

DP SERIES

DIVERTER VALVES

PISTON DIVERTER VALVES



 *Strahman*[®]

STRAHMAN DEAD-SPACE-FREE DIVERTER VALVES

PISTON DIVERTER VALVES

CODE: DPS4

Standard branch angle:
45° and 60°; 90° and other
specific angles available
upon request

Optional rotating piston available
to minimize dead areas and resident
time for high molten polymers

Optional heat jacketing

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

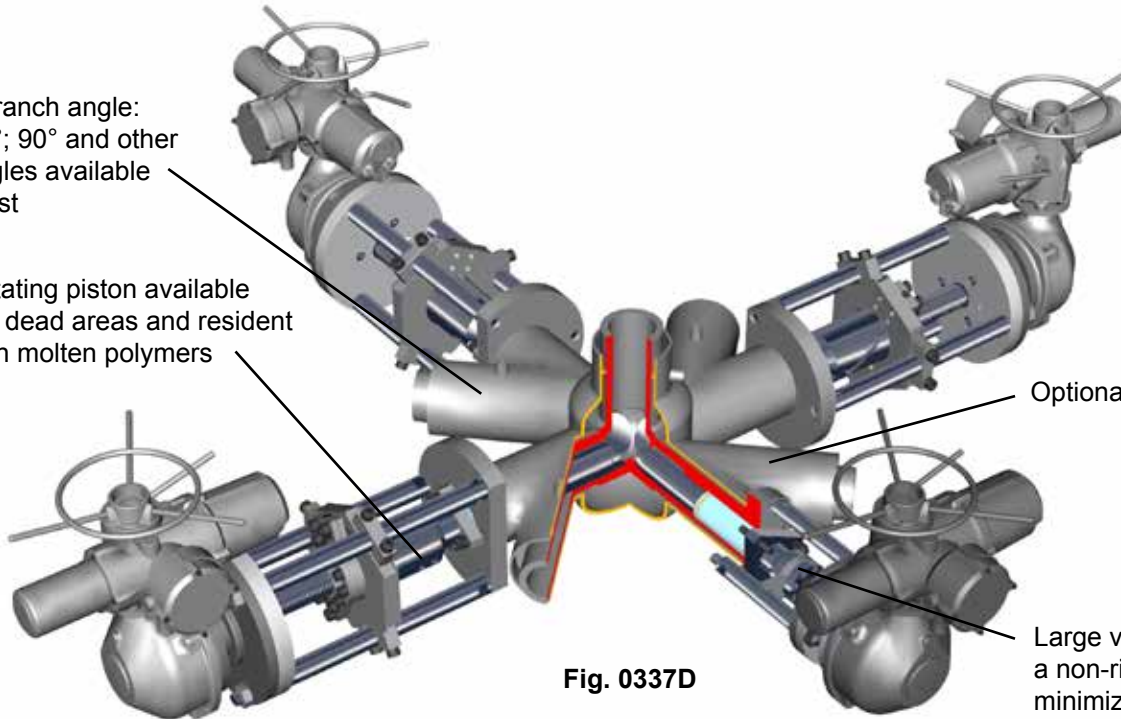


Fig. 0337D

High sealing performance of **M Seal**
for high pressure and temperatures.
M Ring and **M Control** are also
available

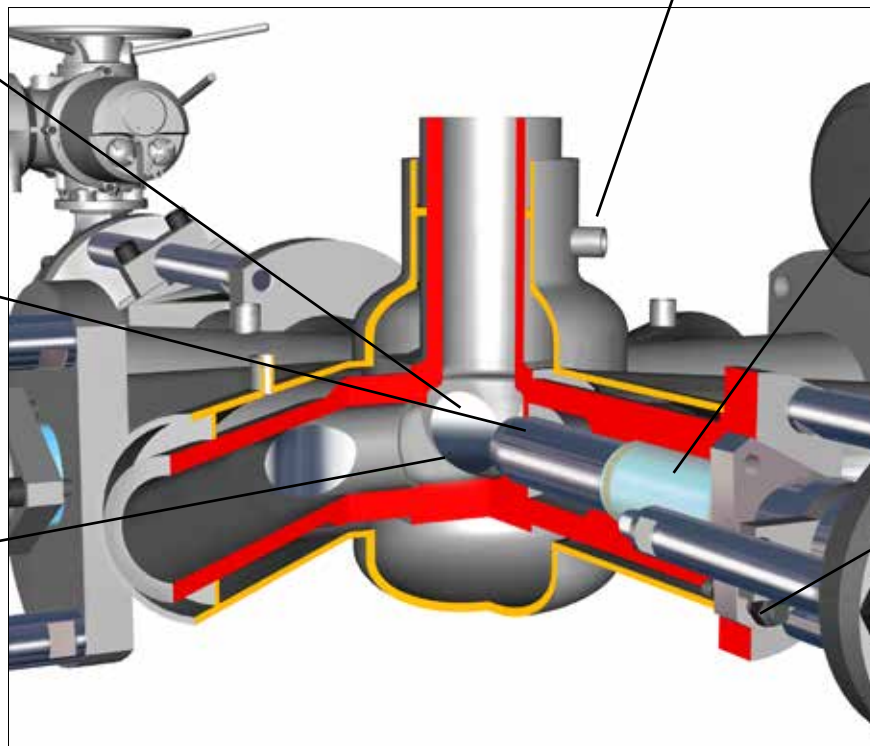
Jacket connections (oil or steam)
customized to actual valve position

Piston is contoured
for smooth flow in
both the open and
closed position

An extended stuffing
box eliminates dead
space and improves
piston alignment

Valve has dead-space-
free central area

Live loaded
packing
arrangement
is standard



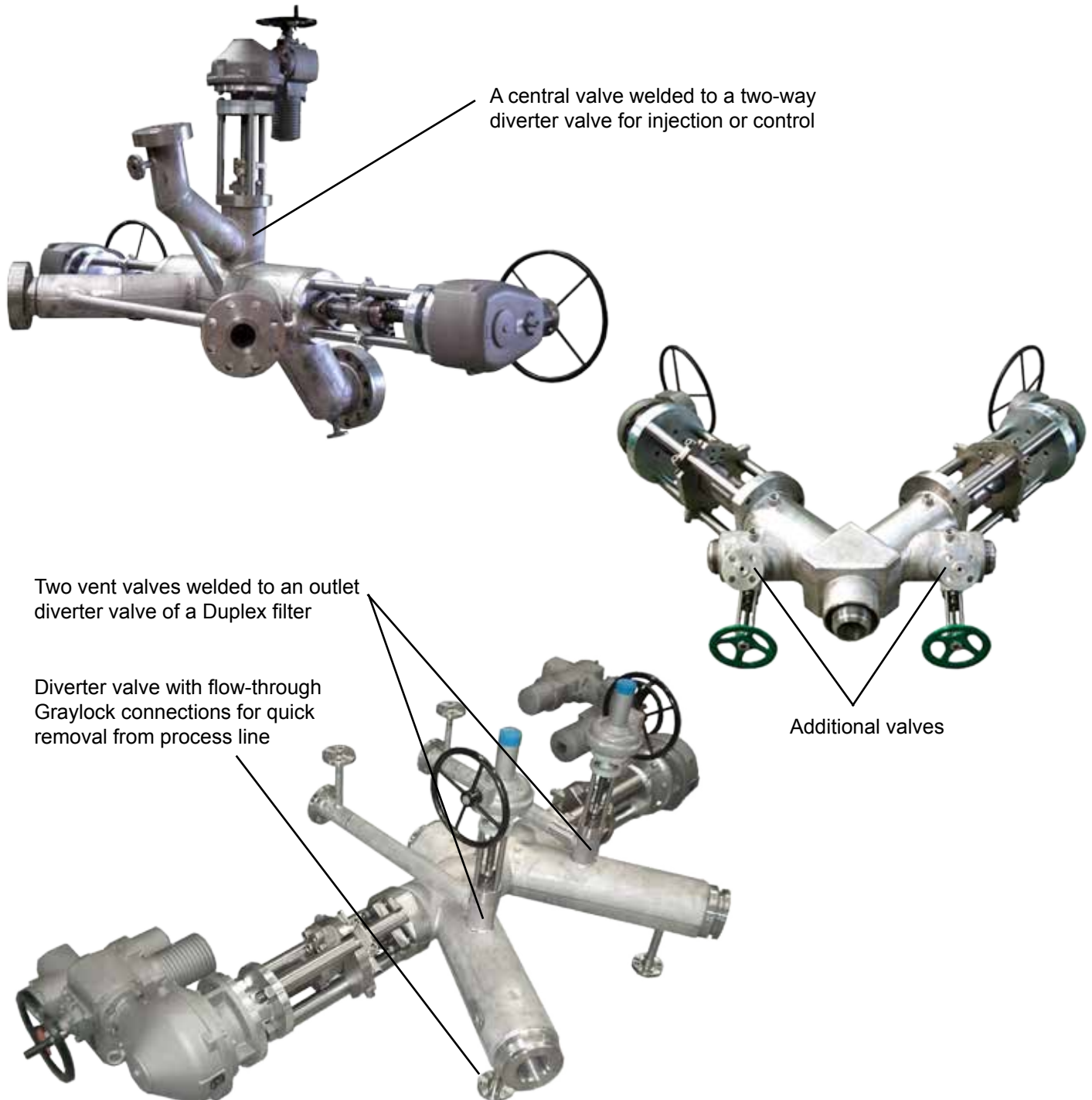
In virtually every process there is a need to divert flow. Dead-space-free valves are mandatory when diverting the flow of high viscosity products like polymers and slurries. Our full piston design avoids product build-up and clogging in the valve. Strahman offers a full range of Piston Diverter valves specially designed for this purpose. With Strahman's modular component (MCD) system, valves can be customized to match with any piping layout.

The valves are available with a wide selection of options including materials of construction, actuators, and customized or standard connections to piping. Other options include rotating pistons for smooth flow, high viscosity flow control and additional drain, injection or vent valves.

Typical applications: Flow management of slurry type and molten polymer processes.

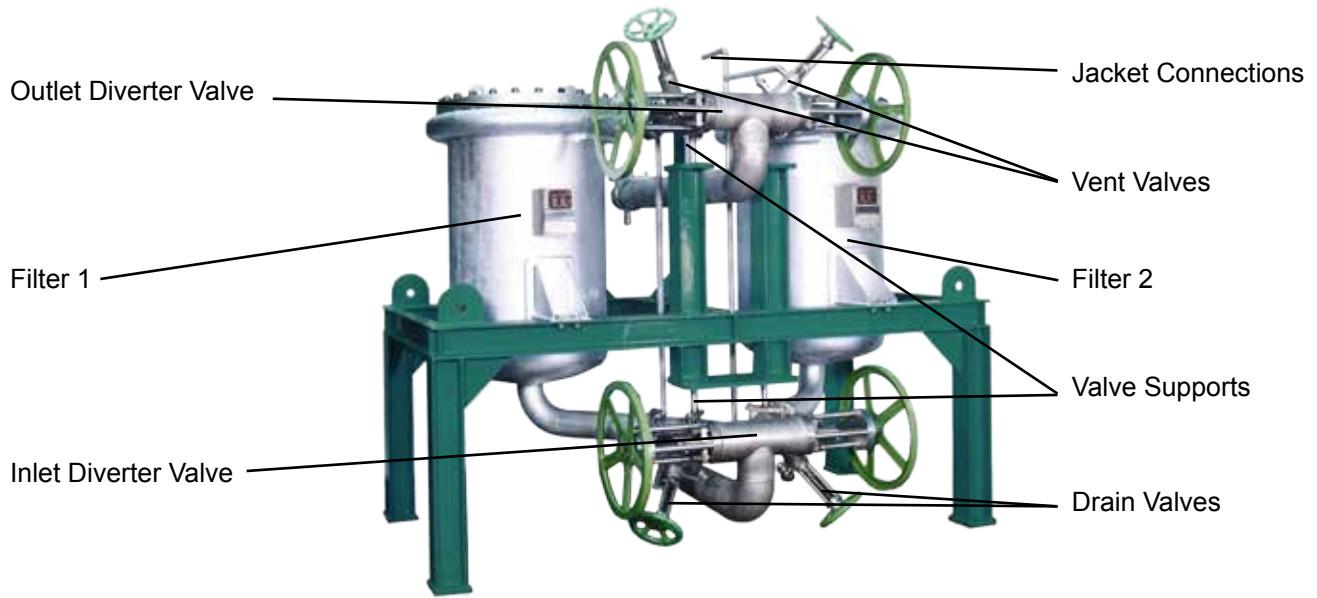
ADDITIONAL VALVES FOR VENT, DRAIN AND INJECTION APPLICATIONS

For process reasons, it can be advantageous to have additional valves installed on the main diverter valve. These valves are typically used to vent or drain process lines or to inject additives. Some examples are shown below:

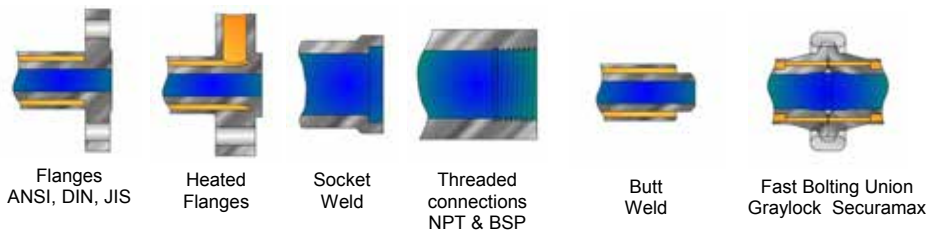


DIVERTER VALVES FOR DUPLEX FILTERS

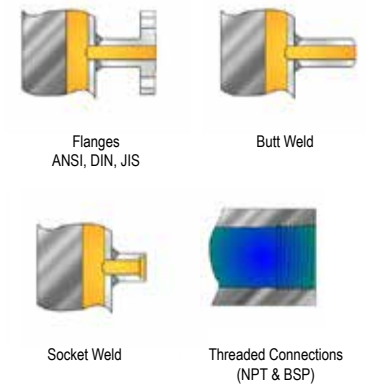
Strahman diverter valves provide a smooth changeover from one polymer filter to another.



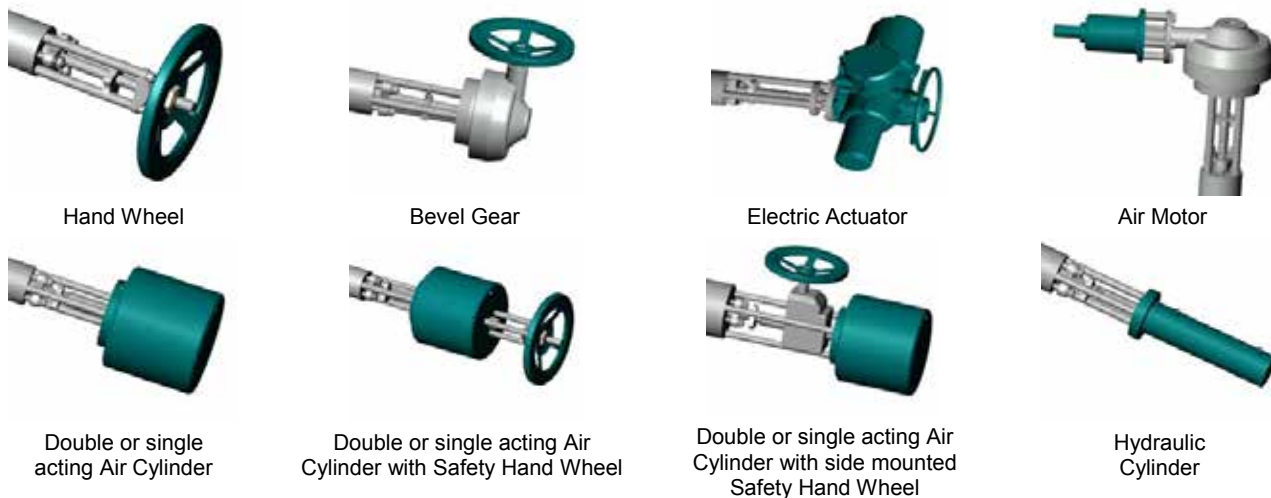
LINE AND BRANCH OPTIONS



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

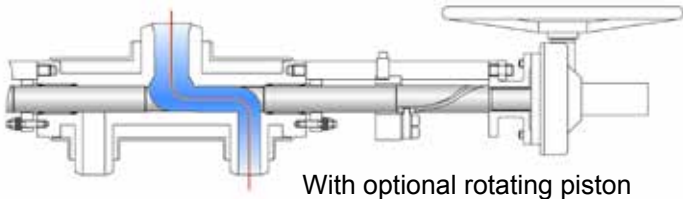
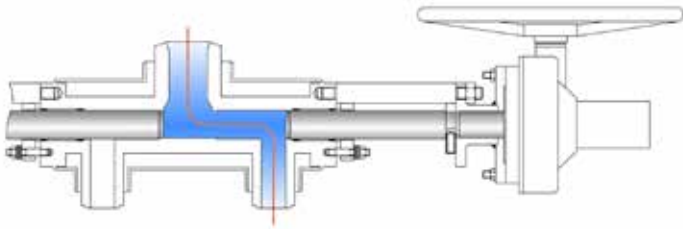
RANGE DEFINITION

Manufacturing Range	Material Selections												
	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													

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6" - DIN150													
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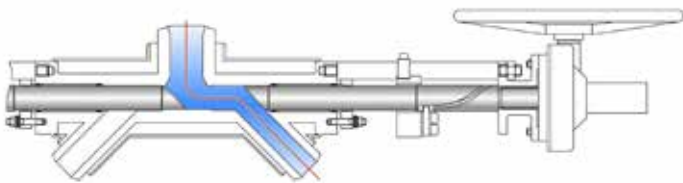
2-WAY PISTON DIVERTER VALVES STRAIGHT DESIGN

CODE: DPS2



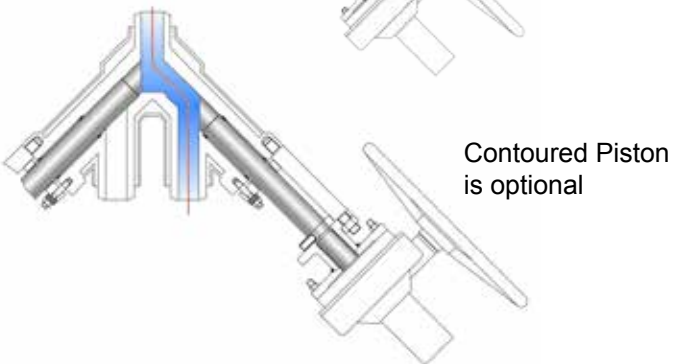
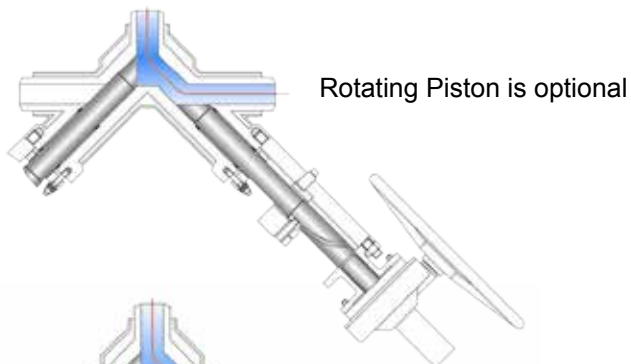
T DESIGN

CODE: DPT2



Y DESIGN

CODE: DPY2



POSSIBLE BODY ARRANGEMENTS

S2



Fig. 01



Fig. 02

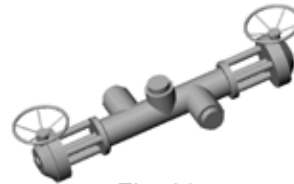


Fig. 03

POSSIBLE BODY ARRANGEMENTS

T2



Fig. 01



Fig. 02

POSSIBLE BODY ARRANGEMENTS

Y2



Fig. 01



Fig. 02

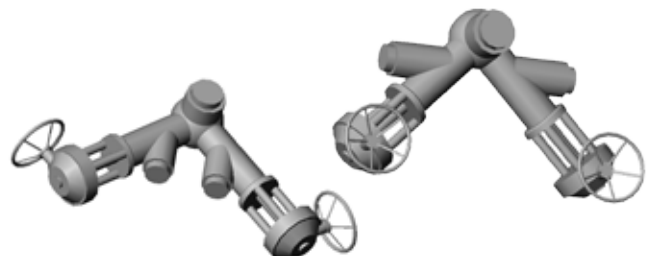


Fig. 03

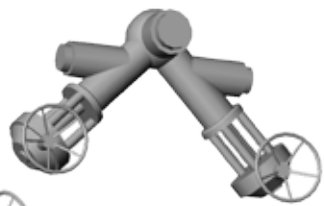
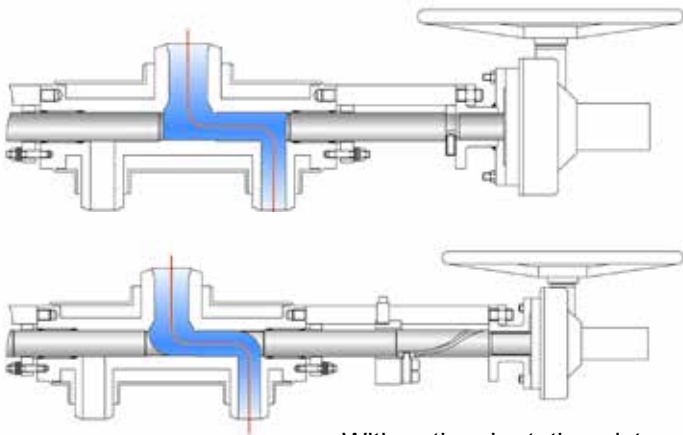


Fig. 04

3-WAY PISTON DIVERTER VALVES

STRAIGHT DESIGN

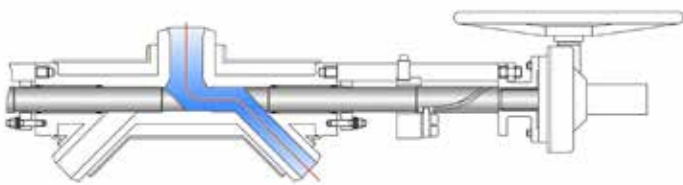
CODE: DPS3



With optional rotating piston

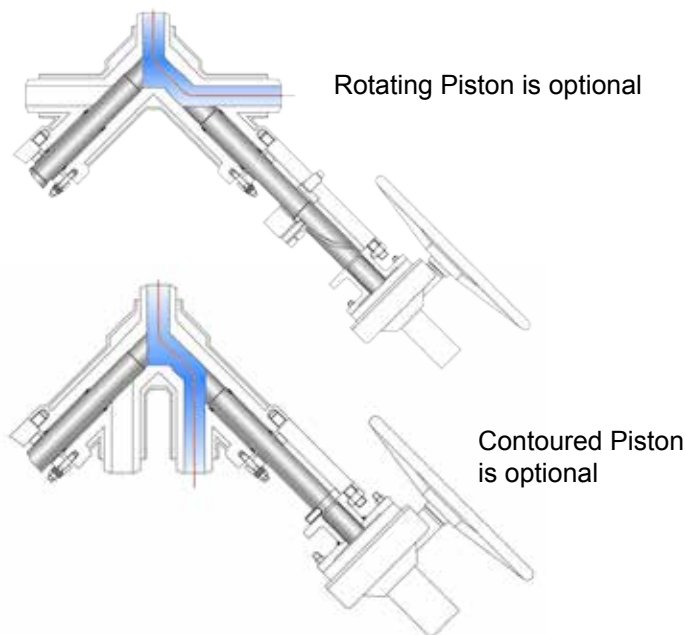
T DESIGN

CODE: DPT3



Y DESIGN

CODE: DPY3



POSSIBLE BODY ARRANGEMENTS

S3

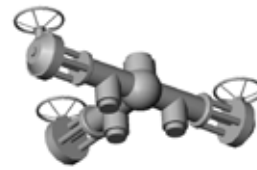


Fig. 01



Fig. 02



Fig. 03



Fig. 04

POSSIBLE BODY ARRANGEMENTS

T3



Fig. 01

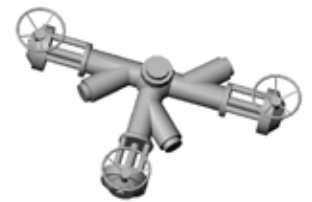


Fig. 02

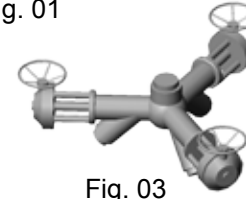


Fig. 03

POSSIBLE BODY ARRANGEMENTS

Y3



Fig. 01



Fig. 02



Fig. 03

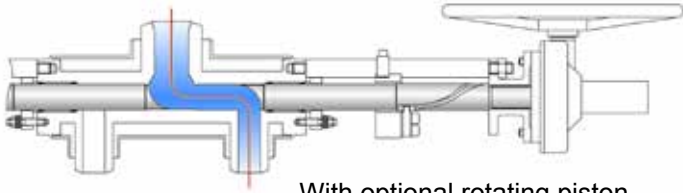
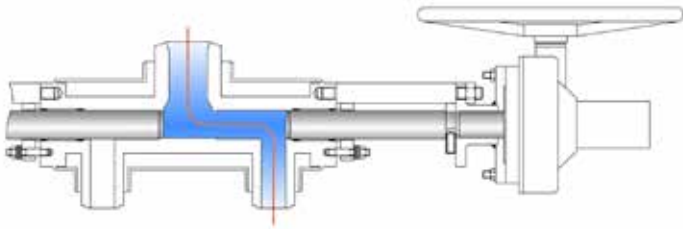


Fig. 04

4-WAY PISTON DIVERTER VALVES

STRAIGHT DESIGN

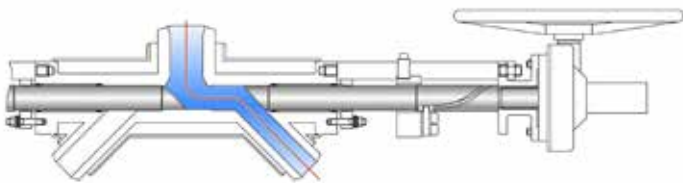
CODE: DPS4



With optional rotating piston

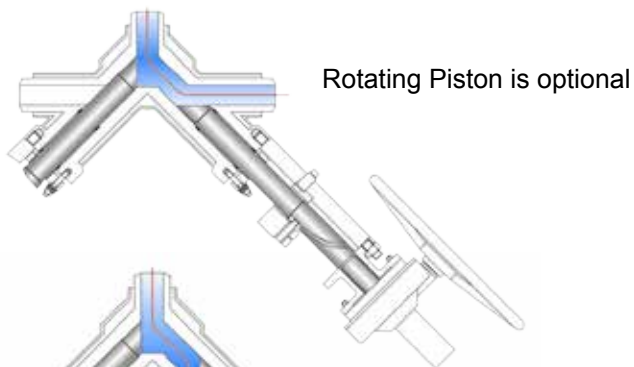
T DESIGN

CODE: DPT4

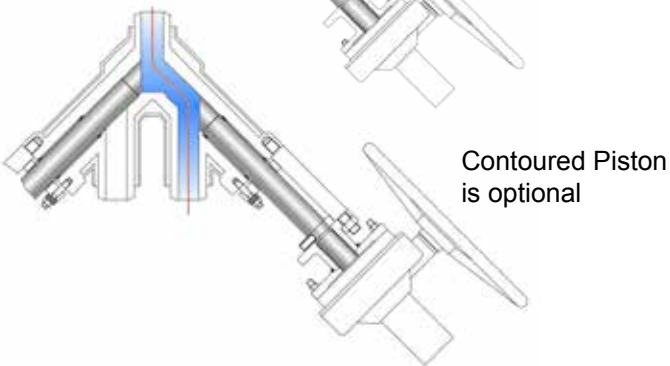


Y DESIGN

CODE: DPY4



Rotating Piston is optional



Contoured Piston is optional

POSSIBLE BODY ARRANGEMENTS

S4



Fig. 01



Fig. 02



Fig. 03

POSSIBLE BODY ARRANGEMENTS

T4



Fig. 01

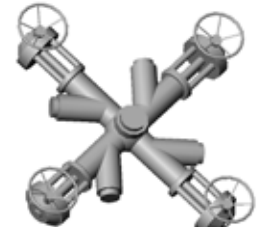


Fig. 02

POSSIBLE BODY ARRANGEMENTS

Y4

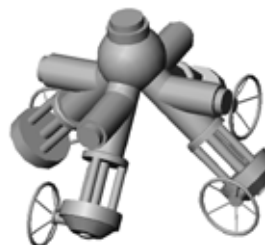


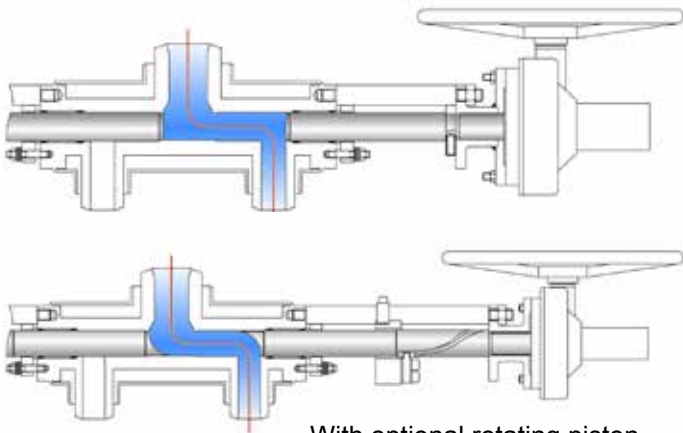
Fig. 01



Fig. 02

5-6-WAY PISTON DIVERTER VALVES STRAIGHT DESIGN

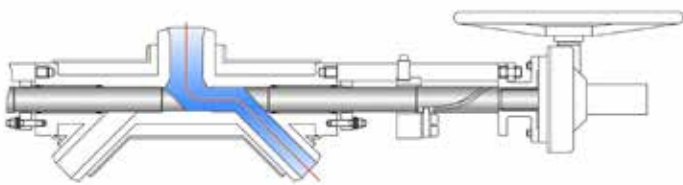
CODE: DPS5-DPS6



With optional rotating piston

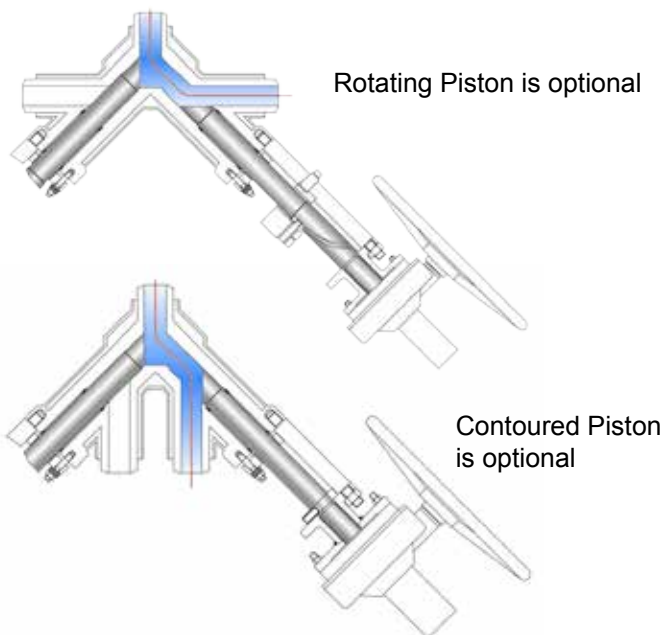
T DESIGN

CODE: DPT5-DPT6



Y DESIGN

CODE: DPY5-DPY6



POSSIBLE BODY ARRANGEMENTS

S5, S6

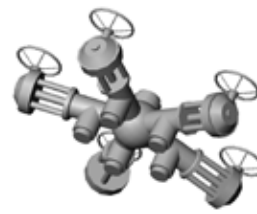


Fig. 01



Fig. 02

POSSIBLE BODY ARRANGEMENTS

T5, T6

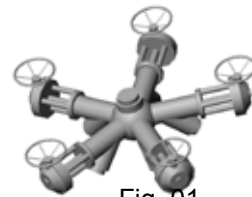


Fig. 01



Fig. 02



Fig. 03

POSSIBLE BODY ARRANGEMENTS

Y5, Y6



Fig. 01



Fig. 02



Fig. 03

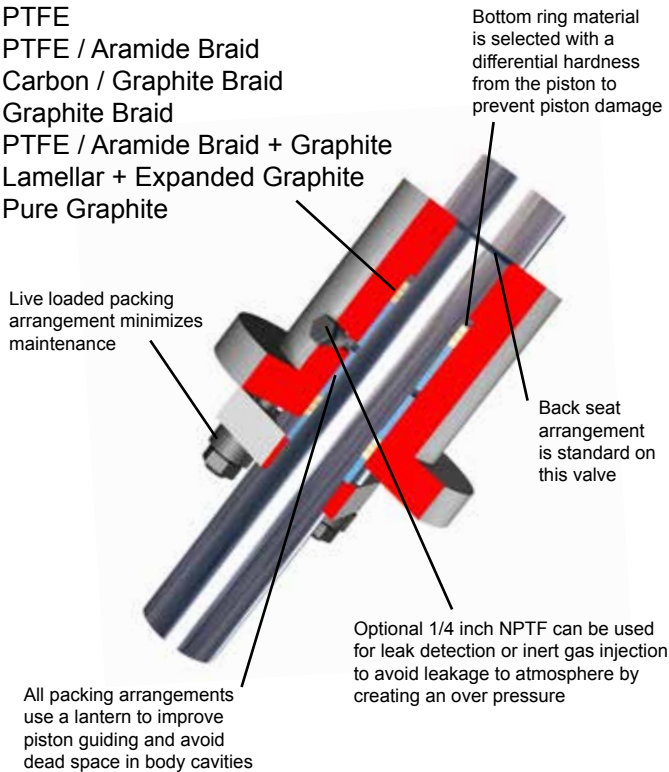


Fig. 04

PACKING DEFINITION

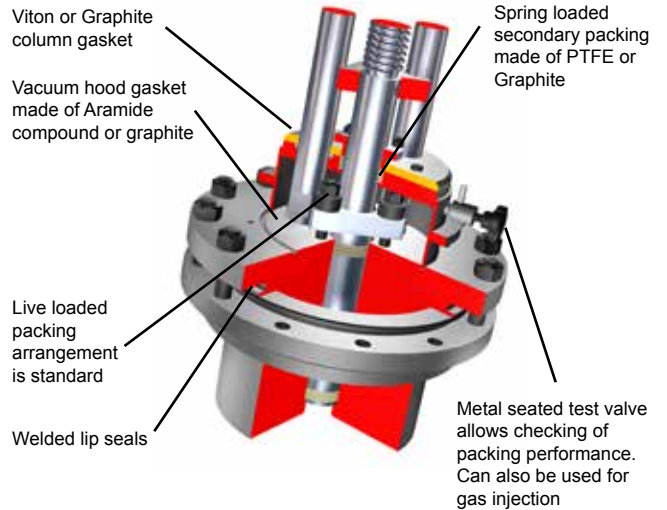
Typical Packing Materials:

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



VACUUM HOOD

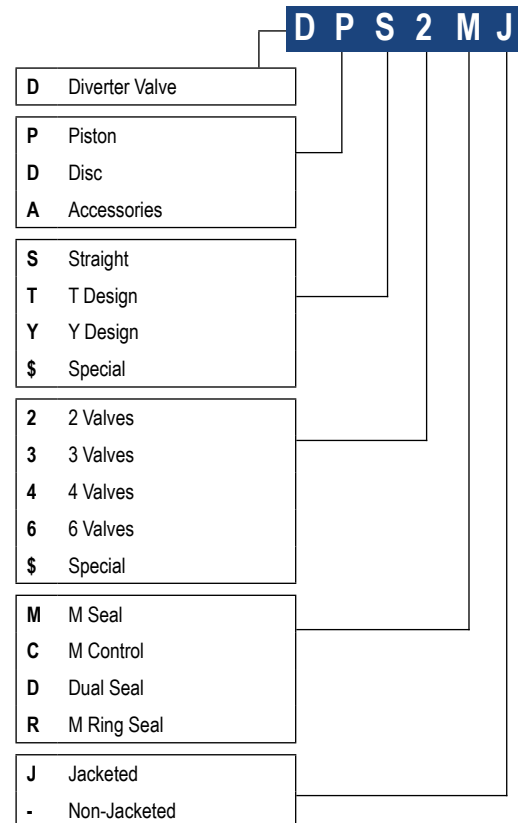
For valves on full vacuum service, Strahman offers a special **vacuum package** that maintains tightness to atmosphere. Valves with this package are usually equipped with an **M Ring Seal** design as process sealing. The system uses a replaceable aluminum or nickel seal ring and provides high vacuum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

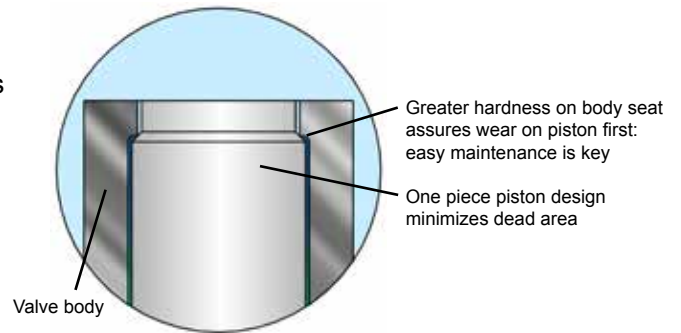


SEALING SYSTEMS PISTON VALVES

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.

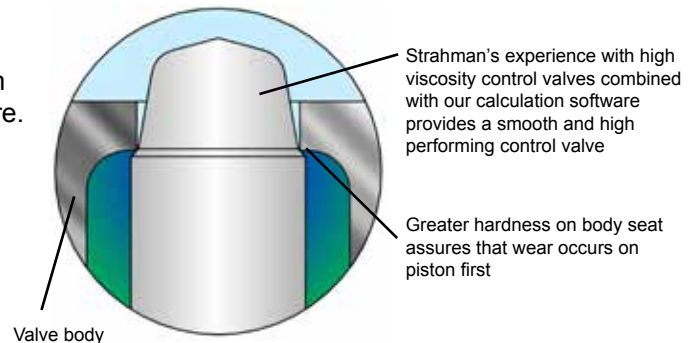
- **Temperature:** Min.: -200°C / -330°F
Max.: 815°C / 1500°F
- **Pressure:** 630 bar / 9000 PSIG



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 specific sealing features of the **M Seal** system.

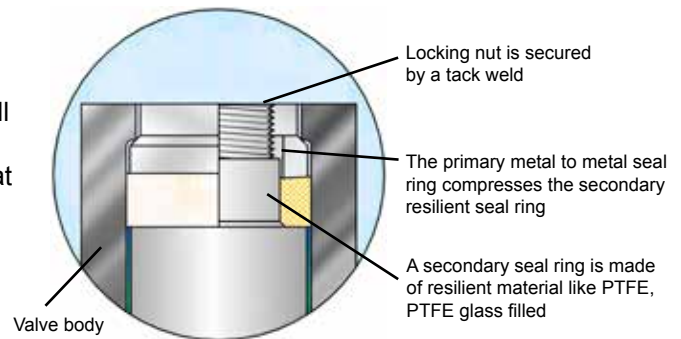
- **Temperature:** Min.: -200°C / -330°F
Max.: 815°C / 1500°F
- **Pressure:** 630 bar / 9000 PSIG



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.

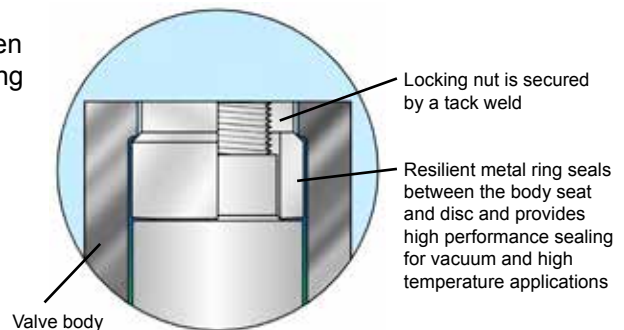
- **Temperature:** Min.: -50°C / -60°F
Max.: 200°C / 390°F
- **Pressure:** 250 bar / 3550 PSIG & full vacuum



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



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BI-TORQ® Valve Automation

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QMI-SAI Global

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