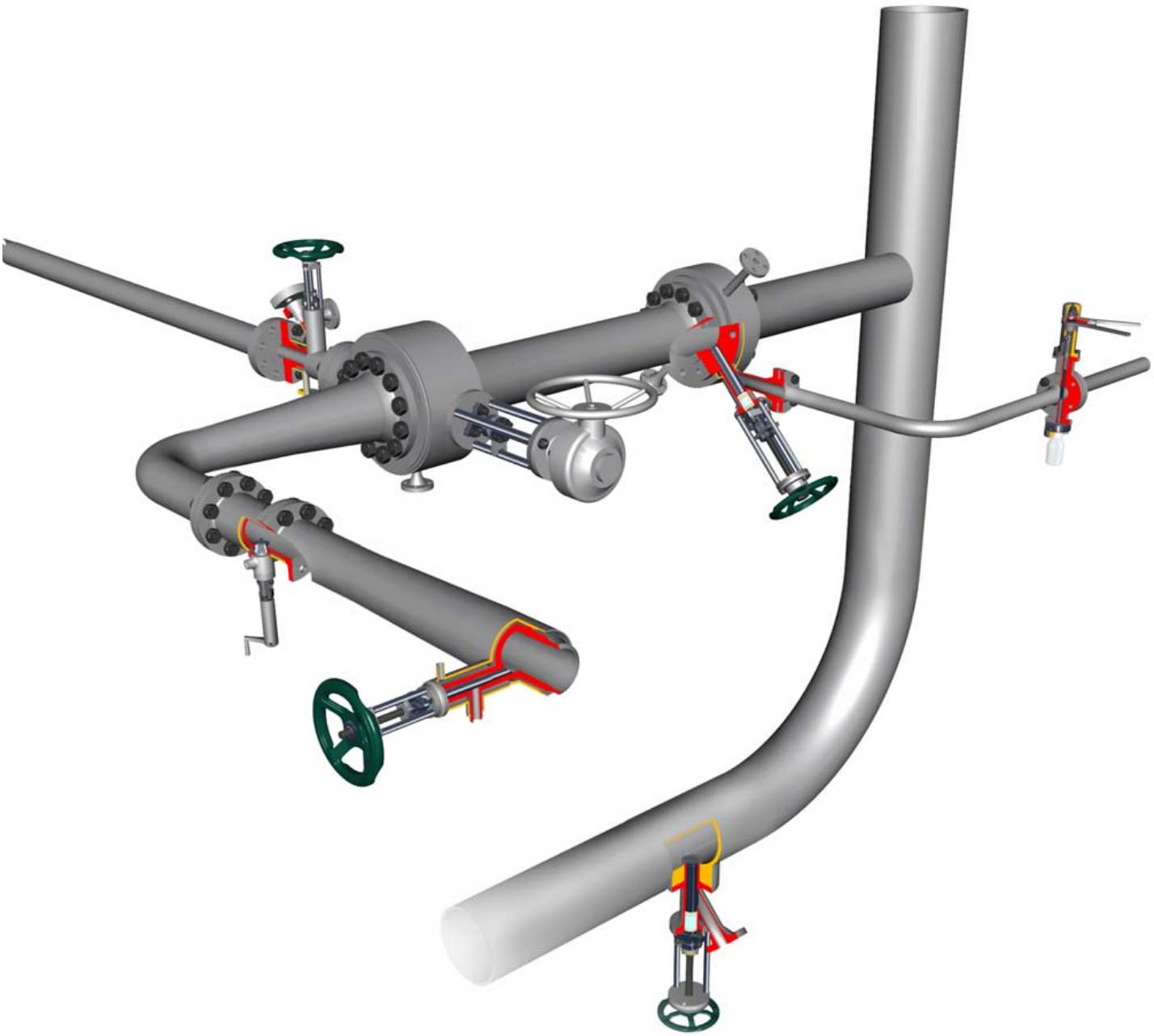
United Process Valves

Tradition Innovation Commitment

P Series

PIPE VALVE ASSEMBLIES



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HISTORY & MILESTONES

2023 — June 2023, the Strahman Valves France management team acquires Strahman Valves France and Strahman MGS. Name is changed to Strahman United Process Valves.

Strahman United Process Valves
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2019 — Feb 2019, Strahman Valves France acquires MGS in Vaux Sous Aubigny. Name of this add on company becomes Strahman MGS.

Strahman MGS

2004 — Strahman Valves Inc USA, founded in 1921 acquires MG Process Valves. Name is changed to Strahman Valves France.

Strahman VALVES France

2000 — Original French founders acquire the company from Fetterolf Corp. USA Name changed to MG Process Valves.

MG PROCESS VALVES
The answer!

1998 — MG-Fetterolf moves into a new constructed building in Mery, France.

1992 — Name change to MG-Fetterolf after acquisition by Fetterolf USA.

FETTEROLF

1986 — MG Industries is founded by two French partners.

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CUSTOMIZED VALVE ASSEMBLIES

Code: **PPCPMJ**

Centered Piston Valve assembly

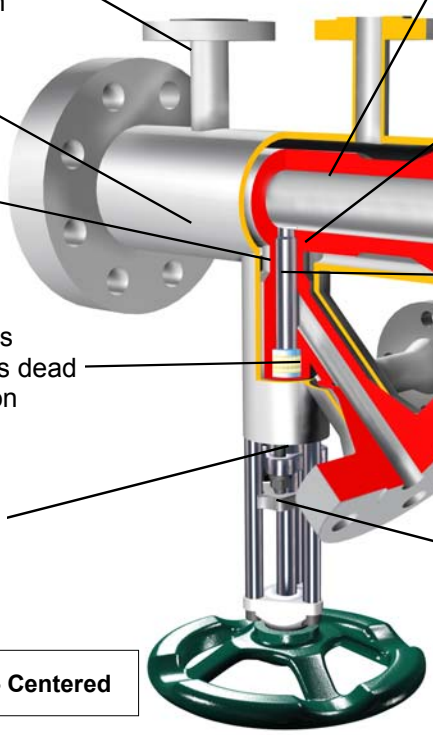


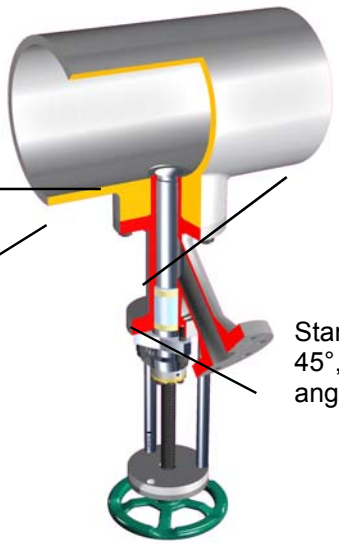
Fig. 130 D - Centered

Dismountable Piston Valve assembly

Code: **PDCPM**

A dismountable valve assembly is a combination of a valve bolted to a section of process line. (Refer to Vessel & Reactor Valves brochure) Process pipe connections can be flanged or welded. When compared to a welded assembly the advantages are:

- The valve can be removed from the process line
- Greater flexibility for branch orientation
- Heating Jacket optional



Valve can be either a Piston or Disc type with a choice of seals:

- Soft Seal
- Dual Seal
- M Seal
- M Control

(Refer to the Vessel & Reactor brochure)

Recommended extended body design for flush and dead space free connection to process pipe

United Process Valves pads offer full bore and valve interchangeability

Standard branch angle: 45°, 60° & 90°. Other specific angles available upon request

Fig. **130D**

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United Process Valves pipe assembly valves are mostly a piston type design. They are dead space free and customized to fit specific process piping. Strahman valves are available in a choice of options including material of construction, sealing systems, actuators and customized or standard connections to piping. Other specific features include full jacketing, valve tangentially positioned to process pipe or additive injection.Typical applications: Draining, sampling and injection for high or low pressure slurry type and molten polymer processes.

Wafer Type Piston Valve assembly

Code: **PFCPMJ**

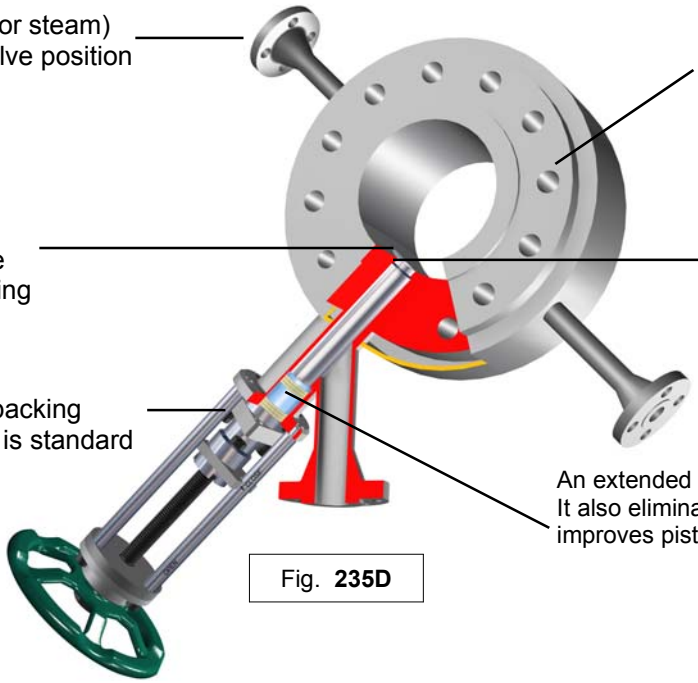

Fig. **235D**

Tangential Piston Valve Assembly

Code: **PPTPMJ**

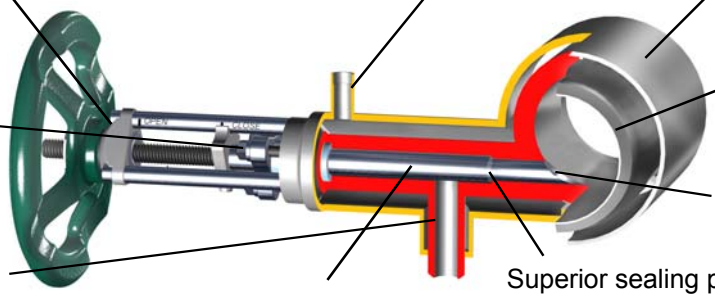

Fig. **130D Tangential**

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Pipe Crossing Piston Injection Valve

Code: **PFXPMJ**

As an option, this valve can be equipped with an exchangeable pipe to inject additives into the center of the flow. Installation is usually upstream of a static mixer

Studded end connections are standard

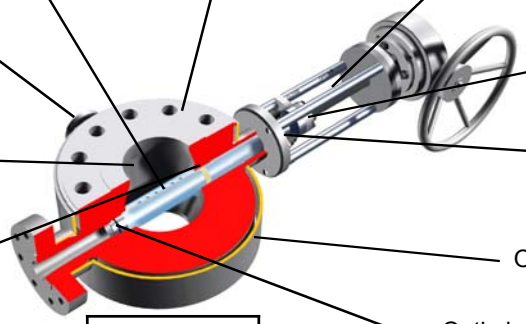
Large valves equipped with Non-rising stem to minimize overall length

Jacket connections (oil or steam) customized to actual valve position

Mechanical Position Indicator

Enlarged valve bore provides full flow capacity through the valve

Live-loaded packing arrangement is standard



Extended stuffing box eliminates dead space and improves piston alignment

Optional heating jacket

Optimized seat position minimizes pressure drop and eliminates retention areas

Fig. **570D**

RANGE DEFINITION

VD Manufacturing Range	PN 10	PN 16	PN 20– 150 lbs.	PN 25	PN 40	PN 50 300 lbs.	PN64 400 lbs.	PN 100 600 lbs.	PN 150/ 160 -900 lbs.	PN 250 -1500 lbs	PN 320	PN 420—2500	PN 630 –4500
3/8"- DIN10													
1/2"- DIN15													
3/4"- DIN20													
1"- DIN25													
1 1/4"- DIN32													
1 1/2"- DIN40													
2"- DIN50													
2 1/2"- DIN65													
3"- DIN80													
4"- DIN100													
5"- DIN125													
6"- DIN150													
8"- DIN200													
10"- DIN250													
12"- DIN300													
14"- DIN350													
16"- DIN400													
18"- DIN450													
20"- DIN500													
24"- DIN600													
28' - DIN700													
32" - DN800													
36" - DN900													
40" - DN1000													
44" -DN1100													
48" - DN1200													

Piping & Valves

Piping Only

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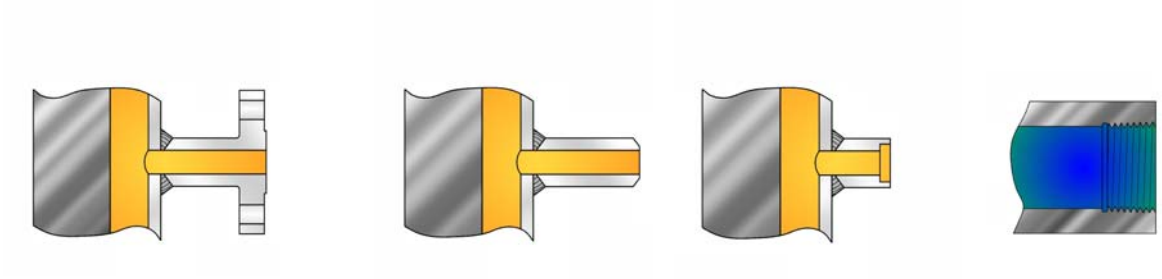
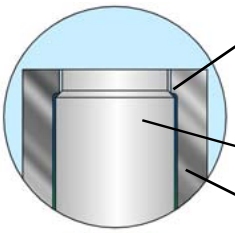
JACKET CONNECTIONS



Flanges ANSI,DIN,JIS | Butt Weld | Socket Weld & Threaded (FNPT) | Threaded Connections (NPT & BSP)

SEALING SYSTEMS

M Seal- This sealing system offers a wide range of material combinations selected to create a differential hardness between body and plunger seat. The maintenance friendly design of the **M Seal** system provides long & reliable valve performance and is suitable for almost all process conditions.



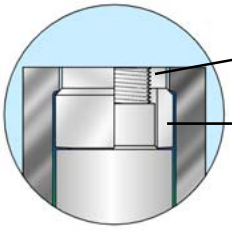
Greater hardness on body seat assures wear occurs on piston first
- Easy maintenance is key

One piece piston design minimizes dead area

Valve Body

Temperature
Min: -200° C / -330° F
Max: 815° C / 1500° F
Pressure
Max: 630 bar / 9000 psig

M Ring Seal- The **M Ring Seal** is also based on a differential hardness between the body and the piston surface. The replaceable metallic seal ring made of aluminum, nickel or titanium provides excellent sealing performance especially in applications that combine full vacuum and temperatures above 200° C.

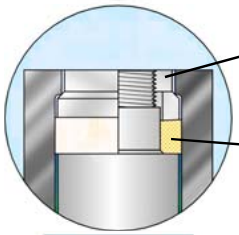


Locking nut is secured by a tack weld

Resilient metal ring seals between the body & Piston

Temperature
Min: -200° C / -330° F
Max: 450° C / 840° F
Pressure
Max: 250 bar / 3550 psig & full vacuum

Dual Seal- The **Dual Seal** is a unique double sealing system that works as a piston operating within a cylindrical seat. Unlike other designs, the secondary resilient seal ring is mounted on the piston and will expand after metal to metal contact of the primary seat ring. The design provides a true metal to metal seal in case of resilient seat failure.

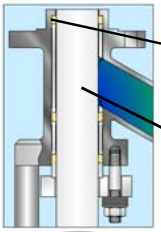


Locking nut is secured by a tack weld

A secondary seal ring is made of resilient material like PTFE, PTFE glass lined

Temperature
Min: -50° C / -60° F
Max: 200° C / 450° F
Pressure
Max: 250 bar / 3550 psig & full vacuum

Soft Seal- The **Soft Seal** utilizes a seat-less principle sealing performance. While closing, the plunger moves through the valve bore, effectively rodding any remaining product out of the valve. The live loaded packing arrangement avoids over-compression of the upper seal ring while the valve is in the open position.

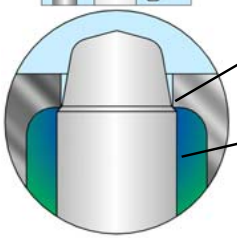


Rigid soft seat ring provides dimensional stability with temperature variations

Greater piston hardness avoids scratches-the most common cause of damage to seal rings

Temperature
Min: -50° C / -60° F
Max: 200° C / 390° F
Pressure
Max: 250 bar / 3550 psig & full vacuum

M-Control– With the **M-Control** system, United Process Valves provides customized flow to regulate a specific laminar flow with high viscosity. The system uses a piston with a specific shape to control flow and/or pressure. The **M-Control** uses the **M-Seal** system.



Greater hardness on body seat allows piston to wear first

Body cavity is sized to keep full flow capacity through the valve

Temperature
Min: -200° C / -330° F
Max: 815° C /1500° F
Pressure
Max: 630 bar / 9000 psig

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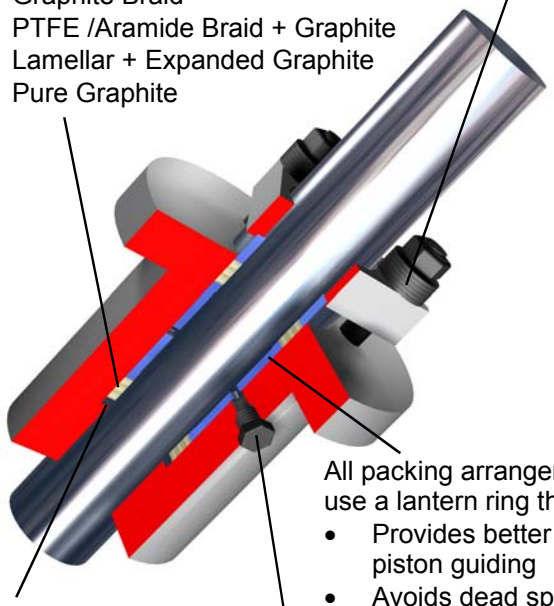
PACKING DEFINITION

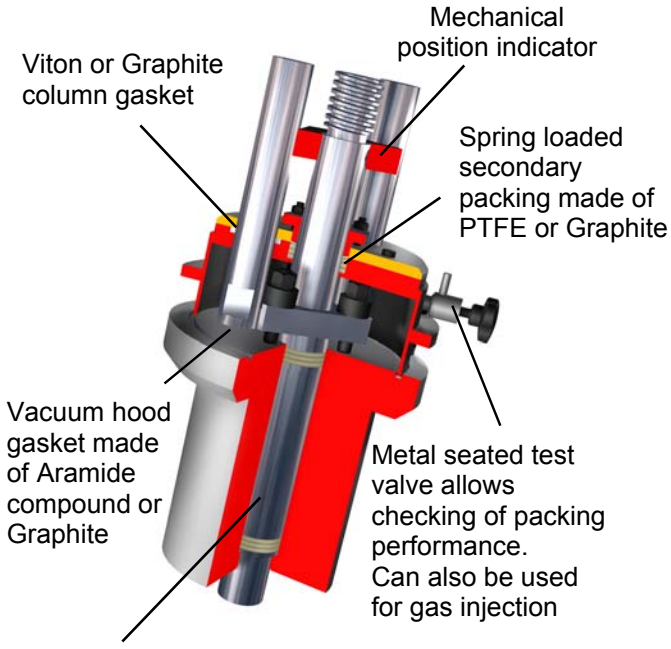
Typical packing materials:

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



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
Spiral Wound 316L / PTFE
Spiral Wound 316L / Graphite
Spiral Wound 321 / Graphite
Spiral Wound Inconel / Graphite
Spiral Wound Titanium / Graphite
Welded Lips

Valve Coding System

P	D	C	P	D	J

P Pipe Valve Assembly

D Dismountable from Pipe
P Welded to Pipe
F Welded on Flange
S Special

C Centered
X Crossing Pipe
T Tangential
S Special

P Piston
D Disc
R Rising Disc

S Soft Seated
M M Seal
C M Control
D Dual Seal
R M Ring Seal

J Jacketed
- Non-Jacketed

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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

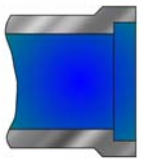
- ISO 9001 compliant
- PED / ATEX / CE marking
- ISO 15848 1 & 2, low emission testing and certification available
- Standard testing procedures

LINE & BRANCH CONNECTIONS

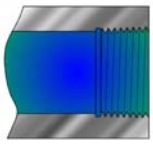
Flanged
ANSI, DIN, JIS

Heated Flange

Studded Ends

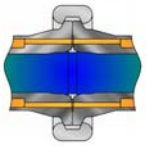


Socket Weld



Threaded Connections (NPT & ANSI)

Butt Weld



Fast Bolting
Union
Graylock
Securamax

ACTUATION OPTIONS

Hand Wheel

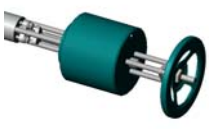
Bevel Gear

Electric Actuator

Air Motor

Double or single acting Air Cylinder

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



Double or single acting Air Cylinder with Safety Hand Wheel

Hydraulic Cylinder

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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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ISO 9001:2015 BUREAU VERITAS Certification

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