

United Process Valves

Tradition

Innovation

Commitment

GATE VALVES

GW & GS Series

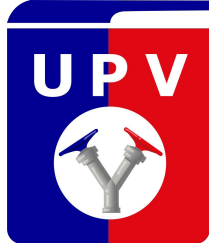
WEDGE & SLAB GATE VALVES





HISTORY & MILESTONES





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WEDGE GATE AND SLAB GATE VALVES FOR SPECIAL APPLICATIONS

Code: **GW2M**

Wedge gate Valves

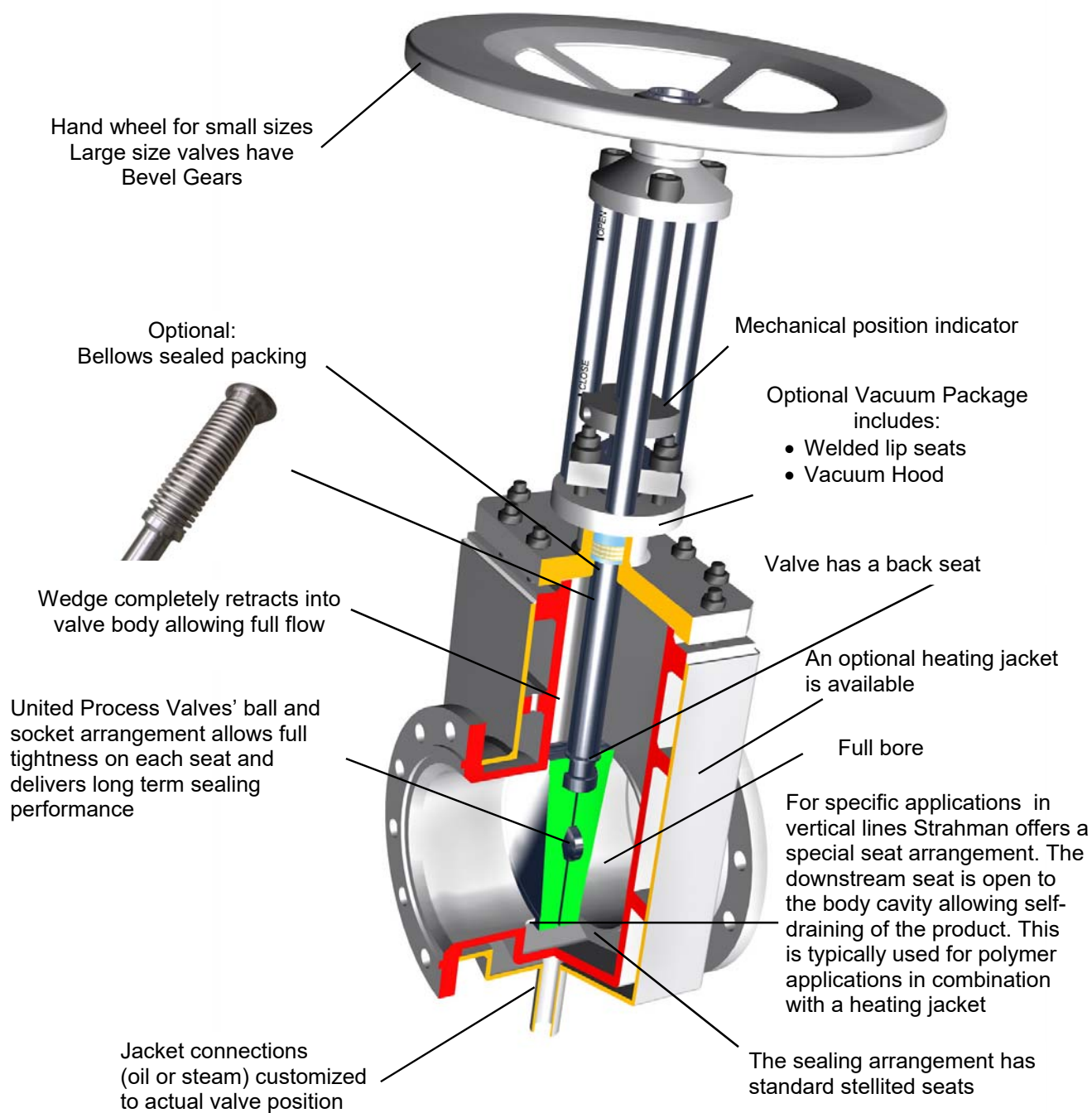


Fig. 060 / 065D



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United Process Valves' designs and manufactures gate valves for special applications. They include specific applications where large diameters, jacketing or special materials are necessary. Most of Strahman's gate valves are customized to meet specific process requirements. They are well suited as isolation valves for process lines in chemical and petrochemical applications.

The safety of process equipment often depends on the reliability of these "key equipment" valves. The main features include tight shut-off, full bore design, availability of metal or resilient sealing arrangements and the choice between wedge or parallel seated designs. Jacketed wedge gate valves are mainly used in the polymer industry. Bellow-sealed wedge gate valves with welded lip seals are suitable for toxic and lethal products. Slab gate valves are recommended for isolation of ethylene furnaces where heavy feedstocks are cracked.

Wafer type Slab Gate Valve

Code: **GSD**

Slab Gate Valve with Dismountable Sleeve

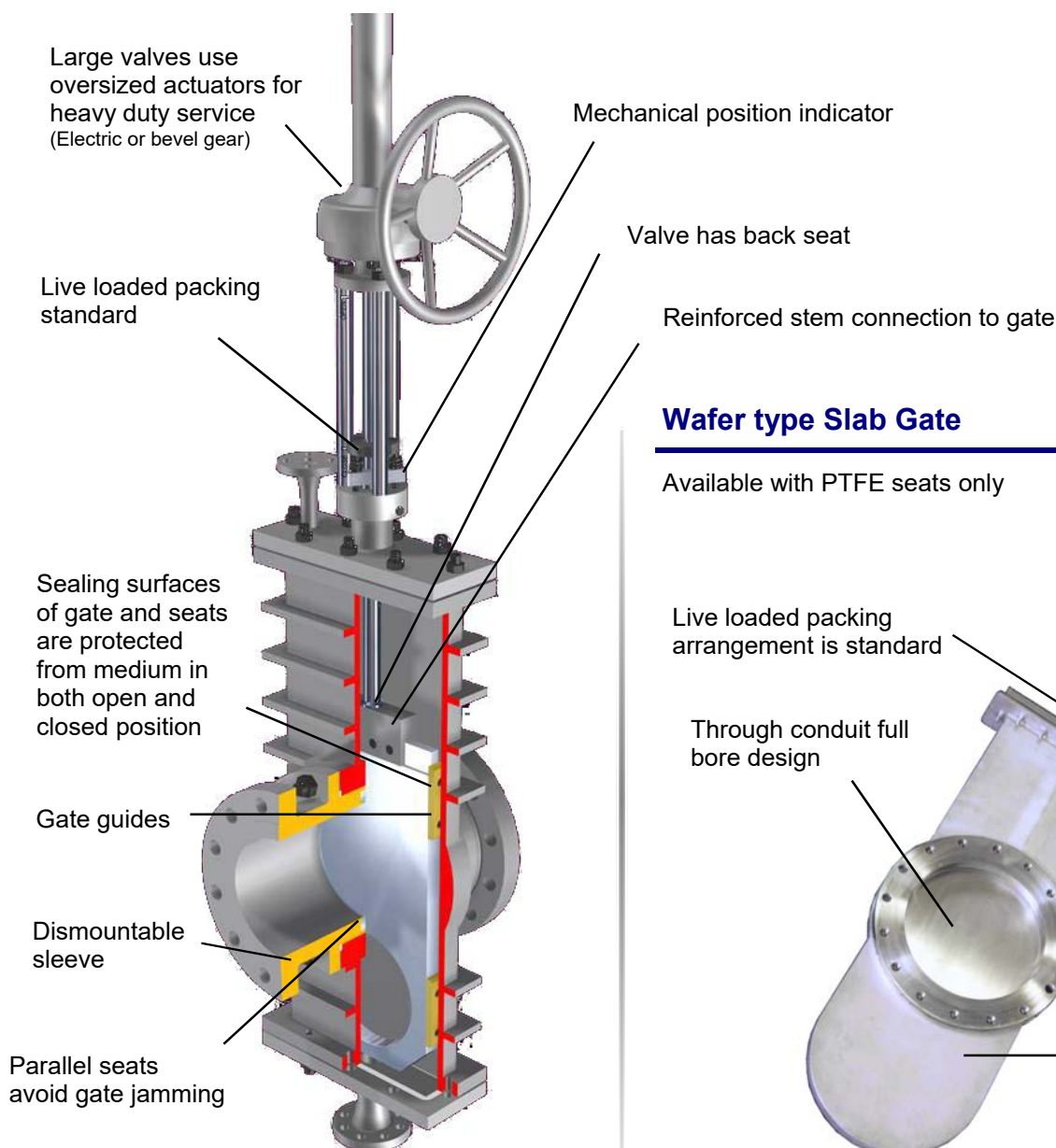


Fig. 074

Wafer type Slab Gate

Code: **GSD**

Available with PTFE seats only

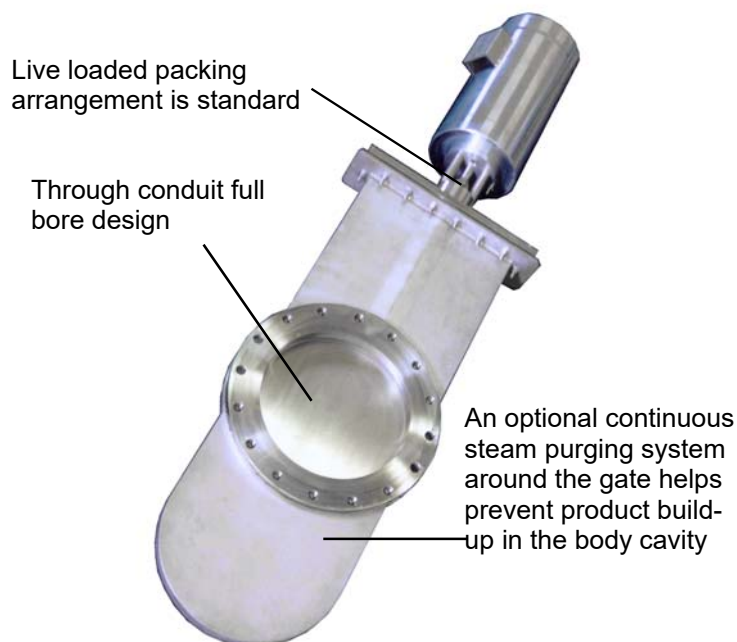
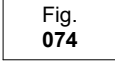
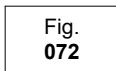
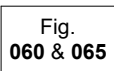


Fig. 072

BODY ARRANGEMENTS

Unites Process Valves Gate valves have three different configurations:

- **Fig. 060** or **065** is for Wedge gate valves
- **Fig. 072** is for Wafer type slab gate valves
- **Fig. 074** is for Slab gate valves with dismountable seats



RANGE DEFINITION

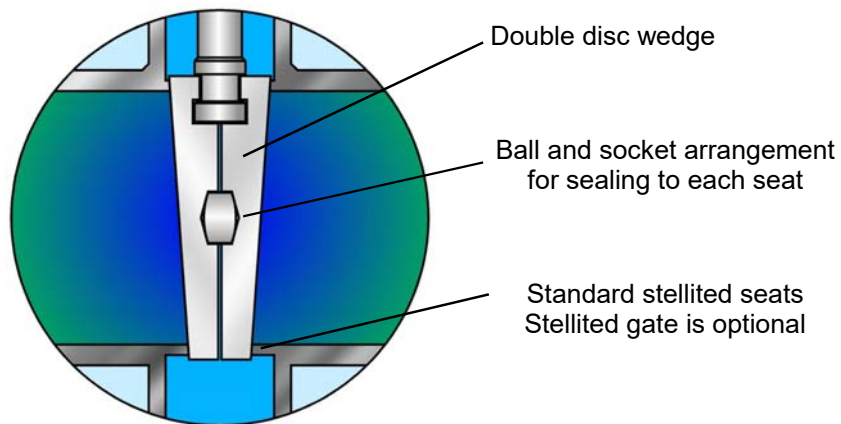
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SEALING SYSTEMS

United Process Valves Gate Valve sealing systems utilize different designs for wedge and slab valves. The following drawings illustrate the specific differences.

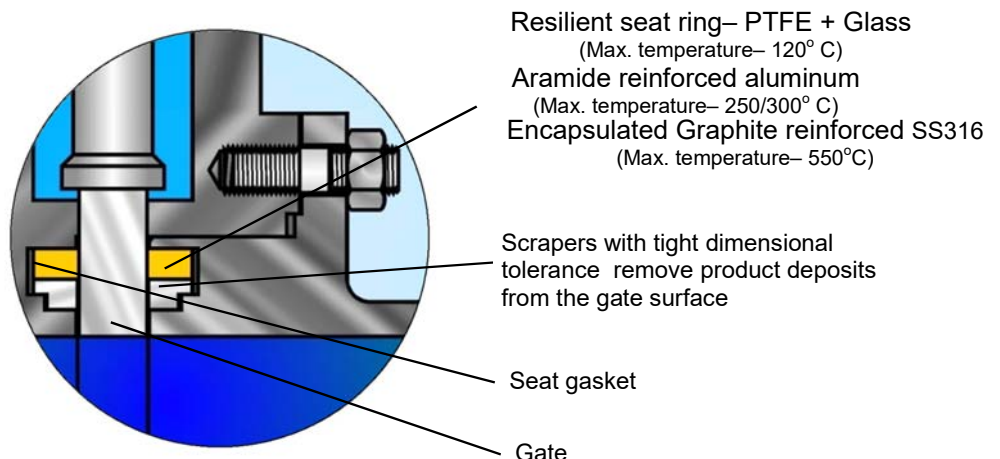
Wedge

- Metal to Metal Gate to body seat sealing
- Stellite coating standard on body seat
- Bi-directional valve



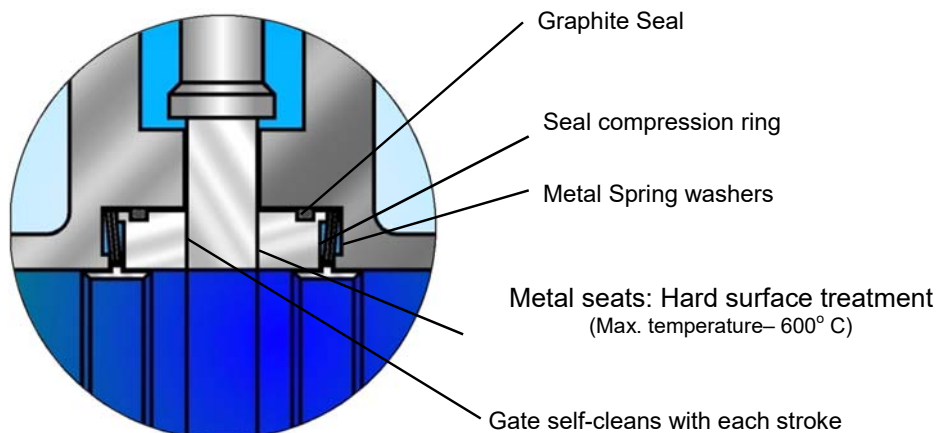
Resilient Seats with Scraper Ring

- Metal to resilient material Gate to seat sealing
- Bi-directional valve
- Replaceable seats



Resilient Seats with Scraper Ring

- Metal to resilient material Gate to seat sealing
- Bi-directional valve
- Replaceable seats



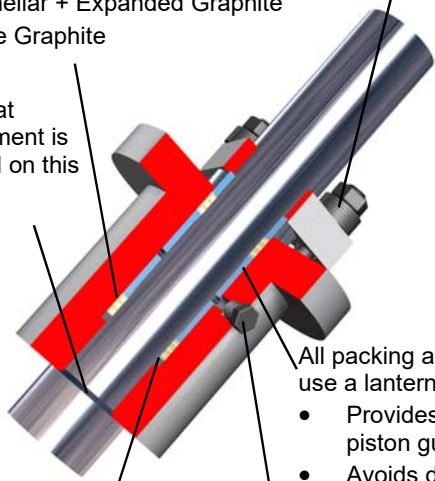
PACKING DEFINITION

Typical Packing Materials:

- PTFE
- PTFE / Aramide Braid
- Carbon / Graphite Braid
- Graphite Braid
- PTFE /Aramide Braid + Graphite
- Lamellar + Expanded Graphite
- Pure Graphite

Live loaded packing arrangement minimizes maintenance

Back seat arrangement is standard on this valve



All packing arrangements use a lantern ring that:

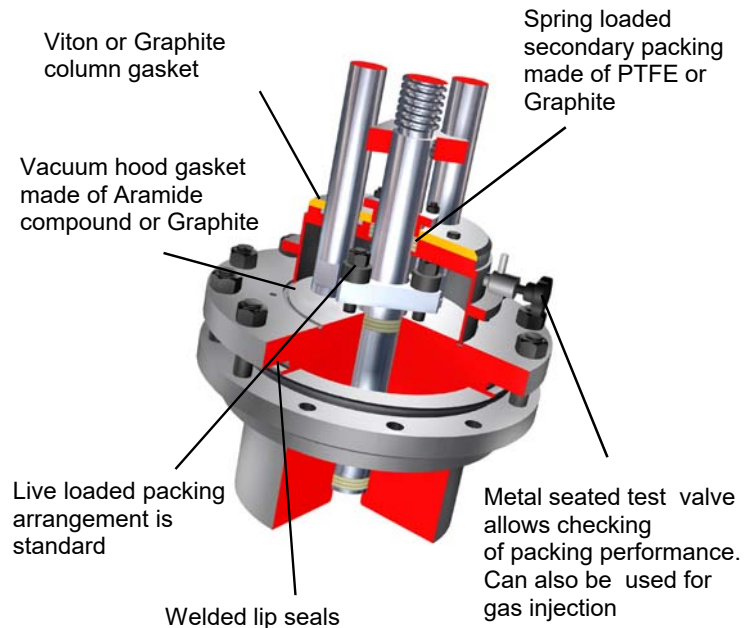
- Provides better stem piston guiding
- Avoids dead space in body cavities

Bottom ring material is selected with a differential hardness from the piston to prevent piston damage

Optional 1/4 inch NPTF can be used for leak detection or inert gas injection to atmosphere by creating an over pressure

VACUUM HOOD

For valves on full vacuum service United Process Valves offers a special **vacuum package** that maintains tightness to atmosphere. Valves with this package are usually equipped with an **M Ring Seal** design as process sealing. The system uses a replaceable aluminium or nickel seal ring and provides high vacuum performance. This special **vacuum package** provides zero leakage between atmosphere and process.



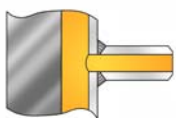
STANDARD BODY GASKET RANGE

- PTFE
- Aramide / Nitrile
- Carbon / Aramide
- Laminated Graphite
- Laminated Graphite / 316
- Welded Lips

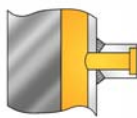
JACKET CONNECTIONS



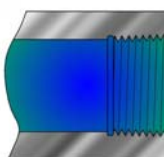
Flanges
ANSI,DIN,JIS



Butt Weld



Socket Weld



Threaded connections
NPT & BSP

Valve Coding System

	G	W	2	\$	W	J
G Gate Valve						
W Wedge S Slab A Accessories						
2 Double Disc S Dismountable Sleeve D Dismountable Seat \$ Special						
S Soft Seated M Metal to Metal \$ Special						
F Flanged W Butt Weld A Wafer O Oversized Flange G Graylock \$ Special						
J Jacketed - Non-Jacketed						

NOTE: Some combinations may not be compatible

TECHNICAL & GENERAL INFORMATION

Design Code & Construction

- Design standard compliant with ASME B16.34
- International standards include ANSI, DIN, JIS, API etc.
- Wide range of material selections including carbon steel / stainless steel / Titanium / Hastelloy / Duplex / Monel / Tantalum / Zirconium
- Fabricated, cast, forged and bar stock designs
- Combinations of fabricated, sand and investment casings, and bar stock available

Surface Finish

- For polymer applications, United Process Valves recommends a surface facing of 300 (Ra 0.4) for all parts are in contact with the medium

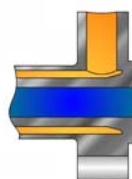
Quality assurance & testing

- ISO 9001 compliant
- ISO 15848 1 & 2, low emission testing and certification available
- PED / ATEX / CE marking
- Standard testing procedures

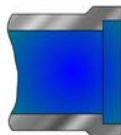
LINE & BRANCH CONNECTIONS



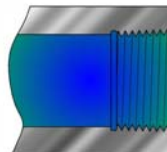
Flanges
ANSI, DIN, JIS



Heated
Flanges



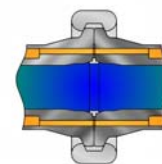
Socket
Weld



Threaded
connections
NPT & BSP



Butt
Weld



Fast Bolting Union
Graylock Securamax

ACTUATION OPTIONS



Hand Wheel



Bevel Gear



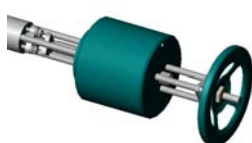
Electric Actuator



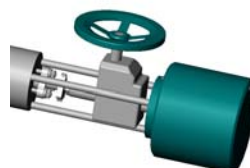
Air Motor



Double or single
acting Air Cylinder



Double or single acting Air
Cylinder with Safety Hand Wheel



Double or single acting Air
Cylinder with side mounted
Safety Hand Wheel



Hydraulic
Cylinder

United Process Valves products include:

PISTON TYPE SAMPLING VALVES

United Process Valves has a full line of sampling valves that produce live samples without exception. Our sampling valves unique design prevents failure caused by sediment or clogging.

PISTON TYPE DRAIN VALVES

United Process Valves Drain Valves are designed to prevent clogging. They are ideal for use in liquid and gas services or with slurries, polymers, and high viscosity fluids that tend to solidify at room temperature.

PISTON & DISC TYPE IN-LINE VALVES

United Process Valves Piston and Disc Type In-Line Valves alternative to a failing ball, plug or gate valve. With a wide range of positive sealing systems like M Seal, M Ring Seal and M Control, these valves provide superior in-line tightness. When opening the piston or disc it retracts completely into the valve body providing an unrestricted full flow.

PISTON & DISC TYPE DIVERTER VALVES

United Process Valves Diverter Valves are designed to divert process flows with high and low viscosity. They are dead space free to prevent clogging. They are ideal for use in liquid and gas services or with slurries, polymers, and high viscosity fluids that tend to solidify at room temperature.

SINGLE- & DOUBLE-DISC SLAB GATE VALVES

United Process Valves Single- & Double-Disc Slab Gate Valves are specifically designed for use in transfer line and decoking valves for ethylene cracking units and isolation applications in FCCU (fluid catalytic cracking unit) and DCU (delayed Coker unit) plants. The safety and continuous production of process plants often depend on the reliability of these "key-equipment" valves.

LINE BLINDS

United Process Valves Line Blinds provide zero leakage downstream and total isolation on process pipelines, vessels, and maritime applications. No pipeline movement is required when blind position is changed. Please contact your local United Process Valves representative for further details or visit our website:

www.unitedprocessvalves.com

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