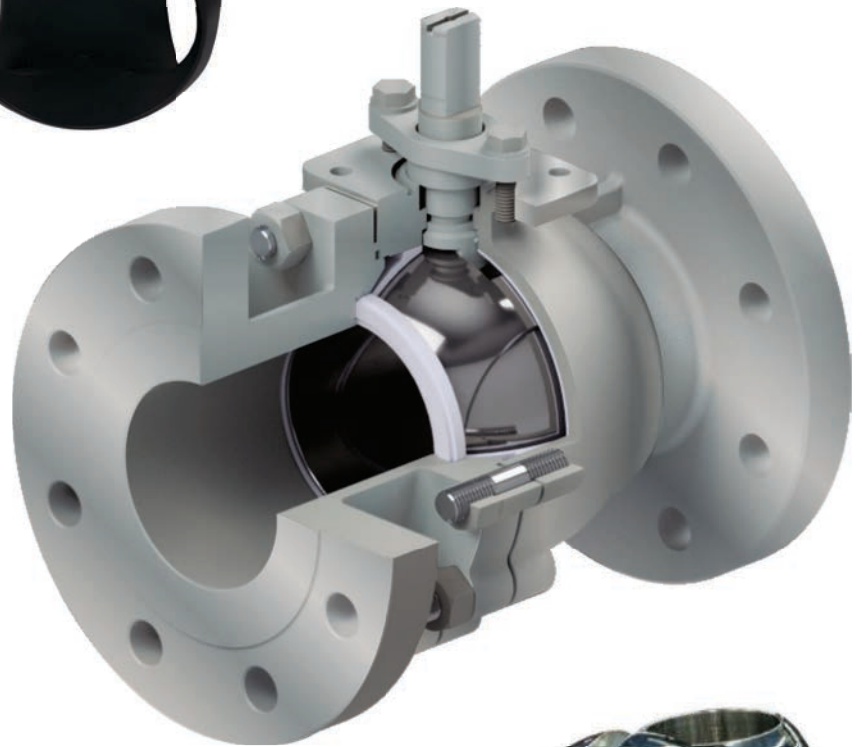


### DESIGN OPTIONS:

- Coated Balls*
- Escaping Balls*
- Flate Face Balls*
- Open Port Balls*
- Cavity Fillers*

### *Unique Ball Designs*



**SERIES F150/F300**  
**SERIES RF150/RF300**

Size Range

**SERIES F150/F300:**

1/2" - 12"

(DN 15 - DN 300)

**SERIES RF150/RF300:**

3" - 12"

(DN 25 - DN 300)

3 Piece Design  
Multi-Choice Series  
Tri-Pro Series  
also available

**Ideal Designs to Extend Service Life  
in Severe Applications.**

**YOUR ONE-STOP-SHOP**  
for Engineered Solutions



FLOTITE.COM

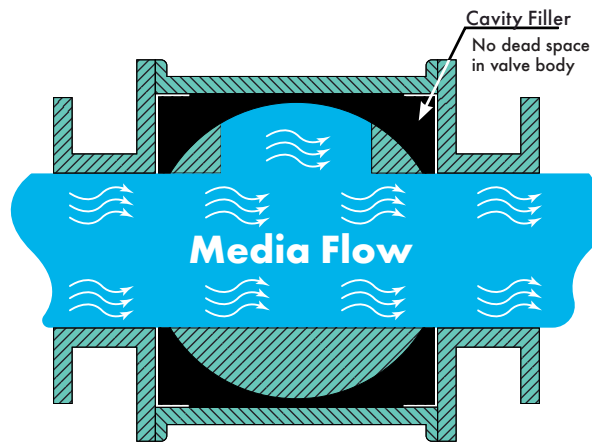
## Flo-Tite's Unique Ball Designs allow for the use of Ball Valves in applications never before possible.

*Proven Performance for Your Critical Demanding Applications.*



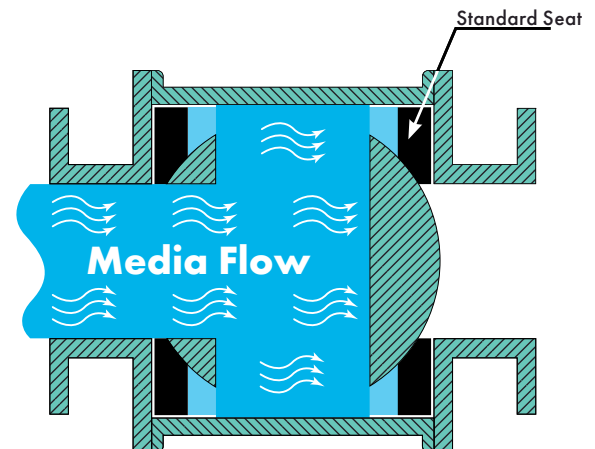
### Open-Port Ball Valve

Flo-Tite's Open-Port Ball Design leaves only the downstream sphere in its completeness. The upstream sphere is exposed and completely open to the valve cavity and the upstream pipeline. This unique ball design also eliminates media from being trapped or captured in the interior of the valve ball when the valve is in the closed position. This design also allows for an easier flushing action when the ball is in its intermediate position.



Valve shown in **Open Position**  
with full body cavity filled

**Open-Port**  
Ideal Design  
For **Green Liquor Service**



Valve shown in **Closed Position**  
with standard seating

**Cavity Fillers**  
STANDARD PRODUCT NUMBER  
CVF (T) PTFE Cavity Filler  
CVF (F) TFM Cavity Filler  
CVF (S) 50/50 Cavity Filler

Many Flo-Tite valves can be supplied with full-body cavity fillers. Cavity fillers fill the void normally found behind the ball and the valve body in conventionally designed ball valves. This assures that no media is allowed to become trapped above, below, or around the valve ball or the body cavity. Cavity fillers prevent freezing or seizing, while also reducing the possibility of cross contamination of media.

*Cavity fillers are available in 3 PC Multi Choice & Flanged F150/F300 ½" - 10"*  
*Cavity fillers are now available for most Industrial Process Applications.*  
*Cavity fillers are offered in High temperature applications in Peek, S-Tek, 50/50, Devlon, and TFM.*



### A Safer Valve Design

The Open-Port Ball Designed with no-trapped cavities assures the total elimination of pressure build up due to thermal expansion in standard ball valves.

There are many applications that are still using special high cost plugs or segmented ball valves. Both of these are able to shut down flow without trapping media within the valve or plug.

Flo-Tite offers a **simple solution** in their flanged and 3 piece series. **The Open-Port ball** will solve the problem of trapped or captured media with full port ball valves.

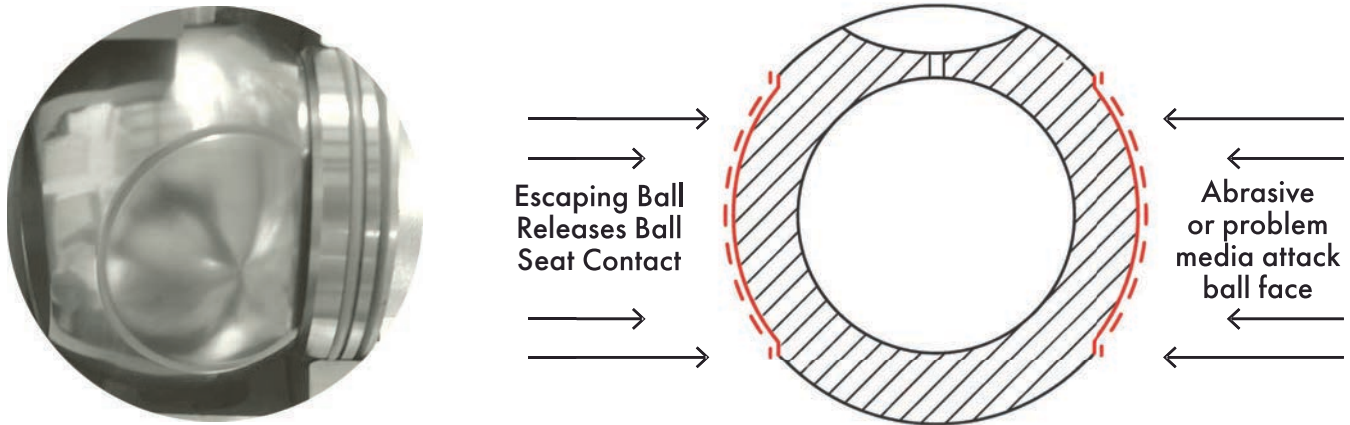


**Open Port**  
**Ball Design**

Unique Problem solving ball designs eliminate most common problems found in the typical ball valve designs.

## FLO-TITE'S UNIQUE ESCAPING BALL DESIGNS

### Creative Solutions



**Vented Balls also available for Ammonia & other Services**

Our escaping ball valve design is the ideal solution for critical conditions that lead to ball valve failure.

***These Balls Extend Service Life.***

#### **Avoid these common conditions that led to ball valve failure:**

- A) Pitting and Scaring of ball face
- B) Scale build up on ball face
- C) Excessive high torque

***The Escaping Ball and the Flate Ball are*** designed to eliminate common causes of ball valve failure. Extremely difficult applications, such as corrosive liquors, can pit and scar the ball face or cause a build-up of damaging fluid deposits on the ball face. These issues cause the critical smooth ball surface to become rough and dull, rendering the valve inoperative. Either occurrence may also damage the ball seats, prompting valve shutdown and costly valve rebuilding.

***Flo-Tite's escaping ball is an ideal choice for high cycle/high speed applications. This design will offer extended service life, lower valve torques, while improving operability.*** Flo-Tite's Escaping Ball Design relieves ball-seat contact during the 90-degree rotation. Full ball seat contact is made at the beginning and at the end of the valves 90-degree stroke. This limited contact results in life expansion with lower operating torques and improved overall performance. The Escaping Ball Design is an exceptional design for both soft or metal seated valves when Class VI shut-off is required.

**SPECIAL HI-TEK COATINGS**-We service and upgrade all types of valves to increase overall life and improve on specific properties . Whether combating premature wear or corrosion, or preventing build-up and flow obstructions, we can customize our coatings to create tailored solutions based on their needs.

- Teflons
- Peek
- Carbides (Tungsten,Chromium)
- Ceramics
- Exotic Alloys (Inconel, Hastelloy, etc.)

***Problems Hi-Tek Coatings can Solve: Corrosion,Wear,Build-up,Thermal Degradation, Cryogenic***

**FLO-TITE™**  
valves & controls

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Lumberton NC, 28358

[www.flotite.com](http://www.flotite.com)

Office: 910.738.8904  
Fax: 910.738.9112  
sales@flotite.com

## BALL DESIGN

Flo-Tite's Flate 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 Flate Ball Design ensures:

1. Increased reliability
2. Improved operability
3. Extended service life

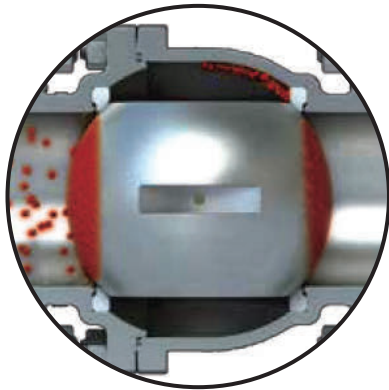
## FLATE BALL



## FLATE BALL DESIGN ADVANTAGES

### STANDARD BALL DESIGN

Top View



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

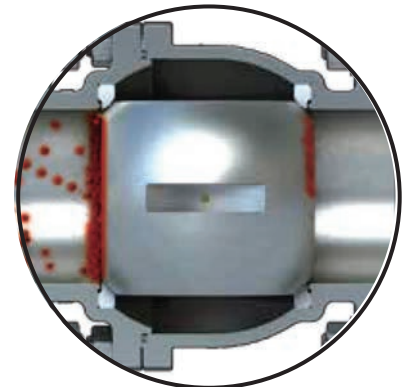
This design prevents:  
Media buildup which leads to seat damage, due to constant contact between ball and seat during full 90° rotation.

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.

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

### FLATE BALL DESIGN SOLUTIONS

Top View



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.

## FLO-TITE'S HI-TEK

### METAL COATINGS

We service and upgrade all types of Valves to increase overall life and improve on specific properties. Whether combating premature wear or corrosion, or preventing build-up and flow obstructions, we listen to each customer to create tailored solutions based on their needs.

We can assist with nearly all Valve types and designs; Ball, Gate/Knife, Butterfly, Check and Pipeline Strainers.

#### Coatings we Apply

- Fluoropolymers (Teflons)
- PEEK & Polyamides (Rilsan)
- Carbides (Tungsten, Chromium, Boron)
- Ceramics (Chrome Oxide, Aluminas)
- Exotic Alloys (Inconel, Hastelloy, etc.)

#### Problems we Solve

- Corrosion
- Wear
- Build-up
- Thermal degradation
- Cryogenic