Pinch Valve Sleeves

The core of the Flowrox pinch valve is the elastic sleeve, which is the only part in contact with the medium. The full bore sleeve integrates the valve perfectly to the pipeline, eliminates turbulence and minimizes pressure losses. Technologically advanced sleeves guarantee high wear and corrosion resistance, a trouble free operation and extended lifetime.

SLEEVE DESIGN
Pinch valves are commonly applied in aggressive, abrasive and corrosive media types or in high-pressure applications. To stand these conditions Flowrox sleeves are handmade layer by layer in a quality process covered by ISO 9001:2000.

High grade sleeve materials range from wear resistant styrene butadiene to numerous other elastomers and rubber compounds. They are highly resistant to abrasive/corrosive slurries, powders and granular substances.

SPECIAL DESIGNS
Several sleeve design options such as a conical sleeve for control valves and a suction sleeve for negative pressure applications are available.

Succion sleeve
- Specially designed for negative pressure applications e.g. suction lines and for applications where sleeve pulsation occurs

Sensomate sleeve
- Detects and signals critical wear

Polyurethane (PU) lined sleeve
- Sleeve with polyurethane lining ensure improved protection against wear

Conical sleeve
- Ensure the most accurate control in flow control applications
## STANDARD SLEEVE MATERIALS FOR FLOWROX VALVES

<table>
<thead>
<tr>
<th>Rubber quality</th>
<th>Application examples</th>
<th>Temperature range</th>
<th>Typical media</th>
</tr>
</thead>
</table>
| SBRT Styrene Butadiene, Flowrox Blend | Heavy wearing  
High cycle frequency  
Chemical applications  
• Applicable to 75% of all industrial chemical applications | -40°C - +110°C  
-40°C - +120°C | Abrasive materials, diluted acid, alkali and chemical applications  
Concentrated and oxidizing chemicals |
| EPDM Ethylene Propylene | | | |
| NBR Natural Rubber | | | |
| NR Natural Rubber | | | |
| HNBR Hydrogenated Nitrile | | | |
| NRF Natural Rubber Foodstuff Quality  
White inner lining | | | |
| NBRF Nitrile Rubber  
White inner lining | | | |
| EPDM/B Ethylene Propylene, Flowrox Blend | | | |
| CR Chloroprene Rubber | | | |
| FPM Fluorine Rubber (Viton®) | | | |
| CSM Chloro-sulphone-ethylene  
(Hypalon®) | | | |
| IIR Butyl | | | |
| PU Polyurethane with PU lining | | | |

## OTHER SLEEVE MATERIAL OPTIONS

<table>
<thead>
<tr>
<th>Rubber quality</th>
<th>Application examples</th>
<th>Temperature range</th>
<th>Typical media</th>
</tr>
</thead>
</table>
| NBR Nitrile Rubber | Applications involving oils, fats and hydrocarbon  
High wear applications  
High temperature applications  
Foodstuff applications  
• Fulfils FDA (Food and Drug Administration) requirements  
Applications involving fatty foodstuff  
• Fulfils FDA (Food and Drug Administration) requirements | -30°C - +100°C  
-50°C - +75°C  
-30°C - +160°C  
-40°C - +75°C  
-30°C - +100°C | Oils, fats, fuels  
hydrocarbon, lubricants  
Abrasive materials, diluted acids, alkali & chemicals  
Oils, fats, fuels  
hydrocarbon, lubricants  
Media used in food and other CIP (clean-in-place) processes, alcohol  
Vegetable and animal oils and fats  
Green liquor, alkaline and extraneous matter in green liquor processes  
Chemicals, acids, several solvents, aliphatic oils, fats, lubricants |
| NR Natural Rubber | | | |
| HNBR Hydrogenated Nitrile | | | |
| NRF Natural Rubber Foodstuff Quality  
White inner lining | | | |
| NBRF Nitrile Rubber  
White inner lining | | | |
| EPDM/B Ethylene Propylene, Flowrox Blend | | | |
| CR Chloroprene Rubber | Special-purpose chemical applications  
• Resilient to ozone and averse weather  
Special-purpose chemical applications  
• Resilient to ozone and averse weather  
Special-purpose chemical applications  
• Resilient to ozone and averse weather | -40°C - +100°C  
-40°C - +100°C  
-40°C - +100°C  
-20°C - +120°C  
-40°C - +100°C | Chemicals, acids, several solvents, aliphatic oils, fats, lubricants  
Chemicals, aliphatic oils, aromatic and halogenated hydrocarbon  
Chemicals, acids, several solvents, aliphatic oils, fats, lubricants  
Concentrated and acidic chemicals, vegetable oils  
Abrasive materials, diluted chemicals, hydrocarbon, oils, lubricants |
| FPM Fluorine Rubber (Viton®) | | | |
| CSM Chloro-sulphone-ethylene  
(Hypalon®) | | | |
| IIR Butyl | | | |
| PU Polyurethane with PU lining | Abrasive media applications | -10°C - +80°C | Abrasive materials, diluted chemicals, hydrocarbon, oils, lubricants |