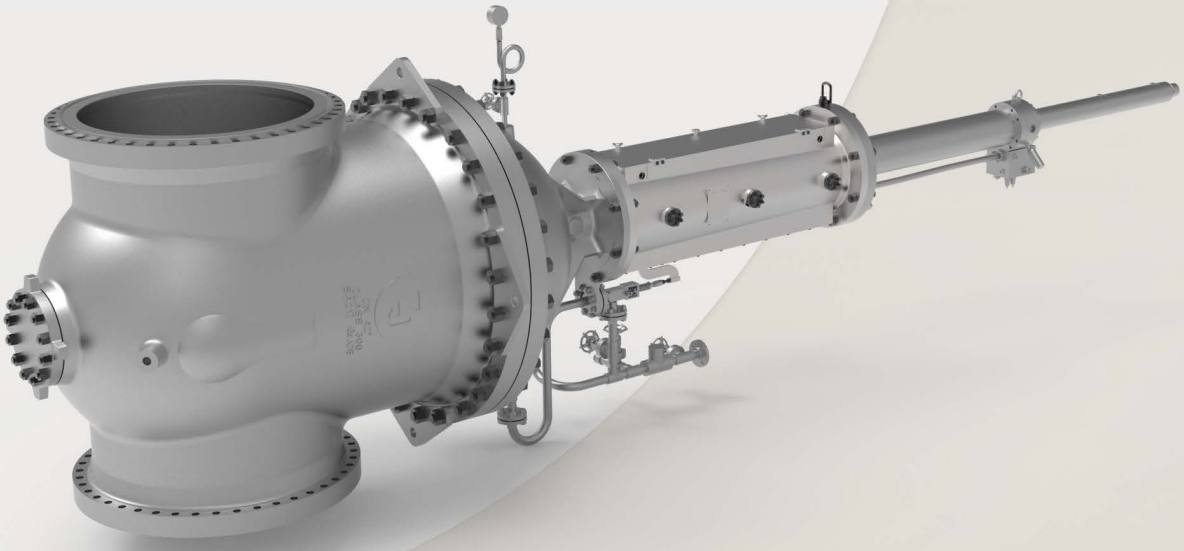
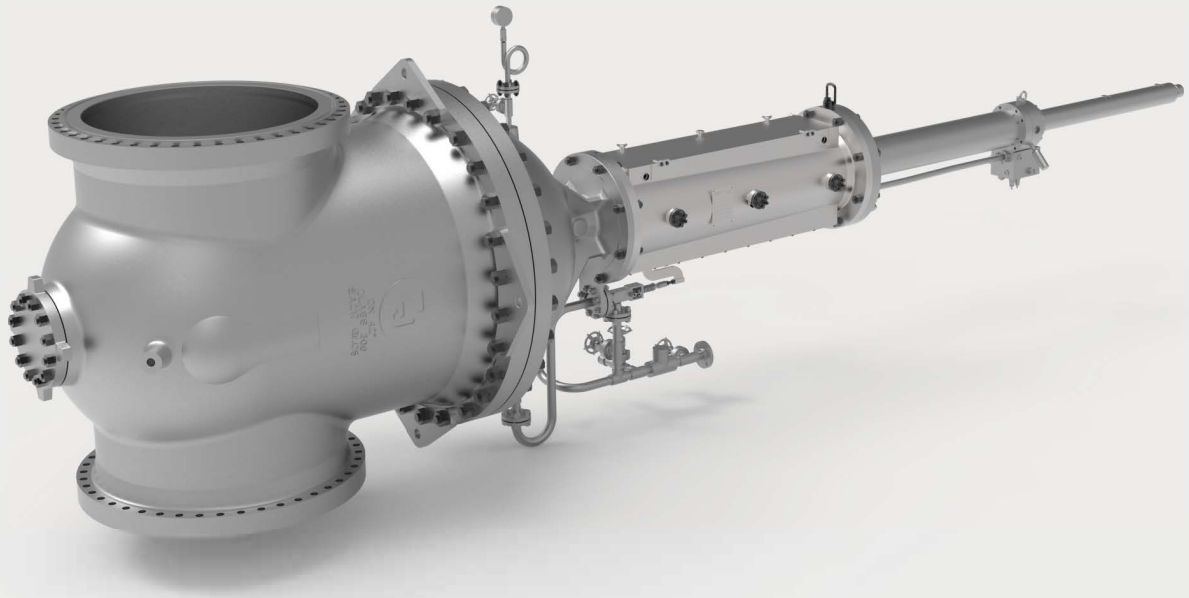
Process Automation

IMI Z&J

Wedge-within-Wedge Gate Valve



Breakthrough engineering for a better world



Wedge-within-Wedge Gate Valve

IMI introduced the wedge-within-wedge gate valve to the market and we have more than 60 years of experience in the industry. Its 1956 patented design is most suitable for extreme operating conditions of high temperature, high pressure, line stresses, high frequency and reliability of operation.

Double Disc Design:
This design provides two independent sealing surfaces, which increases reliability and prevents leakage. The discs can be configured for double block and purge or double block and bleed applications.

Metal to Metal Seating:
Our type of seating provides a positive seal that is resistant to wear and corrosion. It is also more durable than elastomeric seals, which can degrade over time.

Rising Stem (O&Y Type):
Ensures that the stem and gate are always visible, which makes it easy to inspect and maintain the valve. It also prevents the stem from binding, which can cause the valve to jam.

With Flanges or Butt-Weld Ends:
The valve can be connected to piping in a variety of ways.

Benefits

No Jamming of the Discs:
Discs collapse and are free to move during actuation of the wedges. This prevents the valve from sticking or jamming, even under extreme operating conditions.

Tightness and Flexibility:
This is achieved by the discs being pressed via a central ball between the internal wedges. This provides a positive seal that is also flexible enough to accommodate thermal expansion and contraction.

Minimum Wear:
Very short travel contacts on the sealing seats. This reduces wear and tear on the valve, which extends its lifespan.

Under low differential pressure Seat Surfaces free of Wear due to Axial Pressing in closed position:
Will not leak, even under low pressure conditions.

Available with Electric, Hydraulic, or Pneumatic Actuator:
Wedge-within-Wedge Type Gate Valve to be operated in a variety of ways, depending on the application.

Can be designed as a Round, Oval, or Flat Type Valve: Our valve to be used in a variety of applications, including those with limited space.

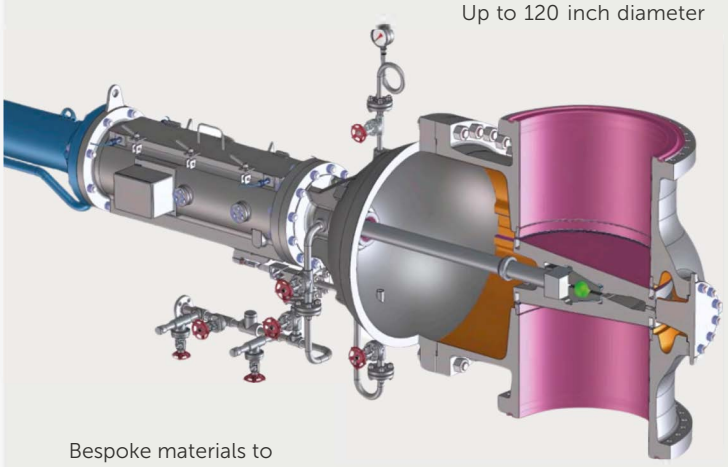
Applications

- Dehydrogenation/ Olefin Conversion plants
- Isosiv/ TIP units
- Cyclic Powerformer units
- Reactor Isolation

Product details

- Engineering and materials according to operating conditions and licensors' specifications
- Rating up to 600 lbs
- Operating temperature up to 1900 °F (1050 °C)
- Sizes up to nominal diameter 120 inches
- In accordance with German, ANSI, or other standards

Up to 120 inch diameter



Bespoke materials to suit application

Flanged or buttweld ends

Hydraulic System

- According to specification and optimised for reactor sequence
- Redundant main pump & circulation circuit
- Optimised fluid conditioning (level, temperature, monitoring)
- Piston accumulator station with additional nitrogen bottles
- Control panel for each reactor valve
- Automatic control via solenoid valves (manual override optional)
- Pneumatic-driven emergency portable cart

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Z&J Technologies GmbH
Bertramsweg 6
52355 Düren
Germany
Tel: +49 (0)24216910

Wedge-within-Wedge Gate Valve is a product of Z&J Technologies GmbH which is part of IMI plc

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