



THE ORIGINATOR OF PISTON-TYPE SAMPLING VALVES

RISING DISC VALVES

VR SERIES



 *Strahman*[®]
PROCESS VALVES

RISING DISC VALVES

CODE: VR4M-VR6M

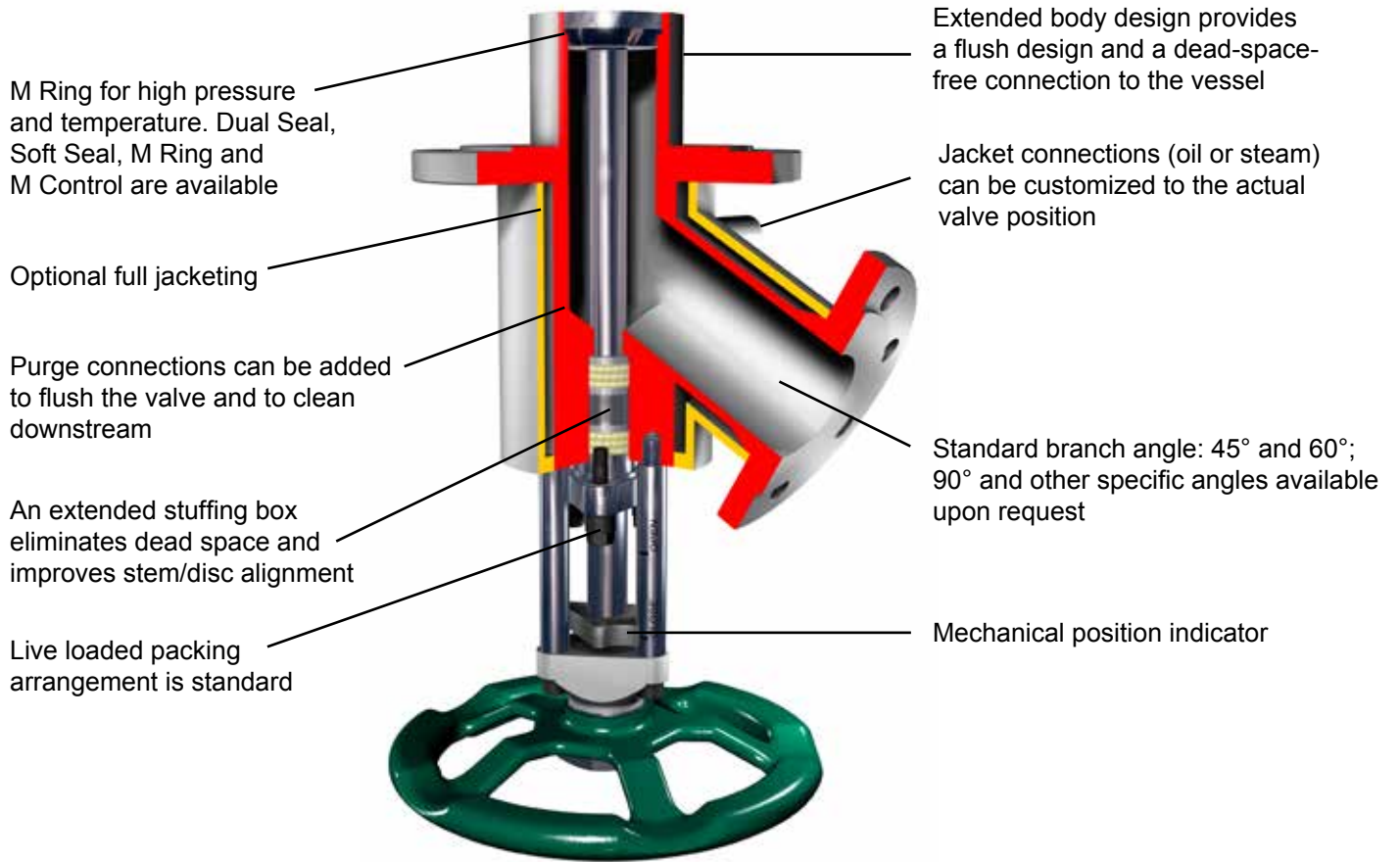
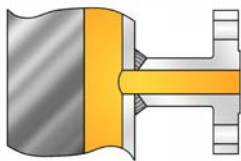
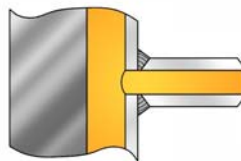


Fig. 042D

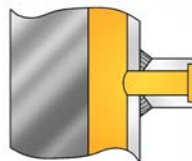
JACKET CONNECTIONS



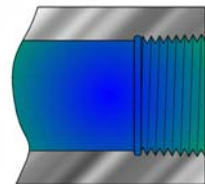
Flanges
ANSI, DIN, JIS



Butt Weld



Socket Weld



Threaded connections
NPT & BSP

to break through any crust or solidified material to facilitate draining.

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 are full jacketing, valve tangentially positioned to process pipe or additive injection.

Typical applications: Draining of low viscosity products.

BODY ARRANGEMENTS

Strahman has two Rising Disc styles available:

- Figure **040** for large valves and low pressure applications. uses a fabricated pipe or cast body design.
- Figure **042** for small valves and high pressure applications. Uses a bar stock body design.

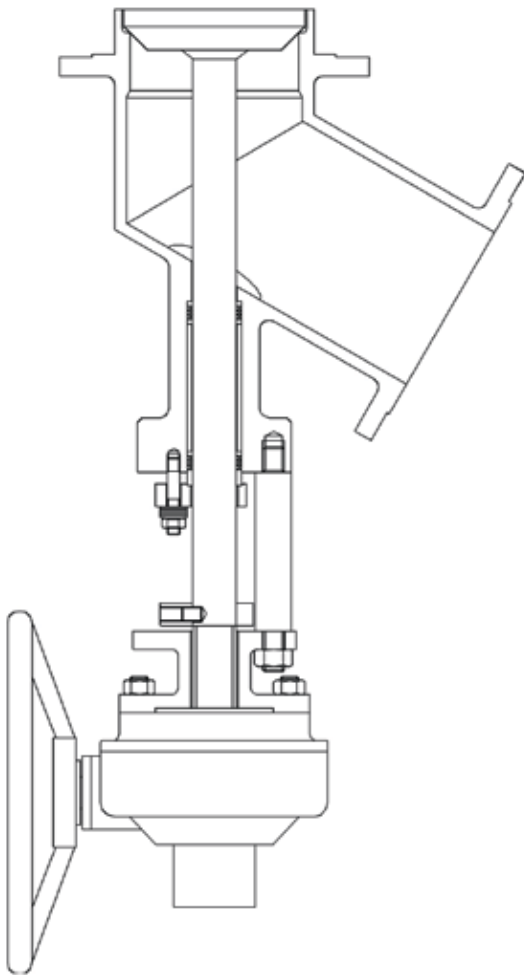


Fig. 040

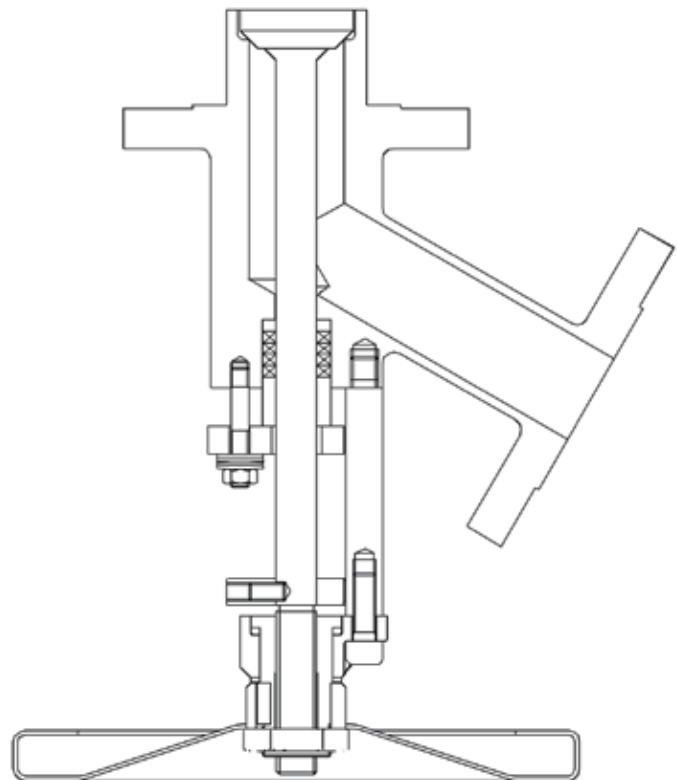
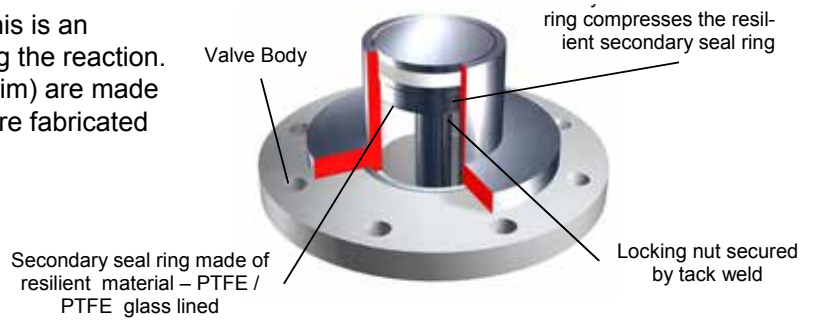


Fig. 042

As an option, the body seat can be dismantable. This is an attractive option when the process is corrosive during the reaction. Parts directly in contact with the process (seat and trim) are made of sophisticated alloys while valve body and piping are fabricated from regular materials.



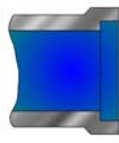
LINE AND BRANCH CONNECTIONS



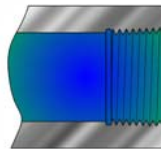
Flanges
ANSI, DIN, JIS



Heated
Flanges



Socket
Weld



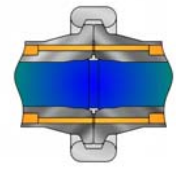
Threaded
connections
NPT & BSP



Studded
Ends



Butt
Weld



Fast Bolting Union
Graylock Securamax

ACTUATION OPTIONS



Hand Wheel



Bevel Gear



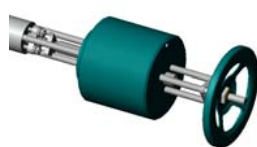
Electric Actuator



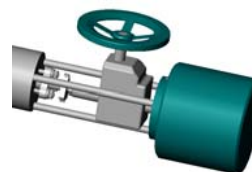
Air Motor



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



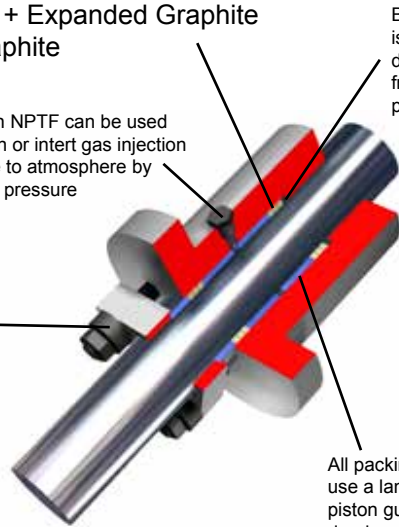
Hydraulic
Cylinder

Typical Packing Materials:

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

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

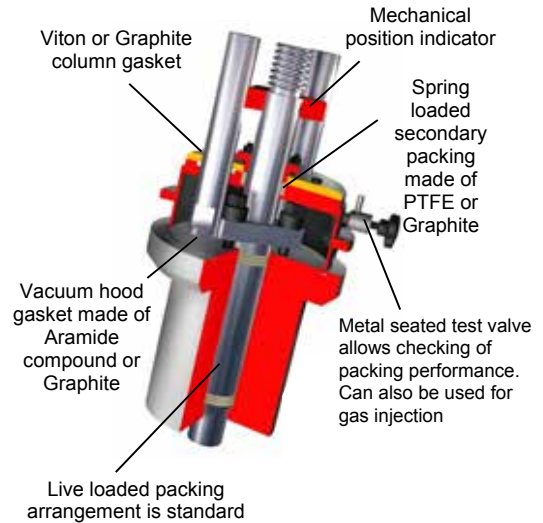
Live loaded arrangement minimizes maintenance



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

All packing arrangements use a lantern to improve piston guiding and avoid dead space in body cavities

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.

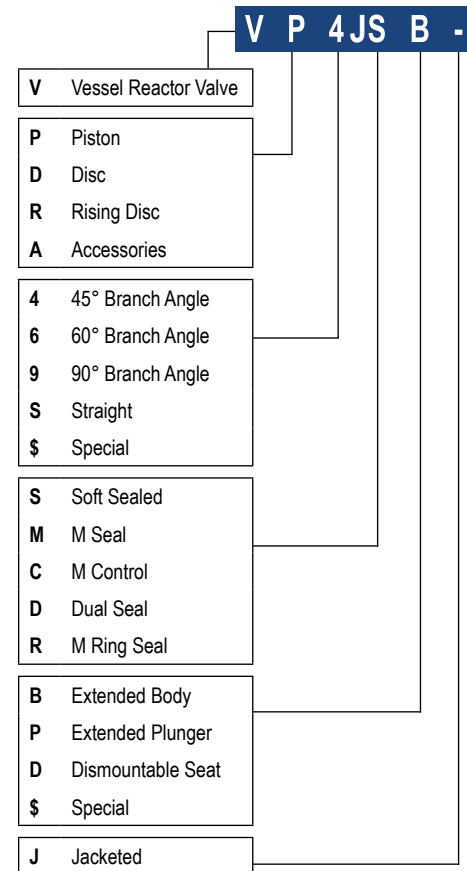


Live loaded packing arrangement is standard

STANDARD PAD 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
- Metallic O-Ring Helicoflex Gasket Aluminum / 316
- Metallic O-Ring Helicoflex Gasket Nickel / Nimonic 90
- 316L RTJ
- Nitrile O-Ring
- EPDM O-Ring
- Silicone O-Ring
- Fluorocarbon (Viton) O-Ring
- Silicone FEP Jacketed O-Ring
- Perfluoroelastomer (Kalrez) O-Ring

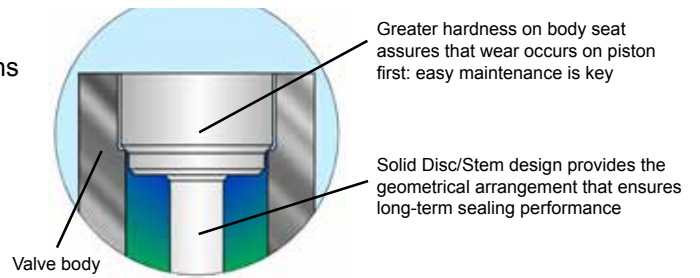
VALVE CODING SYSTEM



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.

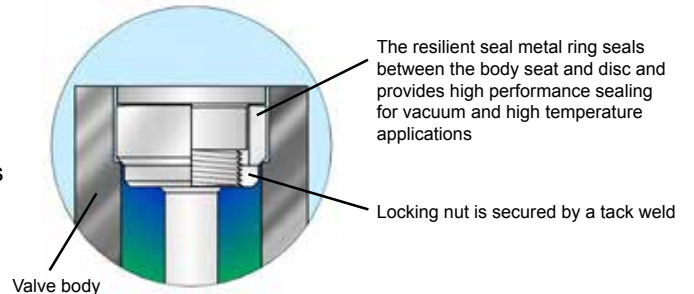
- **Temperature:** Min.: -200°C / -330°F
Max.: 815°C / 1500°F
- **Pressure:** 630 bar / 9000 PSIG



M 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 temperatures above 200°C.

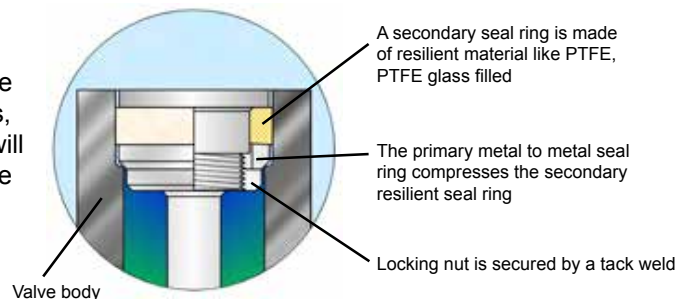
- **Temperature:** Min.: -200°C / -330°F
Max.: 450°C / 840°F
- **Pressure:** 250 bar / 3550 PSIG and full vacuum



DUAL SEAL

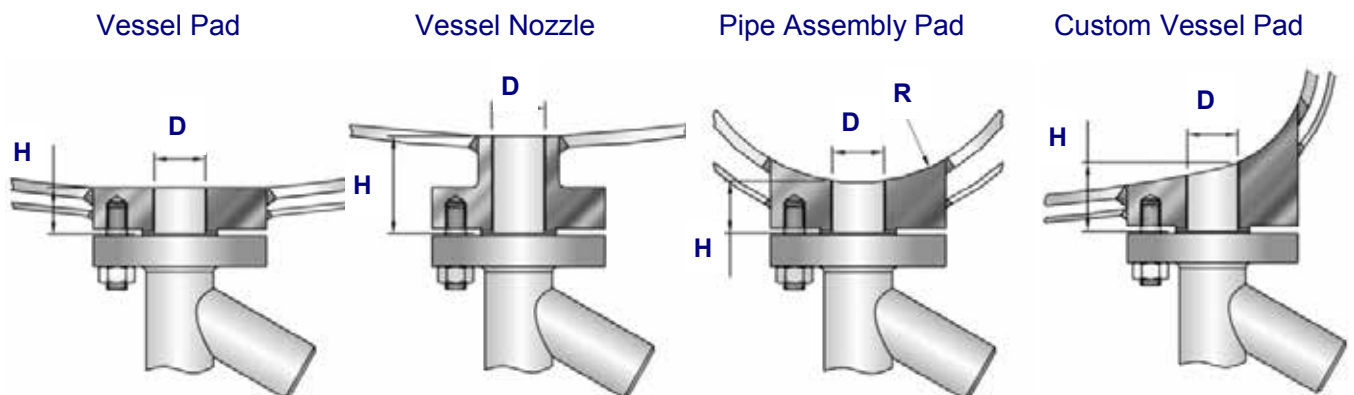
The **Dual Seal** is a unique double sealing system that works like a piston operating within a cylindrical seat. Unlike other designs, the secondary resilient seal ring is mounted on the piston and will expand after metal to metal contact of the primary seat ring. The design provides a true metal to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

- **Temperature:** Min.: -50°C / -60°F
Max.: 200°C / 450°F
- **Pressure:** 250 bar / 3550 PSIG and full vacuum



VESSEL CONNECTIONS

To connect valves to existing vessels or reactors, there are two possibilities: a nozzle or a pad connection. In both cases, the customer must specify the following vessel connection details: **D** (inside diameter), **H** (height), **DN** (nominal size), **PN** (pressure rating) and connection **standard** (ISO, ANSI, DIN, etc.). To eliminate retention areas radius **R** can be specified for optional contouring. For new projects, Strahman can supply valves with easy-to-fit standardized pads that are ready to be installed.



STRAHMAN GROUP BRANDS



WASH DOWN EQUIPMENT

Cleaning and sanitizing equipment for applications where safety is the number one concern — built to outlast and outperform all others.



THERMAL SHUT-OFF VALVES & ACTUATED VALVE ASSEMBLIES

Completely assembled automated valves and fire-safe thermal shut-off valves fabricated for quick and reliable problem-solving solutions for industrial applications.



PROCESS VALVES


Engineered solutions for the transfer of fluid and flow control for highly critical applications from sampling to inline process to permanent isolation.





© STRAHMAN GROUP | PUBLISHED 11.01.25

CONTACT US

Need more information? Give us a call today or visit our website.

 877-787-2462

 2801 Bagylos Circle
Bethlehem, PA 18020

 StrahmanGroup.com



an **fch** business