



Description

1. Self Cleaning
2. Full Port
3. Protects the Seats
4. Flow Around Ball
5. Low Operating Torque
6. Hardened Surface Options
7. Improved Throttling
8. Easy to Service

Selection of possible applications

High Percentage Solids, "Powder" Format, Slurries,
Dirty Media, Viscous Fluids, Fluids Exhibiting "Build Up
Tendency", Geothermal Energy Applications, Brine Injection
Applications

Selection of possible flow media

Gas, air, water, oil, other fluid, etc.

Protected Seating Surfaces

The **Fortress™** trunnion ball valve protects its seats by minimizing *fluid media velocity contacting* upstream seating surfaces during cycles. As the **Fortress™** closes, *fluid media applies pressure* to the upstream seat ring urging it against the ball's upstream sealing lip for leakproof performance. Features on the ball remove debris from the seats ensuring a clean, tight shut-off each time it cycles.

Lower Torque Requirements

The geometric shape of the ball greatly reduces ball-to-seat surface contact. This features creates less “drag” during cycles, requiring less torque to operate the **Fortress™**.

Self-cleaning Features

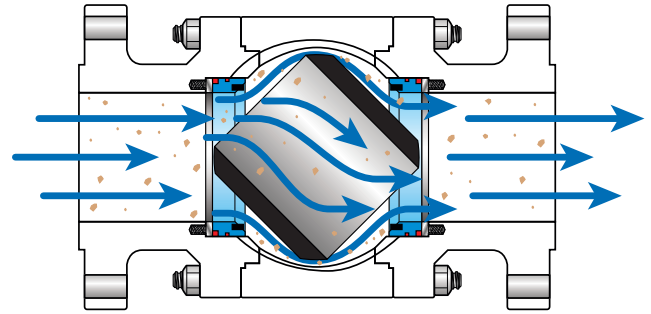
Ordinary ball valves allow *fluid media and debris to be trapped* in the inner-body cavity. This can result in the accumulation of foreign debris around the ball that can result in damage to seating surfaces. As the **Fortress™** cycles, its unique *geometric features allow foreign debris to be flushed from the inner-body cavity* to prevent the accumulation of solid matter around the backside of the seat rings and bearings. Then, *open or closed, once the ball engages the seats, line fluid cannot enter the inner-body cavity*.

Seventy Percent Less Wear

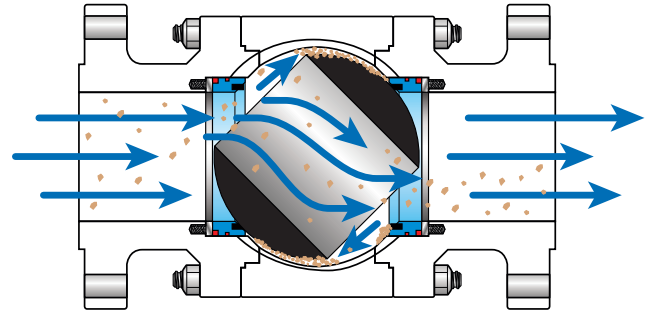
Unlike ordinary ball valves, the **Fortress™** ball experiences a fraction of the drag across seating surfaces during cycles, reducing wear up to 70 percent and extending performance life.

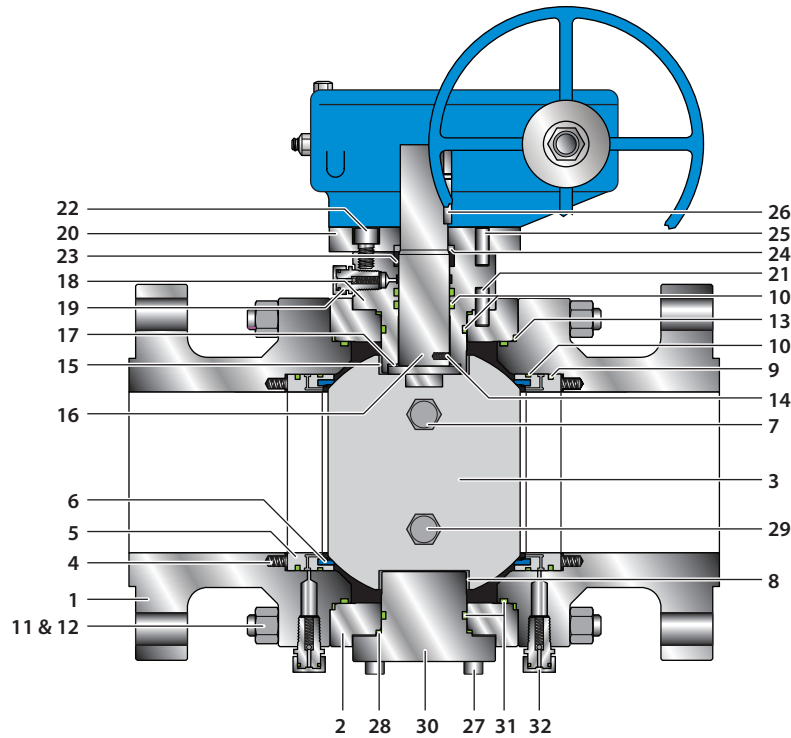
As the **Fortress™** cycles, *flow is split into five channels* (over, under, around the sides, and through the ball port), preventing localized, high velocity impingement upon the downstream seat as with ordinary ball valves.

Fortress™ allows debris to be flushed from valve body.



Ordinary Ball Valve allows debris and solids to accumulate.





Typical Bill of Materials					
1	Body Flange	ASTM A105	17	Stem Bearing	R-PTFE
2	Body	ASTM A105	18	Stuffing Box	ASTM A105
3	Ball	ASTM A182 - F316	19	Injection Fitting	ASTM A105
4	Spring	Inconel X-750	20	Adaptor Flange	Carbon steel
5	Seat Ring	ASTM A276 Type 316	21	Pin	Carbon steel
6	Seat	R-PTFE	22	Screw	ASTM193 - B7M
7	Vent Valve	ASTM A182 Type 316	23	Packing	Flex Graphite
8	Bearing	1045 + PTFE	24	Gland	ASTM A276 Type 410
9	Seat Gasket	Graphite	25	Pin	Carbon steel
10	O-ring	Viton	26	Key	AISI 1045
11	Body Stud	ASTM 193 - B7M	27	Screw	ASTM A193 - B7M
12	Body Nut	ASTM 194 - 2HM	28	Gasket	316 + Graphite
13	Body Gasket	316 + graphite	29	Drain Plug	ASTM A182 Type 304
14	Antistatic Dvc	ASTM A276 type 316	30	Trunnion	ASTM A105
15	Bearing	1045 + PTFE	31	O-ring	Viton
16	Stem	ASTM A182 Type 316	32	Injection Fitting	ASTM A105

Size and connections

2" thru 36" ASME 150 thru 2500

Basic Design	ASME B16.34/API 6D
Face-to-Face Dimension	API 6D
Flanged End Dimension	ASME B16.5
Inspected & Tested to	API 6D
Certifications	ISO 9001/Canadian CRN

Component Designation Legend

Seat Material: R-PTFE, PTFE, PEEK, Nylon, & Devlon

O-Ring Material: Aflas, Buna, Chemraz, Markez, AED