

# FLO-TITE BALL

## DESIGN OPTIONS:

*Coated Balls*  
*Escaping Balls*  
*Flate Face Balls*  
*Open Port Balls*

***Unique Ball Design Series***

**SERIES F150/F300**

**SERIES RF150/RF300**

Size Range

**SERIES F150/F300**

1/2" - 12"

(DN 15 - DN 300)

**SERIES RF150/RF300**

1" - 12"

(DN 25 - DN 300)

3 Piece Design  
also available

1" - 4"

(DN 25 - DN 100)



**Flo-Tite's Unique Designs Allow for The Use of Ball Valves in Applications Never Possible.**



FLOTITE.COM

YOUR ONE-STOP-SHOP  
for Engineered Solutions

## BALL DESIGN

Flo-Tite's square ball was designed for severe services and pulp & paper. However, this highly engineered product addresses a variety of application challenges in many demanding applications. Media builds on the upstream side of the ball when in the closed position. Over time, the amount of media buildup makes the valve difficult to operate, and will cause the valve to leak prematurely.

Flo-Tite's unique square ball design has been field-proven to overcome the buildup problem. Media contact with the seat is minimized, while media particles are allowed to flow past the ball and seats.

This provides:

1. Increased reliability
2. Improved operability
3. Extended service life
4. Significant reduction of the total cost

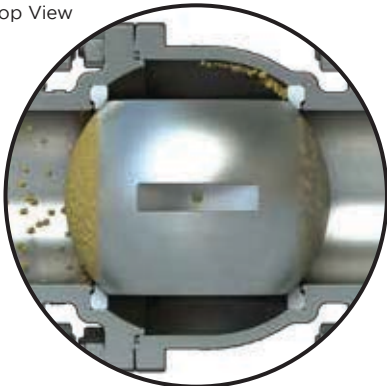
## SQUARE BALL



## SQUARE BALL DESIGN ADVANTAGES

### STANDARD BALL DESIGN

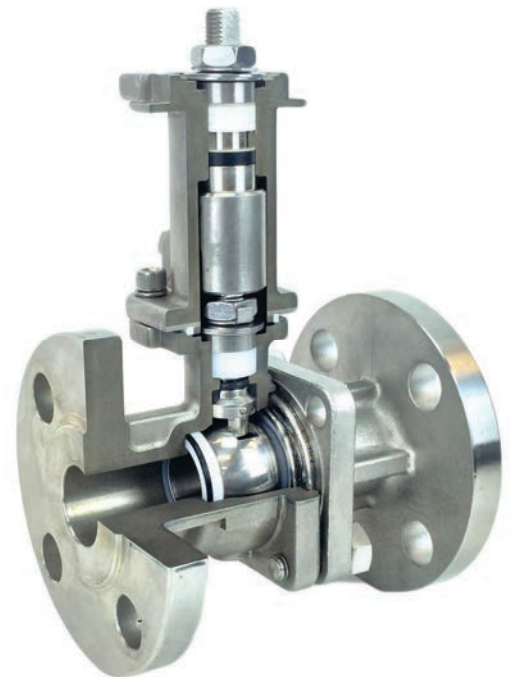
Top View



Large spherical surface area allows media buildup on the ball surface.

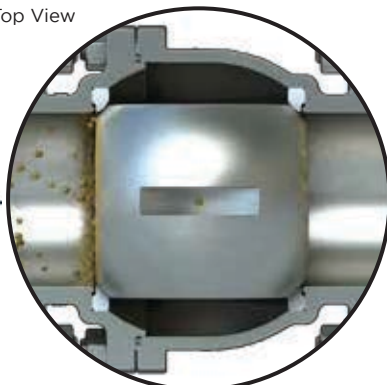
This design prevents:  
Media buildup which leads to seat damage, due to constant contact between ball and seat during full 90° rotation.

High valve torque is required when there is significant media buildup. The valve seats could fail to operate, stem could shear, or the seats could begin to leak.



### SQUARE BALL DESIGN SOLUTIONS

Top View



Square ball design minimizes effects of media buildup on the ball sealing surface and allows particles to flow throughout the ball cavity.

Seat life is extended, due to reduced media buildup and minimal contact between ball and seat.

Low valve torque is required to break minimal media buildup. Valve easily operates with standard actuation.



## FEATURES AND BENEFITS

- 1 SELF FLUSHING / CLEANING**
  - > Provided by unique ball design.
- 2 REDUCED SEAT-TO-BALL INTERFACE**
  - > Provides lower operating torques
- 3 BIDIRECTIONAL SEALING**
  - > Tested to API 598
- 4 MULTIPLE SEATING OPTIONS**
  - > PEEK | Metal | TFM | Super Tek
- 5 STANDARD HIGH-STRENGTH STEM**
  - > 17-4 PH material
  - > Blowout-proof design
- 6 MULTIPLE PACKING OPTIONS**
  - > Fugitive emissions packing available
- 7 DIRECT REPLACEMENT BALL DESIGN**
  - > Ball is a direct replacement for standard balls in select Flo-Tite valves



## TYPICAL APPLICATIONS

- > Abrasive slurries
- > Pulp & paper
  - White liquor, green liquor, black liquor
- > Polyvinyl Chloride (PVC)
  - Reactor discharge | slurry
- > Calcifying and crystallizing medias
- > Storage tank isolation
- > Pump isolation
- > Produced water
- > Low-temperature steam

## VALVE COMPATIBILITY

Body Style	Model	Pressure Class	Size Range	
			NPS	DN
Flanged (full port)	F15	ASME Class 150	1/2 to 12	15 to 300
	F30	ASME Class 300		
Flanged (standard port)	RF15	ASME Class 150	1 to 12	25 to 300
	RF30	ASME Class 300		
3-Piece <sup>1</sup> (full port; standard port)	Tri-Pro	ASME Class 600	1/2 to 4	15 to 100

### NOTES

Standard end connections include: butt weld, threaded & socket weld; extended weld; tube end; flanged; quick clamp. Refer to Flo-Tite's technical bulletins for specific valve information.

## DESIGN STANDARDS

<b>Valve Design</b>	ASME B16.34 API 609
<b>Corrosion Resistance</b>	NACE MR1075 / ISO 15156
<b>Compliance</b>	CRN Compliant
<b>End-to-End</b>	ASME B16.10
<b>Fire Test</b>	API 607 7th Edition
<b>Fugitive Emissions</b>	API 641 ISO 15848-1
<b>Pressure Testing</b>	API 598

FLO-TITE'S SOLUTIONS ARE AVAILABLE IN A VARIETY OF INDUSTRIES.

**ENERGY**

Mining  
Oil & gas  
Power  
Nuclear Power

**WATER**

Water / Wastewater  
Ultra Pure Water  
Desalination  
Irrigation

**INDUSTRIAL**

Chemical  
Pulp & Paper  
Textile  
Marine

**INFRASTRUCTURE**

Beverage & Food  
Transportation  
Heating, Ventilation & Air Conditioning  
(HVAC)



DISTRIBUTION LOCATIONS THROUGHOUT THE U.S., CANADA, EUROPE, ASIA, SOUTH AMERICA, AND MEXICO.



PLEASE CALL (910) 738-8904 OR EMAIL SALES@FLOTITE.COM TO FIND A DISTRIBUTOR NEAR YOU.

**FLO-TITE IS YOUR ONE-STOP-SHOP  
FOR ALL YOUR VALVE AND  
AUTOMATION REQUIREMENTS.**

Flo-Tite's technical information and suggestions in this bulletin are for general purposes only. Consult with Flo-Tite's representatives or factory for your specific application and material selection. Flo-Tite reserves the right to change or modify product design or product without prior notice.