Piston Bottom Outlet Valves

KOLBENVENTILE
Ram Valves are used when full flow is essential to drain reactors and vessels, flush pipelines, inject media such as kill gases and catalysts and take large samples.

SchuF Fetterolf offers the widest range of design and sealing arrangements for every application. Please contact one of our offices or local agents for advice.
SchuF Fetterolf Ram Valves with Customisable Seat - Options

Sealing Method Options

Type 28KV
Soft seal in the valve body

Type 28KR
Soft seal in the vessel

Type 28KV-E
Soft seal in the valve body with extended sleeve

Type 28KX
Metal seal in the valve body

Type 28KS
Metal seal in the vessel

Type 28KX-E
Metal seal in the valve body with extended sleeve

Valve Seal to Atmosphere Options

Packing rings are tightened with the stuffing-box gland to give a radial seal to atmosphere around the ram.

Packing rings can be ordered in PTFE or graphite (high temperature / FIRE SAFE) forms or even in a mix of both.

More specialized packing arrangements are available, including Chevron/PTFE and Garlock/Graphite sealing sets.

Valve Materials of Construction

SchuF Fetterolf valves are available in many different materials to suit the customer and the process. The valve bodies and trim can be supplied in stainless steel, carbon steel, Hastelloy, Inconel, nickel or titanium.

Internal lining can be supplied in PTFE, PFA, rubber or glass. Surfaces can also be ordered with specific coating: Stelliting, titanium-nitriding, Canadizing, Kolsterising, chrome-plating and others.
SchuF Fetterolf Ram Valves with Integrated Seat

**Ram-Seal® Valve**
Type 28FS

- Outlet flange - ANSI, DIN or custom
- Outlet angle of 90°, 60°, 45° or custom

**Rod-Seal® Valve**
Type 26FR

- Vessel flange - ANSI, DIN or custom
- Sealing - see over

**Outlet flange**
- ANSI, DIN or custom
- Outlet angle of 90°, 60°, 45° or custom

**Sealing**
- see over

**Actuators**
- see actuator options (page 6)
- Shown here: manual non-rising handwheel
## Ram-Seal® Valve

**Sealing Method Options**
- Sealing ring: Ti or TFE

### Types
- **Type 28FX**
  - Extended Plunger
- **Type 28FS**
  - Extended Body

## Rod-Seal® Valve

**Sealing Method Options**
- Sealing ring: plain or encapsulated

### Types
- **Type 26FV**
  - Extended Plunger
- **Type 26FR**
  - Extended Body

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**Ram-Seal®** valves use packing rings for sealing to atmosphere. The packing rings are tightened using the stuffing-box gland to give a radial seal to atmosphere around the ram. Packing rings can be ordered in TVE/KEV or Graphite (suitable for high temperature or FIRE SAFE operation) or even in a mix of both. More specialized packing arrangements are available, including Chevron PTFE or Garlock graphite sealing sets.

**Rod-Seal®** valves offer the unique Super Closure feature. A cross-head component, mounted at the end of the ram, compresses the stuffing-box gland only when the valve is fully closed. Thus, all the forces of actuation are carried by the guide bush to the packing rings and the radial seal at the top of the valve. This increased closing power ensures a tight shut-off to the process and the atmosphere. This sealing force eases when opening the valve.
SchuF Fetterolf Ram Valve Actuation - Options

SchuF Fetterolf Valves can be supplied with all options shown and later retrofitted to suit. For example, upgrading from a manual to a pneumatic actuator.
SchuF Fetterolf Ram Valve with Accessories

In addition to the features shown SchuF Fetterolf can offer the following options:

- Jacketing
- Temperature Sensing
- FIRE SAFE Certification
- FDA Compliant Materials
- Flushing / Purging Connections
- Internally / Externally Polished
- Hard Facings
- Contoured Rams