

# MINERAL PROCESSING

(MP)  
VALVES  
KNIFE  
GATE  
TYPE



**intMPE International Mineral Processing Equipment**



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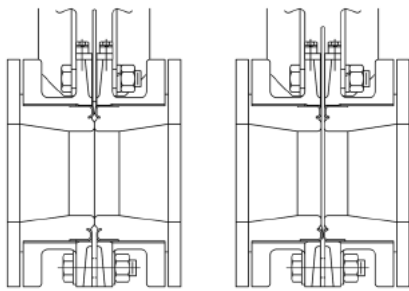
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# intMPE 's broad product offering

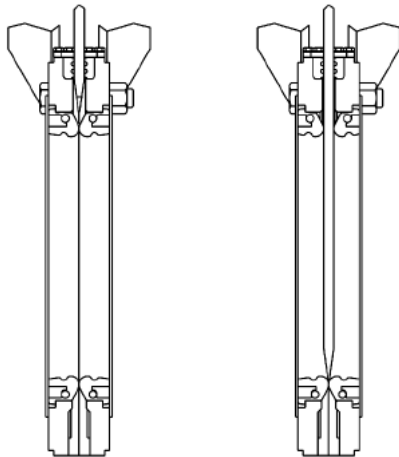
## Knife Gate and Slurry Valves for service and process applications

### Seating Arrangements of Knife Gate and Slurry Valves



C-KGA Open

C-KGA Closed



C-KGD Open

C-KGD Closed

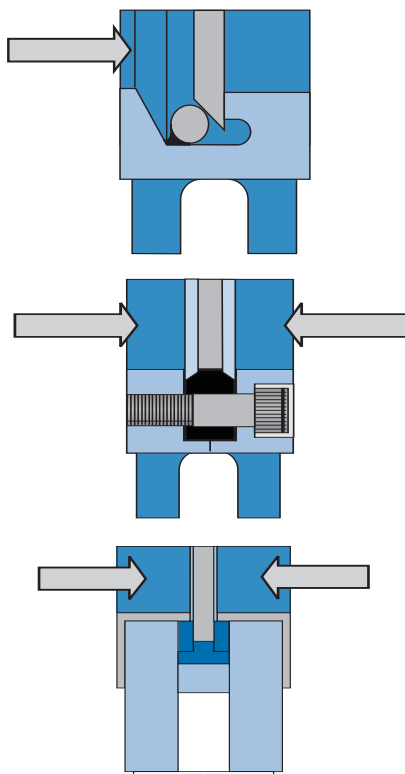
**Slurry Valves:** Matching sleeves are placed in the valve housing to seal against the gate when the valve is closed and seal against each other when the valve is open. As the gate moves from open to closed position, it separates the facing sleeves. The unique slurry valve sleeve assembly provides positive sealing action when the valve gate is closed. When the gate is open, the sleeves provide an unobstructed port.

#### Open position:

- Gate positioned above seals
- Tight fit between sleeves contains internal pressure
- Metal parts not in contact with slurry
- Unobstructed port area eliminates turbulence, minimizes pressure drop across valve
- No seat cavity where solids can collect and prevent full gate closure

#### Closed position:

- Gate travels completely through sleeves to provide blind flange shut off and expel solids.
- 100% Isolation-bubble tight shut-off results in absolutely zero downstream leakage
- Double-seated design provides bi-directional flow and shut-off
- Tight fit between sleeves and gate contains internal pressure



**Knife Gate Valves:** intMPE offers three basic configurations of knife gate valve seating arrangements; the metal-to-metal, perimeter resilient and polymer lined designs. This allows you to select the best performance range suited for your applications, no matter how demanding.

**Metal-to-Metal seat:** The S20, Figures 1 and 220 are standard with unidirectional metal-to-metal seats. All are tested to MSS-SP81 and have an allowable leak rate of 40cc water per inch of diameter per minute at 40 psi. Line pressure pushing the gate against the seat assists the shut-off performance of unidirectional knife gate valves.

**Perimeter resilient seat:** The S17D and SB1700 are bidirectional, perimeter seated valves. With a perimeter seat, pressure against the gate is not required to create a seal so ZERO leakage of water is achieved at any line pressure up to the 150 psi design rating, in both directions.

**Polymer lined valve:** The M145 and M345 have bidirectional, pressure assisted seals. Because of this, they are tested in both directions with pressure pushing the gate against the seat.



# intMPE 's broad product offering

## MP C-KGA, C-KGD, C-KGF Slurry Valves

Field proven, heavy duty, trouble-free slurry valves for abrasive, corrosive and coarse slurries. The original C-KGA slurry knife gate valve features full port elastomer lining offering the ultimate in protection against heavy slurries and may be used in wet or dry services.

The C-KGD wafer style slurry knife gate valve offers value and high performance in a compact package. The C-KGF slurry knife gate valve offers the same features and performance found in the C-KGD, but 300 psi design and the C-Valve is a true slurry throttling valve that provides both high performance and long life in the toughest of environments.



### intMPE C-KGA

- 100% full port
- Double seated, bidirectional shut-off design
- Heavy duty elastomer sleeves
- No seat cavity
- Packingless design
- Operating pressures up to 100 psi
- Temperatures to 400°F

*Request Data Sheet: CLKMC-0113-US*



### intMPE C-KGD

- 100% full port
- Double seated, bidirectional shut-off design
- Exclusive, dynamic self-adjusting sleeve design
- MSS face-to-face dimension
- Sizes 2" thru 24"
- Operating pressures up to 150 psi
- Temperatures to 300°F
- Manual bevel gear
- Air or hydraulic cylinder actuators
- Electric motor operators

*Request Data Sheet: CLKMC-0112-US*



# intMPE 's broad product offering

## Choice in design, elastomers and size range



### intMPE C-KGF

- 300 psi CWP Design
- 100% full port
- Double seated, bidirectional shut-off design
- Exclusive, dynamic self-adjusting sleeve design
- Operating pressures up to 300 psi or higher
- Temperatures to 300°F
- Manual bevel gear
- Air or hydraulic cylinder actuators
- Electric motor operators

*Request Data Sheet: CLKMC-0110-US*



### intMPE C-KLB

- Man-safe line blind
- No down stream leakage even with sleeve failure
- 100% full port
- Double seated, bidirectional shut-off design
- MSS face-to-face dimension
- Sizes 2" thru 24"
- Operating pressures up to 150 psi
- Temperatures to 300°F
- Manual bevel gear
- Air or hydraulic cylinder actuators
- Electric motor operators

*Request Data Sheet: CLKMC-0142-US*



### Throttling C-Valve

- No metal parts in contact with the flowing slurry
- Molded elastomer sleeve
- Sleeve maintains perfect round and concentric aperture across the full throttling range.
- Throttling range from wide open to up to a 90% reduction of maximum flow.
- Automated or manual valve actuation
- Valve sizing and applications assistance available
- Sizes 1" thru 10", larger sizes available
- Operating pressure 100 psi
- Temperatures to 400°F

*Request Data Sheet: CLKMC-0109-US*



**intMPE**  
**Valves**

**INTMPE VALVES.**  
**MP KNIFE GATE VALVES**

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