

## ID & IP SERIES

## IN-LINE DISC AND PISTON VALVES

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## M SEAL IN-LINE PISTON VALVE

CODE: IPYM

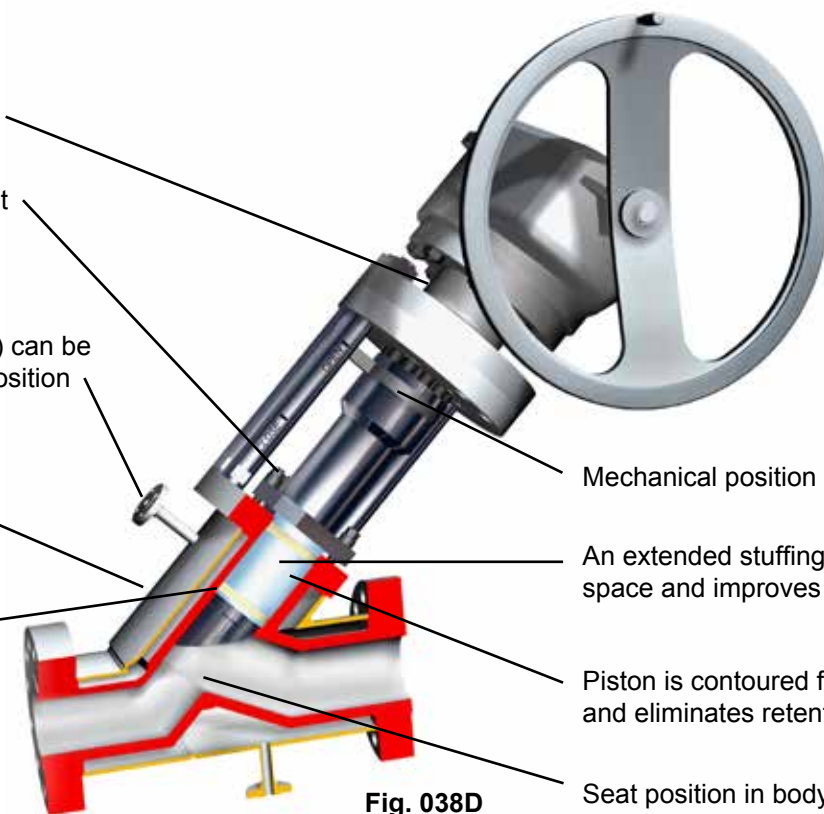
Large valves utilize a non-rising stem to minimize overall length

Live loaded packing arrangement is standard

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

Optional heat jacketing

M Seal provides high sealing performance for high temperature. Other sealing systems are available



Mechanical position indicator

An extended stuffing box eliminates dead space and improves stem/disc alignment

Piston is contoured for smooth flow and eliminates retention areas

Seat position in body is optimized to minimize pressure drop and eliminate retention areas

Fig. 038D

## IN-LINE DISC VALVE

CODE: IDYM

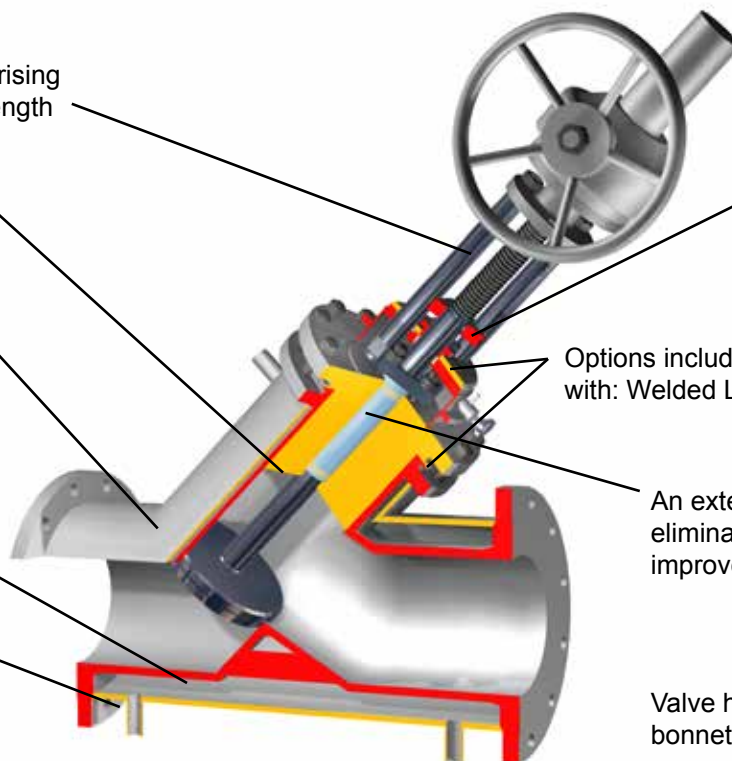
Large valves utilize a non-rising stem to minimize overall length

Disc completely retracts into valve body to provide full flow

Seat position in body is optimized to minimize pressure drop and eliminate retention areas

Optional heat jacketing

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



Mechanical position indicator

Options include Vacuum Package with: Welded Lip Seal, Vacuum Hood

An extended stuffing box eliminates dead space and improves stem/disc alignment

Valve has dead space free bonnet arrangement

Fig. 050D

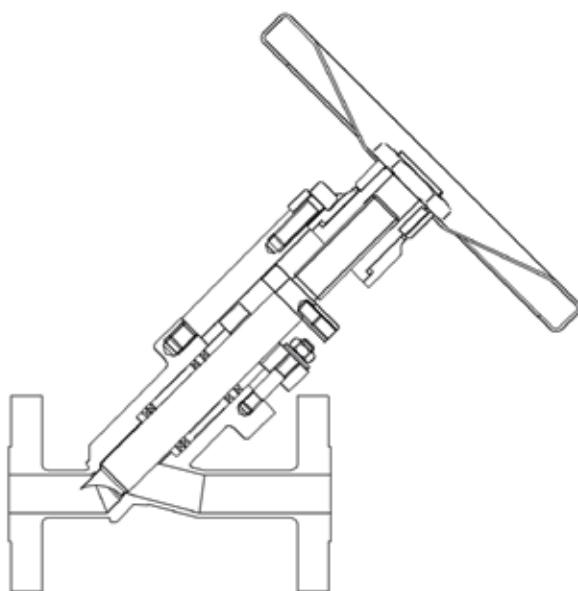
range of positive sealing systems like M Seal, M Ring Seal and M Control, these valves provide superior in-line tightness. When opening the piston or disc, it retracts completely into the valve body providing an unrestricted full flow. In combination with our maximized port sizes, these designs offer maximum flow capacity. They are available in a wide choice of options including materials of construction, sealing systems to atmosphere, actuators, full jacketing and a vacuum package.

Typical applications for in-line piston valves is to provide a dead space free valve for high viscosity products or abrasive slurries, especially in combination with high pressures and high temperatures.

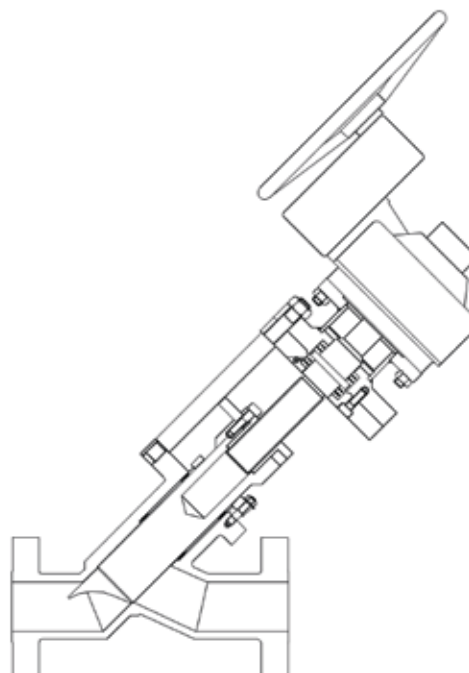
## BODY ARRANGEMENTS

The Strahman In-Line valve has several styles available:

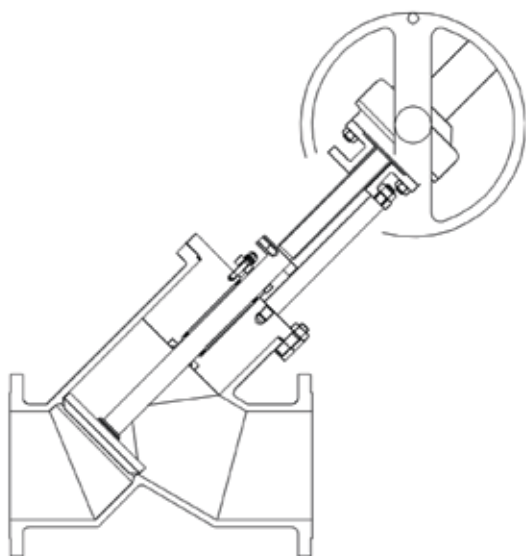
- Figure **037** for small sizes Y pattern piston valves with a rising stem design.
- Figure **038** for large sizes Y pattern piston valves with a non-rising stem design.
- Figure **050** for Y disc pattern disc valves with rising or non-rising stem.
- Figure **055** for angle pattern disc valves with rising or non-rising stem



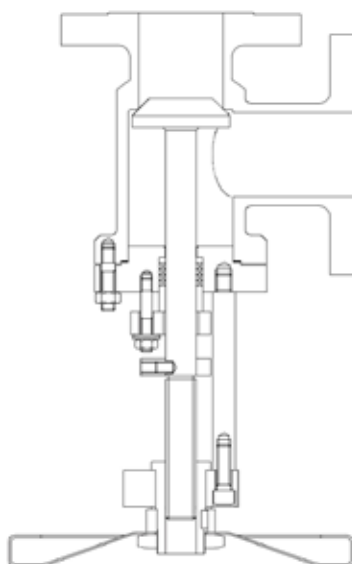
**Fig. 037**



**Fig. 038**

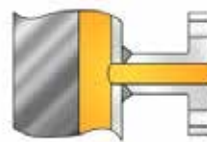
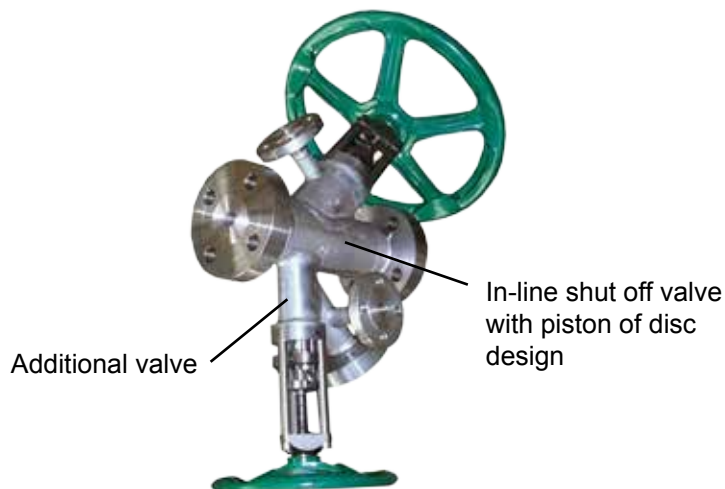


**Fig. 037**

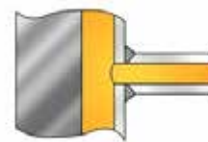


**Fig. 038**

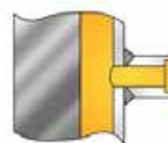
In some processes, an additional valve can be required to serve as a drain valve for the product line (dump, valve) or to inject additives. This additional valve can be welded to the body of the main valve as shown in this example.



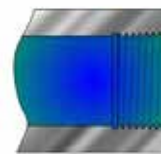
Flanges  
ANSI, DIN, JIS



Butt Weld



Socket Weld, NPT

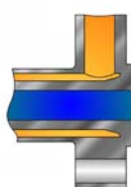


Threaded Connections  
(NPT & BSP)

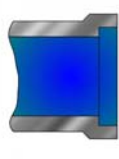
## LINE AND BRANCH OPTIONS



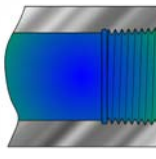
Flanges  
ANSI, DIN, JIS



Heated  
Flanges



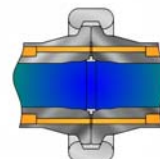
Socket  
Weld



Threaded  
connections  
NPT & BSP



Butt  
Weld



Fast Bolting Union  
Graylock Securamax

## ACTUATION OPTIONS



Hand Wheel



Bevel Gear



Electric Actuator



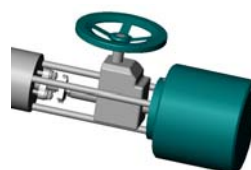
Air Motor



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

## DESIGN CODE AND 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 castings, and bar stock available

## SURFACE FINISH

- For polymer applications, Strahman recommends a surface finish of 300 (Ra 0.4) for all parts are in contact with the medium

## QUALITY ASSURANCE AND TESTING

- ISO 9001 compliant
- PED / ATEX / CE marking
- TUV / HPO / TA Luft
- Standard testing procedures
- CU TR 010
- CU TR 032

## RANGE DEFINITION

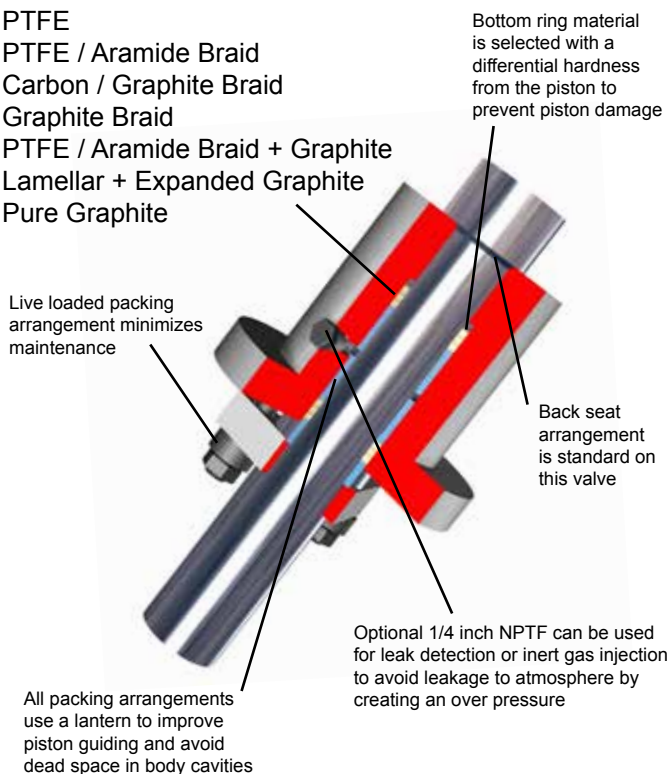
ID Manufacturing Range	PN 10	PN 16	PN 20-150 lbs.	PN 25	PN 40	PN 50 300 lbs.	PN 64 400 lbs.	PN 100 600 lbs.	PN 150/160-900 lbs.	PN 250 - 1500 lbs.	PN 320	PN 420 - 2500 lbs.	PN 630 - 4500 lbs.
3/8" - DIN10													
1/2" - DIN15													
3/4" - DIN20													
1" - DIN25													
1 1/4" - 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" - DIN600													
32" - DIN600													
36" - DIN600													
40" - DIN600													
44" - DIN600													

IP Manufacturing Range	PN 10	PN 16	PN 20-150 lbs.	PN 25	PN 40	PN 50 300 lbs.	PN 64 400 lbs.	PN 100 600 lbs.	PN 150/160-900 lbs.	PN 250 - 1500 lbs.	PN 320	PN 420 - 2500 lbs.	PN 630 - 4500 lbs.
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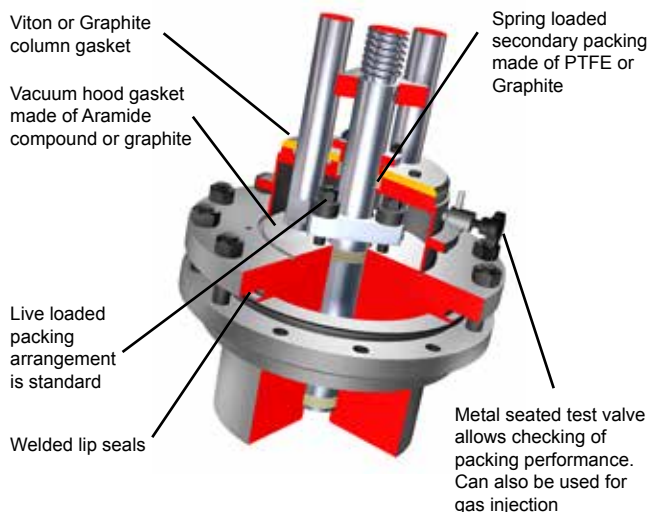


## Typical Packing Materials:

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



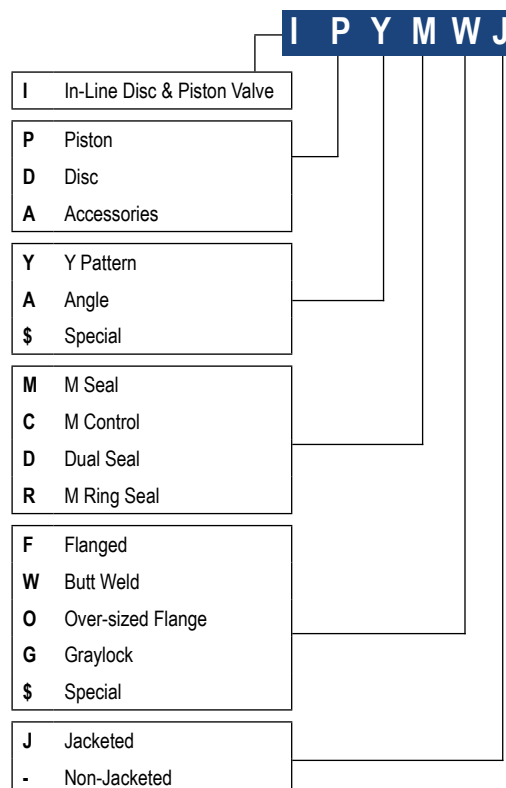
For valves on full vacuum service, Strahman offers a special **vacuum package** that maintains tightness to atmosphere. Valves with this package are usually equipped with an **M Ring Seal** design as process sealing. The system uses a replaceable aluminum or nickel seal ring and provides high vacuum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



## STANDARD BODY GASKET RANGE

- PTFE
- Aramide / Nitrile
- Carbon / Nitrile
- 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 Lip Seals

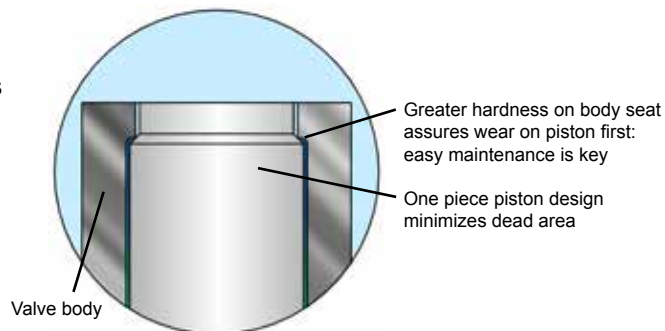
## VALVE CODING SYSTEM



## 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 and reliable valve performance and is suitable for almost all process conditions.

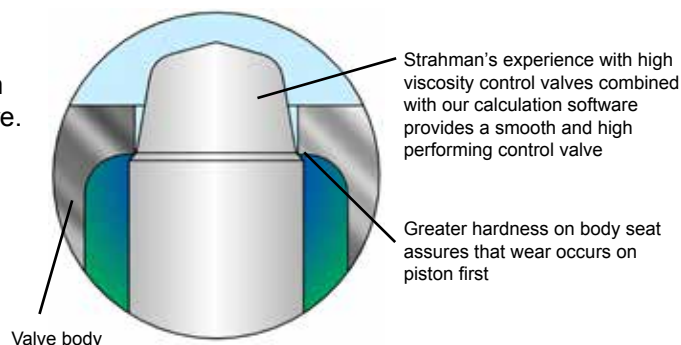
- **Temperature:** Min.: -200°C / -330°F  
Max.: 815°C / 1500°F
- **Pressure:** 630 bar / 9000 PSIG



## M-CONTROL

The **M-Control** system provides customized flow characteristics 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.

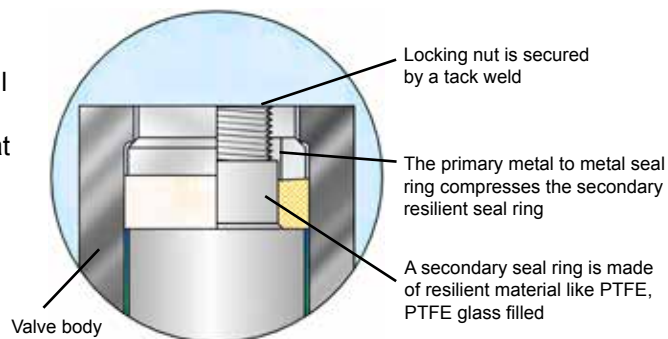
- **Temperature:** Min.: -200°C / -330°F  
Max.: 815°C / 1500°F
- **Pressure:** 630 bar / 9000 PSIG



## 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.

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

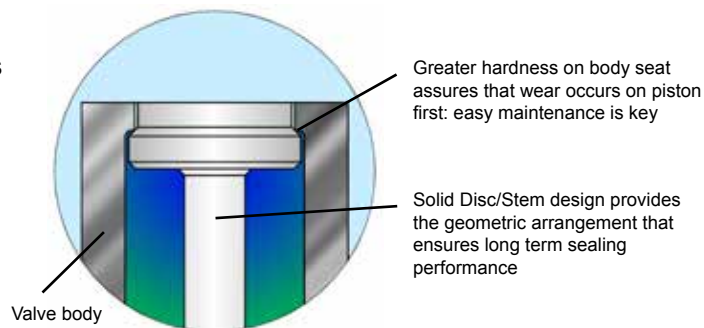


## SEALING SYSTEMS DISC VALVES

### M SEAL

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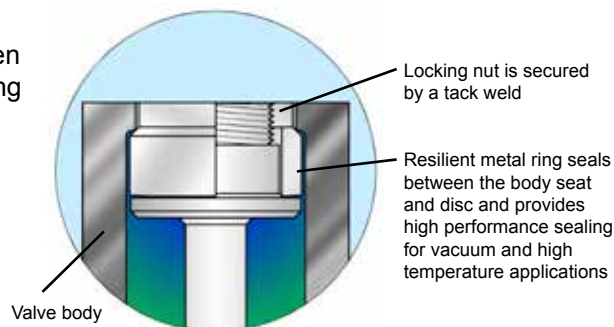
- **Temperature:** Min.: -200°C / -330°F  
Max.: 815°C / 1500°F
- **Pressure:** 630 bar / 9000 PSIG



### 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.

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



### SAMPLING VALVES

Strahman has a full line of sampling valves that produce live samples without exception. Our sampling valves unique designs prevent failure caused by sediment or clogging.

### DRAIN VALVES

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

### LINE BLINDS

Strahman Line Blinds provide zero leakage down stream and total isolation on process pipelines, vessels and maritime applications. No pipeline movement is required when blind position is changed.

### AUTOMATED VALVES & FIRE SAFE PRODUCTS

Strahman automated valve packages with floating ball valves and resilient seated butterfly valves come complete with electric or pneumatic actuators for a wide array of industrial applications. Additionally, a full suite of API 607 fire safe valve products are offered as actuated units or to be used in conjunction with our FM approved thermal shut-off assemblies. Resettable Emergency Block Valves (R-EBV) are also available for the oil & gas and chemical industries.

### WASH DOWN EQUIPMENT

Strahman offers a full line of mixing units, hose stations, hoses, nozzles and wash down accessories. Our wash down line is designed for industrial use and is used in a wide variety of industries including food, beverage, pharmaceutical, chemical and other applications.

Please contact your local Strahman representative for further details  
or visit our website: [www.strahmanvalves.com](http://www.strahmanvalves.com)



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#### BI-TORQ® Valve Automation

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