

# 3 Way Ball Valve

## 三通球阀



手动快装三通球阀  
Manual Clamped 3 Way Ball Valve



气动快装三通球阀  
Pneumatic Clamped 3 Way Ball Valve



电动快装三通球阀  
Electric Clamped 3 Way Ball Valve

### 应用:

该类型阀门系列是一款自动或手动操纵的球阀，主要应用于酿酒、饮料、乳品、生物制药、化妆品、精细化工、电力以及锂电等行业。

### 设计特点:

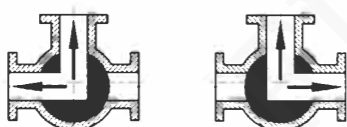
- 结构简单、体积小、重量轻、不占用多余空间
- 外观光亮，易于清洗保养
- 扭矩小，操作方便，维修简单
- 连接方式：快装、焊接、螺纹、法兰
- 无论何种连接，阀门长度都可以保持一致，方便更换
- 可装配气动执行器、电动执行器、智能控制器，调节器等
- 物料接触部位材质为 304/316L，其他部位 304
- 密封材质 PTFE、VMQ、EPDM、FPM
- 此阀门有 T 型和 L 型供客户选择，满足工艺管线布局，如图：

### Applications:

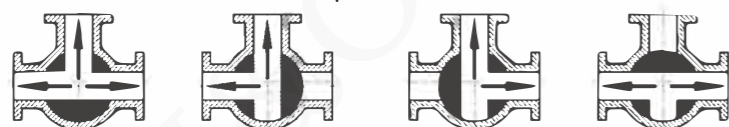
This type of valve series an automatically or manually operated ball valve, mainly used in industries such as wine, beverages, dairy, biopharmaceuticals, cosmetics, fine chemicals, electric power, and lithium batteries.

### Design Features:

- Simple structure, small size, light weight, no extra space.
- Bright appearance, easy to clean and maintain.
- Small torque, convenient operation and simple maintenance.
- Connection method: tri clamp, welding, thread, flange.
- Regardless of the connection, the valve length can be kept the same for easy replacement.
- It can be equipped with pneumatic actuators, electric actuators, intelligent controllers, regulators, etc.
- The material contact parts are made of 304/316L, the other parts are 304.
- The sealing materials are PTFE, VMQ, EPDM, FPM.
- This type of valve has T-type and L-type for customers to choose to meet the process pipeline layout. As shown in the figure:



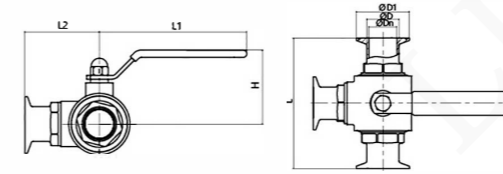
三通球阀 T 型球芯  
T port Ball



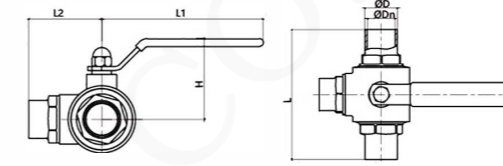
三通球阀 L 型球芯  
L port Ball

# 3 Way Ball Valve

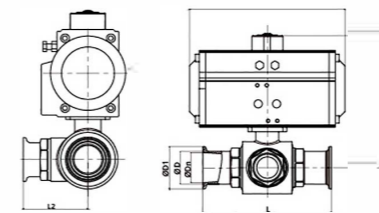
## 三通球阀



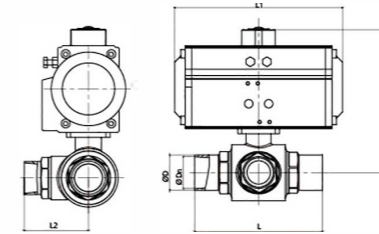
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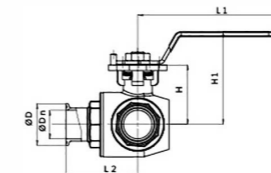
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手动三通球阀  
Manual 3 Way Ball Valve

焊接 / 快装  
Weld/Clamp

3A

Size	ØDn	ØD	ØD1	L	L1	L2	H
3/4"	15.8	19.1	25.2	101	120	55	59
1"	22.1	25.4	50.5	120	132	61	70
1.25"	28.5	31.8	50.5	130	136	65	73
1.5"	34.8	38.1	50.5	153	160	73	80
2"	47.5	50.8	64	164	178	84	80
2.5"	60.2	63.5	77.5	200	225	101	104
3"	72.9	76.2	91	210	250	105	116
3.5"	84.7	88.9	106	232	268	115	135
4"	97.4	101.6	119	260	300	130	151

气动三通球阀  
Pneumatic 3 Way Ball Valve

焊接 / 快装  
Weld/Clamp

3A

Size	ØDn	ØD	ØD1	L	L1	L2	H
3/4"	15.8	19.1	25.2	101	155	55	123
1"	22.1	25.4	50.5	120	155	61	132
1.25"	28.5	31.8	50.5	130	168	65	153
1.5"	34.8	38.1	50.5	153	168	73	157
2"	47.5	50.8	64	164	219	84	185
2.5"	60.2	63.5	77.5	200	249	101	211
3"	72.9	76.2	91	210	274	105	236
3.5"	84.7	88.9	106	232	274	115	248
4"	97.4	101.6	119	260	315	130	270

手动三通球阀  
Manual 3 Way Ball Valve

韩式  
Korean

Size	ØDn	ØD	L	L1	H	H1	K
3/4"	16	50.5	122	135	42.5	79	42
1.0"	22.1	50.5	152	135	59.5	96	50
1.5"	34.8	50.5	175	181	72.5	113	71
2.0"	47.5	64	201	181	81.5	121	71
2.5"	60	77.5	228	181	93	134	71

# 3 Way Full Bore Encapsulated Ball Valve

全口径三通全包球阀

# 3 Way Full Bore Encapsulated Ball Valve

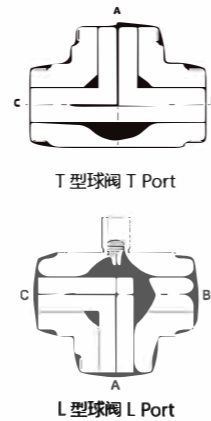
全口径三通全包球阀



手动快装全口径三通球阀  
Manual Clamped 3 Way Full Bore Encapsulated Ball Valve

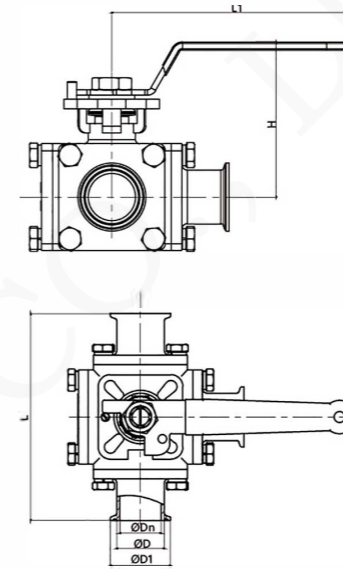


气动快装全口径三通球阀  
Pneumatic Clamped 3 Way Full Bore Encapsulated Ball Valve

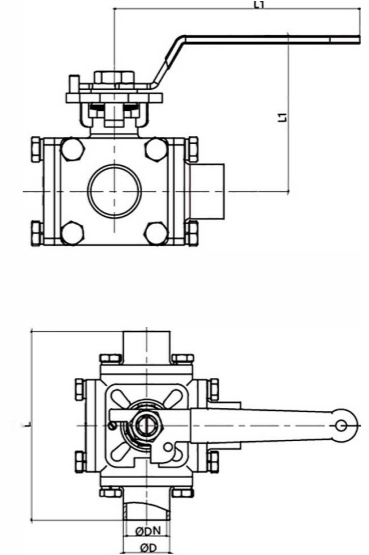


T型球阀 T Port

L型球阀 L Port



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## 应用:

广泛应用于食品加工、饮料、酿酒、生物制药等领域。

## Applications:

This kind of valve is widely used in the field of food processing, beverages, wine, biopharmaceutical etc.

## 设计特点:

- 全包覆式阀座设计, 无滞留高洁净, 满足 CIP SIP 杀菌和清洗要求, 耐温 -40°C -150°C, 压力 0-10Bar.
- 密封圈材质: PTFE, 符合 FDA117.2600
- 连接方式: 快装、焊接、螺纹
- 控制方式: 手动、气动、电动
- Size: 1"-4"
- 标准: 3A、DIN、SMS、IDF、RJT、BPE、ISO
- 无论何种连接方式, 阀体都可更换, 且不会改变阀门的总长度
- L型和T型可现场更换, 进出口方向可任意组合都保证无滞留, 无死角

## Design Features:

- Fully covered valve seat design, no retention and high cleanliness, meet CIP SIP sterilization and cleaning requirements, temperature resistance -40°C -150°C, pressure 0-10Bar
- Seal Material: PTFE, it is according to FDA117.2600
- Connection method: quick assembly, welding, thread
- Control mode: manual, pneumatic, electric
- Size: 1"-4"
- Standard: 3A, DIN, SMS, IDF, RJT, BPE, ISO
- Regardless of the connection method, the valve body can be replaced without changing the total length of the valve
- L-type and T-type can be replaced on site, and the direction of import and export can be combined in any way to ensure no stagnation and no dead angle.

## 全口径三通球阀扭矩表

### The N.m Of 3 Way full Bore Ball Valve

Size	1/2"-3/4"	1"/DN25	1.25"/DN3	1.5"/DN40	2"/DN50	2.5"-3"	DN65	DN80	4"/DN100
扭矩 N.M	10	15	20	25	35	50	75	95	120

选择执行器时建议增加 20% 安全余量  
Advice: increasing 20% Safety Margin When Selecting Actuators

全口径三通全包球阀  
3 Way Full Bore Encapsulated Ball Valve

焊接 / 快装  
Weld/Clamp

3A

Size	ØDn	ØD	ØD1	L	L1	H
1/2"	9.4	12.7	25.2	118	135	77
3/4"	15.8	19.1	25.2	127	135	78
1"	22.1	25.4	50.5	152	135	95
1.25"	28.5	31.8	50.5	174	181	113
1.5"	34.8	38.1	50.5	174	181	113
2"	47.5	50.8	64	204	181	121
2.5"	60.2	63.5	77.5	227	181	135
3"	72.9	76.2	91	262	389	132
4"	97.4	101.6	119	319	489	149

全口径三通全包球阀  
3 Way Full Bore Encapsulated Ball Valve

焊接 / 快装  
Weld/Clamp

DIN

Size	ØDn	ØD	ØD1	L	L1	H
DN15	15	18	34	118	135	77
DN20	19	22	34	127	135	78
DN25	25	28	50.5	152	135	95
DN32	31	34	50.5	174	181	113
DN40	37	40	50.5	174	181	113
DN50	49	52	64	204	181	121
DN65	66	70	91	227	181	135
DN80	81	85	106	262	389	132
DN100	100	104	119	319	489	149

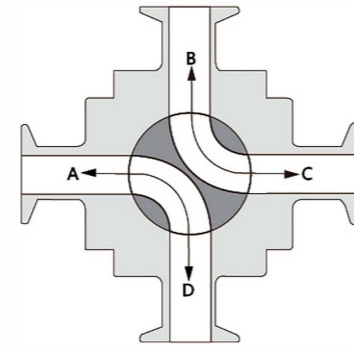


# "LL" 4 Way Full Bore Encapsulated Ball Valve

"LL" 全口径四通全包球阀

# "LL" 4 Way Full Bore Encapsulated Ball Valve

"LL" 全口径四通全包球阀



## 应用:

可应用于食品、饮酒、酿酒、炼油、化妆品、制药和化学制品行业中要求无滞留同时对两种介质的流向进行切换的管道。

## Applications:

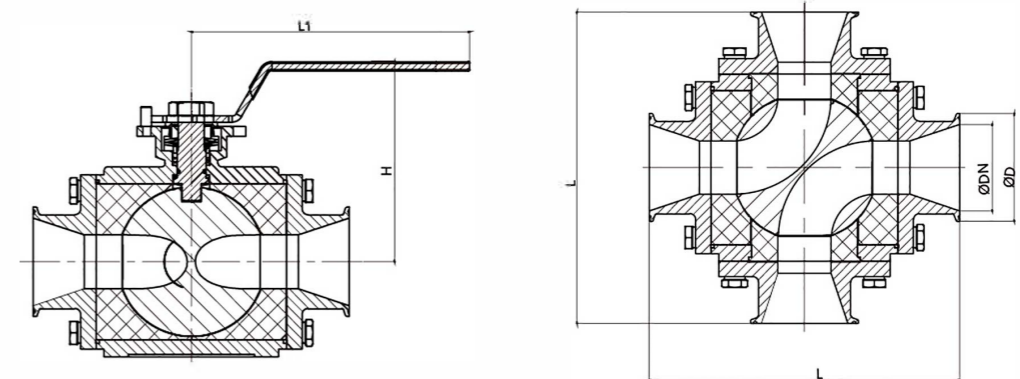
Pipe System Applied In Food, Wine, Brewery, Refining, Cosmetics, Pharmaceutical And Chemicals Industries, Required Non-Retention And Switch The Direction Of Two Media.

## 设计特点:

1. 本系列阀门可配多种驱动装置。
2. 本系列阀门介质流向工作原理:
  - 如图所示,LL 型四通球阀只需操作扳手或执行器将球体转动 90°, 同时对两种介质的流向进行切换, 既方便而迅速, 实现阀多用的效果。
  - 以前需四个阀门, 供水时阀 A、D 开启, 阀 B、C 关闭; 反向供水时阀 B、C 开启, 阀 A、D 关闭, 现用一台四通球阀替代, 操作方便。
3. 本系列阀门的特点:
  - 流体阻力小: 球体、阀体和连接管道的截面都是相等的, 且球体通道采用圆弧设计, 介质通过球体是, 流体阻力小。
  - 密封性能好: 阀座采用具有一定弹性变形和高强度的 PTFE 材料, 达到良好密封性能保证了阀门的稳定性。
  - 使用寿命长: 阀门的整体材质全部选用卫生级奥氏体不锈钢, 阀座材料选用 PTFE, 能达到良好的抗腐蚀性作用, 延长了阀门的使用寿命。
  - 无滞留设计: 密封选用优质 PTFE 全包结构, 使 PTFE 阀座与球体、阀体紧密接触, 从而达到无滞留介质的功能。

## Product Features:

1. This series of valves can be equipped with a variety of drive devices.
2. The working principle of this series of valve' s medium flow direction:
  - As shown in the picture, LL type four-way ball valve only needs to rotate the ball 90° with the handle or actuator, then the flow direction of the two media will switch at the same time to achieve the multi-purpose effect. It is convenient and rapid.
  - In the old time, supply water needs four valves, when supply water, valve A, D opened, valve B, C closed; in opposite direction, valve B, C opened, valve A, D closed; but now only one valve can take place the four, easy to operate.
3. features of this series of the valve:
  - Small fluid resistance: The cross section of the ball, valve body and connecting pipe are all equal, and the ball channel is arc design, when the medium passes through the valve, the fluid resistance is small .
  - Well sealing performance: valve seat use the PTFE material with a certain elastic deformation and high strength, reach the well sealing performance to make sure the stability of the valve.
  - Long-lasting usage: overall material of the valve choose sanitary authentic stainless steel, valve seat select PTFE material can reach the good effect of corrosion resistance, to extend the useful life of the valve.
  - Non-retention design: sealing choose quality PTFE encapsulated structure, so that the PTFE seat,sphere and valve body contact closely, to reach the purpose of non-retention.



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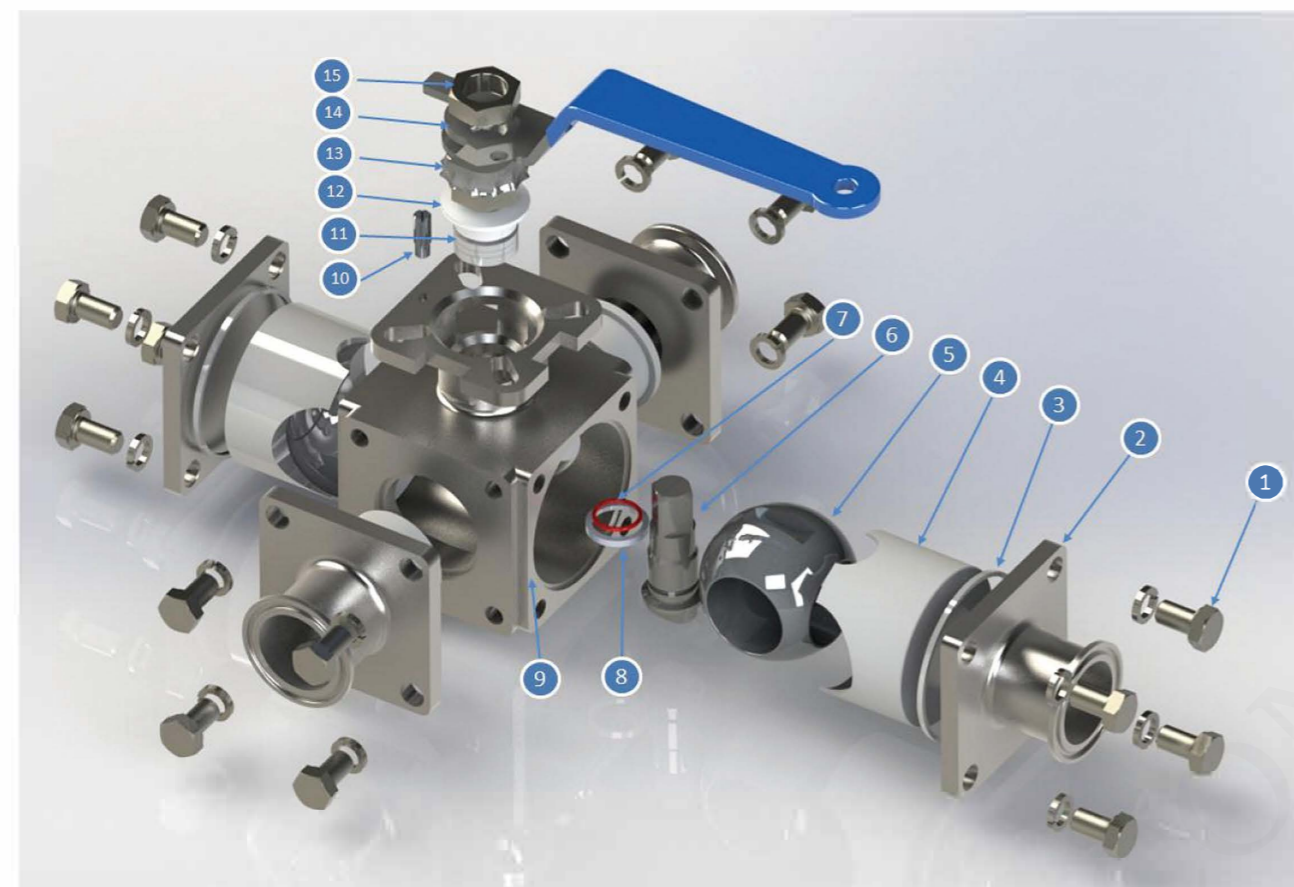
"LL" 全口径四通全包球阀  
"LL" 4 Way Full Bore Encapsulated Ball Valve

焊接 / 快装  
Weld/Clamp

Size	ØDn	ØD	ØD1	L	L1	H
1"	22.1	25.4	50.5	174	181	113
1.25"	28.5	31.8	50.5			
1.5"	34.8	38.1	50.5			
2"	47.5	50.8	64			
2.5"	60.2	63.5	77.5			
3"	72.9	76.2	91			
4"	97.4	101.6	119			

# "LL" 4 Way Full Bore Encapsulated Ball Valve

"LL" 全口径四通全包球阀



NO	DESCRION	NO	DESCRION
01	螺栓 / Bolt	09	阀体 / Valve Body
02	阀盖 / Valve End	10	限位销 / Spacer Pin
03	密封线条 / Seal Ring	11	组合填料 / Stem Packing
04	阀座 / Valve Seat	12	蝶簧 / Gland Ring
05	球芯 / Valve Ball	13	止退垫 / Back Stop Pad
06	阀杆 / Valve Stem	14	手柄 / Valve Handle
07	O 型圈 / O Ring	15	螺母 / Nut
08	阀杆垫圈 / Seal Ring		

# Sanitary Butterfly Valve

卫生级蝶阀



## 应用:

该类型阀门是一款卫生型自动或手动操作的蝶阀系列,广泛用于不锈钢管道系统内需调节介质流量的部分。

## 工作原理:

- 蝶阀既可以通过执行器进行远程遥控操作,也可以通过手柄人工操控
- 执行器是将一个活塞的轴向运动转换为阀轴的90°旋转,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个位置,达到控制介质流量的目的拉杆式手柄通过3个多功能定位,将阀门机械式锁定在其开启或关闭的3个位置上,也达到控制介质流量的目的。

## 设计特点:

- 无论何种连接方式,阀体都可更换,且不会改变阀门的总长度
- 连接方式:快装、焊接、螺纹、法兰
- 物料接触部位材质为304/316L,其它部位304;密封材质EPDM、VMQ、FPM
- 工作压力:0~10bar 控制气源压力:5~8bar
- 工作温度:EPDM (-40~+120°C)、VMQ (-40~+130°C)、FPM (-40~+180°C)
- Size: 1"-6"/DN25-DN150
- 标准:3A、DIN、SMS、IDF、ISO

## Applications:

The series of this valve is a kind of sanitary pneumatic or manual handle butterfly valve, which is widely used in the stainless steel pipeline system to control and regulate medium flow.

## Work Principle:

- This kind of valve can be handled both by manual or an electric actuator, and also can be handled by a pneumatic actuator.
- The actuator converts the steering motion of a piston into a 90 degree rotation of the valve shaft, so the valve can be open or close to achieve the requirement of control and open/close for the pipeline system.
- They have three types of actuator: Normal open(NO), Normal closed(NC), air/air(A/A).
- Multi Position handle regulates the valve by 15° in its open or close 12 seats, and achieve control or medium flow purpose.
- The Pull handle regulates the valve through three multi-function positioning, in its open or close three positions, and also achieves control of medium flow purpose.

## Design Features:

- Valve body can be replaced in any connections, and the length will not change.
- connection: clamp, weld, thread, flange
- Material for the part contacted with media is 304/316L, other parts are 304. Sealing material: EPDM, VMQ, FPM
- pressure of work: 0~10bar control air pressure: 5~8bar
- working temperature: EPDM (-40~+120°C)、VMQ (-40~+130°C)、FPM (-40~+180°C)
- Size: 3/4"-4"/DIN-100
- Standard: 3A, DIN, SMS, IDF, ISO