

卫生球阀

Sanitary Ball Valve

YODSN 永德信®



蝶式球阀

Sanitary Butterfly-Type Ball Valve

应用 / Applications

- 蝶式卫生球阀，可用于物料输送。该类阀门的应用范围包括食品、饮料加工，以及制药和化学工业等领域。
- 完全贯通的阀门腔设计不会产生任何流体阻力，因此使得该阀门成为用来处理黏性或者颗粒物的流体的最佳选择。
- Sanitary butterfly valve, can be used in material handling. This valve range of applications including food and beverage processing, pharmaceutical and chemical industries as well as other fields.
- Completely through the valve chamber design does not produce any fluid resistance, so that the valve is such that the best choice for handling viscous fluids or particulate matter.

工作原理 / Operating principles

- 该类型阀门既可以通过一个电动执行器或一个气动执行器进行远程遥控操作，也可以通过一个手柄进行操控。
- 电动执行器或气动执行器是将一个活塞的轴向运动转换为阀门轴的 90° 旋转，实现开启或关闭，实现对管道流体的控制和开 / 关任务。气动执行器装置有三种标准：常开（NO）型，常闭（NC）型，气 / 气（A/A）型。
- 鸭嘴式手动操作作用的多位手柄可通过 15° 位置的调节将阀门机械式锁定在其开启或关闭的 12 位子上，达到控制介质流量的目的。
- 拉杆式手动操作作用手柄通过 4 个多功能定位，将阀门机械式锁定在其开启或关闭的 4 个位子上，也达到控制介质流量目的。
- This kind of valve can be operated through actuator(electric or pneumatic).
- Actuator or manually with the hand is to revolve the axial movement of piston actuator (electric or pneumatic) pushed the position of axial movement unto 90 degree; So that the valve can open or close. The actuator have three types.
- Multi-position handle can use to 15° adjustment of valve there is 12 seat to lock open or close, In that way, the valve can control the flow.
- Pulling handle can use to the 4 multi-function to lock open or close, In that way, the valve can control the flow.



材料 / Materials

- 产品过流钢制部件: 304/316L
- 其他钢质部件: 304
- 过流部件表面粗糙度: $Ra \leq 0.8$
- 外表面粗糙度: $Ra \leq 1.6$
- 气动头外表面粗糙度: 亚光
- 接触输送物料的密封件: PTFE, EPDM
- 其他密封件: PTFE, NBR
- Product wetted steel parts: 304 / 316L
- Other steel parts: 304
- Flow components of surface roughness: $Ra \leq 0.8$
- Outer surface roughness: $Ra \leq 1.6$
- Pneumatic head outer surface roughness: matt
- Wetted seals: PTFE, EPDM
- Other Seals: PTFE, NBR

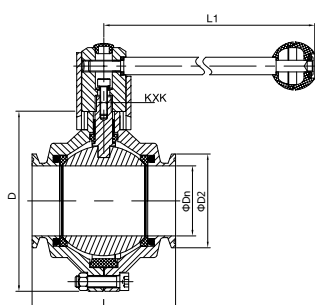
操作扭矩 (N.m.)

Operating Torque(N.m.)

操作扭矩 (N.m) (干燥测试) Dry test	DN10-DN20	DN25	DN32	DN40	DN50	2.5"	DN65	DN80	DN100
	1/2"-3/4"	1"	1 1/4"	1 1/2"	2"	25	30	3"	4"
	8	8	10	12	17			40	70

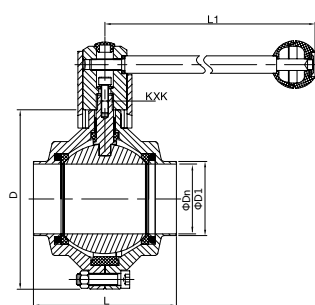
蝶式球阀

Sanitary Butterfly-Type Ball Valve



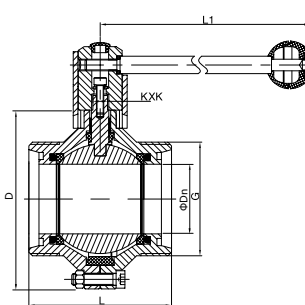
卡箍式
Clamped

NO.1106001



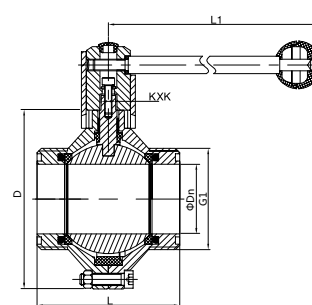
焊接式
Welded

NO.1106002



螺纹式DIN
Threaded

NO.1106003



螺纹式SMS
Threaded

NO.1106004

DIN

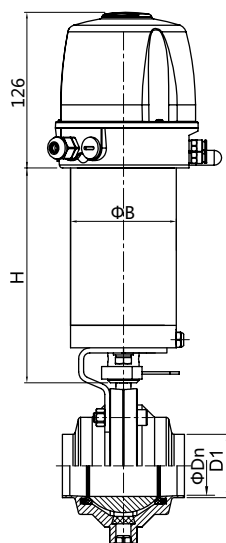
SIZE	Dn	D1	D2	D	L	L1	G	KxK
DN15	15	18	34	80	73	130	Rd34 × 1/8"	8x8
DN20	19	22	34	88	73	130	Rd44 × 1/8"	8x8
DN25	25	28	50.5	88	73	130	Rd52 × 1/6"	8x8
DN32	31	34	50.5	98	82	130	Rd58 × 1/6"	8x8
DN40	37	40	50.5	106	88	135	Rd65 × 1/6"	10x10
DN50	47	50	64	124	101	150	Rd78 × 1/6"	10x10
DN65	66	70	91	168	125	160	Rd95 × 1/6"	11x11
DN80	81	85	106	185	145	220	Rd110 × 1/4"	11x11
DN100	100	104	119	212	186	220	Rd130 × 1/4"	14x14

INCH

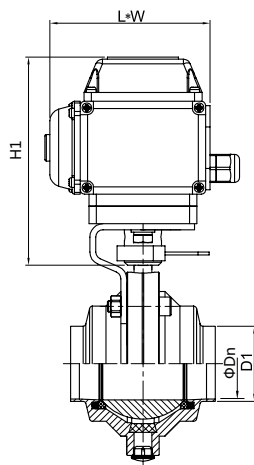
SIZE	Dn	D1	D2	D	L	L1	G1	KxK
3/4"	16.1	19.1	25.4	80	73	130	Rd34 × 1/8"	8x8
1"	22.4	25.4	50.5	88	73	130	Rd40 × 1/6"	8x8
1 1/4"	28.8	31.8	50.5	98	82	130	Rd48 × 1/6"	8x8
1 1/2"	35.1	38.1	50.5	106	88	135	Rd60 × 1/6"	10x10
2"	47.8	50.8	64	124	101	150	Rd70 × 1/6"	10x10
2 1/2"	59.5	63.5	77.5	148	125	150	Rd85 × 1/6"	11x11
3"	72.2	76.2	91	168	135	220	Rd98 × 1/6"	11x11
4"	97.6	101.6	119	212	186	220	Rd125 × 1/4"	14x14

焊接式蝶式球阀

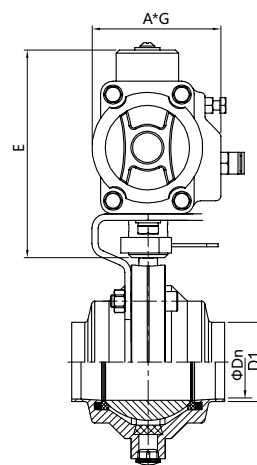
Welded Butterfly-Type Ball Valve



NO.1106005



NO.1106006



NO.1106007

DIN

SIZE	Dn	D1	B	H	H1	L*W	E	A*G
DN15	15	19	86	165	135	160x113	132	158.4x71
DN20	19	23	86	165	135	160x113	132	158.4x71
DN25	25	29	86	165	135	160x113	132	158.4x71
DN32	31	35	86	165	135	160x113	132	158.4x71
DN40	37	41	86	165	135	160x113	132	158.4x71
DN50	49	53	86	165	135	160x113	146	207x94
DN65	66	70	108	201.8	170	196x121	160	213x98.5
DN80	81	85	133	307	170	196x121	180	259x108.5
DN100	100	104	165	307	190	225x158	195	287x121.5

INCH

SIZE	Dn	D1	B	H	H1	L*W	E	A*G
3/4"	16.1	19.1	86	165	135	160x113	132	158.4x71
1"	22.4	25.4	86	165	135	160x113	132	158.4x71
1 1/4"	28.8	31.8	86	165	135	160x113	132	158.4x71
1 1/2"	35.1	38.1	86	165	135	160x113	132	158.4x71
2"	47.8	50.8	86	165	135	160x113	146	207x94
2 1/2"	59.5	63.5	86	165	170	196x121	160	213x98.5
3"	72.2	76.2	133	307	170	196x121	180	259x108.5
4"	97.6	101.6	165	307	190	225x158	195	287x121.5

卫生级球阀

Sanitary Ball Valve

应用 / Applications

- 该型是一款卫生型球阀，可用于物料输送。这种阀门的应用范围包括食物，饮料加工，以及制药和化学工业等领域。
- 完全贯通的阀门腔设计不会产生任何流体阻力。因此使得该型阀门成为用来处理黏性或含有颗粒物的流体的最佳选择。
- This series sanitary ball valve can be used in material transmitting,widely used in fields such as food processing, pharmacy and chemistry etc...
- The full bore design to let liquid pass through without any resistance,the best choice to process the fluid contains viscosity or particles.

工作原理 / Operating principles

- 一只带有贯通腔的精确制造的球体被放置在阀门体内的两块法兰和两片 PTFE 阀门座之间。一个阀门轴芯经 90° 旋转可作用于该球体，因而能够开启或关闭阀门。
- A high precision full bore ball fits between flange and PTFE seat, rotate the valve axis 90° to act on the ball to open/close valve.

材料 / Materials

- 产品过流钢制部件: 304/316L
- 其他钢质部件: 304
- 内外表面粗糙度: $Ra \leq 0.4\mu m$
- 接触输送物料的密封件: PTFE, EPDM
- 其他密封件: PTFE, NBR
- Body material: 304/316L
- Other SS parts: 304
- OD/ID roughness: $Ra \leq 0.4\mu m$
- Seal: PTFE,EPDM
- Other seals: PTFE,NBR

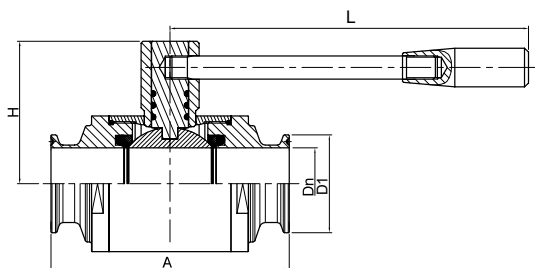


标准设计 / Standard Design

- 该型是一款完全贯通的阀门，与管道等直径，流体流经阀门时产生的阻力和一段直管道相当。经过特别挑选的 PTFE 材质可确保接触输送的物料的部件具有足够长的使用寿命。
- 卫生级两通球阀：三片式结构，一个阀体，两个阀盖，两个 PTFE 阀门座，球体，轴芯元件以及一个手柄（或气动头元件）。可增加清洗排泄口。
- 卫生级三通球阀：结构形式有 T 型及 L 型两种，一个阀体，三个阀盖，三个 PTFE 阀门座，球体，轴芯元件以及一个手柄（或气动头元件）构成。可增加清洗排泄孔。
- This full bore valve diameter in line with pipeline so keep equal resistance . The fine selected PTFE seal could guarantee long service life to the parts contact with medium.
- Sanitary 2-ways ball valve: three pices structure, one body two decks two seats, ball body, stem and one handle(or pneumatic components). Also can add a drain outlet.
- Sanitary 3-ways ball valve: L or T structure, one body three decks three seats, ball body, stem and one handle(or pneumatic components). Also can add a drain outlet.

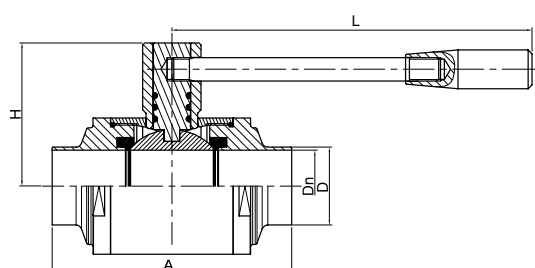
卫生级两通球阀

Sanitary 2-ways Ball Valve



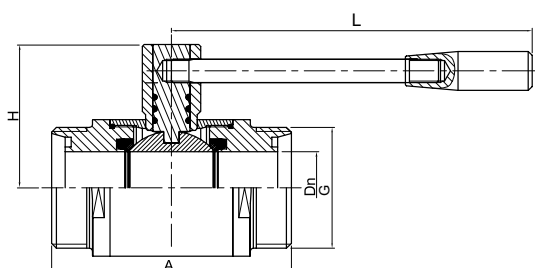
卡箍式
Clamped

NO.1106008



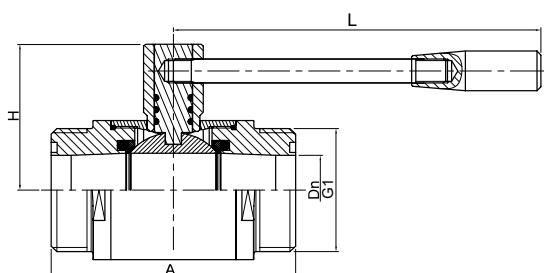
焊接式
Welded

NO.1106009



螺纹式DIN
Threaded

NO.1106010



螺纹式SMS
Threaded

NO.1106011

DIN

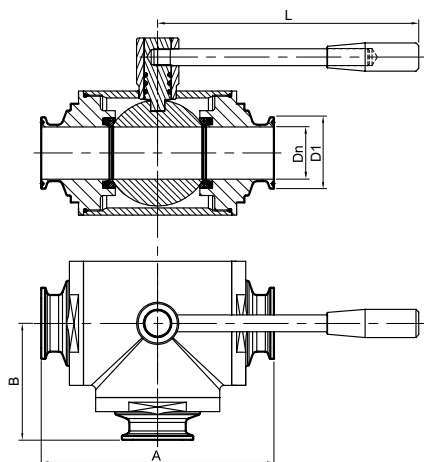
SIZE	G	Dn	D	D1	H	L	A
DN20	Rd44 × 1/8"	19	22	34	60	124	97
DN25	Rd52 × 1/6"	25	28	50.5	70	146	102
DN32	Rd58 × 1/6"	31	34	50.5	73	146	110
DN40	Rd65 × 1/6"	37	40	50.5	88	185	125
DN50	Rd78 × 1/6"	49	50	64	102	185	138
DN65	Rd95 × 1/6"	66	70	91	123	243	165
DN80	Rd110 × 1/4"	81	85	106	140	243	180
DN100	Rd130 × 1/4"	100	104	119	155	273	210

INCH

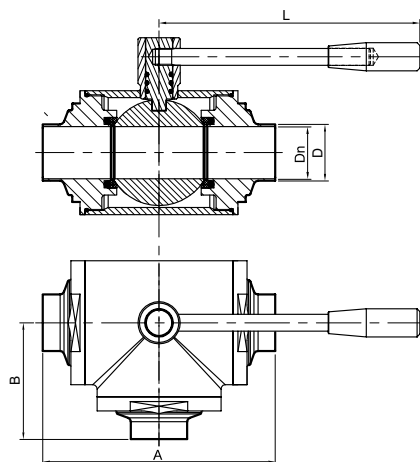
SIZE	G1	Dn	D	D1	H	L	A
3/4"	Rd34 × 1/8"	16.05	19.1	25.4	60	124	97
1"	Rd40 × 1/6"	22.4	25.4	50.5	70	146	102
1 1/4"	Rd48 × 1/6"	28.8	31.8	50.5	73	185	110
1 1/2"	Rd60 × 1/6"	35.1	38.1	50.5	88	185	125
2"	Rd70 × 1/6"	47.8	50.8	64	102	185	138
2 1/2"	Rd85 × 1/6"	59.5	63.5	77.5	123	205	165
3"	Rd98 × 1/6"	72.2	76.2	91	140	243	180
4"	Rd125 × 1/4"	97.6	101.6	119	155	273	210

卫生级三通球阀

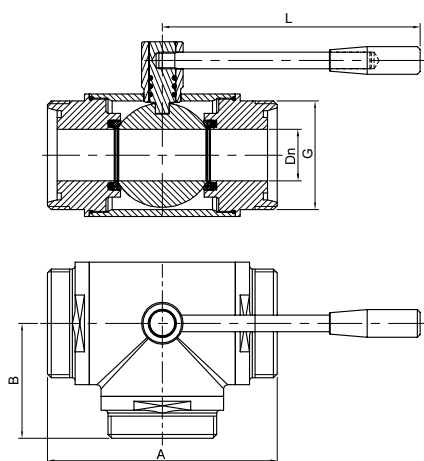
Sanitary 3-ways Ball Valve



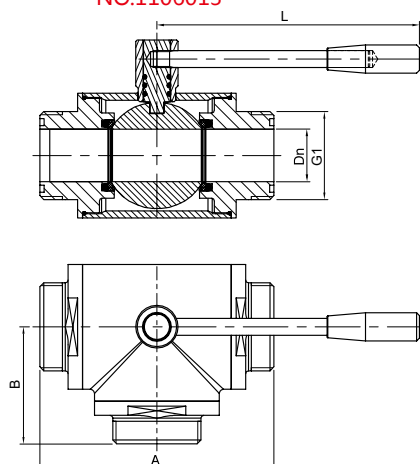
NO.1106012



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NO.1106014



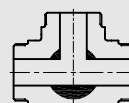
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三通球阀介质流向示意图

Sanitary 3-ways ball valve flow direction sketch



L型通口
L type flow direction



T型通口
T type flow direction

DIN

SIZE	G	Dn	D	D1	L	B	A
DN20	Rd44 × 1/8"	19	22	34	124	69	138
DN25	Rd52 × 1/6"	25	28	50.5	146	69	138
DN32	Rd58 × 1/6"	31	34	50.5	146	74	148
DN40	Rd65 × 1/6"	37	40	50.5	185	87	174
DN50	Rd78 × 1/6"	49	50	64	185	92	184
DN65	Rd95 × 1/6"	66	70	91	243	104	208
DN80	Rd110 × 1/4"	81	85	106	243	128	256
DN100	Rd130 × 1/4"	100	104	119	273	143	286

INCH

SIZE	G1	Dn	D	D1	L	B	A
3/4"	Rd34 × 1/8"	16.05	19.1	25.4	124	69	138
1"	Rd40 × 1/6"	22.4	25.4	50.5	146	69	138
1 1/4"	Rd48 × 1/6"	28.8	31.8	50.5	185	74	148
1 1/2"	Rd60 × 1/6"	35.1	38.1	50.5	185	87	174
2"	Rd70 × 1/6"	47.8	50.8	64	185	92	184
2 1/2"	Rd85 × 1/6"	59.5	63.5	77.5	205	104	208
3"	Rd98 × 1/6"	72.2	76.2	91	243	128	256
4"	Rd125 × 1/4"	97.6	101.6	119	273	143	286

无滞留球阀 Non-retention Ball Valve

应用 / Applications

- 广泛用于食品、酿酒、饮料、乳制品、精细化工、制药及生物工程等众多行业。
- Widely used in food, wine, beverages, dairy products, fine chemicals, pharmaceuticals and health Materials engineering and many other industries.

工作原理 / Operating principles

- 通过执行机构驱动阀杆 90° 旋转，带动有贯通腔的精确制造的球体，以便开启或关闭阀门，从而实现控制介质流量。
- Driven by the actuator stem 90° rotation, drive the precise manufacturing ball body which with through cavity, turn on or off, so that can control the medium flow.

技术标准 / Technical Standards

- 要求零死角，零滞留
- 设计制造按 GB/T12237-2007 的标准规定
- 结构长度按 GB/T12221-2005 的标准规定
- 连接卡箍、焊接按 DIN、ISO
- 温压等级按 GB/T 12224-2005 的标准规定
- 检验和试验按 GB/T 26480 的标准规定
- Request non-retention
- Designed and manufactured according to GB/T12237-2007 standard requirements
- Length of the structure according to GB/T12221-2005 standard requirements
- Connection clamp, welding by DIN, ISO
- Temperature and pressure level according to GB/T 12224-2005 standard requirements
- Inspection and test according to GB/T 26480 standard requirements

技术数据 / Technical Data

- 最大产品压力: 1600kpa (16bar)
- 最小产品压力: 完全真空
- 建议的制动过程中的最大压力: 600kpa (6bar)
- 操作方式: 手动、气动、电动
- 最大消毒温度, 短时间: +200℃



材料 / Materials

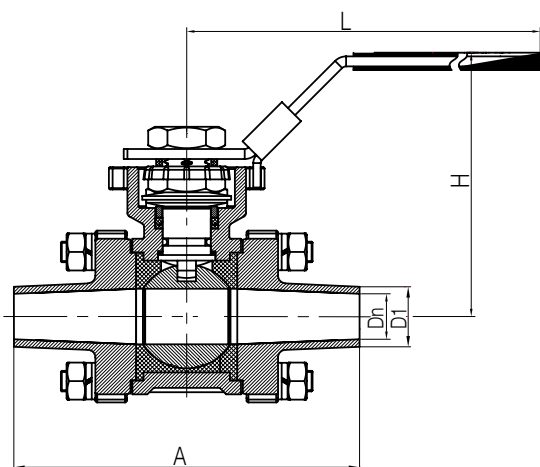
- 产品过流钢制部件: 304/316L
- 其他钢质部件: 304
- 过流部件表面粗糙度: $Ra \leq 0.4\mu m$
- 外表面处理: 电解
- 气动头外表面粗糙度: 亚光
- 接触输送物料的密封件: PTFE, EPDM
- 其他密封件: PTFE, NBR
- Product wetted steel parts: 304/316L
- Other steel parts: 304
- Flow components of surface roughness: $Ra \leq 0.4\mu m$
- Surface treatment: Electrolytic
- Pneumatic head outer surface roughness: matt
- Wetted seals: PTFE, EPDM
- Other Seals: PTFE, NBR
- Maximum product pressure: 1600kpa (16bar)
- Minimum product pressure: full vacuum
- Recommended maximum pressure during braking: 600kpa (6bar)
- Operating modes: manual, pneumatic, electric
- Maximum sterilization temperature, short time: + 200 °C

Explosive View Of Three-Piece Non-Retention Ball Valve

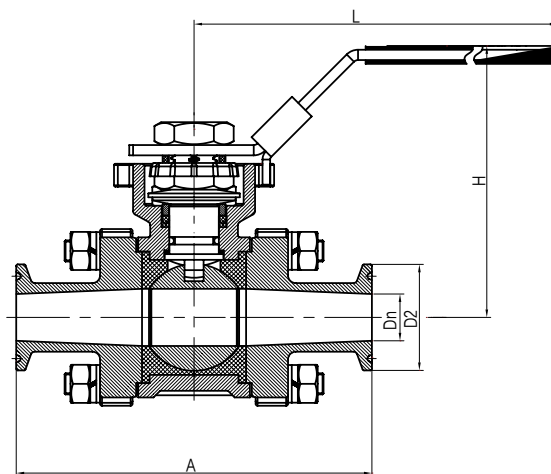
序号 NO	名称 SPARE NAME	数量 QTY	材料 MATERIAL	备注 NOTE
10	薄型密封垫 Washer gasket	1	PTFE	
11	V型密封圈组件 V-seal components	2	PTFE	
12	垫圈 Gasket	1	PTFE	
13	弹簧垫Spring gasket	2	A2-70	
14	螺母Hex nut	2	A2-70	
15	止动圈Spring washer	1	A2-70	
16	垫片Gasket	1	A2-70	
17	手柄Pull handle	1	304	
18	内六角螺栓 Hex nut	1	A2-70	



无滞留球阀 Non-retention Ball Valve



NO.1106016



NO.1106017

DIN

SIZE	A	Dn	D1	D2	H	L
DN15	89	15	18	34	76	165
DN20	89	19	22	34	76	165
DN25	114	25	28	50.5	80	165
DN32	114	31	34	50.5	85	165
DN40	138	37	40	50.5	93.5	170
DN50	156	49	52	64	102	170
DN65	197	66	70	91	126	240
DN80	229	81	85	106	136	240
DN100	241	100	104	119	154	255

INCH

SIZE	A	Dn	D1	D2	H	L
1/2"	89	9.7	12.7	25.4	76	165
3/4"	89	16.05	19.1	25.4	76	165
1"	114	22.4	25.4	50.5	80	165
1 1/4"	114	28.8	31.8	50.5	85	165
1 1/2"	138	35.1	38.1	50.5	93.5	170
2"	156	47.8	50.8	64	102.5	170
2 1/2"	197	59.5	63.5	77.5	120	240
3"	221	72.2	76.2	91	130	240
3 1/2"	229	85	89	106	136	240
4"	241	97.6	101.6	119	154	255

常规直通球阀

Sanitary Straight Ball Valve

应用 / Applications

- 该类型球阀系列是一款卫生型的用于物料传送控制的一类阀门系列。广泛应用于食品、饮料加工，以及制药和化学工业领域。
- The series ball valves are used to transfer and control the materials, which are widely used in food, beverage, pharmacy, chemical industries etc.

工作原理 / Operating principles

- 通过 90° 旋转手柄，从而 90° 带动有贯通腔的精确制造的球体，以开启或关闭阀门，达到控制介质流量。
- Through 90 degree rotary handle, drive the ball body which have transfixion cavity and precise manufacture, to open or close the valve, reaching control the flow rate of medium.

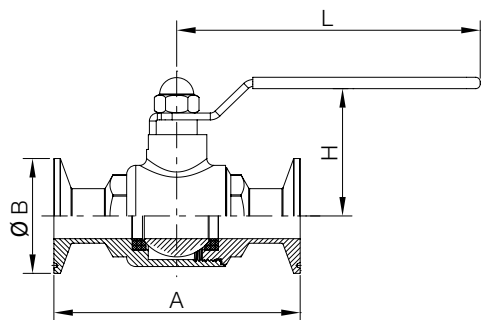
材料 / Materials

- 产品过流钢制部件: 304/316L
- 其他钢质部件: 304
- 过流部件表面粗糙度: $Ra \leq 0.4\mu m$
- 外表面粗糙度: $Ra \leq 0.4\mu m$
- 气动头外表面粗糙度: 亚光
- 接触输送物料的密封件: PTFE, EPDM
- 其他密封件: PTFE, NBR
- Product wetted steel parts: 304/316L
- Other steel parts: 304
- Flow components of surface roughness: $Ra \leq 0.4\mu m$
- Outer surface roughness: $Ra \leq 0.4\mu m$
- Pneumatic head outer surface roughness: matt
- Wetted seals: PTFE, EPDM
- Other Seals: PTFE, NBR



标准设计 / Standard Design

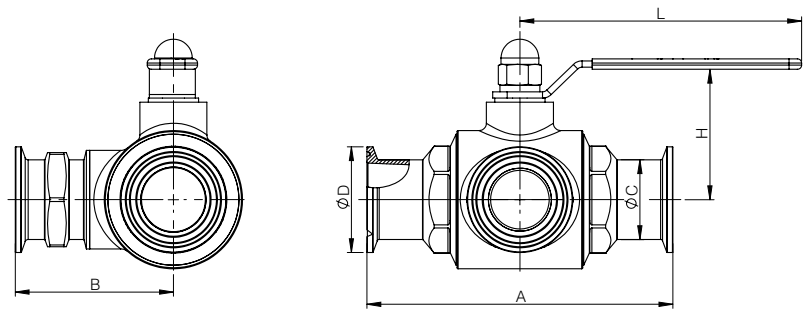
- 有各标准的阀门系列可以向客户提供，即用于 DIN 标准系列，3A 标准系列，SMS 标准系列，ISO/IDF 标准系列，BS/RJT 标准系列，ASME/BPE 等标准系列。
- 球阀的组成部件一般包括：一个手柄、一个带有贯通腔的球体、阀体、阀门轴芯以及轴密封圈。
- Yodsn 现有的球阀系列规格有：焊接式球阀、卡箍式球阀、螺纹式球阀等系列球阀。
- Have different standard of valve series can supply for customers, they are the DIN standard series, 3A standard series, SMS standard series, ISO/IDF standard series, BS/RJT standard series, ASME/BPE etc.
- The constitute elements of ball valve always included: one handle, one ball body with transfixion cavity, valve body, valve central spindle and spindle shaft seal.
- The specification of yodsn ball valve series are welded ball valve, clamped ball valve, threaded ball valve etc.



NO.1106018

卡箍式直通球阀 Clamped Straight Ball Valve					DIN
SIZE	A	B	H	L	
DN20	110	50.5	55	125	
DN25	120	50.5	55	125	
DN32	130	50.5	55	140	
DN40	140	50.5	65	150	
DN50	164	64	75	160	
DN65	180	91	85	180	
DN80	220	106	100	260	
DN100	255	119	120	350	

INCH					
SIZE	A	B	H	L	
3/4"	110	50.5	55	125	
1"	120	50.5	55	125	
1 1/4"	130	50.5	55	140	
1 1/2"	140	50.5	65	150	
2"	164	64	75	160	
2 1/2"	180	77.5	85	180	
3"	220	91	100	260	
4"	255	119	120	350	



NO.1106019

快装三通球阀 Clamped Three-way Ball Valve							INCH
SIZE	A	B	C	D	H	L	
3/4"	110	54	19.05	25.4/50.5	55	125	
1"	120	61	25.4	50.5	55	125	
1 1/4"	130	64.5	31.8	50.5	55	140	
1 1/2"	140	72	38.1	50.5	65	150	
2"	164	82	50.8	64	75	160	
2 1/2"	180	92	63.5	77.5	85	180	