部件及密封面的材质可根据实际工况条件或用户特殊要求设计选用。  
 Notes: \*The material of this part about the anti-sulphur type valve is GB (1Cr18Ni9)、ASTM (A276-321)；\*\*The material of this part about the anti-sulphur type valve is (1Cr18Ni9、CF8+Ni.P)、ASTM (A182-304、CF+Ni.P)；Major parts of the valve series and materials of sealing surface differ according to actual working condition and customer's special requirement.

# Deseen International

## Cast steel valve and Stainless valve



(K)Q(3, 6, 7, 8, 9)4(6)7F(Y, N, P)



**主要外形尺寸 Main size of outside**

PN1.6MPa Class150

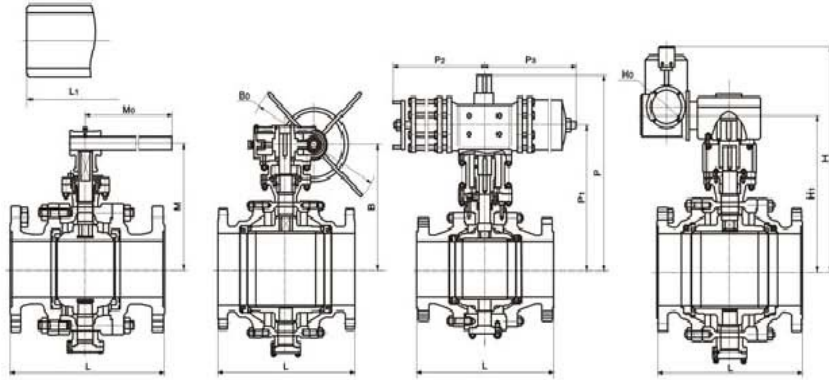
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500
NPS	in	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	60
法兰 Flange	L	178	191	203	229	356	394	457	533	610	686	762	864	914	1067	1245	1372	1524	1721	1829	2180	2300	2400
对焊 Butt Welding	L1	216	241	283	305	381	457	521	559	635	762	838	914	991	1143	1346	1524	1727	1930	1689	2100	2250	2400
手动 Hand- Operated	M	107	125	152	178	300	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	M0	230	400	400	650	1050	1050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
蜗轮 蜗杆 传动 Worm gear and Screw operated	B	-	-	-	-	-	398	495	580	625	670	698	840	1050	1100	1150	1230	1230	1480	1610	1780	1865	
	B0	-	-	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
	型号 Type	-	-	-	-	-	B	B	C	C	D	D	D	DA	DA	DB	DB	DC	DC	DD	DH	DH	
气动液动 Air- operating and fluid driving	P	269	379	389	479	552	666	804	839	972	1127	1459	1529	1559	1145	1160	1460	1540	1630	-	-	-	-
	P1	174	248	258	322	395	457	595	630	728	883	1154	1224	1294	915	930	1100	1180	1280	-	-	-	-
	P2	89	148	148	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	-	-	-	-
	P3	181	257	257	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1668	1960	-	-	-	-
	型号 Type	AG 09	AG 13	AG 13	AW 13	AW 13	AW 17	AW 17	AW 17	AW 20	AW 20	AW 28	AW 28	AW 28	C1- 355	C1- 355	C2- 490	C2- 490	C3- 600	-	-	-	-
电 动 Electric Driving	H	-	-	-	-	554	600	652	771	771	831	921	943	1123	1218	1328	1696	1925	2105	2245	2395	2470	
	H1	-	-	-	-	337	382	435	520	520	580	670	770	850	945	1055	1130	1240	1420	1560	1710	1785	
	H0	-	-	-	-	200	200	200	280	280	280	305	305	305	400	400	460	460	600	600	600	600	600
	型号 Type	-	-	-	-	SMC-04 +H0BC	SMC-04 +H0BC	SMC-04 +H1BC	SMC-04 +H1BC	SMC-03 +H1BC	SMC-03 +H2BC	SMC-03 +H2BC	SMC-03 +H3BC	SMC-03 +H3BC	SMC-0 +H4BC	SMC-0 +H4BC	SMC-1 +H5BC	SMC-2 +H6BC	SMC-3 +H6BC	SMC-3 +H7BC	SMC-4 +H7BC	SMC-4 +H7BC	SMC-4 +H7BC

# Deseen International

## Cast steel valve and Stainless valve



(K)Q(3, 6, 7, 8, 9)4(6)7F(Y, N, P)



**主要外形尺寸 Main size of outside** PN2.5 4.0MPa Class300

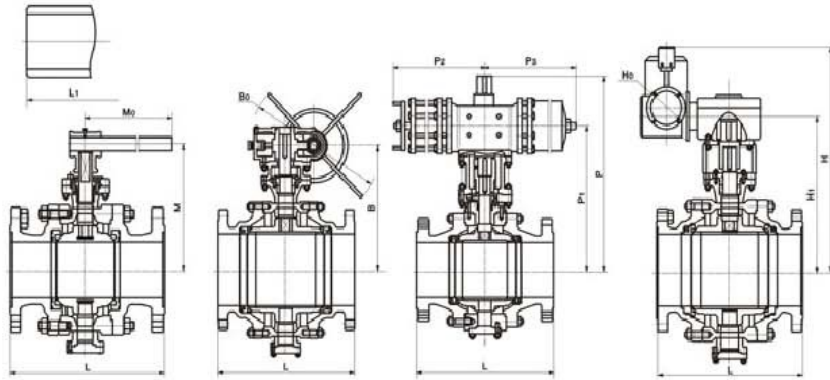
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	800	1000	1050	1200	1400	1500
NPS	in	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	600
法兰 Flange	L	216	241	283	305	381	403	502	568	648	762	838	914	991	1143	1346	1524	1727	2083	2050	2180	2300	2400
对焊 Butt Welding	L1	216	241	283	305	381	403	521	559	635	762	838	914	991	1143	1346	1524	1727	2083	1960	2020	2250	2400
手动 Hand- Operated	M	107	125	152	178	300	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mo	290	400	400	650	1050	1050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
蜗轮 蜗杆 传动 Worm gear and Screw operated	B	-	-	-	-	-	398	495	580	625	670	698	840	1050	1100	1150	1230	1230	1480	1610	1780	1865	
	Bo	-	-	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
	型号 Type	-	-	-	-	-	B	B	C	C	D	D	DA	DB	DC	DC	DD	DD	DD	DD	DH	DH	DH
气动液动 Air- operating and fluid driving	P	269	379	452	579	595	595	736	942	994	1188	1280	1480	1554	1380	1430	1749	1540	1630	-	-	-	-
	P1	209	248	295	322	386	386	527	698	750	883	975	1080	1154	930	980	1149	1180	1280	-	-	-	-
	P2	146	148	267	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	1960	-	-	-	-
	P3	181	257	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	1960	-	-	-	-
	型号 Type	AG 13	AG 13	AW 13	AW 13	AW 17	AW 17	AW 17	AW 20	AW 20	AW 28	AW 28	C1- 355	C1- 355	C2- 490	C2- 490	C2- 490	C3- 600	C3- 600	-	-	-	-
电动 Electric Driving	H	-	-	-	-	554	600	652	761	771	831	921	943	1123	1218	1328	1696	1925	2105	2245	2395	2470	
	H1	-	-	-	-	337	382	435	480	520	580	670	770	850	945	1055	1130	1240	1420	1560	1710	1785	
	Ho	-	-	-	-	200	200	200	280	280	280	305	305	305	400	400	460	460	600	600	600	600	600
	型号 Type	-	-	-	-	SMC-04 +H0BC	SMC-04 +H1BC	SMC-04 +H1BC	SMC-03 +H2BC	SMC-03 +H2BC	SMC-03 +H3BC	SMC-03 +H3BC	SMC-03 +H3BC	SMC-03 +H4BC	SMC-03 +H4BC	SMC-1 +H5BC	SMC-1 +H5BC	SMC-2 +H6BC	SMC-2 +H6BC	SMC-3 +H7BC	SMC-3 +H7BC	SMC-4 +H7BC	SMC-4 +H7BC

# Deseen International

## Cast steel valve and Stainless valve



(K)Q(3, 6, 7, 8, 9)4(6)7F(Y, N, P)



主要外形尺寸 Main size of outside

PN6.4MPa Class400

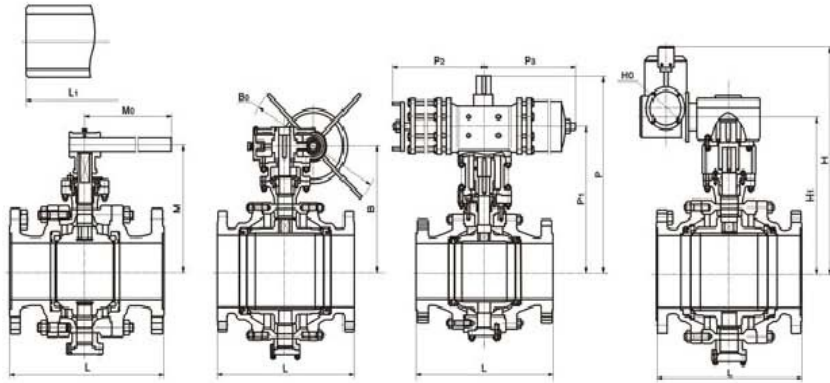
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	60
法兰 Flange	L	292	330	356	406	495	597	673	762	826	902	978	1054	1232	1397	1651	1880	2300	2057	2400	2400	2700
对焊 Butt Welding	L1	292	330	356	406	495	597	673	762	826	902	978	1054	1232	1397	1651	1880	2300	2050	2180	2300	2400
手动 Hand- Operated	M	108	155	197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	M0	230	400	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
蜗轮 蜗杆 传动 Worm gear and Screw operated	B	-	-	-	235	300	374	445	512	550	615	750	810	1050	1100	1180	1274	1366	1540	1680	1840	1915
	B0	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	1000	1000	1000	1000
	型号 Type	-	-	-	B	C	C	C	D	D	DA	DA	DB	DC	DD	DD	DH	DH	DJ	DJ	DK	DK
气动液动 Air- operating and fluid driving	P	269	-	519	636	728	839	1014	1120	1225	1480	-	1480	1365	1430	-	-	-	-	-	-	-
	P1	209	-	295	322	386	527	698	750	883	1080	-	1080	915	980	-	-	-	-	-	-	-
	P2	148	-	287	287	378	378	530	530	680	680	-	680	1665	1665	-	-	-	-	-	-	-
	P3	257	-	287	287	378	378	530	530	680	680	-	680	1665	1665	-	-	-	-	-	-	-
型号 Type	AG 13	-	AW 13	AW 13	AW 17	AW 20	AW 20	AW 28	AW 28	C1- 355	-	C1- 355	C2- 490	C2- 490	-	-	-	-	-	-	-	
电动 Electric Driving	H	-	-	-	-	554	600	652	761	771	831	921	943	1123	1218	1328	1815	1925	2164	2324	2474	2544
	H1	-	-	-	-	337	382	480	520	594	632	670	770	850	945	1055	1130	1240	1440	1680	1750	1820
	H0	-	-	-	-	200	200	200	280	280	280	305	305	305	460	460	600	600	600	600	600	600
	型号 Type	-	-	-	-	SMC-04 +H1BC	SMC-04 +H1BC	SMC-03 +H2BC	SMC-00 +H3BC	SMC-00 +H3BC	SMC-0 +H4BC	SMC-0 +H4BC	SMC-0 +H4BC	SMC-1 +H5BC	SMC-3 +H6BC	SMC-3 +H6BC	SMC-3 +H7BC	SMC-3 +H7BC	SMC-4 +H7BC	SMC-4 +H8BC	SMC-5 +H7BC	SMC-5 +H7BC

# Deseen International

## Cast steel valve and Stainless valve



(K)Q(3, 6, 7, 8, 9)4(6)7F(Y, N, P)



**主要外形尺寸 Main size of outside**

PN10.0MPa Class600

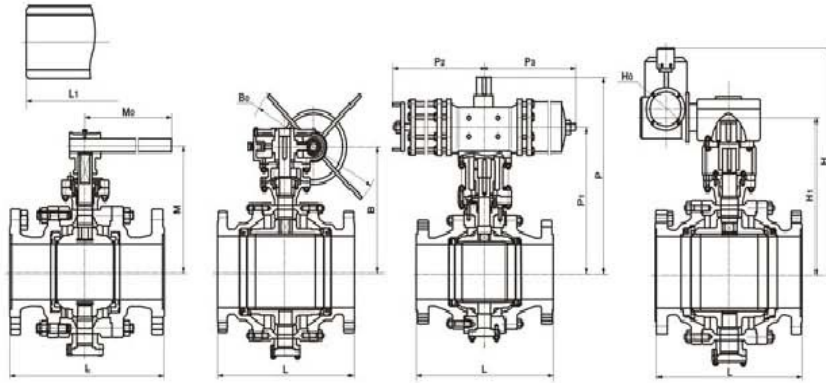
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500	
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	60	
法兰 Flange	L	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	1549	1778	2083	2337	2100	2400	2400	2700	
对焊 Butt Welding	L1	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	1549	1778	2083	2337	2050	2180	2300	2400	
手动 Hand- Operated	M	108	155	197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	M0	650	650	650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
蜗 轮 杆 传 动 Worm gear and Screw operated	B	-	-	-	235	300	374	445	512	550	615	750	810	1050	1180	1250	1315	1420	1540	1680	1840	1915	
	B0	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	1000	1000	1000	1000	
	型号 Type	-	-	-	B	C	C	D	D	DA	DA	DB	DC	DD	DH	DH	DH	DH	DJ	DJ	DK	DK	
气动液动 Air- operating and fluid driving	P	269	-	519	636	728	839	1014	1120	1224	1374	-	1490	1615	1760	-	-	-	-	-	-	-	
	P1	208	-	295	479	519	595	770	810	1004	1154	-	1210	1335	1410	-	-	-	-	-	-	-	
	P2	148	-	267	267	376	530	530	680	1445	1445	-	1665	1665	1960	-	-	-	-	-	-	-	
	P3	257	-	287	287	378	530	530	680	1445	1445	-	1665	1665	1960	-	-	-	-	-	-	-	
	型号 Type	AG 13	-	AW 13	AW 13	AW 17	AW 20	AW 20	AW 28	C1- 355	C1- 355	-	C2- 490	C2- 490	C3- 600	-	-	-	-	-	-	-	
电 动 Electric Driving	H	-	-	-	-	600	652	761	771	831	921	943	1123	1216	1328	1458	1855	1960	2164	2324	2474	2544	
	H1	-	-	-	-	382	480	520	594	632	670	770	850	945	1055	1135	1170	1285	1440	1660	1750	1820	
	H0	-	-	-	-	200	200	280	280	280	305	305	305	400	400	600	600	600	600	600	600	600	
	型号 Type	-	-	-	-	SMC-01 +H1BC	SMC-03 +H2BC	SMC-02 +H3BC	SMC-00 +H3BC	SMC-0 +H4BC	SMC-0 +H4BC	SMC-1 +H5BC	SMC-1 +H5BC	SMC-3 +H6BC	SMC-3 +H6BC	SMC-4 +H7BC	SMC-4 +H7BC	SMC-4 +H7BC	SMC-4 +H7BC	SMC-5 +H7BC	SMC-5 +H7BC	SMC-5 +H7BC	SMC-5 +H7BC

# Deseen International

## Cast steel valve and Stainless valve



(K)Q(3, 6, 7, 8, 9)4(6)7F(Y, N, P)



**主要外形尺寸 Main size of outside**

PN15.0MPa Class900

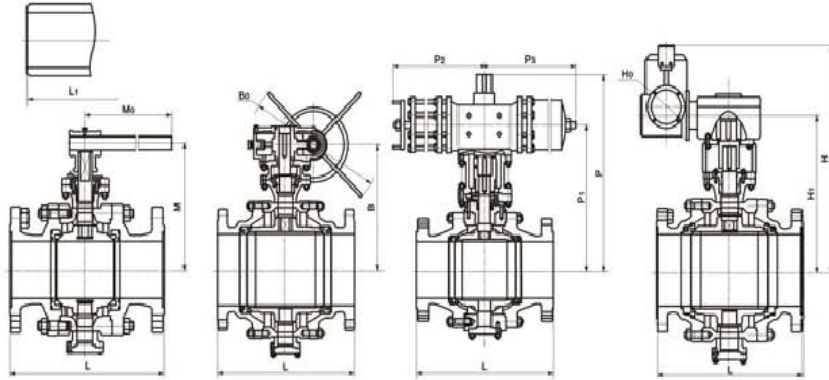
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	750	800	900	1000	1200
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	30	32	36	40	48
法兰 Flange	L	368	419	381	457	610	737	838	965	1029	1130	1219	1321	1549	1780	2050	2050	2180	2600
对焊 Butt Welding	L1	368	419	381	457	610	737	838	965	1029	1130	1219	1321	1549	1700	1780	1960	2100	2376
手动 Hand- Operated	M	217	241	259	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	M0	650	650	650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
蜗轮 蜗杆 传动 Worm gear and Screw operated	B	-	-	-	297	364	394	502	572	675	762	866	894	956	1210	1290	1360	1480	1630
	B0	-	-	-	600	800	800	800	800	800	800	800	800	800	800	1000	1000	1000	1000
	型号 Type	-	-	-	B	-	C	D	D	DA	DB	DC	DD	DH	DH	DJ	DJ	DK	DK
气动液动 Air- operating and fluid driving	P	519	-	728	842	1014	1120	1124	1374	1480	1615	1760	1760	1760	-	-	-	-	-
	P1	295	-	519	595	770	815	1004	1154	1210	1335	1410	1410	1410	-	-	-	-	-
	P2	287	-	378	530	530	660	1445	1455	1665	1665	1960	1960	1960	-	-	-	-	-
	P3	287	-	378	530	530	660	1455	1455	1665	1665	1960	1960	1960	-	-	-	-	-
	型号 Type	AW 17	-	AW 17	AW 20	AW 20	AW 28	AW 28	C1- 355	C1- 355	C2- 490	C2- 490	C2- 490	C3- 600	-	-	-	-	-
电动 Electric Driving	H	-	-	-	600	761	771	831	921	943	1123	1218	1328	1458	1904	1984	2054	2174	2274
	H1	-	-	-	382	520	594	632	670	770	850	945	1055	1135	1180	1260	1330	1450	1560
	H0	-	-	-	200	280	280	280	305	305	305	400	400	600	600	600	600	600	600
	型号 Type	-	-	-	SMC-04 +H1BC	SMC-00 +H3BC	SMC-00 +H3BC	SMC-0 +H4BC	SMC-0 +H4BC	SMC-1 +H5BC	SMC-3 +H6BC	SMC-3 +H6BC	SMC-3 +H7BC	SMC-4 +H7BC	SMC-4 +H7BC	SMC-5 +H7BC	SMC-5 +H7BC	SMC-5 +H7BC	SMC-5 +H7BC

# Deseen International

## Cast steel valve and Stainless valve



(K)Q(3, 6, 7, 8, 9)4(6)7F(Y, N, P)



**主要外形尺寸 Main size of outside**

PN25.0MPa Class1500

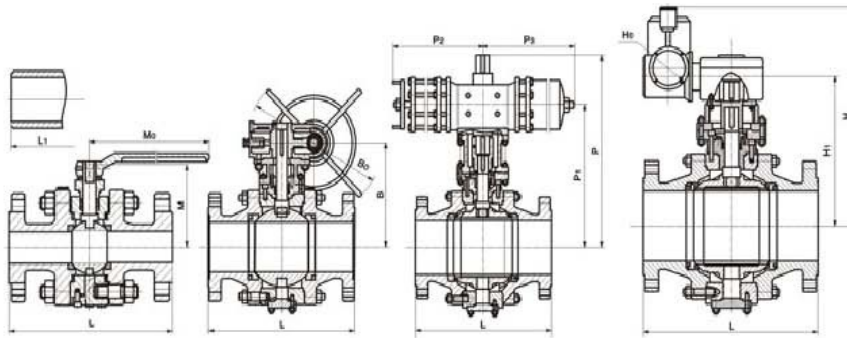
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	
法兰 Flange	L	368	419	470	546	705	832	991	1130	1257	1384	1537	1664	2043	
对焊 Butt Welding	L1	368	419	470	546	705	832	991	1130	1257	1384	1537	1664	2043	
手动 Hand- Operated	M	217	241	259	-	-	-	-	-	-	-	-	-	-	
	M0	650	650	650	-	-	-	-	-	-	-	-	-	-	
蜗轮 蜗杆 传动 Worm gear and Screw operated	B	217	241	259	297	364	475	578	696	761	831	900	950	1060	
	B0	600	600	600	600	800	800	800	800	800	800	800	800	800	
	型号 Type	A	A	B	B	C	D	D	DA	DB	DC	DD	DH	DH	
气动液动 Air-operating and fluid driving	p	519	728	842	1014	1120	1124	1374	1490	1615	1760	1760	1760	-	
	P1	295	519	595	770	815	1004	1154	1210	1335	1410	1410	1410	-	
	P2	257	378	530	530	680	1455	1455	1665	1665	1960	1960	1960	-	
	P3	287	378	530	530	680	1455	1455	1665	1665	1960	1960	1960	-	
	型号 Type	AW 17	AW 17	AW 17	AW 20	AW 28	AW 28	C1- 355	C1- 355	C2- 490	C2- 490	C2- 429	C3- 800	C3- 800	-
电 动 Electric Driving	H	-	-	652	761	771	831	921	943	1123	1218	1328	1458	-	
	H1	-	-	480	520	594	632	670	770	850	945	1055	1135	-	
	H0	-	-	200	280	280	280	305	305	305	400	400	600	-	
	型号 Type	-	-	SMC-04 +H1BC	SMC-04 +H1BC	SMC-00 +H3BC	SMC-00 +H3BC	SMC-0 +H4BC	SMC-0 +H4BC	SMC-1 +H5BC	SMC-3 +H6BC	SMC-3 +H6BC	SMC-4 +H7BC	SMC-4 +H7BC	-

# Deseen International

## Cast steel valve and Stainless valve



(K)Q(3, 6, 7, 8, 9)4(6)7F(Y, N, P)



主要外形尺寸 Main size of outside

PN1.6MPa Class150

DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500
NPS	in	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	600
法兰 Flange	L	178	191	203	229	356	394	457	533	610	686	762	864	914	1067	1245	1372	1524	1721	1829	2180	2300	2400
对焊 Butt Welding	L1	216	241	283	305	381	457	521	559	635	762	838	914	991	1143	1346	1524	1727	1930	1689	2100	2250	2400
手动 Hand- Operated	M	130	142	191	200	226	242	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	M0	230	400	400	480	750	750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
蜗 轮 蜗 杆 传 动 Worm gear and Screw operated	B	-	-	-	-	-	337	385	414	447	545	545	585	663	723	923	986	1061	1420	1530	1640	1710	
	B0	-	-	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
	型号 Type	-	-	-	-	-	B	B	C	C	D	D	D	DA	DA	DB	DB	DC	DC	DD	DH	DH	
气动 Air- operating and fluid driving	P	269	379	389	479	552	666	769	824	897	935	1121	1161	1203	1145	1160	1460	1510	1610	-	-	-	-
	P1	174	248	258	322	395	457	560	615	653	691	816	856	898	915	930	1100	1150	1250	-	-	-	-
	P2	89	148	148	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	-	-	-	-
	P3	181	257	257	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	-	-	-	-
	型号 Type	AG 09	AG 13	AG 13	AW 13	AW 13	AW 17	AW 17	AW 17	AW 20	AW 20	AW 28	AW 28	AW 28	C1- 355	C1- 355	C2- 490	C2- 490	C3- 600	-	-	-	-
电 动 Electric Driving	H	-	-	-	-	559	710	744	851	859	959	999	965	1141	1233	1341	1666	1895	2114	2194	2374	2404	
	H1	-	-	-	-	342	492	527	570	608	708	748	790	868	960	1088	1100	1210	1390	1470	1650	1880	
	H0	-	-	-	-	200	200	200	280	280	280	305	305	305	400	400	460	460	600	600	600	600	600
	型号 Type	-	-	-	-	SMC-04 +H0BC	SMC-04 +H0BC	SMC-04 +H1BC	SMC-04 +H1BC	SMC-03 +H2BC	SMC-03 +H2BC	SMC-03 +H3BC	SMC-03 +H3BC	SMC-00 +H4BC	SMC-0 +H4BC	SMC-0 +H5BC	SMC-1 +H6BC	SMC-2 +H6BC	SMC-3 +H6BC	SMC-3 +H7BC	SMC-4 +H7BC	SMC-4 +H7BC	SMC-4 +H7BC

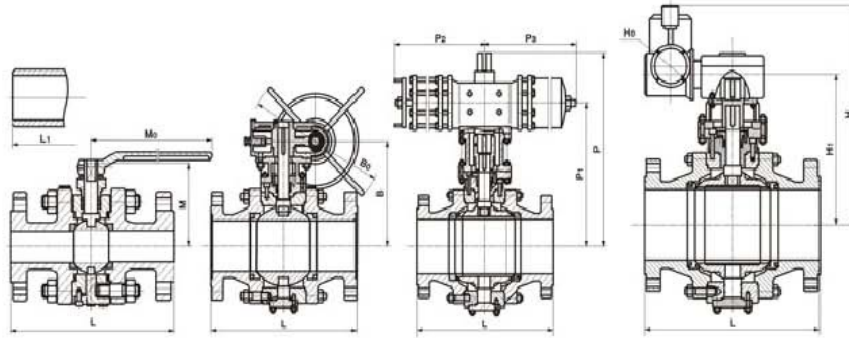


# Deseen International

## Cast steel valve and Stainless valve



(K)Q(3, 6, 7, 8, 9)4(6)7F(Y, N, P)



**主要外形尺寸 Main size of outside**

PN2.5 4.0MPa Class300

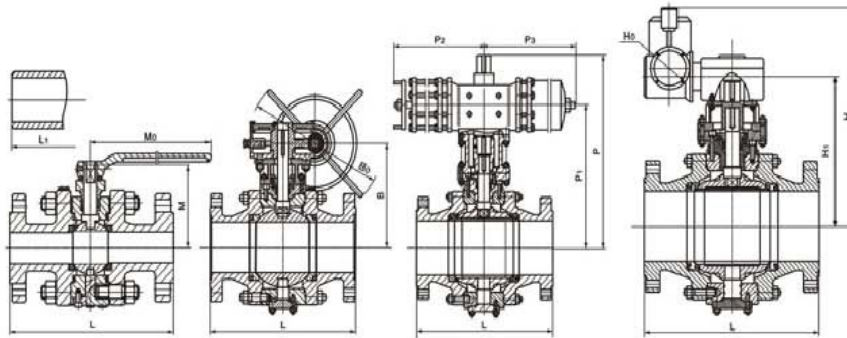
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500
NPS	in	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	600
法兰 Flange	L	216	241	283	305	381	403	502	568	648	762	838	914	991	1143	1346	1524	1727	2083	2050	2180	2300	2400
对焊 Butt Welding	L1	216	241	283	305	381	403	521	559	635	762	838	914	991	1143	1346	1524	1727	2083	1960	2020	2250	2400
手动 Hand- Operated	M	136	164	191	223	240	2530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	M0	240	400	400	750	750	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
蜗轮 蜗杆 传动 Worm gear and Screw operated	B	-	-	-	-	-	337	365	414	447	515	545	585	663	723	923	968	1061	1420	1530	1640	1700	
	B0	-	-	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
	型号 Type	-	-	-	-	-	B	B	C	C	D	D	DA	DB	DC	DC	DD	DD	DC	DD	DC	DD	DH
气动液动 Air- operating and fluid driving	p	360	388	476	418	621	634	701	771	814	913	1013	1148	1190	1316	1410	1518	1740	1850	-	-	-	-
	P1	229	257	319	361	412	425	492	527	570	608	708	748	790	868	960	1068	1140	1250	-	-	-	-
	P2	148	148	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	1960	-	-	-	-
	P3	181	257	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	1960	-	-	-	-
	型号 Type	AG 13	AG 13	AW 13	AW 13	AW 17	AW 17	AW 17	AW 20	AW 20	AW 28	AW 28	C1- 355	C1- 355	C2- 490	C2- 490	C2- 490	C3- 600	C3- 600				
电动 Electric Driving	H	-	-	-	-	559	710	744	851	859	959	999	963	1141	1233	1341	1686	1925	2114	2194	2374	2404	
	H1	-	-	-	-	342	492	527	570	608	708	748	790	868	960	1068	1130	1240	1390	1470	1650	1680	
	H0	-	-	-	-	200	200	200	280	280	280	305	305	305	400	460	460	460	600	600	600	600	600
	型号 Type	-	-	-	-	SMC-04 +H0BC	SMC-04 +H1BC	SMC-04 +H1BC	SMC-03 +H2BC	SMC-03 +H2BC	SMC-03 +H3BC	SMC-03 +H3BC	SMC-03 +H3BC	SMC-03 +H3BC	SMC-03 +H3BC	SMC-03 +H3BC	SMC-03 +H3BC	SMC-03 +H3BC	SMC-03 +H3BC	SMC-03 +H3BC	SMC-03 +H3BC	SMC-03 +H3BC	SMC-03 +H3BC

# Deseen International

## Cast steel valve and Stainless valve



(K)Q(3, 6, 7, 8, 9)4(6)7F(V, N, P)



**主要外形尺寸 Main size of outside**

PN6.4MPa Class400

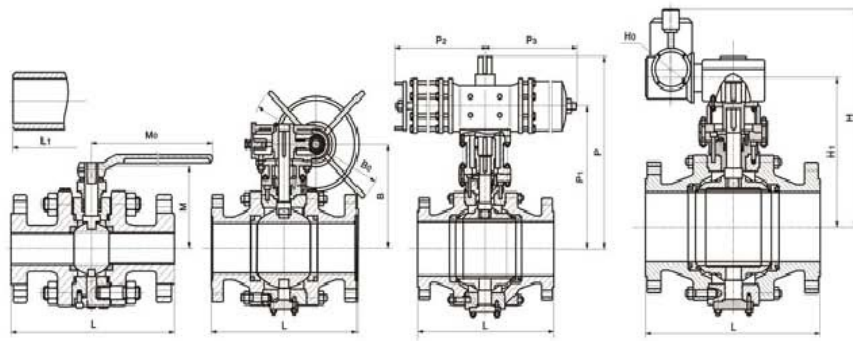
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	60
法兰 Flange	L	292	330	356	406	495	597	673	762	826	902	978	1054	1232	1397	1651	1880	2300	2057	2400	2400	2700
对焊 Butt Welding	L1	292	330	356	406	495	597	673	762	826	902	978	1054	1232	1397	1651	1880	2300	2050	2180	2300	2400
手动 Hand- Operated	M	136	164	191	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	M0	230	400	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
蜗轮 蜗杆 传动 Worm gear and Screw operated	B	-	-	-	244	303	342	382	420	458	558	598	630	759	836	915	987	1212	1460	1600	1760	1845
	B0	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	800	1000	1000	1000
气动液动 Air- operating and fluid driving	型号 Type	-	-	-	B	C	C	C	D	D	DA	DA	DB	DC	DD	DD	DH	DH	DJ	DJ	DK	DK
	P	269	-	519	636	728	839	1014	1120	1225	1480	-	1480	1365	1430	-	-	-	-	-	-	-
	P1	209	-	295	322	386	527	698	750	883	1080	-	1080	915	980	-	-	-	-	-	-	-
	P2	148	-	287	287	378	378	530	530	680	680	-	680	1665	1665	-	-	-	-	-	-	-
	P3	257	-	287	287	378	378	530	530	680	680	-	680	1665	1665	-	-	-	-	-	-	-
型号 Type	AG 13	-	AW 13	AW 13	AW 17	AW 20	AW 20	AW 28	AW 28	C1- 355	-	C1- 355	C2- 490	C2- 490	-	-	-	-	-	-	-	-
电动 Electric Driving	H	-	-	-	-	520	560	554	661	635	757	879	803	981	1073	1133	1287	1512	2114	2254	2424	2524
	H1	-	-	-	-	303	342	382	420	458	558	598	630	759	836	915	987	1212	1390	1530	1700	1800
	H0	-	-	-	-	200	200	200	280	280	280	305	305	305	400	400	600	600	600	600	600	600
	型号 Type	-	-	-	-	SMC-04 +H1BC	SMC-04 +H1BC	SMC-03 +H6BC	SMC-03 +H3BC	SMC-00 +H3BC	SMC-00 +H4BC	SMC-0 +H4BC	SMC-0 +H4BC	SMC-1 +H6BC	SMC-3 +H6BC	SMC-3 +H6BC	SMC-3 +H7BC	SMC-3 +H7BC	SMC-4 +H7BC	SMC-4 +H6BC	SMC-6 +H7BC	SMC-6 +H7BC

# Deseen International

## Cast steel valve and Stainless valve



(K)Q(3, 6, 7, 8, 9)4(6)7F(Y, N, P)



**主要外形尺寸 Main size of outside**

PN10.0MPa Class600

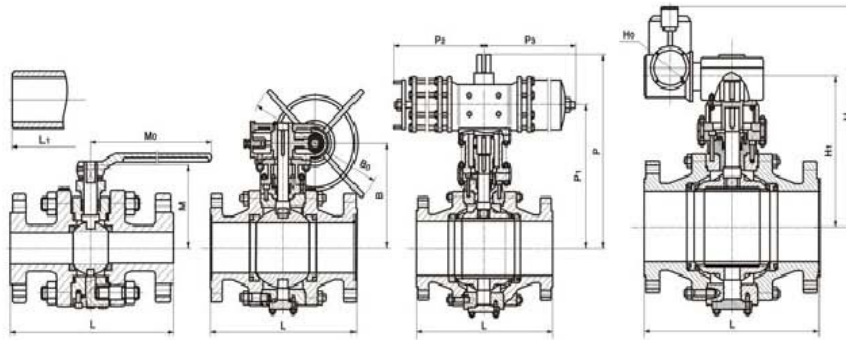
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500	
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	60	
法兰 Flange	L	292	330	356	432	559	660	787	838	889	991	1082	1194	1397	1549	1778	2083	2337	2100	2400	2400	2700	
对焊 Butt Welding	L1	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	1549	1778	2083	2337	2050	2180	2300	2400	
手动 Hand-Operated	M	136	164	191	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Mo	650	650	950	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
蜗轮蜗杆传动 Worm gear and Screw operated	B	-	-	-	244	309	361	412	475	502	533	636	675	759	836	915	987	1212	1460	1600	1760	1845	
	B0	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	1000	1000	1000	1000	
	型号 Type	-	-	-	B	C	C	D	D	DA	DA	DB	DC	DD	DH	DH	DH	DH	DJ	DJ	DK	DK	
气动液动 Air-operating and fluid driving	P	269	-	519	636	728	839	1014	1120	1224	1374	-	1490	1615	1760	-	-	-	-	-	-	-	
	P1	209	-	295	479	519	595	770	810	1004	1154	-	1210	1335	1410	-	-	-	-	-	-	-	
	P2	148	-	287	287	378	530	530	660	1445	1445	-	1665	1665	1960	-	-	-	-	-	-	-	
	P3	257	-	287	287	378	530	530	660	1445	1445	-	1665	1665	1960	-	-	-	-	-	-	-	
	型号 Type	AG 13	-	AW 13	AW 13	AW 17	AW 20	AW 20	AW 28	C1-355	C1-355	-	C2-490	C2-490	C3-600	-	-	-	-	-	-	-	
电动 Electric Driving	H	-	-	-	-	527	533	653	652	801	784	809	948	10381	1253	1473	1287	1512	2114	2254	2424	2524	
	H1	-	-	-	-	309	361	412	475	502	533	636	675	765	980	1150	987	1212	1390	1530	1700	1800	
	H0	-	-	-	-	200	200	280	280	280	305	305	305	400	400	600	600	600	600	600	600	600	
	型号 Type	-	-	-	-	SMC-04 +H1BC	SMC-03 +H2BC	SMC-00 +H3BC	SMC-00 +H3BC	SMC-0 +H4BC	SMC-0 +H4BC	SMC-1 +H5BC	SMC-3 +H6BC	SMC-3 +H6BC	SMC-4 +H7BC	SMC-4 +H7BC	SMC-4 +H7BC	SMC-4 +H7BC	SMC-4 +H7BC	SMC-5 +H8BC	SMC-5 +H7BC	SMC-5 +H7BC	SMC-5 +H7BC

# Deseen International

## Cast steel valve and Stainless valve



(K)Q(3, 6, 7, 8, 9)4(6)7F(Y, N, P)



**主要外形尺寸 Main size of outside**

PN15.0MPa Class900

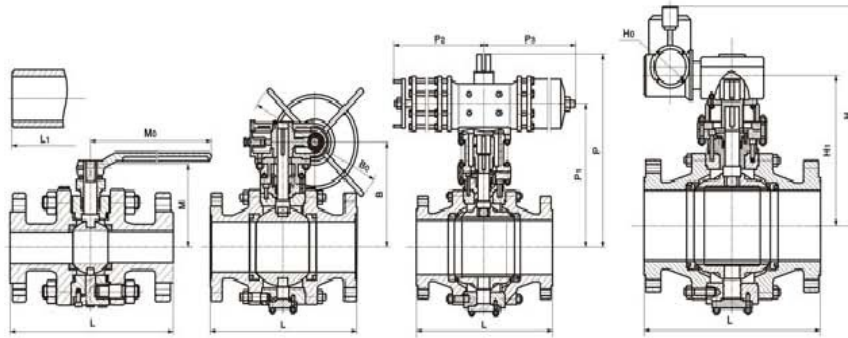
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	750	800	900	1000	1200
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	30	32	36	40	48
法兰 Flange	L	368	419	381	457	610	737	838	965	1029	1130	1219	1321	1549	1780	2050	2050	2180	2600
对焊 Butt Welding	L <sub>1</sub>	368	419	381	457	610	737	838	965	1029	1130	1219	1321	1549	1700	1780	1960	2100	2376
手动 Hand- Operated	M	148	191	216	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	M <sub>0</sub>	650	650	750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
蜗 轮 蜗 杆 传 动 Worm gear and Screw operated	B	-	-	-	270	384	435	518	657	693	762	866	894	956	1160	1240	1310	1420	1530
	B <sub>0</sub>	-	-	-	600	800	800	800	800	800	800	800	800	800	800	1000	1000	1000	1000
	型号 Type	-	-	-	B	-	C	D	D	DA	DB	DC	DD	DH	DH	DJ	DJ	DK	DK
气动液动 Air- operating and fluid driving	P	519	-	728	842	1014	1120	1124	1374	1490	1615	1760	1760	1760	-	-	-	-	-
	P <sub>1</sub>	295	-	519	595	770	815	1004	1154	1210	1335	1410	1410	1410	-	-	-	-	-
	P <sub>2</sub>	287	-	378	530	530	680	1445	1455	1665	1665	1960	1960	1960	-	-	-	-	-
	P <sub>3</sub>	287	-	378	530	530	680	1455	1455	1665	1665	1960	1960	1960	-	-	-	-	-
	型号 Type	AW 17	-	AW 17	AW 20	AW 20	AW 28	AW 28	C1- 355	C1- 355	C2- 490	C2- 490	C2- 490	C3- 600	-	-	-	-	-
电 动 Electric Driving	H	-	-	-	418	625	612	817	9081	866	1035	1139	1167	1279	1854	1934	2004	2114	2224
	H <sub>1</sub>	-	-	-	270	384	435	518	657	693	762	866	894	956	1130	1210	1280	1390	1500
	H <sub>0</sub>	-	-	-	200	280	280	280	305	305	305	400	400	600	600	600	600	600	600
	型号 Type	-	-	-	SMC-04 +H1BC	SMC-00 +H3BC	SMC-00 +H3BC	SMC-0 +H4BC	SMC-0 +H4BC	SMC-1 +H5BC	SMC-1 +H5BC	SMC-3 +H6BC	SMC-3 +H6BC	SMC-4 +H7BC	SMC-4 +H7BC	SMC-5 +H7BC	SMC-5 +H7BC	SMC-5 +H7BC	SMC-5 +H7BC

# Deseen International

## Cast steel valve and Stainless valve



(K)Q(3, 6, 7, 8, 9)4(6)7F(Y, N, P)



**主要外形尺寸 Main size of outside**

PN25.0MPa Class1500

DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24
法兰 Flange	L	368	419	470	546	705	832	991	1130	1257	1384	1537	1664	2043
对焊 Butt Welding	L <sub>i</sub>	368	419	470	546	705	832	991	1130	1257	1384	1537	1664	2043
手动 Hand- Operated	M	175	191	216	-	-	-	-	-	-	-	-	-	-
	M <sub>0</sub>	650	650	750	-	-	-	-	-	-	-	-	-	-
蜗轮 蜗杆 传动 Worm gear and Screw operated	B	175	91	216	247	329	392	428	640	670	700	775	830	952
	B <sub>0</sub>	400	400	600	600	800	800	800	800	800	800	800	800	800
	型号 Type	A	A	B	B	C	D	D	DA	DB	DC	DD	DH	DH
气动液动 Air- operating and fluid driving	p	519	728	842	1014	1120	1124	1374	1490	1615	1760	1760	1760	-
	P <sub>1</sub>	295	519	595	770	815	1004	1154	1210	1335	1410	1410	1410	-
	P <sub>2</sub>	257	378	530	530	680	1455	1455	1665	1665	1960	1960	1960	-
	P <sub>3</sub>	287	378	530	530	680	1455	1455	1665	1665	1960	1960	1960	-
	型号 Type	AW 17	AW 17	AW 17	AW 20	AW 28	AW 28	C1- 355	C1- 355	C2- 490	C2- 490	C2- 429	C3- 600	C3- 600
电 动 Electric Driving	H	-	-	388	488	506	591	679	813	943	973	1048	1153	-
	H <sub>1</sub>	-	-	216	247	329	392	428	640	670	700	775	830	-
	H <sub>0</sub>	-	-	200	280	280	280	305	305	305	400	400	600	-
	型号 Type	-	-	SMC-04 +H1BC	SMC-04 +H1BC	SMC-00 +H3BC	SMC-00 +H3BC	SMC-0 +H4BC	SMC-0 +H4BC	SMC-1 +H5BC	SMC-3 +H6BC	SMC-3 +H6BC	SMC-4 +H7BC	SMC-4 +H7BC

# Deseen International

## Cast steel valve and Stainless valve



### 产品结构特点 Product design features

系列轨道球阀系本公司引进国外先进技术开发设计的一种新型管线阀门，适用于天然气、油品、化工、冶金、等行业中作调节、启闭管线流体之用，其中抗硫系列产品适用于含硫化氢介质、杂质多、腐蚀严重的天然气长输管线。

其主要结构特点为：

- 1、静态单瓣座结构，能保证双向密封严密、可靠、达到零泄漏。
- 2、顶装式设计，使得系统可进行在线维修。
- 3、阀杆下端的凸轮机构可提供一个机械楔紧力以保证持续的紧密封。
- 4、启闭过程均分两段完成，升降行程短，便于操作。
- 5、启闭操作过程中，密封面之间完全脱离接触，无磨损、操作扭矩低，使用寿命长。
- 6、球体旋转过程中与阀座形成的空间，使得通过中介质流速增大，从而达到清洗密封的作用。
- 7、球体的耐火设计执行 API 607及JB/T6899 等标准的规定，一旦发生火灾而使软密封圈烧毁时，球体的防火结构可阻止介质的大量泄漏，防止火灾的进一步扩大。
- 8、阀门驱动装置有手动、蜗轮蜗杆传动、电动、电动阀门器实现自动控制，易操作，安全可靠。

The series of the track ball valve is a new type of line pipe valve which is developed and designed by foreign advanced technology. It can be applied to natural gas, petroleum product, chemical industry, metallurgy etc for adjusting, opening and closing the line pipe fluid. The series of the anti-sulfur products can be applied to the medium which has much impurity and to the long distance pipeline of the natural gas which is seriously corroded.

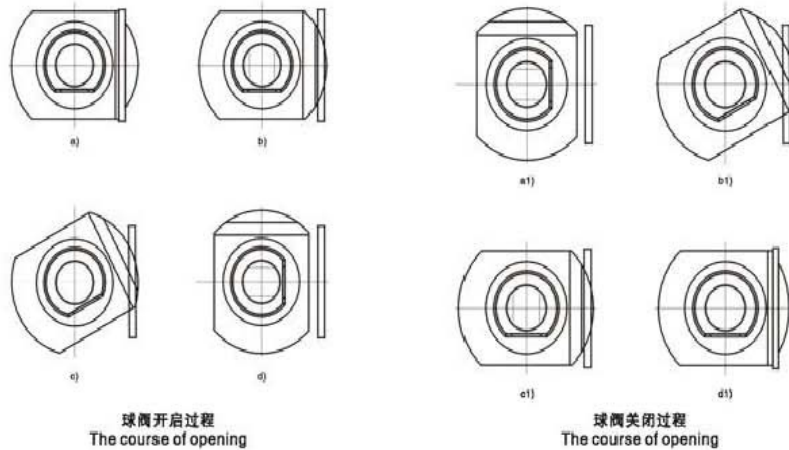
- 1.The construction of the single valve seat under the static state can ensure the tightness, credibility and zero leak of the two surface seal.
- 2.The top equipment type can make the system service in line.
- 3.The cam framework under the valve stem can supply a tight power of the mechanical wedge to ensure the continuous tight seal.
- 4.The opening and the closing course are completed in two segments, the rising and falling distance is short which is easy to operate.
- 5.In the course of the opening and closing operation, the sealed surface separates from touching completely without abrasion. The operating torque is short and the life-span is long.
- 6.The vacuum which is formed by the course of sphere spinning accelerates the velocity of flow of the medium in the channel and this course can achieve to clean the sealed surface.
- 7.The fire-resistant design of the ball valve enforces the standard of API 607 and JB/6899. When the soft seal burns, the fireproofing construction of the ball valve can prevent the medium from much leaking and the extension of the fire in case of fire.
- 8.The driving equipment of the valve can be divided into wrench operation, worm gear and worm drive, electric operation. The electric valve is easy to be auto-controlled and to be operated, with its safety and ereditibility.

### 产品性能规范 Products performance specification

压力等级 Pressure grade		公称压力(PN) Nominal pressure						磅级(Class) pound				
		1.6	2.5	4.0	6.4	10.0	15.0	150	300	400	600	900
试验压力 (MPa) Test pressure	壳体试验 Shell test	2.4	3.75	6.0	9.6	15.0	22.5	2.93	7.58	10.0	15.0	22.4
	密封试验 Sealing test	1.76	2.75	4.4	7.04	11.0	16.5	2.07	5.52	7.31	11.03	16.54
适用温度 Applicable medium		-196℃-550℃										
适用介质 Applicable medium	普通型 Ordinary type	水、油、天然气等 Water, oil and natural gas										
	抗硫型 Antisulphur type	含H <sub>2</sub> S、CO的天然气、石油等 Natural gas, petroleum										

# Deseen International

## Cast steel valve and Stainless valve



### 启闭原理分析 The analysis of the opening and closing theory

#### (1) 开启过程

- I) 在关闭位置，球体受阀杆的机械施压作用，紧压在阀座上，如图a)所示。
- II) 当逆时针转动手轮时，阀杆则反向运动，其底部角形平面使球体脱离阀座，如图b)所示。
- III) 阀杆继续提升，并与阀杆螺旋槽内的导销相互作用，使球体开始无摩擦地旋转，如图c)所示。
- IV) 直至到全开位置，阀杆提升到极限位置，球体旋转到全开位置，如图d)所示。

#### (1) The course of opening

- I) In the location of the closing, the sphere closely presses on the valve seat by the mechanical pressure of the valve stem. See picture a).
- II) When the hand wheel is anti-clockwise, the valve stem will counter move, then the surface of the angle at the bottom will make the sphere disconnect the valve seat. See picture b).
- III) The valve stem continues rising and interacts with the guide pin in the spin slot of the valve stem. The course makes the sphere begin to rotate without rub. See picture c).
- IV) To the full opening, the valve stem will ascend to the limited location and the sphere will switch to the full opening. See picture d).

#### (2) 关闭过程

- I) 关闭时，顺时针旋转手轮，阀杆开始下降并使球体离开阀座开始旋转，如图a1)所示。
- II) 继续转动手轮，阀杆受到嵌于其上螺旋槽内的导销的作用，使阀杆和球体同时旋转90°，如图b1)所示。
- III) 快要关闭时，球体已在与阀座无接触的情况下旋转90°，如图c1)所示。
- IV) 手轮转动的最后几圈，阀杆底部的角形平面机械地楔向压迫球体，使其紧密地压在阀座上，达到完全密封，如图d1)所示。

#### (2) The course of closing

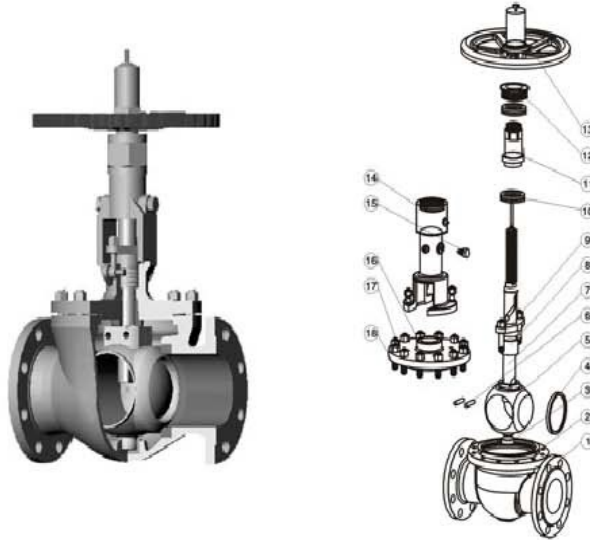
- I) The hand wheel is clockwise when closing, then the valve stem will fall and it will make the sphere separate from the valve seat and begin to rotate. See picture a1).
- II) Continue to turn the hand wheel, the valve stem is affected by the guide finger in the spin slot which is embedded over it, and it can make the valve stem and the sphere to turn 90° at the same time. See picture b1).
- III) When approaching closing, the sphere has switched 90° without touching the valve seat. See picture c1).
- IV) The last circles of the hand wheel, the surface of the angle at the bottom of the valve stem automatically wedges to the forced sphere and presses it closely on the full seal. See picture d1).

# Deseen International

## Cast steel valve and Stainless valve



(K)O(3, 9)4(6)7F(H, Y)



### 技术规范 Technical specification

设计依据 Design reference	GB	ANSI
结构长度 Face to Face	JB/T 7745、GB/T12221	ANSI B16.10
连接法兰 Flange ends	GB/T9113、JB/79	ANSI B16.5 MSS SP44
对焊端 Butt-welding ends	GB/T12224	ANSI B16.25
试验和检验 Test and Inspection	JB/9092	API 598

注：系列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 sizes of serial valve connecting flange and butt-welding end can be designed according to customer's requirement.

### 主要零件材质表 Form of major parts materials

序号 No.	零件名称 Accessory name	材质 Material		序号 No.	零件名称 Accessory name	材质 Material	
		GB	ASME			GB	ASME
1	阀体 Body	WCB	A216-WCB	10	轴承 Bear		
2	垫片 Machine screw	Graphite & stainless steel	B12.10-304/F.G	11	阀杆螺母 Stem nut	ZA19-4	Alloy opper
3	衬套 Bushing	PTFE&stainless steel	PTFE&stainless steel	12	压盖 Cover	35	Carbon steel
4	密封圈 Sealing ring	PTFE、STEEL	PTFE、STEEL	13	手轮 Hand wheel	QT400-17	Cast tron
5	球体 Ball**	WCB+HCr/STL	WCB+HCr/STL	14	支架 Yoke	WCB	A276-WCB
6	销 Pin	1Cr13	A276-410	15	定位销 Fitting pin	1Cr13	A276-410
7	阀杆 Stem*	1Cr13	A276-410	16	阀盖 Bonnet	wcb	A276-WCB
8	填料 Packing	柔性石墨 Graphite	柔性石墨 Graphite	17	螺母 Nut	35	A194-2H
9	填料压盖 Gland	WCB	A276-WCB	18	螺柱 Stud	35CrMoA	A193-B7

注：\*抗硫型阀门该零件的材质为GB(1Cr18Ni9)、ASTM(A276-321)

\*\*抗硫型阀门该零件的材质为GB(1Cr18Ni9、CF8+Ni.P)ASTM(A182-304、CF8+Ni.P)

系列阀门主要零部件及密封面的材质可根据实际工况条件或用户特殊要求设计选用。

Notes: \*The material of this part about the anti-sulphur type valve is GB(1Cr18Ni9)、ASTM(A276-321)

\*\*The material of this part about the anti-sulphur type valve is GB(1Cr18Ni9、CF8+Ni.P)ASTM(A182-304、CF8+Ni.P)

Major parts of the valve series and materials of sealing surface differ according to actual working condition and customer's special requirement.

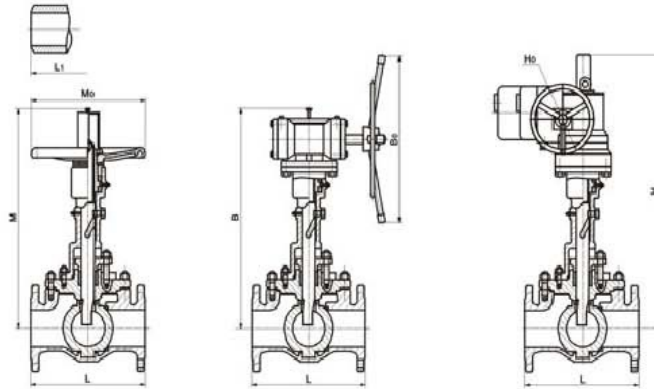


# Deseen International

## Cast steel valve and Stainless valve



(K)Q(I3, 9)4(6)7F(H, Y)



主要外形尺寸 Main size of outside

PN1.6, 2.5MPa Class150

公称通径 Nominal size		Class 150		PN1.6, 2.5		手动 Hand- operated		蜗轮蜗杆传动 Driving of worm gear and worm screw			电动 Electric driving			
DN	NPS	L	L <sub>1</sub>	L	L <sub>1</sub>	M	M <sub>0</sub>	B	B <sub>0</sub>	蜗轮蜗杆装置 Device of worm gear and worm screw	H	H <sub>0</sub>	电动装置 Electric driving device	
													Class150 PN1.6	PN2.5
15	1/2	108	-	130	140	310	180	-	-	-	210	200	SMC-04	SMC-04
20	3/4	117	-	150	152	325	180	-	-	-	225	200	SMC-04	SMC-04
25	1	127	-	160	165	345	200	420	200	O型	230	200	SMC-04	SMC-04
32	1 1/4	140	-	180	178	360	200	440	200	O型	290	500	SMC-03	SMC-03
40	1 1/2	165	190	200	190	380	200	455	200	O型	300	500	SMC-03	SMC-03
50	2	178	216	230	216	385	200	465	200	O型	570	460	ZA <sub>2</sub> -5	ZA <sub>2</sub> -5
65	2 1/2	190	241	290	241	393	300	480	200	O型	625	460	ZA <sub>2</sub> -5	ZA <sub>2</sub> -5
80	3	203	283	310	283	402	300	500	300	A型	780	480	ZA <sub>2</sub> -20	ZA <sub>2</sub> -20
100	4	229	305	350	305	510	300	510	300	A型	780	460	ZA <sub>2</sub> -20	ZA <sub>2</sub> -20
150	6	394	457	480	457	690	400	680	300	A型	850	460	ZA <sub>2</sub> -20	ZA <sub>2</sub> -30
200	8	457	521	600	521	785	500	820	400	B型	840	460	ZA <sub>2</sub> -30	ZA <sub>2</sub> -40
250	10	533	559	730	559	995	600	910	400	B型	960	460	ZA <sub>2</sub> -30	ZA <sub>2</sub> -30
300	12	610	635	850	635	1183	600	1090	400	B型	990	460	ZA <sub>3</sub> -60	ZA <sub>3</sub> -60
350	14	686	762	980	762	1254	650	1330	600	C型	1165	460	ZA <sub>3</sub> -60	ZA <sub>3</sub> -90
400	16	762	838	1100	838	1565	650	1380	600	C型	1385	460	ZA <sub>3</sub> -90	ZA <sub>3</sub> -120
450	18	864	914	1200	914	1637	700	1450	800	D型	1415	460	ZA <sub>4</sub> -120	ZA <sub>3</sub> -160
500	20	914	991	1250	991	1705	700	1840	800	D型	1490	460	ZA <sub>4</sub> -240	ZA <sub>4</sub> -240
600	24	1067	1143	1450	1143	1883	800	1870	800	DA型	1620	458	SMC-2	SMC-2
700	28	1346	1346	1346	1346	2108	800	2130	800	DA型	1720	458	SMC-2	SMC-3
800	32	1524	1524	1524	1524	-	-	-	-	-	1825/1885*	610	SMC-3	SMC-3
900	36	1727	1727	1727	1727	-	-	-	-	-	2250/2300*	610	SMC-3	SMC-4

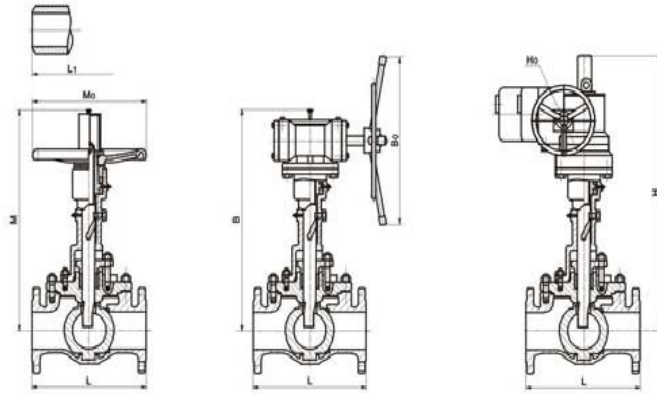
注：分母值为PN2.5的尺寸。 Notice: the denominator is PN2.5.

# Deseen International

## Cast steel valve and Stainless valve



(K)O(3, 9)4(6)7F(H, Y)



主要外形尺寸 Main size of outside

PN4.0MPa Class300

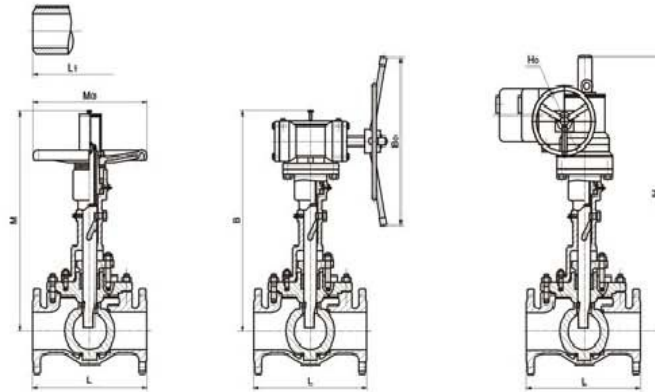
公称直径 Nominal size		Class 300	PN4.0MPa		手动 Hand-operated		蜗轮蜗杆传动 Driving of worm gear and worm screw			电动 Electric driving		
DN	NPS	L/L1	L	L1	M	Mo	B	B0	蜗轮蜗杆装置 Device of worm gear and worm screw	H	H0	电动装置 Electric driving device
15	1/2	140	130	140	310	180	-	-	-	215	200	SMC-04
20	3/4	152	150	152	325	180	-	-	-	235	200	SMC-04
25	1	165	160	165	345	200	420	200	O型	250	500	SMC-03
32	1 1/4	178	180	178	360	200	440	200	O型	300	305	SMC-00
40	1 1/2	190	200	190	380	200	455	200	O型	305	305	SMC-00
50	2	216	230	216	385	200	465	200	O型	585	460	ZA2-10
65	2 1/2	241	290	241	393	300	480	300	A型	650	460	ZA2-10
80	3	283	310	283	402	300	500	300	A型	775	460	ZA2-20
100	4	305	350	305	510	300	510	300	A型	795	460	ZA2-20
150	6	403/457	480	457	690	400	680	400	B型	895	460	ZA25-40
200	8	502/521	600	521	785	500	820	400	B型	900	460	ZA3-30
250	10	569/559	730	559	995	600	910	400	B型	979	460	ZA28-40
300	12	648/635	850	635	1183	600	1090	600	C型	1135	460	ZA3-90
350	14	762	980	762	1254	650	1370	600	C型	1302	460	ZA3-120
400	16	838	1100	838	1565	650	1430	600	C型	1514	460	ZA4-160
450	18	914	1200	914	1637	700	1450	800	D型	1534	460	ZA1-240
500	20	991	1250	991	1705	700	1840	800	D型	1625	458	SMC-2
600	24	1143	1450	1143	1883	800	1870	800	DA型	1688	458	SMC-2
700	28	1348	1348	1348	2108	800	2130	800	DA型	1780	610	SMC-3
800	32	1524	1524	1524	-	-	-	-	-	1940	610	SMC-4
900	36	1727	1727	1727	-	-	-	-	-	2320	610	SMC-4

# Deseen International

## Cast steel valve and Stainless valve



(K)Q13, 914(6)7F(H, Y)



主要外形尺寸 Main size of outside

PN6.4MPa Class400

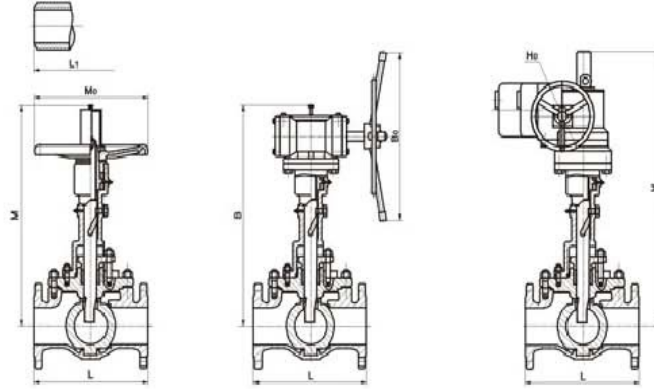
公称通径 Nominal size		L	L <sub>1</sub>	手动 Hand-operated		蜗轮蜗杆传动 Driving of worm gear and worm screw			电动 Electric driving		
DN	NPS			M	M <sub>0</sub>	B	B <sub>0</sub>	蜗轮蜗杆装置 Device of worm gear and worm screw	H	H <sub>0</sub>	电动装置 Electric driving device
15	1/2	165	165	320	200	390	200	O型	215	500	SMC-03
20	3/4	190	190	340	200	415	200	O型	240	500	SMC-03
25	1	216	216	360	200	435	200	O型	250	500	SMC-03
32	1 1/4	229	229	370	250	455	200	O型	300	305	SMC-00
40	1 1/2	241	241	395	300	465	200	O型	305	305	SMC-00
50	2	292	292	430	300	501	200	A型	585	460	ZA <sub>2</sub> -10
65	2 1/2	330	330	465	400	535	300	A型	650	460	ZA <sub>2</sub> -20
80	3	366	366	515	500	575	300	A型	775	460	ZA <sub>2</sub> -20
100	4	408	408	572	600	625	400	B型	800	460	ZA <sub>2</sub> -30
150	6	495	495	773	600	790	400	B型	895	460	ZA <sub>25</sub> -40
200	8	597	597	967	650	900	400	B型	900	460	ZA <sub>25</sub> -40
250	10	673	673	1225	650	1090	600	C型	970	460	ZA <sub>3</sub> -60
300	12	762	762	1350	700	1350	600	C型	1135	460	ZA <sub>3</sub> -120
350	14	828	828	1490	700	1490	600	C型	1305	460	ZA <sub>3</sub> -120
400	16	902	902	1590	750	1640	800	D型	1515	460	ZA <sub>4</sub> -240
450	18	978	978	1720	750	1740	800	D型	1585	460	ZA <sub>4</sub> -240
500	20	1054	1054	1805	800	1930	800	DA型	1625	610	SMC-3
600	24	1232	1232	1945	800	2005	800	DA型	1710	610	SMC-3
700	28	1397	1397	2180	800	2180	800	DB型	1815	610	SMC-3
800	32	1651	1651	-	-	-	-	-	1975	610	SMC-4
900	36	1880	1880	-	-	-	-	-	2370	610	SMC-4

# Deseen International

## Cast steel valve and Stainless valve



(K)Qr(3, 9)4(6)7F(H, Y)



**主要外形尺寸 Main size of outside**

PN10.0MPa Class600

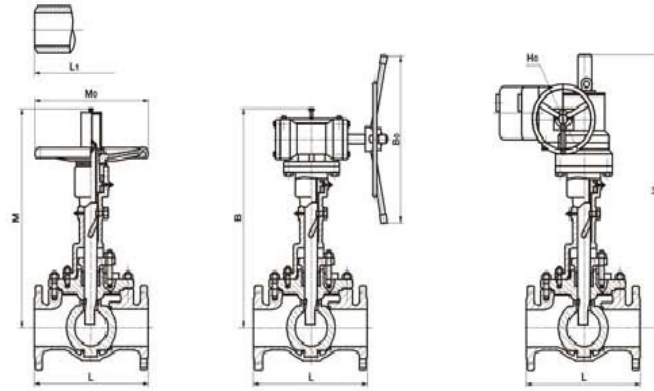
公称通径 Nominal size		L	L <sub>1</sub>	手动 Hand-operated		蜗轮蜗杆传动 Driving of worm gear and worm screw			电动 Electric driving		
DN	NPS			M	M <sub>0</sub>	B	B <sub>0</sub>	蜗轮蜗杆装置 Device of worm gear and worm screw	H	H <sub>0</sub>	电动装置 Electric driving device
15	1/2	165	165	320	200	390	200	O型	230	500	SMC-03
20	3/4	190	190	340	200	415	200	O型	250	500	SMC-03
25	1	216	216	360	200	435	200	O型	300	305	SMC-00
32	1 1/4	229	229	370	250	455	200	O型	305	305	SMC-0
40	1 1/2	241	241	395	300	465	200	O型	585	305	SMC-0
50	2	292	292	430	300	501	300	A型	650	460	ZA <sub>2</sub> -20
65	2 1/2	330	330	465	400	535	300	A型	725	460	ZA <sub>2</sub> -20
80	3	356	356	515	500	575	300	A型	800	460	ZA <sub>2</sub> -30
100	4	432	432	572	600	625	400	B型	835	460	ZA <sub>2</sub> -30
150	6	559	559	773	600	790	400	B型	895	460	ZA <sub>3</sub> -60
200	8	660	660	967	650	900	400	B型	900	460	ZA <sub>2</sub> -60
250	10	787	787	1225	650	1090	600	C型	970	460	ZA <sub>3</sub> -90
300	12	838	838	1350	700	1350	600	C型	1135	460	ZA <sub>4</sub> -160
350	14	889	889	1490	700	1490	600	C型	1305	460	ZA <sub>4</sub> -160
400	16	991	991	1590	750	1640	800	D型	1515	460	ZA <sub>4</sub> -240
450	18	1092	1092	1720	750	1740	800	D型	1585	458	SMC-2
500	20	1194	1194	1805	800	1930	800	DA型	1625	610	SMC-3
600	24	1397	1397	1945	800	2005	800	DA型	1710	610	SMC-3
700	28	1549	1549	2180	800	2180	800	DB型	1815	610	SMC-4
800	32	1778	1778	-	-	-	-	-	1975	610	SMC-4
900	36	2083	2083	-	-	-	-	-	2370	610	SMC-4

# Deseen International

## Cast steel valve and Stainless valve



(K)Qr(3, 9)4(6)7F(H, Y)



**主要外形尺寸 Main size of outside**

PN15.0MPa Class900

公称通径 Nominal size		PN16.0 MPa	Class 900	手动 Hand-operated		蜗轮蜗杆传动 Driving of worm gear and worm screw			电动 Electric driving		
DN	NPS	L/L <sub>1</sub>	L/L <sub>1</sub>	M	M <sub>0</sub>	B	B <sub>0</sub>	蜗轮蜗杆装置 Device of worm gear and worm screw	H	H <sub>0</sub>	电动装置 Electric driving device
25	1	254	254	387	250	435	200	O型	300	305	SMC-00
32	1 1/4	279	279	400	250	490	200	O型	305	305	SMC-0
40	1 1/2	305	305	457	250	505	200	O型	585	305	SMC-0
50	2	368	368	480	300	560	300	A型	650	460	ZA2-20
65	2 1/2	419	419	500	300	590	300	A型	775	460	ZA2-20
80	3	381	381	560	360	610	300	A型	800	460	ZA2-30
100	4	457	457	575	400	690	400	B型	635	460	ZA2-30
150	6	610	610	780	450	705	400	B型	895	460	ZA3-60
200	8	737	737	980	500	930	600	C型	900	460	ZA2-60
250	10	838	838	1170	550	1130	600	C型	920	460	ZA3-90
300	12	965	965	1330	550	1330	800	D型	1135	460	ZA4-160
350	14	1029	1029	1520	600	1480	800	D型	1305	460	ZA4-160
400	16	1130	1130	1730	650	1710	800	DA型	1585	460	ZA4-240
450	18	1219	1219	1840	700	1920	800	DA型	1625	456	SMC-2
500	20	1321	1321	1920	800	2080	800	DB型	1710	610	SMC-3

# Deseen International

## Cast steel valve and Stainless valve



### 产品结构特点 Product design features

系列三通球阀的主要功能是分离、混合或分配在管道中流动的介质，适用于天然气、油品、化工冶金、城建、环保、制药、食品等行业。  
三通球阀分为T形及L形两种，L形三通球阀适用于介质流向的切换，能使互相垂直的两个管道连通；T形三通球阀适用于介质的分流、合流及流向切换，T形孔道可以使三个管道互相连通或使其中两个管道连通。三通球阀一般采用两座结构，可根据用户要求采用四座结构，任一通口可用作入口而无泄漏。密封结构有软密封及金属密封两种结构，分别适用于不同的工况条件。

The three ways ball valve is divided into two types: T shape and L shape. The latter can connect the two vertical pipes; The former can be applied to the distributary, inter flow and switching, the pore canal of the two valve seat and it can also use the construction of the four valve seat according to the user's demands. In this installation, any entrance can be used as inlet which will not leak in any case. The seal construction has two constructions: soft seal and metal seal which can be applied to different industrial and mineral conditions accordingly.

### 产品规格 Products specification

系列型号 Serial models	Q44、Q644、Q944		
	Q45、Q645、Q945		
压力等级 Class	PN1.6-4.0MPa		Class150-300
口径 Size	DN15-300mm		1/2"-12"
驱动方式 及 适用范围 Driving manner and scope of application	手柄驱动 Wrench	PN1.6-4.0MPa	Class150-300
		DN15-300mm	1/2"-12"
	气动 Ari operated	PN1.6-4.0MPa	Class150-300
		DN15-300mm	1/2"-12"
	电动 Electric	PN1.6-4.0MPa	Class150-300
		DN80-300mm	3"-12"

### 产品性能规范 Products performance specification

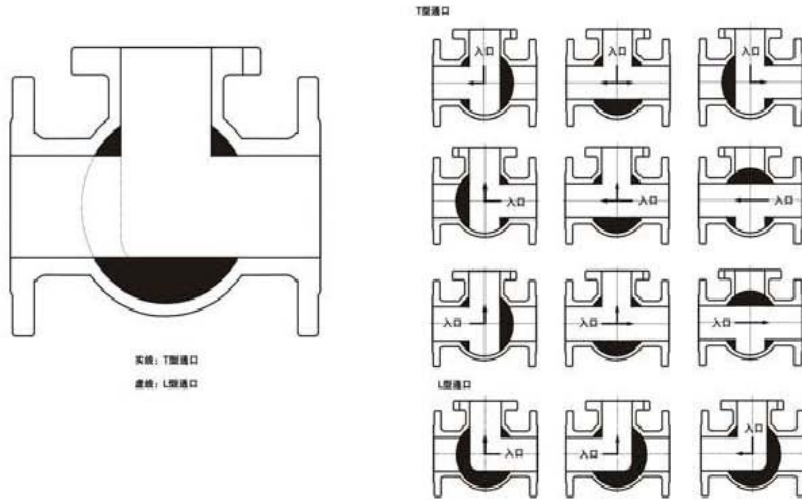
压力等级 Pressure grade		公称压力 Nominal pressure(PN)			磅级 Pound(Class)	
		1.6	2.5	4.0	150	300
试验压力(MPa) Test pressure	壳体试验 Shell test	2.4	3.75	6.0	2.93	7.58
	密封试验 Sealing test	1.76	2.75	4.4	2.07	5.52
适用温度 Applicable medium		-29℃-280℃ (注：不同工况温度，选用不同的材质 Different raw material for different working temperature)				
适用介质 Applicable medium		水、油、天然气等 Water, oil, and natural gas				

# Deseen International

## Cast steel valve and Stainless valve



**三通球阀介质流通示意图** Diagram of medium circulation of the three ways ball valve



**三通球阀力矩表 (N.m) Three ways ball valve torque form**

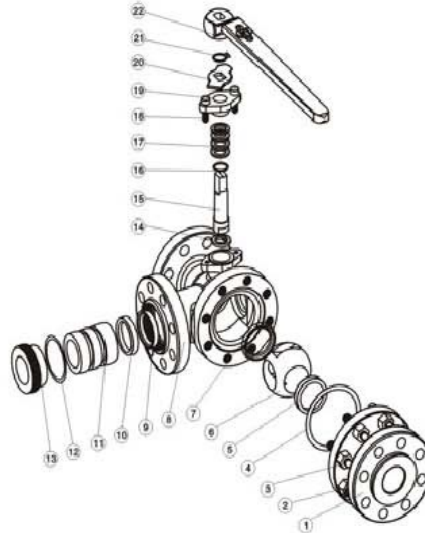
压力(MPa) Pressure	15	20	25	40	50	65	80	100	125	150	200	250	300
PN1.6	5	8	15	24	35	75	100	180	350	500	730	1210	1950
PN2.5	5	8	16	27	45	90	120	210	450	600	1000	1600	2800
PN4.0	8	15	36	50	75	145	220	350	650	850	1450	2400	4200
注: 表中列数据未经实际测定, 仅供参考 Notes: The data in the form are not practically measured, and just for reference.													
压力(MPa) Pressure	1/2	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8	10	12
Class 150	5	8	16	24	38	75	95	185	380	600	1050	1650	2625
Class 300	8	18	38	58	90	180	240	420	900	1425	2300	3000	4950
注: 表中列数据未经实际测定, 仅供参考 Notes: The data in the form are not practically measured, and just for reference.													

# Deseen International

## Cast steel valve and Stainless valve



Q(3, 6, 9)44(5)F(N, P)



### 技术规范 Technical specification

设计依据 Design reference	GB	ANSI
设计标准 Design standard	GB/T12237	ANSI B16.34
驱动方式 Driving manner	手动、电动、气动 Wrench, electric driving, Air operated	
结构长度 Face to Face	GB/T12221	ANSI B16.10
连接法兰 Flange ends	JB/T79	ANSI 16.5
试验和检验 Test and Inspection	JB/T9092	API 598

注：系列阀门连接法兰尺寸可根据用户要求设计制造。  
Notes: The sizes of serial valve connecting flange can be designed according to customer's requirement.

### 主要零件材质表 Form of major parts materials

序号 No.	零件名称 Accessory name	材质 Material		序号 No.	零件名称 Accessory name	材质 Material	
		GB	ASME			GB	ASME
1	右体 Bonnet	WCB	A216-WCB	12	O形圈 "O" ring	橡胶 Rubber	橡胶 Rubber
2	螺母 Nut	35	A194-2H	13	顶紧螺母 Nut	25	A105
3	螺栓 Bolt	35CrMoA	A193-B7	14	填料垫 Packing seat	1Cr13	A276-410
4	垫片 Gasket	柔性石墨+不锈钢 Graphite & stainless steel	B12.10-304/F.G.	15	阀杆 Stem	1Cr13	A276-410
5	密封圈 Sealing ring	PTFE	PTFE	16	垫片 Gasket	PTFE	PTFE
6	球体 Ball	25+HCr	A105+HCr	17	填料 Packing	柔性石墨 Graphite	柔性石墨 Graphite
7	密封圈 Sealing ring	PTFE	PTFE	18	螺钉 Screw nail	35CrMoA	A193-B7
8	阀体 Body	PTFE	A216-WCB	19	填料压盖 Gland	WCB	A216-WCB
9	密封圈 Sealing ring	25	PTFE	20	定位片 Locating piece	Q235A	Carbon steel
10	密封圈 Sealing ring	橡胶 Rubber	PTFE	21	挡圈 Ring	65Mm	AISI 1566
11	阀座 Seat	25	A105	22	手柄 Wrench	KT33	A47-667 Gr.32510

注：系列阀门主要零部件及密封面的材质可根据实际工况条件或用户特殊要求设计选用。  
Notes: Major parts of the valve series and materials of sealing surface differ according to actual working condition and customer's special requirement.

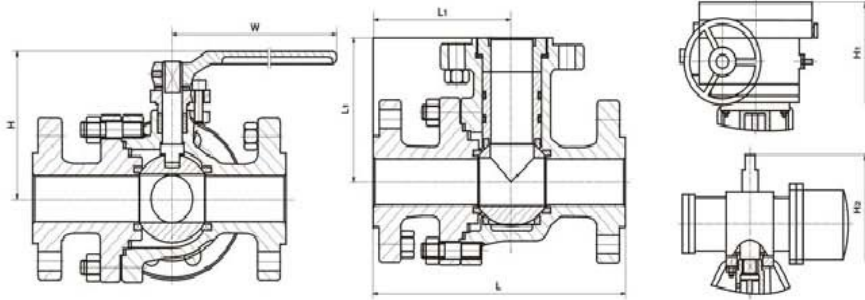


# Deseen International

## Cast steel valve and Stainless valve



Q(3, 6, 9)44(5)F(IN, P)



**主要外形尺寸 Main size of outside**

PN1.6~4.0MPa Class150~300

DN(mm)	15	20	25	40	50	65	80	100	125	150	200	250	300	
NPS(in)	1/2	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8	10	12	
L	140	165	165	250	260	320	320	370	510	510	580	670	720	
L <sub>1</sub>	70	83	83	125	130	160	160	185	255	255	290	335	360	
手动 Hand operated	H	84	84	84	152	157	183	183	195	355	355	430	475	550
	W	130	160	160	500	500	600	600	600	850	850	1500	1500	1500
电动 Electric driving	H <sub>1</sub>	-	-	-	-	-	546	558	718	742	817	878	946	
	电动装置 Electric driving device	-	-	-	-	-	Q60-1	Q60-1	Q60-1	Q120-1	Q120-1	Q120-1	Q120-1	
气动 Air- operating	H <sub>2</sub>	215	235	260	328	400	427	488	500	660	756	831	952	1020
	气动装置 Air- operating device	AG09	AG09	AG13	AG13	AW13	AW13	AW13	AW17	AW17	AW20	AW20	AW28	AW28

# Deseen International

## Cast steel valve and Stainless valve



### 产品结构特点 Product design features

系列夹套球阀主要用于石油、化工、冶金、制药等类系统中，以输送常温下会凝固的高粘度介质。该系列球阀的夹套焊接于阀门的两法兰之间，阀门的侧面、底部设置有夹套的连接口。由于增加了夹套，此种阀门的连接法兰尺寸要比同一规格普通球阀的连接法兰大一到两个规格，但结构长度与同规格的阀门相同，端面连接方式有法兰及对夹两种，夹套中可自由地流过蒸汽或其它热的保温介质，确保粘稠介质可顺畅地流过阀门。

The series of the jacketed ball valves are mainly applied to petroleum, chemical industry, metallurgy, pharmacy, etc., used to deliver the high viscous medium which will be solidified easily, under the ordinary temperature. The jacket of the jacketed ball valve is welded between two flanges of the valve, and there are jacketed connections on the side and bottom. The size of the connecting flange of the valve is two norms bigger than the normal ball valve of the same norm, because adding the jacket. but the length of the construction is same, and the surface connecting type divides into Flange and Wafer. The vapour and other keep warming mediums can be flowed freely, thus to ensure that the ropy medium flows through the valve smoothly.

### 产品规格 Products specification

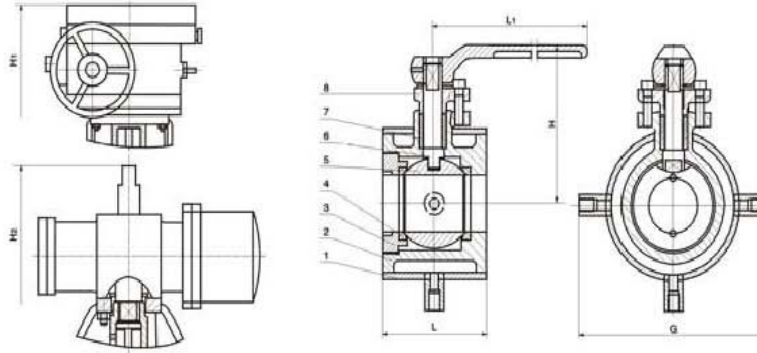
系列型号 Serial models	Q43、Q643、Q843		
	Q73、Q673、Q873		
压力等级 Class	PN1.6-4.0MPa		Class150-300
口径 Size	DN15-200mm		1/2"-8"
驱动方式 及 适用范围 Driving manner and scope of application	手柄驱动 Wrench	PN1.6-4.0MPa	Class150-300
		DN15-200mm	1/2"-8"
	气动 Ari operaed	PN1.6-4.0MPa	Class150-300
		DN15-200mm	1/2"-8"
	电动 Electric	PN1.6-4.0MPa	Class150-300
		DN80-200mm	3"-8"

### 产品性能规范 Products performance specification

公称压力 Nominal pressure	壳体强度试验压力 Shell test pressure	密封试验压力 Sealing test pressure
1.0MPa	1.5MPa	2.0MPa
1.6MPa	2.4MPa	1.76MPa
2.0MPa	3.0MPa	2.2MPa
2.5MPa	3.75MPa	2.75MPa
4.0MPa	6.0MPa	4.4MPa
Class 150	3.03MPa	2.2MPa
Class 300	7.5MPa	5.5MPa
夹套部壳体试验压力 Shell test pressure of jacket	15.MPa	
夹套部介质温度 Temperature	≤100℃	
适用介质 Medium	水、油及腐蚀性、粘稠性介质 Water, oil and the ropy medium	

# Deseen International

## Cast steel valve and Stainless valve



### 技术规范 Technical specification

设计标准 Design Standard	ANSI B16.34 GB/T12224
结构形式 Structure form	对夹式 Wafer type
配管法兰 Piping flange	ANSI B16.5、JB/T79
驱动方式 Driving manner	手动、电动、气动 Wrench、Electric driving、Air operated
试验和检验 Test and Inspection	API 598

注：系列阀门连接法兰尺寸可根据用户要求设计制造。  
Notes: The sizes of serial valve connecting flange can be designed according to customer's requirement.

### 主要零件材质表 Form of major parts materials

序号 No.	零件名称 Accessory name	材质 Material		序号 No.	零件名称 Accessory name	材质 Material	
		GB	ASTM			GB	ASTM
1	夹套 Jacket	25	A105	5	球体 Ball	25+HCr	A105+HCr
2	阀体 Body	WCB	A216-WCB	6	阀杆 Stem	1Cr13	A247-410
3	阀座 Seat	25	A105	7	填料 Packing	柔性石墨 Graphite	
4	密封圈 Sealing ring	尼龙、对位聚苯 Nylon PTFE、RTFE		8	填料压盖 Gland	WCB	A216-WCB

注：系列阀门主要零部件及密封面的材质可根据实际工况条件或用户特殊要求设计选用。  
Notes: Major parts of the valve series and materials of sealing surface differ according to actual working condition and customer's special requirement.

### 主要外形尺寸 Main size of outside

PN1.0-4.0MPa Class150-300

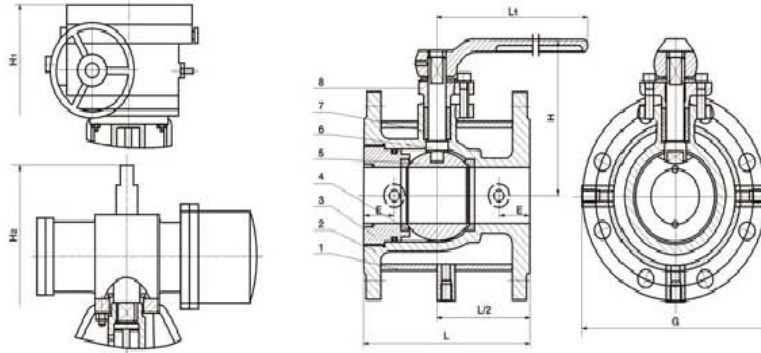
DN(mm)	15	20	25	40	50	80	100	125	150
NPS(In)	1/2	3/4	1	1 1/2	2	3	4	6	8
配管法兰规格 The norm of the piping flange	15/40	20/40	25/50	40/60	50/80	80/150	100/200	150/250	200/350
L	50	55	60	80	90	120	140	160	180
G	110	117	127	165	178	229	254	292	330
手动 Hand operated	H	101	101	106	125	135	193	265	355
	L <sub>1</sub>	130	160	160	230	230	400	700	1100
电动 Electric driving	H <sub>1</sub>	-	-	-	-	-	643	715	848
	电动装置 Electric driving device	-	-	-	-	-	Q60-1	Q60-1	Q120-1
气动 Air-operating	H <sub>2</sub>	285	295	305	330	345	440	470	820
	气动装置 Air-operating device	AG06	AG06	AG09	AG09	AG13	AG13	AW13	AW17

# Deseen International

## Cast steel valve and Stainless valve



QJ(6, 9)41F(N, P)



### 技术规范 Technical specification

设计标准 Design Standard	ANSI B16.34 GB/T12224
结构长度 Face to Face	ANSI B16.10 GB/T12227
连接法兰 Flange ends	ANSI B16.5, JB/T79
驱动方式 Driving manner	手动、电动、气动 Wrench, Electric driving, Air operated
试验和检验 Test and inspection	API 598

注：系列阀门连接法兰尺寸可根据用户要求设计制造。  
Notes: The sizes of serial valve connecting flange can be designed according to customer's requirement.

### 主要零件材质表 Form of major parts materials

序号 No.	零件名称 Accessory name	材质 Material		序号 No.	零件名称 Accessory name	材质 Material	
		GB	ASTM			GB	ASTM
1	夹套 Jacket	25	A105	5	球体 Ball	25+HCr	A105+HCr
2	阀体 Body	WCB	A216-WCB	6	阀杆 Stem	1Cr13	A247-410
3	阀座 Seat	25	A105	7	填料 Packing	柔性石墨 Graphite	
4	密封圈 Sealing ring	尼龙、对位聚苯 Nylon PTFE、RTFE		8	填料压盖 Gland	WCB	A216-WCB

注：系列阀门主要零部件及密封面的材质可根据实际工况条件或用户特殊要求设计选用。  
Notes: Major parts of the valve series and materials of sealing surface differ according to actual working condition and customer's special requirement.

### 主要外形尺寸 Main size of outside

PN1.6-4.0MPa Class150-300

DN(mm)	15	20	25	40	50	80	100	150	200
NPS(in)	1/2	3/4	1	1 1/2	2	3	4	6	8
法兰规格 The norm of the flange	15/40	20/40	25/50	40/65	50/80	80/150	100/200	150/250	200/350
L	110	117	127	165	178	229	254	292	330
E	58.5	58.5	63.5	62.5	65	82	83	95	100
G	147	147	156	181	218	275	300	403	492
手动 Hand operated	H	101	101	106	125	135	193	285	355
	L1	130	160	160	230	230	400	700	1100
电动 Electric driving	H1	-	-	-	-	-	643	715	848
	电动装置 Electric driving device	-	-	-	-	-	Q60-1	Q60-1	Q120-1
气动 Air-operating	H2	285	285	305	330	345	440	470	710
	气动装置 Air-operating device	AG08	AG08	AG09	AG09	AG13	AG13	AW13	AW17

# Deseen International

## Cast steel valve and Stainless valve



### 产品结构特点 Product design features

系列螺纹连接端球阀主要用于以天然气为介质的海洋勘探设备中，同时也适用于水、油、酸等各类介质的系统中，以实现对气体和液体的断流及放流。其中要结构特点有：

- 1、结构紧凑、重量轻、流阻低。
- 2、启闭扭矩小、密封性能优异。
- 3、结构形式有整体式、两体式及三体式三种结构，维修和更换内件均十分方便。
- 4、两侧用内、外螺纹与管道连接，安装方便。
- 5、根据用户需要，可提供左右不同形式的连接端。
- 6、根据用户需要，可装上相应的电动及气动装置以实现遥控或自动控制。

The series of the threaded ends ball valves are mainly used in the equipment for sea prospecting, which takes helium as medium, and also applied to the system which takes water, oil, acid etc. as medium, for cutting or releasing the gas or liquid.

The main features of construction

1. Compact construction, light weight, little flow resistance.
2. Quick start and stop, excellent seal performance.
3. The type of construction divided into one-side type, two-side type, three-side type. and the parts be maintained and changed conveniently.
4. Two sides are connected with pipe by internal and outer thread screw. Installed quickly.
5. Can provide different type of connecting ends on the right or left side, according to user's demand.
6. Can set up the corresponding electric or pneumatic installations for remote control or automatic control, according to user's demand.

### 技术规范 Technical specification

结构长度 Face to face	内螺纹连接端 Internal thread screw connecting	GB/T15188.3
	外螺纹连接端 Outer thread screw connecting	GB/T15188.4
内螺纹连接端 Internal thread screw connecting end		GB/T7073
外螺纹连接端 Outer thread screw connecting end		JB/T1752、JB/T1754、JB/T1755
试验和检验 Test and Inspection		JB/T9092

### 产品性能规范 Form of major parts materials

压力等级 Pressure		公称压力(PN) Nominal pressure		
		1.6	2.5	4.0
试验压力 Test pressure (MPa)	壳体试验 Shell test	2.4	3.75	6.0
	密封试验 Sealing test	1.76	2.75	4.4
适用温度 Applicable medium		-29℃~300℃ (注：不同工况温度，选用不同的材质 Different raw material for different work temperature)		
适用介质 Applicable medium		水、油、气各类腐蚀性介质等 Water, oil, gas and other corrosive mediums		

### 主要外形尺寸 Main size of outside

PN1.0~4.0MPa Class150~300

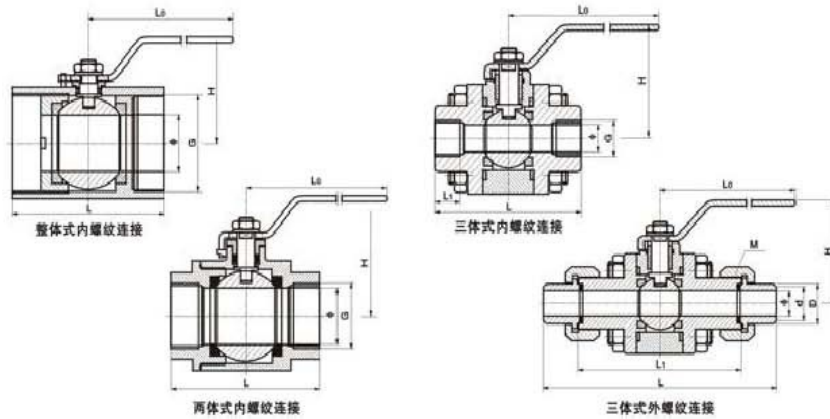
序号No.	零件名称 Accessory name	材 质 Material	
		GB	ASTM
1	阀体 Body	WCB CF8, CF8M, CF3, CF3M	A216-WCB, A351-CF8, CF8M, CF3, CF3M
2	阀盖 Bonnet	WCB CF8, CF8M, CF3, CF3M	A216-WCB, A351-CF8, CF8M, CF3, CF3M
3	球体 Ball	1Cr13, 0Cr18Ni9, 1Cr18Ni12Mo2Ti	A276-410, 304, 316, 304L, 316L
4	阀杆 Stem	1Cr13, 0Cr18Ni9, 1Cr18Ni12Mo2Ti	A276-410, 304, 316, 304L, 316L
5	密封圈 Sealing ring	尼龙、对位聚苯 Nylon PTFE, RTFE	PTFE, PTFE, 尼龙、对位聚苯

注：系列阀门主要零部件及密封面的材质可根据实际工况条件或用户特殊要求设计选用。

Notes: Major parts of the valve series and materials of sealing surface differ according to actual working condition and customer's special requirement.

# Deseen International

## Cast steel valve and Stainless valve



**主要外形尺寸 Main size of out side PN1.6~4.0MPa**

内螺纹连接 Internal thread screw connecting

DN (mm)	整体式 One-sided type					两体式 Two-sided type					三体式 Three-sided type					
	φ	G	L	L <sub>0</sub>	H	φ	G	L	L <sub>0</sub>	H	φ	G	L	L <sub>1</sub>	L <sub>0</sub>	H
6	4.2	1/4	40	80	22	10	1/4	55	95	42						
10	6	3/8	45	80	26	10	3/8	55	95	42	12	3/8	65	12	95	46
15	8	1/2	57	88	31	15	1/2	64	108	51	15	1/2	75	14	110	46
20	12	3/4	60	88	34	20	3/4	75	115	58	20	3/4	85	16	110	54
24	15	1	72	105	38	25	1	85	135	77	25	1	90	18	140	65
32	19	1 1/4	79	105	43	32	1 1/4	102	150	83	32	1 1/4	112	20	140	69
40	24	1 1/2	85	124	50	38	1 1/2	108	175	97	38	1 1/2	120	22	155	76
50	32	2	101	124	57	50	2	124	190	106	50	2	145	24	180	86
65	-	-	-	-	-	65	2 1/2	163	220	122	65	2 1/2	170	28	220	120
80	-	-	-	-	-	80	3	185	250	133	80	3	200	32	260	150

**主要外形尺寸 Main size of out side PN1.6~4.0MPa**

外螺纹连接 Outer thread screw connecting

DN (mm)	外螺纹连接 Outer thread screw connecting							
	φ	d	D	L	L <sub>1</sub>	L <sub>0</sub>	M	H
6	8	10	14	150	85	96	20×1.5	57
10	10	12	18	150	85	96	24×1.5	57
15	15	17	22	175	108	110	30×2	68
20	20	22	28	190	120	120	36×2	70
25	25	27	33	200	132	135	42×2	80
32	32	34	40	230	158	160	52×2	84

# Deseen International

## Cast steel valve and Stainless valve



### 产品结构特征 Products design features

系列对夹式球阀主要用于石油、化工、冶金、制药、食品等各类系统中，以截断或接通管路中的介质。对夹式球阀根据结构长度的长短可分为普通型及薄型两面三刀种系列，其中薄型系列系我公司根据客户的要求，引进国外产品的技术并结合普通型对夹式球阀的特点，自行研制开发的改进型产品。与其它类型球阀相比，系列对夹式球阀的主要结构特点有：采用一体式结构，结构紧凑，体积小、重量轻；密封可靠，介质流向不受限制；流阻小、启闭快，操作方便，根据用户需求，普通型对夹式球阀可装上相应的电动及气动装置，以实现遥控或自动控制。

The series of the wafer type ball valves can be applied to petroleum, chemical industry, metallurgy, pharmacy, etc, used to block or connect the medium in the pipe. The wafer type ball valve divided into normal type and thin type, by its length of construction. The series of the thin types are the improved products, designed and developed by ourselves, which combine the advanced technology of abroad with the feature of the normal type, according to user's demand. Compared with other ball valves, the main characters of construction of the wafer type ball valve are: with one-sided, and compact construction, small volume, light weight, well-sealed, non-limitation of medium direction, little flow resistance, quick start and stop, convenient operation. And it is possible for the normal type to set up the corresponding electric or pneumatic installations, for remote control or automatic control, according to user's demand.

### 产品规格 Products specification

系列型号 Serial models	Q71、Q671、Q871	Q7b1
压力等级 Pressure	PN1.6-MPa, Class150	PN1.6-4.0MPa
通径 Size	DN15-100mm, 1/2"-4"	DN10-200
驱动方式 及适用范围 Driving manner and scope of application	手柄驱动、气动、电动 Wrench operated, Air operated & Electric driving	手柄驱动 Wrench operated

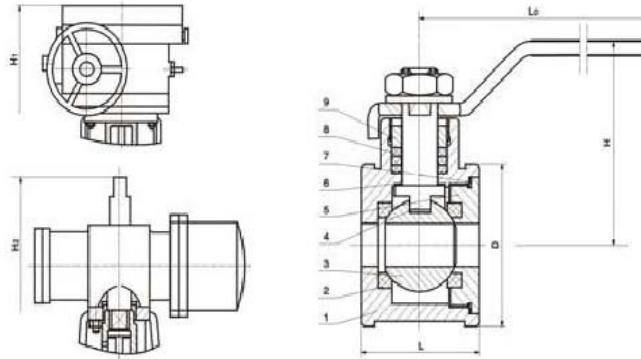
注：本公司可根据用户要求提供产品  
Notes: Our Company can provide products at customer's request.

### 产品性能规范 Products performance specification

公称压力 Nominal Pressure	壳体强度试验压力 Shell test pressure	密封试验压力 Sealing test pressure
1.0MPa	1.5MPa	2.0MPa
1.6MPa	2.4MPa	1.76MPa
2.0MPa	3.1MPa	2.2MPa
2.5MPa	3.75MPa	2.75MPa
4.0MPa	6.0MPa	4.4MPa
Class 150	3.03MPa	2.2MPa
介质温度 Temperature	≤300℃	
适用介质 Medium	水、油及腐蚀性介质 Water, oil & corrosive medium	

# Deseen International

## Cast steel valve and Stainless valve



### 技术规范 Technical specification

结构形式 Structure form	对夹式 Wafer type
连接法兰 Flanged ends	ANSI B 16.5、JB/T79
驱动方式 Driving manner	手动、电动、气动 Wrench、Electroc driving、Air operated
试验和检验 Test & Inspection	API 598

### 主要零件材质表 Form of major parts materials

序号 No	零件名称 Accessory name	材质 Material		序号 No	零件名称 Accessory name	材质 Material	
		GB	ASTM			GB	ASTM
1	阀体 Body	CF8	A351-CF8	6	垫片 Gasket	PTFE、RTFE	
2	密封圈 Sealing ring	尼龙、对位聚苯 Nylon PTFE、RTFE		7	垫片 Gasket	柔性石墨+不锈钢 Graphite+stainless steel	
3	球体 Ball	0Cr18Ni9+Ni.P	A276-304+Ni.P	8	填料 Packing	柔性石墨 Graphite	
4	阀杆 Stem	0Cr18Ni9	A276-304	9	压套 Stuffing cover	0Cr18Ni9	A276-304
5	阀座 Seat	0Cr18Ni9	A276-304				

注：系列阀门主要零部件及密封面的材质可根据实际工况条件或用户特殊要求设计选用。  
Notes: Major parts of the valve series and materials of sealing surface differ according to actual working condition and customer's special requirement.

### 主要外形尺寸 Main size of outside

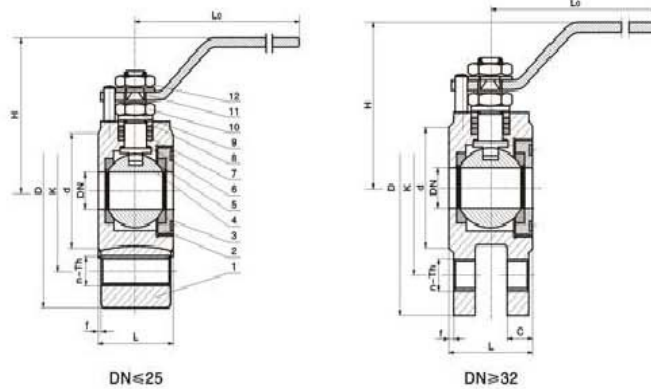
PN1.0-2.5MPa CLASS150

DN(mm)	15	20	25	32	40	50	65	80	100	
NPS(in)	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	
L	40	45	50	60	70	80	110	120	140	
D	PN1.0、1.6MPa	53	63	73	84	94	109	129	144	164
	PN2.5MPa	53	63	73	84	94	109	129	144	170
	PN2.0MPa、Class150	47	57	66	75	85	103	122	135	173
手动 Hand Operated	H	82	82	104	113	122	132	144	155	183
	L <sub>0</sub>	140	180	180	200	200	250	300	350	450
电动 Electric Driving	H <sub>1</sub>	324	323	345	354	363	373	385	455	495
	电动装置 Electric Driving Device	Q45-1	Q45-1	Q45-1	Q245-1	Q60-1	Q60-1	Q60-1	Q60-1	Q60-1
气动 Air-operating	H <sub>2</sub>	228	228	238	263	275	284	365	382	425
	气动装置 Air-operating Device	AG06	AG06	AG09	AG09	AG09	AG13	AG13	AG13	AW17



# Deseen International

## Cast steel valve and Stainless valve



### 技术规范 Technical specification

结构形式 Structure form	对夹式 Wafer type
连接法兰 Flanged ends	ANSI B 16.5、JB/T79
驱动方式 Driving manner	手动 Wrench
试验和检验 Test & Inspection	API 598

### 主要零件材质表 Form of major parts materials

序号 No	零件名称 Accessory name	材质 Material		序号 No	零件名称 Accessory name	材质 Material	
		GB	ASTM			GB	ASTM
1	阀体 Body	CF8	A351-CF8	7	填料 Packing	柔性石墨 Graphite	
2	阀座 Seat	0Cr18Ni9	A276-304	8	填料压圈 Stuffing cover	0Cr18Ni9	A276-304
3	密封圈 Sealing ring	尼龙、对位聚苯 Nylon PTFE、RTFE		9	垫圈 spring lock washers	0Cr18Ni9	A276-304
4	球体 Ball	0Cr18Ni9+Ni,P	A276-304+Ni,P	10	锁紧螺母 Lock nut	0Cr18Ni9	A276-304
5	阀杆 Stem	0Cr18Ni9	A276-304	11	手柄 Wrench	0Cr18Ni9	A276-304
6	垫片 Gasket	PTFE		12	限位销 Pin	0Cr18Ni9	A276-304

注：系列阀门主要零部件及密封面的材质可根据实际工况条件或用户特殊要求设计选用。  
Notes: Major parts of the valve series and materials of sealing surface differ according to actual working condition and customer's special requirement.

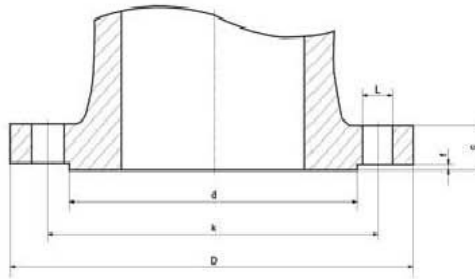
### 主要外形尺寸 Main size of outside

PN1.0-2.5MPa CLASS150

DN	L	PN1.6MPa					PN2.5MPa					PN4.0MPa					f	H	Lo
		D	K	d	C	n-Th	D	K	d	C	n-Th	D	K	d	C	n-Th			
10	32	85	60	42	-	4-M12	85	60	42	-	4-M12	85	60	42	-	4-M12	2	80	150
15	32	90	65	47	-	4-M12	90	65	47	-	4-M12	90	65	47	-	4-M12	2	80	150
20	38	100	75	58	-	4-M12	100	75	58	-	4-M12	100	75	58	-	4-M12	2	85	150
25	42	110	85	68	-	4-M12	110	85	68	-	4-M12	110	85	68	-	4-M12	2	95	170
32	50	130	100	78	16	4-M16	130	100	78	16	4-M16	130	100	78	18	4-M16	2	100	180
40	60	140	110	88	16	4-M16	140	110	88	16	4-M16	140	110	88	18	4-M16	2	105	210
50	70	155	125	102	18	4-M16	155	125	102	18	4-M16	155	125	102	20	4-M16	2	115	230
65	94	180	145	125	20	4-M16	180	145	125	22	8-M16	180	145	125	22	8-M16	2	130	280
80	118	195	160	138	20	8-M16	195	160	138	24	8-M16	195	160	138	24	8-M16	2	145	300
100	140	215	180	160	22	8-M16	230	190	160	24	8-M20	230	190	160	24	8-M20	2	175	400
125	195	245	210	188	22	8-M16	270	220	188	26	8-M24	270	220	188	26	8-M24	2	190	500
150	225	280	240	212	24	8-M20	300	250	212	28	8-M24	300	250	212	28	8-M24	2	220	600
200	275	335	295	268	24	8-M22	360	310	274	30	8-M24	375	320	285	34	8-M27	2	280	700

# Deseen International

## Cast steel valve and Stainless valve



RF

**PN1.6MPa RF GB/T9113.3-88 JB/T79.1-94**

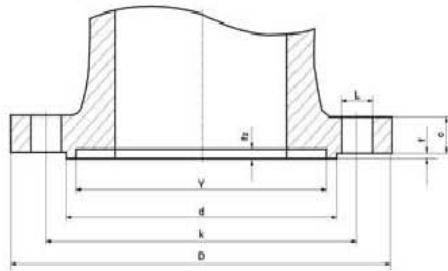
DN	D	K	L	螺栓n-Th.	d	f	C
15	95	85	14	4-M12	46	2	14
20	105	75	14	4-M12	56	2	16
25	115	85	14	4-M12	65	3	16
32	140	100	18	4-M16	76	3	18
40	150	110	18	4-M16	84	3	18
50	165	125	18	4-M16	99	3	20
65	185	145	18	4-M16	118	3	20
80	200	160	18	8-M16	132	3	20
100	220	180	18	8-M16	156	3	22
125	250	210	18	8-M16	184	3	22
150	285	240	22	8-M20	211	3	24
200	340	295	22	12-M20	266	3	24
250	405	355	26	12-M24	319	3	26
300	460	410	26	12-M24	370	4	28
350	520	470	26	16-M24	429	4	30
400	580	525	30	16-M27	480	4	32
450	640	585	30	20-M27	548	4	34
500	715	650	33	20-M30	609	4	36
600	840	770	36	20-M33	720	5	38
700	910	840	36	24-M33	794	5	40
800	1025	950	39	24-M36	901	5	42
900	1125	1050	39	28-M36	1001	5	44
1000	1255	1170	42	28-M39	1112	5	46

**PN2.5MPa RF GB/T9113.3-88 JB/T79.1-94**

DN	D	K	L	螺栓n-Th.	d	f	C
15	95	65	14	4-M12	46	2	14
20	105	75	14	4-M12	56	2	16
25	115	85	14	4-M12	65	3	16
32	140	100	18	4-M16	76	3	18
40	150	110	18	4-M16	84	3	18
50	165	125	18	4-M16	99	33	20
65	185	145	18	8-M16	118	3	22
80	200	160	18	8-M16	132	3	24
100	235	190	22	8-M20	156	3	24
125	270	220	26	8-M24	184	3	26
150	300	250	26	8-M24	211	3	28
200	360	310	26	12-M24	274	3	30
250	425	370	30	12-M27	330	3	32
300	485	430	30	16-M27	389	4	34
350	555	490	33	16-M30	448	4	38
400	620	550	36	16-M33	503	4	40
450	670	600	36	20-M33	548	4	42
500	730	660	36	20-M33	609	4	44
600	845	770	39	20-M36	720	4	46
700	960	875	42	24-M39	820	5	50
800	1085	990	48	24-M45	928	5	54
900	1185	1090	48	28-M45	1028	5	58
1000	1320	1210	56	28-M52	1140	5	62

# Deseen International

## Cast steel valve and Stainless valve



FM

### PN4.0MPa FM JB/T79.2-94

DN	D	K	L	螺紋n-Th.	d	Y	f	f <sub>2</sub>	C
15	95	65	14	4-M12	45	40	2	4	16
20	105	75	14	4-M12	55	51	2	4	16
25	115	85	14	4-M12	65	58	3	4	16
32	140	100	18	4-M16	78	66	3	4	18
40	150	110	18	4-M16	85	76	3	4	18
50	165	125	18	4-M16	100	88	3	4	20
65	185	145	18	8-M16	120	110	3	4	22
80	200	160	18	8-M16	135	121	3	4	22
100	235	190	22	8-M20	160	150	3	4.5	24
125	270	220	26	8-M24	188	176	3	4.5	28
150	300	250	26	8-M24	218	204	3	4.5	30
200	375	320	30	12-M27	282	280	3	4.5	38
250	450	385	33	12-M30	345	313	3	4.5	42
300	515	450	33	16-M30	408	364	4	4.5	46
350	580	510	36	16-M33	465	422	4	5	52
400	660	585	39	16-M36	535	474	4	5	58
450	685	610	39	20-M36	560	524	4	5	60
500	755	670	42	20-M39	612	576	4	5	62
600	890	795	48	20-M45	730	676	5	5	62

### PN6.3MPa FM JB/T79.2-94

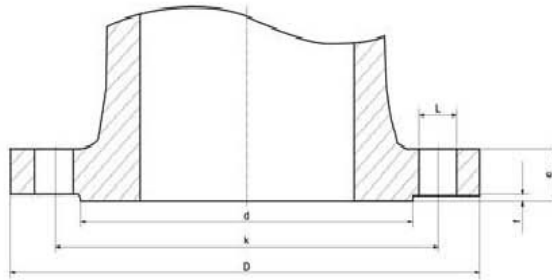
DN	D	K	L	螺紋n-Th.	d	Y	f	f <sub>2</sub>	C
15	105	75	14	4-M12	55	40	2	4	18
20	130	90	18	4-M16	68	51	2	4	20
25	140	100	18	4-M16	78	58	2	4	22
32	155	110	23	4-M20	82	66	2	4	24
40	170	125	23	4-M20	95	76	3	4	24
50	180	135	23	4-M20	105	88	3	4	26
65	205	160	23	8-M20	130	110	3	4	28
80	215	170	23	8-M20	140	121	3	4.5	30
100	250	200	26	8-M24	168	150	3	4.5	32
125	295	240	30	8-M27	202	176	3	4.5	36
150	345	280	34	8-M30	240	204	3	4.5	38
200	405	345	36	12-M33	300	260	3	4.5	44
250	470	400	36	12-M33	352	313	3	4.5	48
300	530	460	36	16-M33	412	364	4	4.5	54
350	600	525	41	16-M36	475	422	4	5	60
400	670	585	42	16-M39	525	474	4	5	66
500	800	705	48	20-M45	640	576	4	5	70
600	930	820	58	20-M52	750	676	4	5	76

### PN10.0MPa FM JB/T79.2-94

DN	D	K	L	螺紋n-Th.	d <sub>1</sub>	Y	f	f <sub>2</sub>	C
50	195	145	26	4-24	112	88	3	4	28
65	220	170	26	8-24	138	110	3	4	32
80	230	180	26	8-24	148	121	3	4	34
100	265	210	30	8-27	172	150	3	4.5	38
125	315	250	34	8-30	210	176	3	4.5	42
150	355	290	34	12-30	250	204	3	4.5	46
200	430	360	36	12-33	312	260	3	4.5	54
250	505	430	41	12-36	382	313	3	4.5	56
300	585	500	41	16-39	442	364	4	4.5	70
350	665	560	48	16-45	498	422	4	5	76
400	715	620	48	16-45	558	474	4	5	80

# Deseen International

## Cast steel valve and Stainless valve



### CLASS150, 300 RF ASME B16.5, B16.47

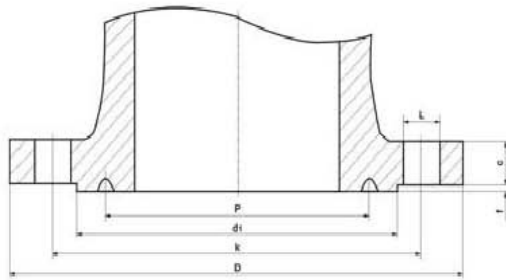
	CLASS150 RF ASME B16.5, ASME B16.47								CLASS300 RF ASME B16.5, ASME B16.47							
	DN	D	K	L	螺栓n-Th.	d	f	C	DN	D	K	L	螺栓n-Th.	d	f	C
	2	152	120.5	18	4-M16	92	2	16	2	165	127	18	8-M16	92	2	23
	2-1/2	178	139.5	18	4-M16	105	2	18	2-1/2	190	149	18	8-M20	105	2	26
	3	190	152.5	18	4-M16	127	2	19	3	210	168.5	18	8-M20	127	2	29
	4	229	190.5	18	8-M16	157	2	24	4	254	200	18	8-M20	157	2	32
	5	254	216	22	8-M20	186	2	24	5	279	235	22	8-M20	186	2	35
	6	279	241.5	22	8-M20	216	2	26	6	318	270	22	12-M20	216	2	37
	8	343	298.5	22	8-M20	270	2	29	8	381	330	22	12-M24	270	2	42
	10	406	362	26	12-M24	324	2	31	10	445	387.5	26	16-M27	324	2	48
	12	483	432	26	12-M24	381	2	32	12	521	451	26	16-M30	381	2	51
	14	533	476	29.5	12-M27	413	2	35	14	584	514.5	29.5	20-M30	413	2	54
	18	597	540	29.5	16-M27	470	2	37	16	648	571.5	29.5	20-M33	470	2	58
	18	635	578	32.5	16-M30	533	2	40	18	711	628.5	32.5	24-M33	533	2	61
	20	699	635	32.5	20-M30	584	2	43	20	775	686	32.5	24-M33	584	2	64
	24	813	749.5	35.5	30-M33	692	2	48	24	914	813	35.5	24-M39	692	2	70
	26	870	806.5	35	24-M33	749	2	68	26	972	876	35	28-M42	749	2	79
	28	927	863.6	35	28-M33	800	2	72	28	1035	940	35	28-M42	800	2	86
	30	984	914	35	28-M33	857	2	75	30	1092	997	35	28-M45	857	2	92
	32	1060	978	41	28-M39	914	2	81	32	1149	1054	41	28-M48	914	2	99
	36	1168	1086	41	32-M39	1022	2	90	36	1270	1168	41	32-M52	1022	2	105
	40	1289	1200	41	36-M39	1124	2	90	40	1298	1158	41	32-M42	1086	2	114
	42	1346	1257	41	36-M39	1194	2	97	42	1289	1206.5	41	32-M42	1137	2	119
	48	1511	1422	41	44-M39	1359	2	108	48	1467	1372	41	32-M48	1302	2	133

### CLASS400, 600 RF ASME B16.5, B16.47

	CLASS400 RF ASME B16.5, ASME B16.47								CLASS600 RF ASME B16.5, ASME B16.47							
	DN	D	K	L	螺栓n-Th.	d	f	C	DN	D	K	L	螺栓n-Th.	d	f	C
	2	165	127	19	8-16	92	6.4	25.5	2	165	127	19	8-M16	92	6.4	26
	2-1/2	190	149.2	22	8-20	105	6.4	29	2-1/2	190	149	22	8-M20	100	6.4	29
	3	210	168.3	22	8-20	127	6.4	32	3	210	168	22	8-M20	127	6.4	32
	4	254	200	26	8-24	157	6.4	35	4	273	216	26	8-M24	157	6.4	38
	5	279	234.9	26	8-24	186	6.4	38.5	5	330	268.5	29	8-M27	186	6.4	45
	6	318	269.9	26	12-24	216	6.4	41.5	6	345	292	29	12-M27	216	6.4	48
	8	381	330.2	29	12-27	270	6.4	48	8	419	349	32	12-M30	270	6.4	56
	10	445	387.3	32	16-30	324	6.4	54	10	508	432	35	16-M33	324	6.4	64
	12	520	450.8	35	16-33	381	6.4	57.5	12	559	489	35	20-M33	381	6.4	67
	14	585	514.3	35	20-33	413	6.4	60.5	14	603	527	38	20-M36	413	6.4	70
	16	650	571.5	39	20-36	470	6.4	63.5	16	686	603	41	20-M39	470	6.4	77
	18	710	628	39	24-326	533	6.4	67	18	743	654	44	20-M42	533	6.4	83
	20	775	685.8	42	24-39	584	6.4	70	20	813	724	44	24-M48	584	6.4	89
	24	915	812.8	48	24-45	692	6.4	76.5	24	940	838	52	24-M48	692	6.4	102
	26	851	781	39	28-36	711	6.4	89	26	1016	914.4	51	28-M48	749	6.4	108
	28	914	838	41	24-39	762	6.4	95	28	1073	985.2	54	28-M48	800	6.4	111
	30	972	895.4	41	28-39	819	6.4	102	30	1130	1022.4	54	28-M52	857	6.4	114
	32	1035	952.5	44	28-42	873	6.4	108	32	1194	1079.5	60	25-M56	914	6.4	117

# Deseen International

## Cast steel valve and Stainless valve



### CLASS900 RTJ ASME B16.5、B16.47

DN	D	K	L	螺栓n-Th.	d <sub>1</sub>	P	f	C
2	216	165.1	26	8-24	124	95.25	8	38.5
2-1/2	244	190.5	29	8-27	137	107.95	8	41.5
3	241	190.5	26	8-27	166	123.82	8	38.5
4	292	234.9	32	8-30	194	149.22	8	44.5
5	349	279.4	35	8-33	229	180.98	8	51
6	381	317.5	32	12-30	248	211.12	8	56
8	470	393.7	39	12-36	318	269.88	8	63.5
10	545	469.9	39	16-36	371	323.85	8	70
12	610	533.4	39	20-36	438	381	11.13	79.5
14	640	558.8	42	20-39	489	419.1	11.13	86
16	705	615.9	45	20-42	546	469.9	12.7	89
18	785	685.8	51	20-48	613	533.4	15.88	102
20	855	749.3	54	20-52	673	584.2	17.48	108
24	1040	901.7	67	20-64	794	692.15	17.48	140
26	1086	952.5	73	20-70	832	749.3	17.48	140
28	1168	1022.4	79	20-76	889	800.1	17.48	143
30	1232	1065.9	79	20-76	946	857.25	17.48	149
32	1314	1155.7	86	20-84	1003	914.4	17.48	159

### CLASS1500 RTJ ASME B16.5、B16.47

DN	D	K	L	螺栓n-Th.	d <sub>1</sub>	P	f	C
2	215	165	26	8-24	92	95.25	7.92	38.5
2-1/2	245	190.5	29.5	8-27	105	107.95	7.92	41.5
3	265	203	32.5	8-30	127	136.52	7.92	48
4	310	241.5	35.5	8-33	157	161.92	7.92	54
5	375	292	42	8-39	186	193.68	7.92	73.5
6	395	317.5	39	12-36	216	211.12	9.52	83
8	485	393.5	45	12-42	270	269.88	11.13	92
10	585	482.5	51	12-48	324	323.85	11.13	108
12	675	571.5	55	16-52	381	381	14.27	124
14	750	635	60	16-56	413	419.1	15.88	133.5
16	825	705	68	16-64	470	469.9	17.48	146.5
18	915	774.5	74	16-70	533	533.4	17.48	162
20	985	832	80	16-76	584	584.2	17.48	178
24	1170	990.5	94	16-90	692	692.15	20.62	203.5

# Deseen International

## Cast steel valve and Stainless valve



### ASME B16.25

公称管径 Nominal Pipe Size	管号 Schedule Number or Wall	焊条外径 Outside Diameter		公称内径 Nominal Inside Diameter		机加内径 Machined Inside Diameter		管子壁厚 Nominal Wall Thickness	
		inch	mm	inch	mm	inch	mm	inch	mm
2-1/2	40	2.66	73.0	2.469	62.6	2.479	62.97	0.203	5.2
	80			2.323	59.0	2.351	59.72	0.276	7.0
	160			2.125	54.0	2.178	55.32	0.375	9.5
	XXS			1.771	45.0	1.888	47.45	0.552	14.0
3	40	3.50	88.9	3.068	77.9	3.081	78.26	0.216	5.5
	80			2.900	73.7	2.934	74.52	0.300	7.6
	160			2.624	66.7	2.692	68.38	0.438	11.1
	XXS			2.300	58.5	2.409	61.19	0.600	15.2
3-1/2	40	4.00	101.6	3.548	90.2	3.564	90.53	0.226	5.7
	80			3.364	85.4	3.402	86.41	0.318	8.1
4	40	4.50	114.3	4.026	102.3	4.044	102.72	0.237	6.0
	80			3.826	97.1	3.869	98.27	0.337	8.6
	120			3.624	92.1	3.692	93.78	0.438	11.1
	160			3.438	87.3	3.530	89.66	0.531	13.5
	XXS			3.152	80.1	3.279	83.29	0.674	17.1
5	40	5.56	141.3	5.047	126.1	5.070	128.78	0.258	6.6
	80			4.813	122.3	4.868	123.60	0.357	9.5
	120			4.563	115.9	4.647	118.03	0.500	12.7
	160			4.313	109.5	4.428	112.47	0.625	15.9
	XXS			4.063	103.3	4.209	106.91	0.750	19.0
6	40	6.62	168.3	6.065	154.1	6.094	154.79	0.280	7.1
	80			5.761	146.3	5.828	148.03	0.432	11.0
	120			5.501	139.7	5.600	142.24	0.562	14.3
	160			5.187	131.7	5.326	135.28	0.719	18.3
	XXS			4.897	124.5	5.072	128.83	0.864	21.9
8	40	8.62	219.1	7.981	202.7	8.020	203.71	0.322	8.2
	60			7.813	198.5	7.873	199.97	0.406	10.3
	80			7.625	193.7	7.709	195.81	0.500	12.7
	100			7.437	188.9	7.544	191.62	0.594	15.1
	120			7.167	182.5	7.326	186.06	0.719	18.3
	140			7.001	177.9	7.163	181.94	0.812	20.6
	XXS			6.875	174.7	7.053	179.15	0.875	22.2
	160			6.813	173.1	6.998	177.75	0.908	23.0
	180								
10	40	10.75	273	10.020	254.4	10.707	255.78	0.365	9.3
	60			9.750	247.6	9.834	249.78	0.500	12.7
	80			9.562	242.6	9.670	245.62	0.594	15.1
	100			9.312	236.4	9.451	240.06	0.719	18.3
	120			9.062	230.2	9.232	234.49	0.844	21.4
	140			8.750	222.2	8.959	227.56	1.000	25.4
	160			8.500	215.8	8.740	222.00	1.125	28.6
12	STD	12.75	32.8	12.000	304.8	12.053	306.15	0.375	9.5
	40			11.938	303.2	11.999	304.77	0.406	10.3
	XS			11.750	298.4	11.834	300.58	0.500	12.7
	60			11.626	295.2	11.725	297.52	0.562	14.3
	80			11.374	288.8	11.505	292.23	0.688	17.5
	100			11.062	281.0	11.232	285.29	0.844	21.4
	120			10.750	273.0	10.959	278.36	1.000	25.4
	140			10.500	266.6	10.740	272.80	1.125	28.6
	160			10.126	257.2	10.413	264.49	1.312	33.3

# Deseen International

## Cast steel valve and Stainless valve



### ASME B16.25

公称管径 Nominal Pipe Size	管号 Schedule Number or Wall	焊管外径 Outside Diameter		公称内径 Nominal Inside Diameter		机加内径 Machined Inside Diameter		管子壁厚 Nominal Wall Thickness	
		inch	mm	inch	mm	inch	mm	inch	mm
14	STD	14.00	355.8	13.250	336.6	13.303	337.80	0.375	9.5
	40			13.124	333.4	13.192	335.08	0.438	11.1
	XS			13.000	330.2	13.084	332.33	0.500	12.7
	60			12.812	325.4	12.920	328.17	0.594	15.1
	80			12.500	317.6	12.848	321.21	0.750	19.0
	100			12.124	308.0	12.318	312.86	0.938	23.8
	120			11.812	300.0	12.044	305.92	1.094	27.8
	140			11.500	292.0	11.771	298.96	1.250	31.8
	180			11.188	284.2	11.498	292.05	1.406	35.7
16	STD	16.00	406.4	15.250	387.4	15.303	388.70	0.375	9.5
	40			15.000	381.0	15.084	383.13	0.500	12.7
	60			14.688	373.0	14.811	376.20	0.656	16.7
	80			14.312	363.6	14.482	367.84	0.844	21.4
	100			13.938	354.2	14.155	359.54	1.031	26.2
	120			13.562	344.4	13.826	351.18	1.219	31.0
	140			13.124	333.4	13.442	341.43	1.438	36.5
	160			12.812	325.4	13.170	334.52	1.594	40.5
	18			STD	18.00	457.2	17.250	438.2	17.303
XS		17.000	431.8	17.084			433.93	0.500	12.7
40		16.878	428.6	16.975			431.17	0.562	14.3
60		16.500	419.2	16.646			422.81	0.750	19.0
80		16.124	409.6	16.318			414.48	0.938	23.8
100		15.688	398.4	15.936			404.77	1.156	29.4
120		15.250	387.4	15.553			395.05	1.375	34.9
140		14.878	377.8	15.225			388.72	1.562	39.7
160		14.438	366.8	14.842			376.99	1.761	45.2
20	STD	20.00	208.0	19.250	489.0	19.303	490.30	0.375	9.5
	XS			19.000	482.6	19.084	484.73	0.500	12.7
	40			18.812	477.8	18.920	480.57	0.594	15.1
	60			18.378	466.8	18.538	470.87	0.812	20.6
	80			17.938	455.6	18.155	461.14	1.031	26.2
	100			17.438	443.0	17.717	450.01	1.281	32.5
	120			17.000	431.8	17.334	440.28	1.500	38.1
	140			16.500	419.2	16.896	429.16	1.750	44.4
	160			16.062	408.0	16.513	419.43	1.989	50.0
22	STD	22.00	558.8	21.250	539.8	21.303	541.10	0.375	9.5
	XS			21.000	533.4	21.084	535.53	0.500	12.7
	40			20.250	514.4	20.428	518.87	0.875	22.2
	60			19.750	501.6	19.890	507.75	1.125	28.6
	80			19.250	488.8	19.553	498.65	1.375	35.0
	100			18.750	476.2	19.115	485.52	1.625	41.3
	120			18.250	463.6	18.678	474.42	1.875	47.6
	140			17.750	450.8	18.240	463.30	2.125	54.0
	24			STD	24.00	609.6	23.250	590.6	23.303
XS		23.000	584.2	23.084			588.33	0.500	12.7
40		22.878	581.0	22.975			583.57	0.562	14.3
60		22.624	574.6	22.755			577.98	0.688	17.5
80		22.062	560.4	22.263			565.48	0.989	24.6
100		21.562	547.6	21.826			554.38	1.219	31.0
120		20.938	531.8	21.280			540.51	1.531	38.9
140		20.378	517.6	20.788			528.02	1.812	46.0
160		19.878	504.8	20.350			516.89	2.062	52.4
				19.312	490.6	19.857	504.37	2.344	59.5