

Metso

Slurry handling solutions

Larox® Pinch Valves and Sleeves



Application

Larox Pinch Valves and Sleeves have been proven in various process conditions, and are designed to handle even the most demanding, abrasive and corrosive slurry applications.

Larox® Pinch Valves and Sleeves are designed for demanding process conditions. They improve system control and offer lower operation and maintenance costs due to extended lifetime and the fast sleeve replacement.

We designed our Larox Pinch Valve range in close co-operation with Larox filter professionals, metallurgists and process specialists to resolve process problems associated with controlling the flow of abrasive or corrosive fluids. Various industries such as mineral processing, pulp and paper, power generation, chemical handling, effluent treatment, water and wastewater make use of our pinch valves.

Larox Pinch Valve has tough and flexible properties with a full or reduced bore cylindrical sleeve forming part of the pipeline. The valve closes mechanically, using pinch bars located on opposite sides of the sleeve. Experience tells us that simple designs with less moving wear parts offer greater reliability and significant cost reduction.

Traditional valve types typically use multiple components such as glands, packing, seats, seat retainers, inner linings and outer casing, wear surface, and main control components such as discs, shafts, plugs, gates etc. Larox Pinch Valve has a single component that performs all of the functions listed above. The broad range of sleeve materials allows customization and modification to suite various process conditions and applications.

Larox Pinch Valves and Sleeves will improve system control, plant availability and significantly lower maintenance cost.

Low operation and maintenance costs

- Sleeves are easily and quickly changed as there is no need to remove the valve from the pipeline or to disconnect hoses or cabling
- Flow is improved due to the exceptionally low pressure drop
- Maintenance downtime is minimized thanks to the longlasting abrasion resistant sleeve material which increases the lifetime of the valve
- Wear is minimized due to the smooth full-bore
- Pumping costs are reduced due to the unobstructed flow
- Plant availability is increased as there are no glands or seats which require regular adjustment or replacement
- Spare part inventory is reduced thanks to only needing one single wear part
- Fewer operators and lifting equipment is required to change the sleeve due to the fast change system which can be done in a matter of minutes.

Benefits

- Design for fit
- Extended lifetime
- Improved safety
- Wider range to suite different conditions
- Increased equipment availability
- Compatible with existing equipment
- Reduced maintenance costs
- Lifetime technical support

Larox[®] Pinch Valve Sleeves

Our Larox Pinch Valve Sleeves are fully compatible with our world famous Larox Pinch Valves. The standard sleeve material, natural rubber (NR), has high abrasion resistance which lead to an increased lifetime in typical minerals processing applications, saving costs and downtime.

We provide an extensive range of sleeve materials to match the needs of your process. The Larox Pinch Valve

Sleeve inner structure is designed to optimize the lifetime of the sleeve. Sleeves include opening tags to ensure full opening in low pressure applications and after long shut down periods.

As process conditions change due to changing ore bodies, processes and equipment therefore need to follow suite to adapt to the ore changes. As we provide and support the full technology scope from comminution

to dewatering, we understand the changes and offer support through our local field service network and our global technology support experts. Regardless of your process, we will provide the best-suited sleeve material from our extensive range for your process.

General guide for sleeve material selection:

	Natural Rubber (NR)	Styrene Butadiene (SBRT)	Nitrile Rubber (NBR)	Ethylene Propylene (EPDM)	Hypalon (CSM)	Butyl Rubber (IIR)
Best in	Abrasion resistance	Abrasion resistance in high temp.	Oil resistance	Overall chemical resistance	Acid, alkali, UV resistance	Acid, alkali resistance
Weak against	Oils, many solvents	Oils, many solvents	Many solvents	Oils, mechanical wear	Aromatic oils, many solvents	Oils
Strong against	Many dilute acids, alkali, mechanical wear, stress	Many dilute acids, alkali	Many dilute acids, alkali	Hot water, many solvents	Strong acids, alkali	Many solvents
Max temp °C	70 (80)	100 (120)	100 (120)	100 (120)	110 (120)	100 (120)
Min temp °C	-40	-20	-30	-20	-20	-30

Note: The material guide above is illustrative, please contact us for support regarding the best-suited material selection for your process.

