

SWING GATE DIVERTER VALVE

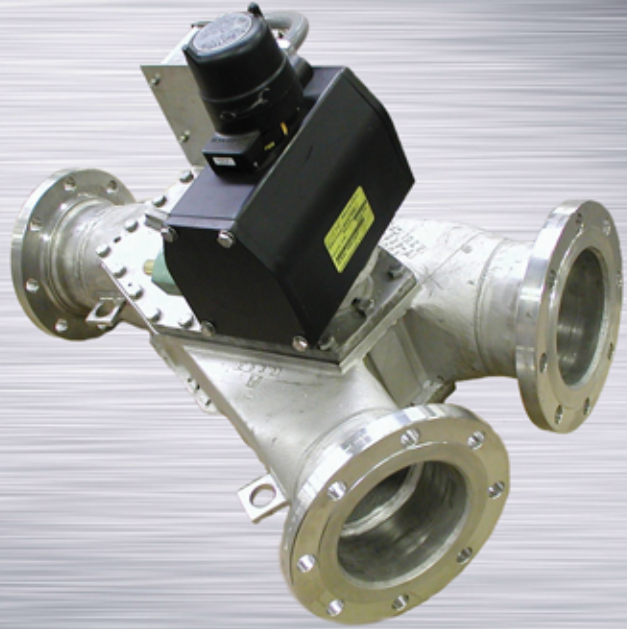
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STANDARD FEATURES:

- ▶ Compact design
- ▶ Tight sealing
- ▶ Heavy-duty machined gate
- ▶ Sealing areas precision machined
- ▶ One internal moving part
- ▶ In-line servicing
- ▶ Low maintenance
- ▶ For use in positive or negative conveying systems
- ▶ Choice of automatic or manual operators
- ▶ Choice of construction materials

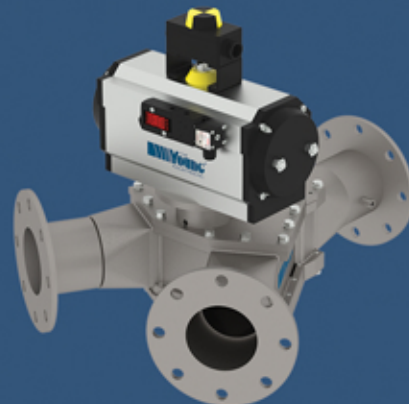
**ADVANCED
TECHNOLOGY
PROVEN DESIGN**

S-214-100.00



Young Industries Swing Gate Diverter Valves are designed for use in pneumatic conveying systems. These diverter valves are adaptable to a wide variety of process applications, handling dry, free-flowing powders, pellets, or granular materials. Young's swing gate diverter valves can be used for routing product flow from one line to either of two lines, or from either of two lines to one. Valves can be installed in series to provide multiple outlets, and are designed to be mounted in any position without loss of efficiency.

Young Industries makes two standard model swing gate diverter valves. Valve Model B and C differ only in design configuration, allowing users to choose the swing gate diverter valve best suited for their conveying system. Standard Model B swing gate diverter valves are designed with one diversion leg offset 30° from the straight through leg. Standard Model C swing gate diverter valves are designed so that each diversion leg is offset 30° from the inlet leg providing a total diversion angle of 60°.



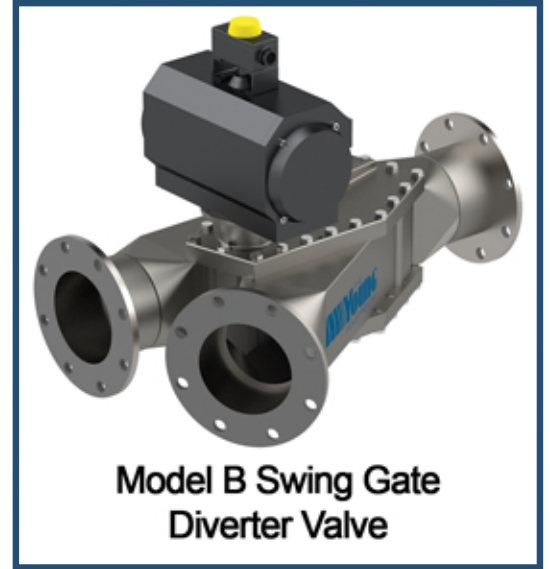
SWING GATE DIVERTER VALVE

Tight Sealing

All sealing surfaces in the swing gate diverter valve are precision machined. The gate is of heavy duty construction, having teflon sealing strips located on each side. White neoprene sealing strips are located in the diverter valve housing to provide a tight seal around the swing gate. Young's swing gate diverter valves are designed to provide a tight seal in positive and negative pressure pneumatic conveying systems. O-rings are used for sealing at the gate shaft area. These features enable the swing gate diverter valves to handle a broad range of products.

Low Maintenance

The diverter valve's gate shaft is supported by ball bearings, assuring proper alignment of gate to housing. The valve's actuator is direct coupled to the gate shaft. This arrangement distributes torque directly to the gate shaft, eliminating stress to valve components. Since the swing gate diverter valve has only one internal moving part, maintenance is kept to a minimum. Interior surfaces can be serviced through removable side plates without dismantling the diverter valve from the system. Production loss and downtime for cleaning and maintenance is kept to a minimum.



Model B Swing Gate
Diverter Valve

Construction & Sizing

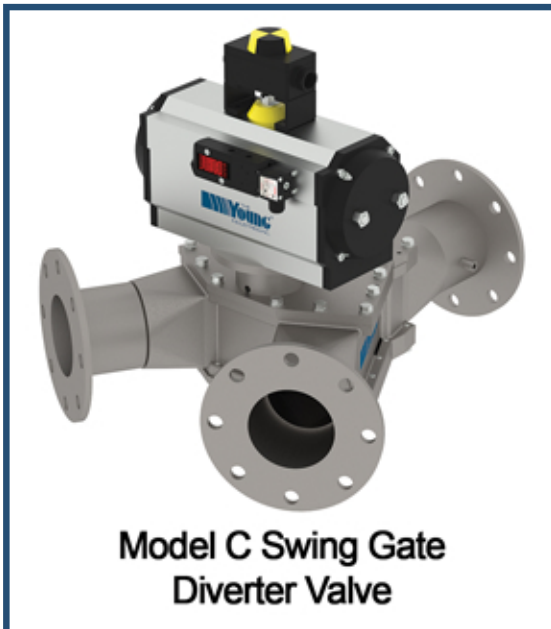
Standard swing gate diverter valves are constructed of cast iron, carbon steel, or stainless steel. Special materials of construction are also available. Sizing for the swing gate diverter valves range from 2 through 18", with larger valves available upon request. Diverter valves are supplied with plain ends for compression couplings or flanged ends.

Pressure & Temperature Ranges

Young Industries standard swing gate diverter valves are designed to operate in positive or negative pressure up to 15 PSIG in combination with temperatures up to 250°F. Diverter valves are available for high temperature and high pressure applications. Construction per ASME when required.

Standard Operators

Swing gate diverter valves can be provided for automatic operation with either pneumatic or electric actuators. Manual actuators are available with handwheel or chainwheel.



Model C Swing Gate
Diverter Valve

SWING GATE DIVERTER VALVE

Standard Specifications

Model B and C

Operation

Heavy-duty service; to 15 PSIG positive pressure or full vacuum. Temperatures up to 250°F.

Construction

Cast iron, carbon steel, or stainless steel

Flanges

Choice of plain ends in tubing or pipe sizes, round or square flanges.

Seals

O-ring seals at gate shaft. Teflon sealing strips on both sides of swing gate. White neoprene sealing strips are used at the hub and tip areas of the gate.

Operator

Choice of pneumatic, electric, or manual operation.

Pneumatic

Rotary pneumatic operator, with NEMA IV single solenoid is standard. NEMA VII/IX single or dual solenoid valves are available. Two, single-pole, double-throw NEMA IV position indicating switches are standard. NEMA VII/IX limit switches are available. Air at 80-100 PSIG. Electrical at 120v or 24v DC.

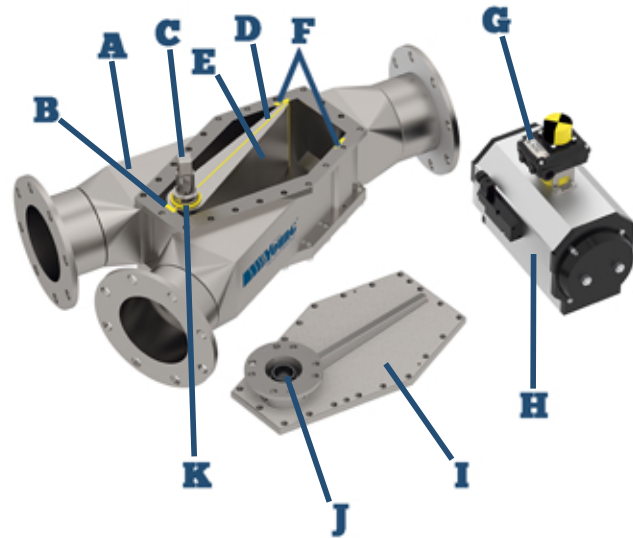
Electric

Rotary actuator. 120v, single phase, 60 Hz motor and NEMA IV enclosure is standard. NEMA VII/IX electric actuators are available. Actuator complete with manual override and position indicating switches.

Manual

Handwheel or chainwheel operator is available.

- A. Housing
- B. Hub Seal
- C. Gate Shaft
- D. Side Seal
- E. Gate
- F. Tip Seal
- G. Position Indicating Switch Enclosure
- H. Pneumatic Actuator
- I. Side Plate
- J. Ball Bearing
- K. O-ring Seal



Specific Design Diverter Valves:

Young Industries also manufactures Swing Gate Diverter Valves to specific customer requirements. We have manufactured valve's as large as 54" diameter line size. We also design and fabricate diverter valves for internal pressures up to 150 PSIG using ASME code allowable stress values. We can design and manufacture valves to fit the requirement of the application.