



Argus[®] FK75F Metal-Seated Floating Ball Valve

Reliably tight shut-off in critical and severe-duty services

The Argus FK75F metal-seated floating ball valve delivers superior performance and tight shut-off in severe service conditions, extreme environments and instances that require emergency shutdown.

It is engineered to overcome challenges frequently seen in refinery applications, such as contamination of valves due to particulates and residue from aggressive media. This buildup can cause valve seizure, leading to unreliable performance, premature equipment failures, safety concerns and environmental risks.

Built for the toughest applications

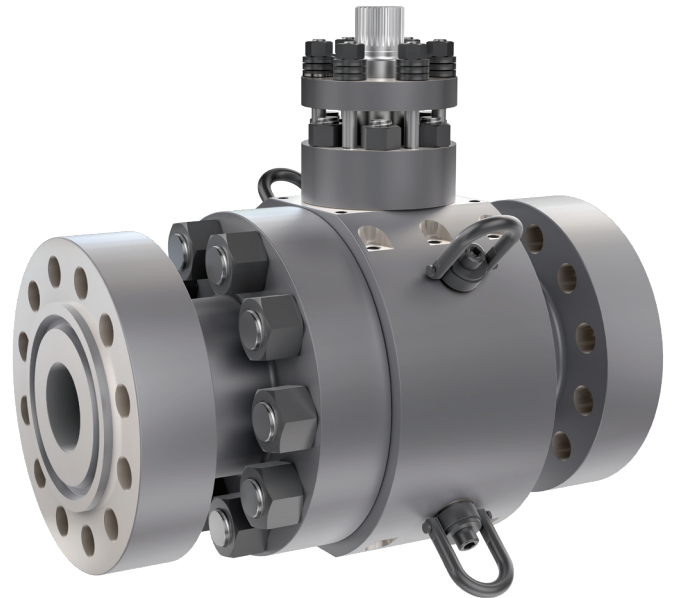
The Argus FK75F metal-seated floating ball valve is the ideal choice for applications that demand reliable, tight shut-off and uncompromising metal sealing. These include high-pressure, high-temperature (HPHT) cracking refinery applications, where hydrocarbons are converted into gas, diesel, jet fuel or other upgraded products. They also include applications with abrasive media, such as catalyst and hydrocarbon particulates.

Other typical refinery applications include, but are not limited to:

- Delayed coking units (DCUs)
- Fluidized catalytic cracking units (FCCUs)
- Hydro processing and cracking (upgraders)
- UOP continuous catalyst regeneration (CCR)
- Catalyst handling
- Tower bottoms pump isolation (vacuum and atmospheric)
- Emergency shutdown valves (ESDVs)

The FK75F valve is also well-suited for severe-duty applications in other industries, including mining and power generation.

- Slurry transport lines and high-pressure acid leaching (HPAL)
- Choke station bypass
- Superheated steam
- High-pressure feedwater bypass



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Key benefits

- Reliable tight shut-off
- Gas-tight sealing
- Easy to maintain and repair
- Broad application flexibility
- Highly customizable

Reliable and easy to maintain

Uncompromised sealing in critical applications —

The ball, metal-seated hard-faced seat rings, and spring components work together to provide a continuous seal at design application conditions. Stem drive train components create multiple seals to prevent leakage via the packing area.

Higher stem strength and durability — A one-piece, solid stem shaft withstands 200% maximum allowable stem torque and is compliant with API 608 drive train strength requirements. The design offers superior durability and stability in heavy-load applications.

Reduced maintenance costs and longer life — To ensure consistent shut-off over a long service life, the ball, seat rings and springs use corrosion- and erosion-resistant materials and thermally sprayed and fused coatings. Springs are made of high-strength Inconel® with creep-resistant properties to maximize trim life.

Simplified maintenance and upkeep — Maintenance is fast and easy: the stem and drive train can be replaced without disassembling the entire valve body and trim kits. Spare parts are factory-tested to assure seal-ability and can be ordered ahead of scheduled maintenance to minimize downtime.

Higher stem strength
One-piece solid stem shaft withstands 200% operating pressure

Simplified maintenance
Stem and drive train can be replaced without complete valve disassembly

Longer service life
Corrosion- and erosion-resistant materials and thermally sprayed coatings on ball, seat rings and springs

Uncompromised sealing
Ball, metal-seated hard-faced seat rings, and spring components provide a continuous seal

Specifications

Sizes	NPS 2 to 12, DN 50 to DN 300 ⁽¹⁾
Pressure ratings	ASME Classes 150, 300, 600, 900, 1500, 2500 ⁽¹⁾
Design	ASME B16.34, API 608
Bolted joint design	Easy and quick maintenance
End connection	Flanged RF or RTJ, buttweld, socket weld, hub ⁽²⁾
Face-to-face dimensions	ASME B16.10
Trim material	Selected based on service application
Hard-facing	ARGULOY spray and fused coating, HVOF ⁽²⁾

Stem seal	Graphite packing
Seat configuration	Uni-directional, bi-directional with preferred direction or bi-directional (on request)
Leakage rates	API 598, ANSI FCI 70-2 Class VI
Standard operating temperature and pressure ranges	-46°C to 538°C (-50°F to 1,000°F) ⁽³⁾ ; ASME B16.34 allowable working pressures
Fire-safe, fugitive emissions	API 607, ISO 15848-1 Class BH, API 641

(3) For temperatures higher than 538°C (1,000°F), please consult factory.

(1) For sizes smaller than DN 50/NPS 2 and larger than DN 300/NPS 12, please consult factory; maximum available pressure class for NPS up to 36 in. is Class 4500

(2) Other end types available upon request