

Product Introduction

Vacuum Ball Valves are used on a system's exhaust section.

Ball Valve is designed for taking harsh processing to against particles or even powder. The valve's main body uses solid metal of stainless steel to form one piece. The inlet piece and outlet piece are also made by forged metal. Valve can take into high chemical process or high temperature environment by using 316L or 316Ti materials.

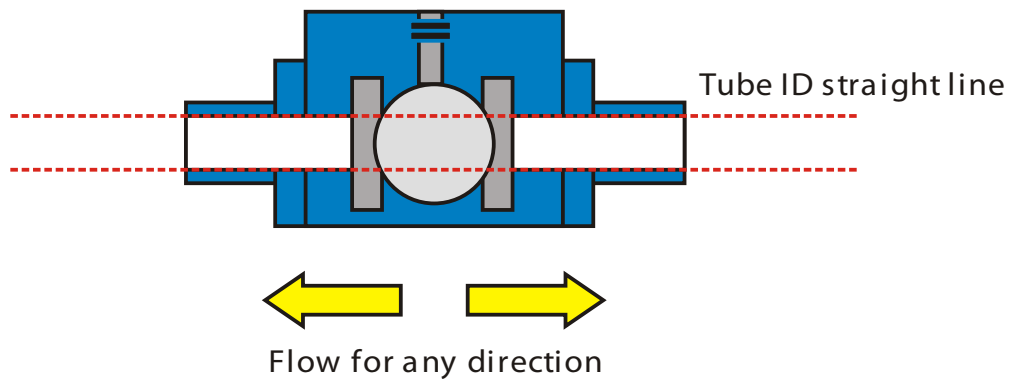
The valve is also designed for baking purpose. The packing of ball valve is optional for different materials in FKM, FFKM, Teflon.

Vacuum
Valves

Product Features

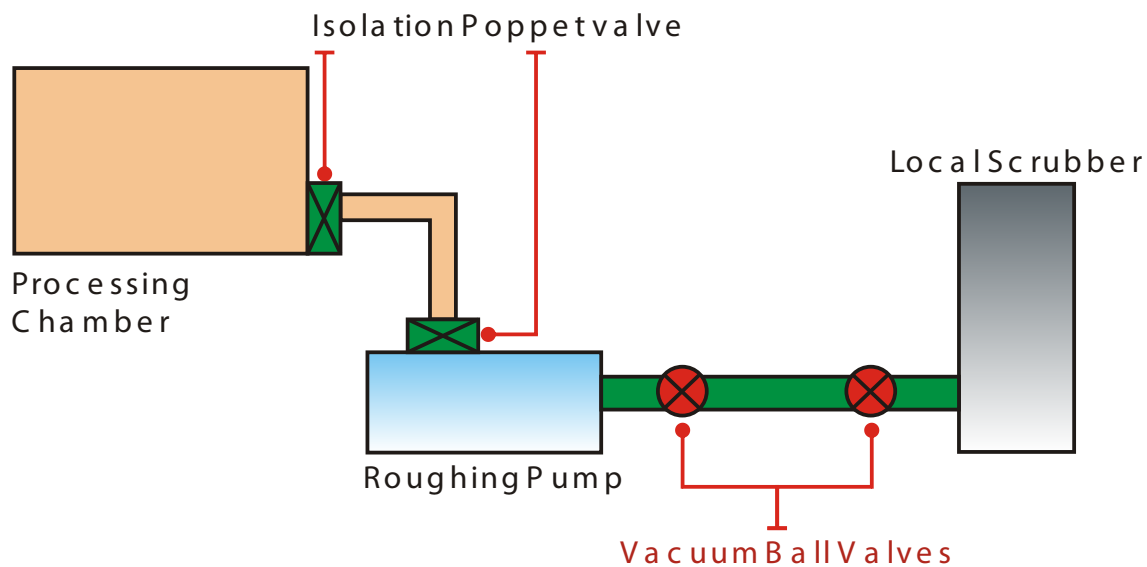
Special features for Vacuum Ball Valves

- Stand for particles, straight through design.
- Three Piece designed valve body, both in CNC and Casting.
- Optional for high chemical resistance.



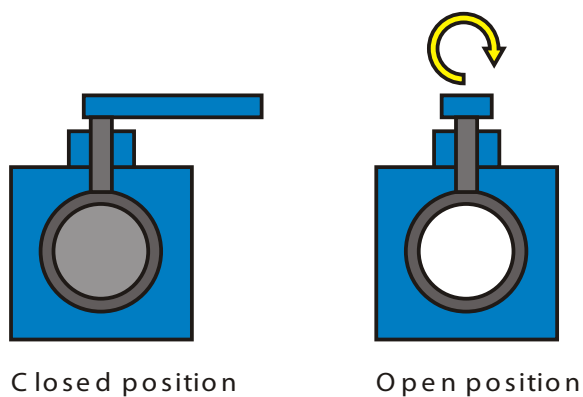
Product's Application

Layout for Processing System
Ball valves replaced Scrubberline

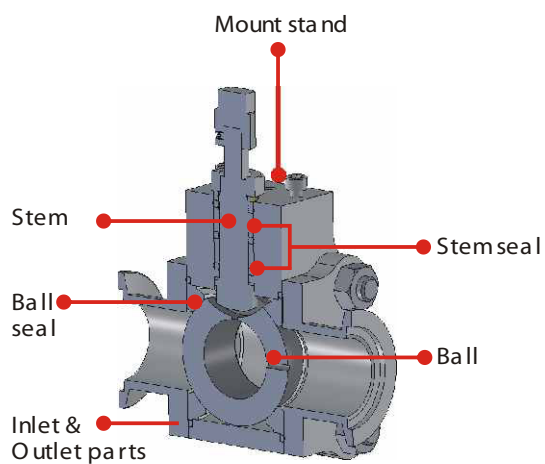


Vacuum
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Valve's operation Concept



Parts of valve



Technical Data

Technical Data for Vacuum Ball Valve

Vacuum
Valves

	Medium Vacuum	High Vacuum
Feedthrough	FKM o-ring	FKM o-ring
Gate seal	PTFE packing	PTFE packing
Bonnet seal	FKM	FKM
Operate pressure range	4,500 Torr~ 1x10 ⁻⁵ Torr 6,000 mbar~ 1.33x10 ⁻⁵ mbar 600 kpa~ 1.33x10 ⁻⁴ kpa	4,500 Torr~ 1x10 ⁻⁶ Torr 6,000 mbar~ 1.33x10 ⁻⁶ mbar 600 kpa~ 1.33x10 ⁻⁵ kpa
Leak rate	1x10 ⁻⁸ Torr l/s, He 1.33x10 ⁻⁸ mbar l/s, He 1.33x10 ⁻⁷ kpa	1x10 ⁻⁹ Torr l/s, He 1.33x10 ⁻⁹ mbar l/s, He 1.33x10 ⁻⁸ kpa
Cycle life	>30,000 Cycle	
Temperature for Valve body	200°C (392°F) Open and Close	
Temperature for Actuator	150°C 302°F	
Temperature for solenoid / position indicator	80°C 176°F	
Bake Temperature	100°C(212°F) for FKM gate seal	
Valve body material	Casting SUS316/L	CNC machined SUS316/L
Mechanism material	SUS316/L	
Actuator material	Pneumatic version= Aluminum Manual version= SUS304/L Handle with plastic cover	
Mounting position	Any	

Valve operation data

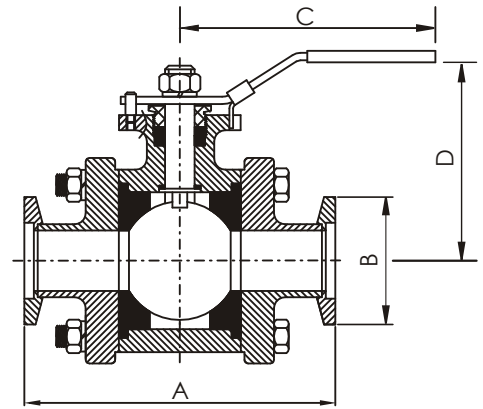
Pneumatic operating pressure	4 bar~8 bar 400 kPa~800 kPa 58 psi~116 psi
Position indicator (Build in for pneumatic version)	Build in visual
Solenoid (optional)	Optional for 24V DC, standard
Failure protection (Build in)	Build in handle hook with manual version (Open/ Close position locked)

Valve's Performance data

	KF16	KF25	KF40	KF50
Maximum differential pressure against gate	4,500 Torr 6,000 mbar 600 kpa			
Maximum differential pressure at opening	4,500 Torr 6,000 mbar 600kpa			
Pneumatic valve open / close time	2(s)	3(s)	3(s)	4(s)
Valve's Conductance Inline type (Molecular flow)	5(l/s)	12(l/s)	33(l/s)	54(l/s)

Manual Casting Ball Valves, SUS316/L

Tube OD	A	B	C	D
3/4"	110	30	132	58
1"	122	40	132	62
1-1/2"	147	55	175	98
2"	166	75	175	104



Vacuum Valves