

**DD SERIES**

DIVERTER VALVES

DISC DIVERTER VALVES



 *Strahman*<sup>®</sup>

# STRAHMAN DISC TYPE DIVERTER VALVES

## DISC DIVERTER VALVES

CODE: DPS4

Strahman's disc diverter valve is designed to divert one main flow into two separate flows. These valves are designed to minimize retention areas. They are often used as reactor isolation valves in polymer processes. Equipped with the vacuum package, they are ideal for full vacuum applications in combination with high temperatures. The valves are bi-directional.

Upon opening, the discs retract completely into the valve body. This provides an unrestricted full flow. In combination with our maximized port sizes, this design offers maximum flow capacity.

Strahman disc diverter valves are available in a choice of options including materials of construction, seat arrangements and actuators. Other features include full jacketing, vacuum package and a wide array of body arrangements.

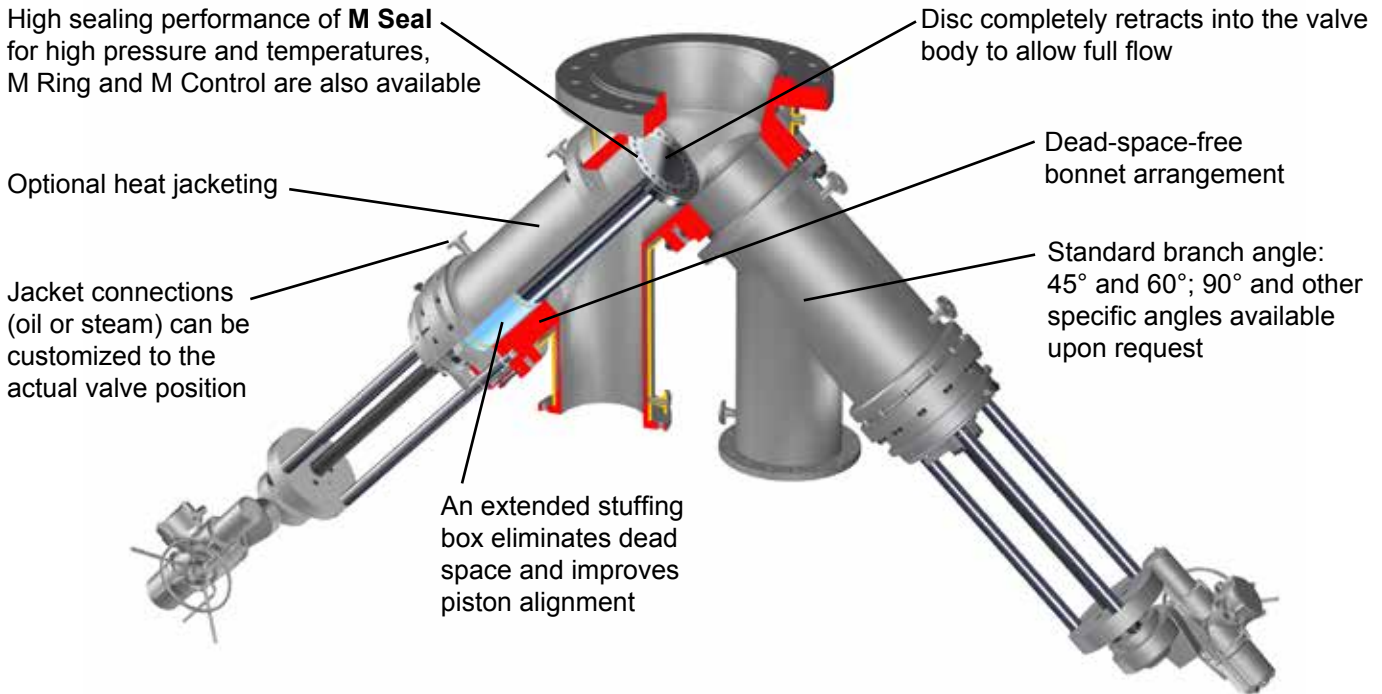


Fig. 0347D



## BODY ARRANGEMENTS

The Strahman **Disc Diverter Valves** use two basic designs:

- Figure **346** for small sizes or high pressure applications. Valves have a rising stem design.
- Figure **347** is for large size valves or low pressure applications. These valves use a non-rising stem design.

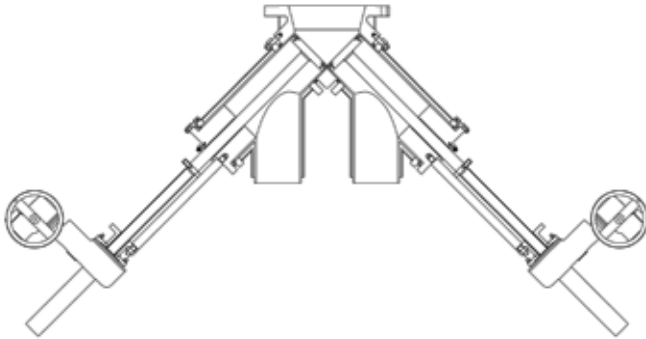


Fig. 346M

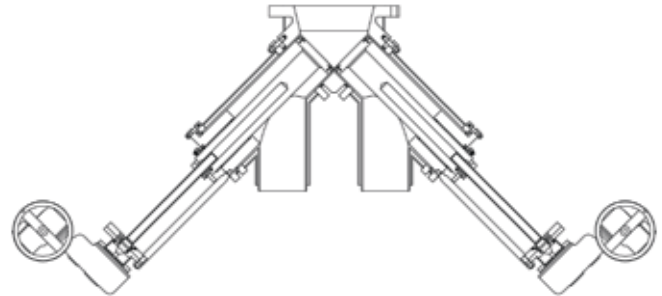


Fig. 347M

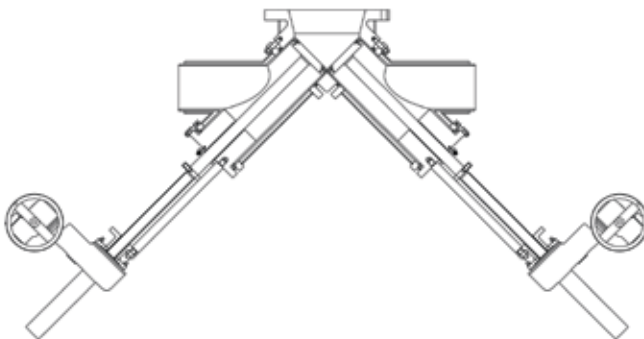


Fig. 346T

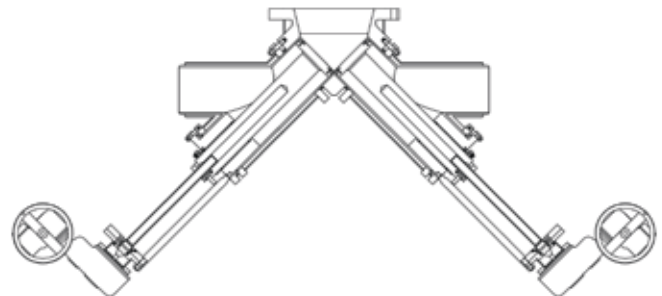
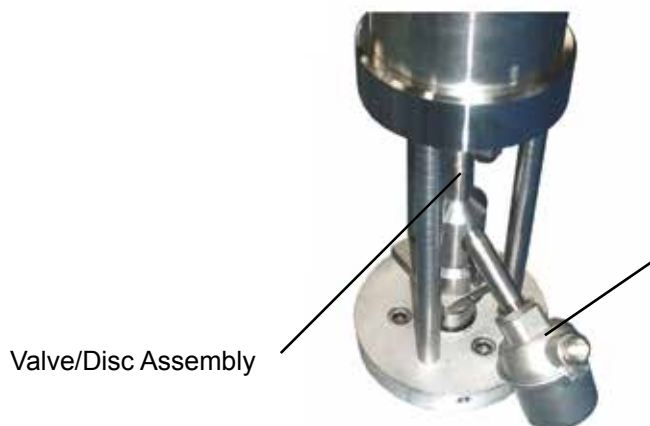


Fig. 347T

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## TEMPERATURE PROBE IN THE DISC

A bottom valve is located in the middle of your process. For this reason, an optional temperature probe installed in the disc will provide you with temperature information without the need of extra nozzles or reactor modifications.



Single or double PT100 temperature probe.  
Explosion-proof or standard.  
Temperature range: -50°C / 400°C  
-60°F / 750°F

## STEM LOCKING DEVICE

When safety regulations require an additional locking device to keep a valve closed, Strahman offers two different body arrangements.

### Arrangement A

A special half pipe blocks the stem within the top works and prevents valve from stroking

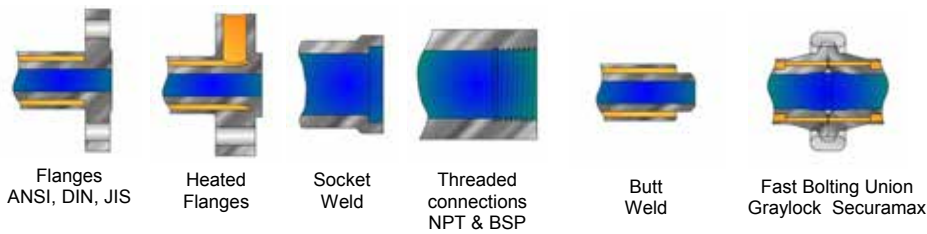


### Arrangement B

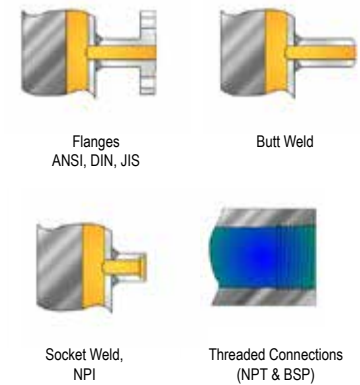
Lockable handwheel



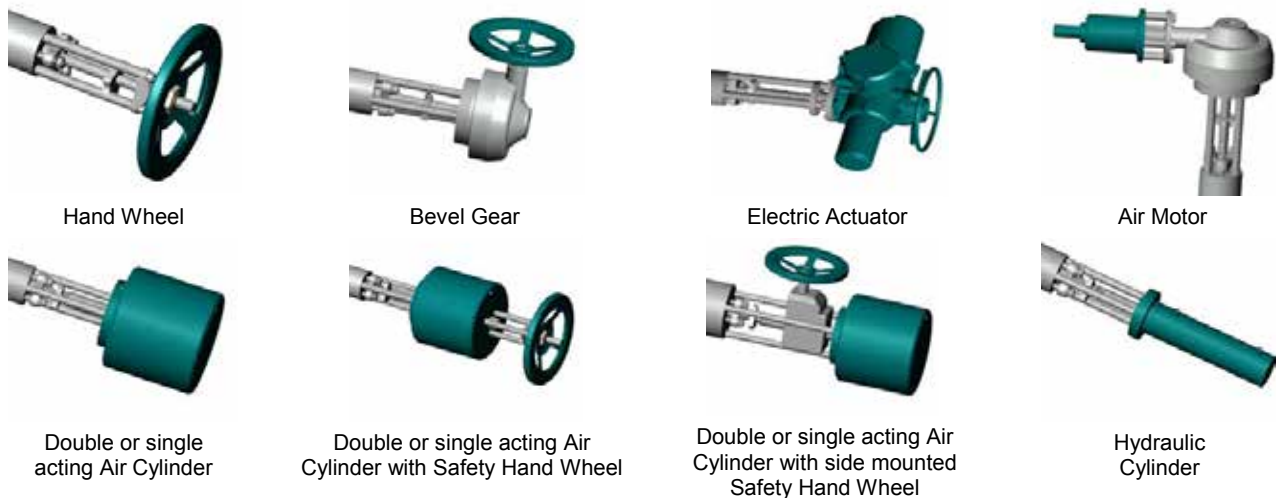
## LINE AND BRANCH OPTIONS



## JACKET CONNECTIONS



## ACTUATION OPTIONS



# TECHNICAL AND GENERAL INFORMATION

## 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

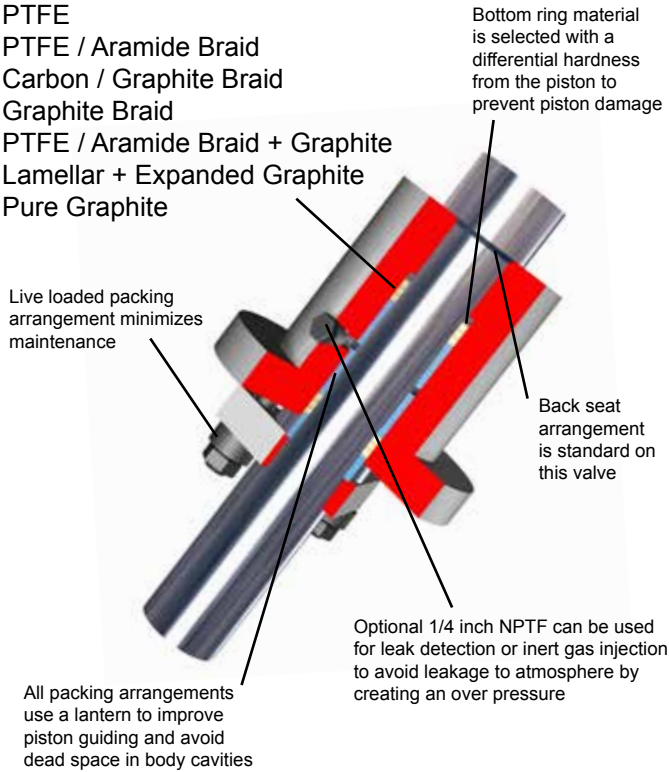
## RANGE DEFINITION

DD 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													
48" - DIN600													

## PACKING DEFINITION

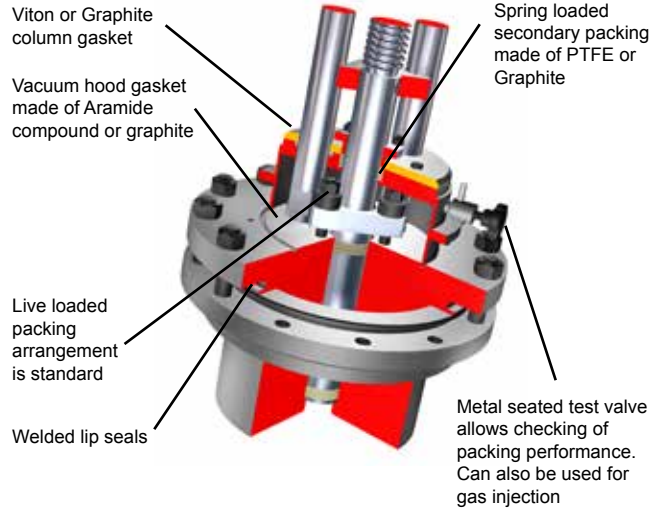
Typical Packing Materials:

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



## VACUUM HOOD

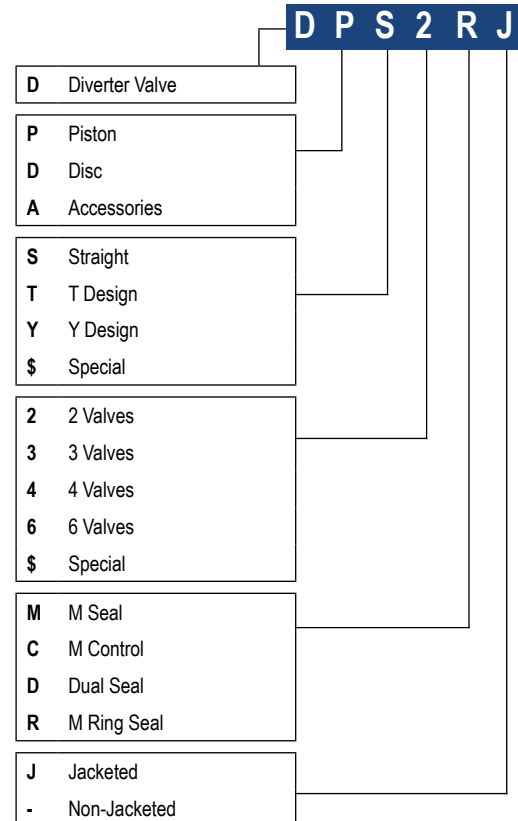
For valves on full vacuum service, Strahman offers a special **vacuum package** that maintains tightness to atmosphere. Valves with this package are usually equipped with an **M Ring Seal** design as process sealing. The system uses a replaceable aluminum or nickel seal ring and provides high vacuum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

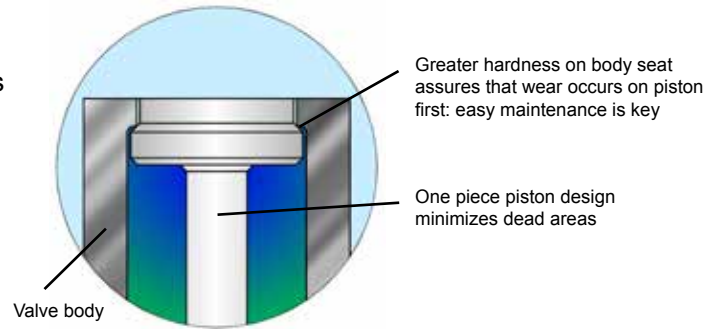


## SEALING SYSTEMS

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

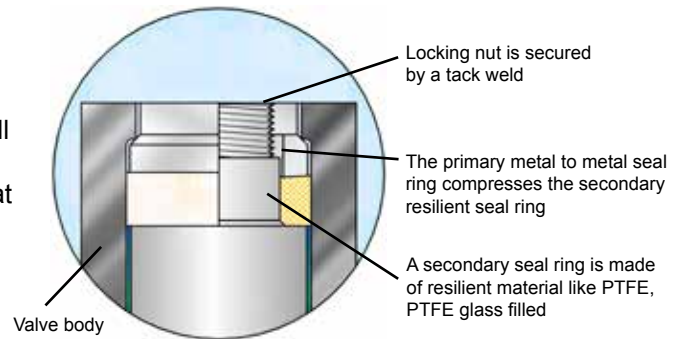
- **Temperature:** Min.: -200°C / -330°F  
Max.: 815°C / 1500°F
- **Pressure:** 630 bar / 9000 PSIG



### 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.

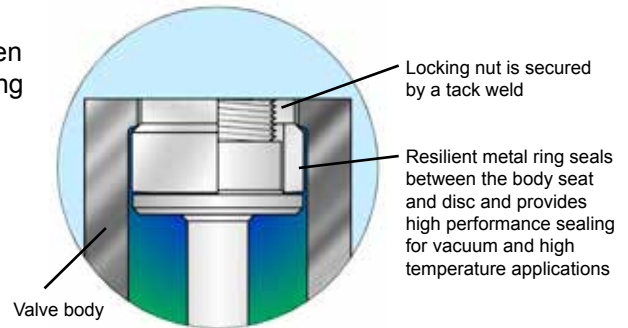
- **Temperature:** Min.: -50°C / -60°F  
Max.: 200°C / 390°F
- **Pressure:** 250 bar / 3550 PSIG & full vacuum



### 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



## The Strahman family of products include:

### 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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