



**Application**

Sanitary ball valves are used in stainless steel piping systems for isolation, either manually or automatically operated. The full port design with zero flow restriction makes it an optimum choice for viscous or particulate liquids.

**Working Principle**

A precision ball with a full port is positioned inside the valve body between two flanges and two PTFE valve seats. The 90° rotation of the valve stem, through the handle is transferred to the ball thereby opening or closing the valve.

**Standard Design**

The valve consists of a valve body, two flanges, PTFE valve seats, EPDM O'Rings, ball, stem and a handle. All Seats and Seals are made from FDA approved materials.

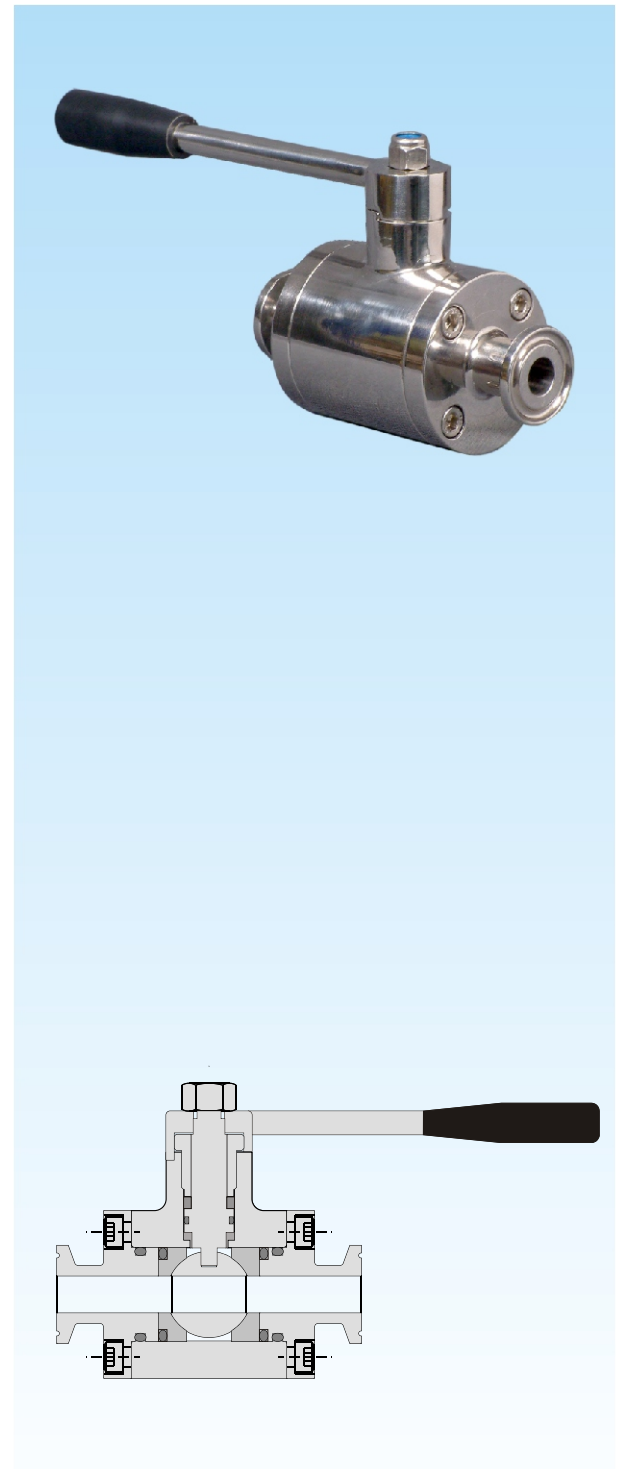
The valve body, flanges and ball are made of forged 316L stainless steel which ensures non porous, smooth and dimensionally stable construction.

The valve is designed to maintain a full flow rate, with a minimum pressure drop and it is fully drainable. A Bottom entry, precision machined stem with a live loaded PTFE thrust washer ensures a smooth rotation at various temperatures and pressure conditions.

**Available Sizes**

1/2", 3/4"

End connections : Sanitary Clamp, Butt - Weld, or others on request.



# Fractional Ball Valve

51 Series

## TECHNICAL SPECIFICATIONS :

### Material :

Product wetted steel parts.....AISI 316L  
Other steel parts.....AISI 304

### FDA Seals :

Valve Seat.....PTFE  
O'ring.....EPDM  
Cavity filler (optional).....PTFE  
\*Other Material available upon request

### Nominal Pressure :

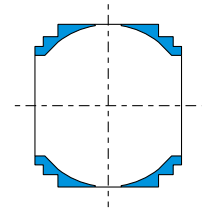
Maximum product pressure..... 200 PSI maximum (14 Bars)  
Test pressure 235 PSI (16 Bars)  
(Leakage test according to BS EN 12266-1)

Temperature Range :..... -60° Degrees Fahrenheit to +300° Degrees Fahrenheit  
\*Other seal material available for higher temperatures

### Surface Finish :

Surface in contact with product..... Ra <= 25 µ in (Grit 220g)  
Optional..... Ra <= 15 µ in (Grit 320g)  
\*Electropolishing available upon request.

Connections ..... Sanitary Clamp (ISO 2852 / BS 4825-3)  
Optional..... Butt Weld (ISO 2037 / BS 4825-01)  
Other connections on request



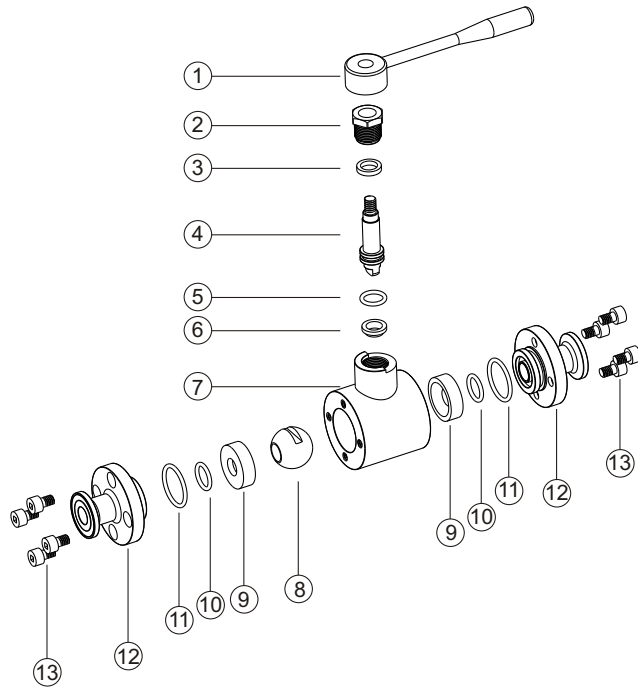
Cavity fillers on request  
\* Consult the factory  
for torque values with  
cavity fillers

### Torque values (for rotating the valve stem)

Size	ft.lb	Nm
1/2"	5.5	7.2
3/4"	6.0	8.0

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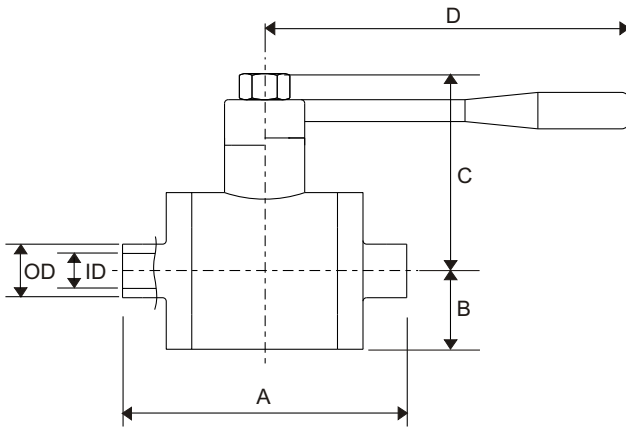
Exploded view of Fractional Ball Valve

NO.	PART NO.	DESCRIPTION	MATERIAL
1	5101	HANDLE	AISI 304
2	5102	NUT	AISI 304
3	5103	THRUST WASHER	PTFE
4	5104	STEM	AISI 316L
5	5105	O'RING	EPDM
6	5106	BUSHING	PTFE
7	5107	BODY	AISI 316L
8	5108	BALL	AISI 316L
9	5109	SEAT	PTFE
10	5110	O'RING	EPDM
11	5111	O'RING	EPDM
12	5112	FLANGE	AISI 316L
13	5113	SCREW	AISI 304

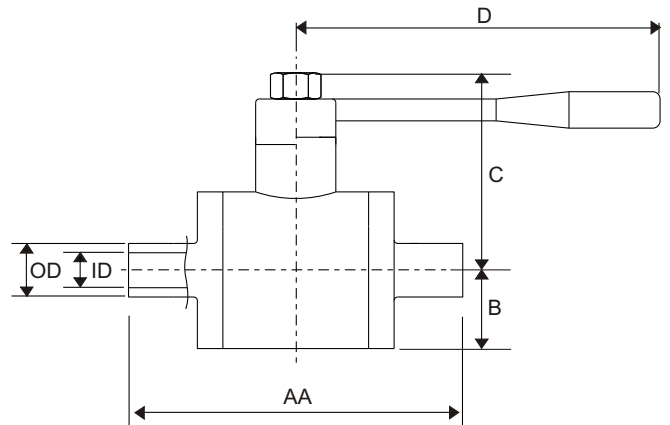
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## Dimensions (Inches)

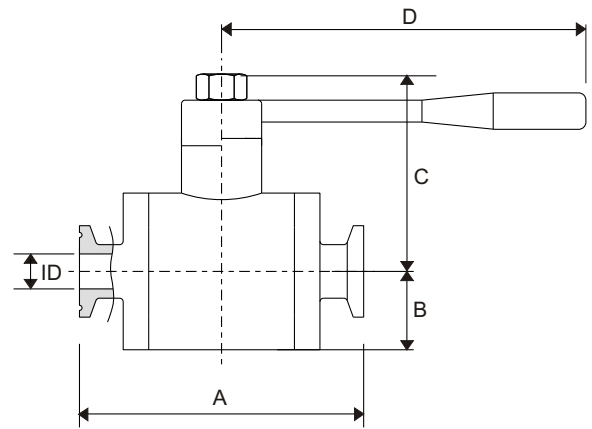


**Butt-weld**



**Extended Butt-weld**

Dimensions	A	B	C	D	OD	ID	AA
1/2"	2 1/2	59/64	2 5/64	4	1/2	3/8	3 1/2
3/4"	2 1/2	31/32	2 3/16	4	3/4	5/8	3 1/2



**Sanitary Clamp**

Dimensions	A	B	C	D	ID
1/2"	3	59/64	2 5/64	4	3/8
3/4"	3	31/32	2 3/16	4	5/8

 **Cipriani Harrison Valves Corp.**

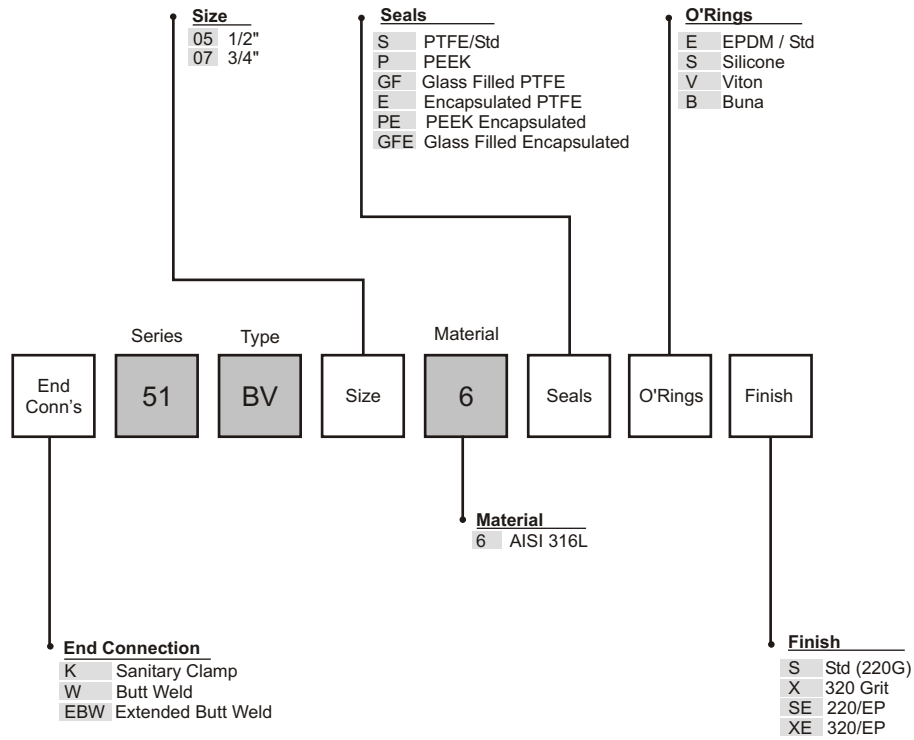
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# Fractional Ball Valve

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## 51 Series Fractional Ball Valve Ordering System



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