



**MANUAL
VALVES**

THE SOLUTION YOU'VE BEEN LOOKING FOR

LAROX MANUAL VALVES

Larox manual valves are ideal for shut off applications that involve abrasive or corrosive slurries, powders or granular substances. Our advanced flow control solutions meet even the most stringent customer specifications. Larox valves offer substantial savings through improved performance, longer service lifetime and lower maintenance costs.

TECHNICAL FEATURES

- 100% Tight
- Full Bore
- Only the Sleeve is in Contact with the Medium
- Centerline Closing
- Flexible Sleeve

PROCESS BENEFITS

- Excellent Wear Resistance
- High Corrosion Resistance
- No Jamming or Clogging
- Self-cleaning
- Trouble-free Operation
- Long Service Intervals
- Low Maintenance Costs
- Reduced Cost of Ownership

Over 50,000 Larox valves are currently operating in mining and metal industries, minerals processing, pulp and paper, chemical process industries, energy as well as oil and offshore industries. Numerous applications also exist in water and effluent treatment, dairy, food and beverage production, and pharmaceutical processing plants.

MODULAR DESIGN

Our modular valve design has three main components: the sleeve, the body and the actuator. The sleeve is the only part that is in contact with the process medium. The construction and materials of all three main

components can be tailored to suit most process conditions.

Self-cleaning Larox valves provide 100% tight shut-off even if solids have built up on the sleeve wall. When compressed, any crystallized particles flake off the sleeve surface and are washed downstream.

The standard range is for diameters of 25 mm to 1,000 mm, temperatures from -50°C to +160°C, and operating pressures from vacuum to 100 bar.

We provide tailor-made flow control solutions precisely in accordance with the customer specifications.



The operating principle of a Larox valve is simple. In the open position, the valve is at full bore with no flow restrictions thus making the valve an integral part of the pipeline. During closing, two pinch bars squeeze the sleeve shut on the centerline.

VALVES YOU CAN RELY ON

Larox manual valves are equipped with hand wheel actuators. To ensure reliable operation, the operating mechanism is totally enclosed giving full protection against dirt and corrosion. A reduction gear is provided to ease the manual operation in larger diameter valves and higher operating pressures.

STANDARD BODY TYPES

OPEN BODY (PV)

The open body valve is designed for non-hazardous media, lower pressures and operating temperatures. This design isolates vibration and tolerates minor misalignments of the pipeline. It is also light-weight and easy to service. Material options include fabricated carbon steel and stainless steel. Open body range starts from 80 mm in diameter.

ENCLOSED BODY (PVE)

The enclosed body valve is the most common body type. Its enclosed design prevents premature sleeve deterioration and protects the sleeve from the environment, making it extremely safe to operate. Enclosed body valves can be manufactured of cast iron/fabricated carbon steel, stainless steel, aluminium or plastic. Valve diameters begin with 25 mm.

SPECIAL BODY TYPES

Our special bodies comply with the international fugitive emission legislation set for hazardous process media.

ENCLOSED/SEALED BODY (PVE/S)

The enclosed/sealed body valves are designed to add safety to processes involving hazardous media. Both the stem and side bars are sealed with O-rings. Body material options include cast iron/fabricated carbon steel, stainless steel and aluminium. Enclosed/sealed body valve range starts from 25 mm.

SEALED BODY (PVS)

The sealed body valve is well suited for hazardous media and high pressure applications. Completely enclosed stem and side bars, provide 100% protection against any leakage. There are two body material options available: cast iron/fabricated carbon steel or stainless steel. Sealed body range has options starting from 25 mm.

Note: All enclosed bodies can be equipped with an alarm sensor for sleeve leakage detection.

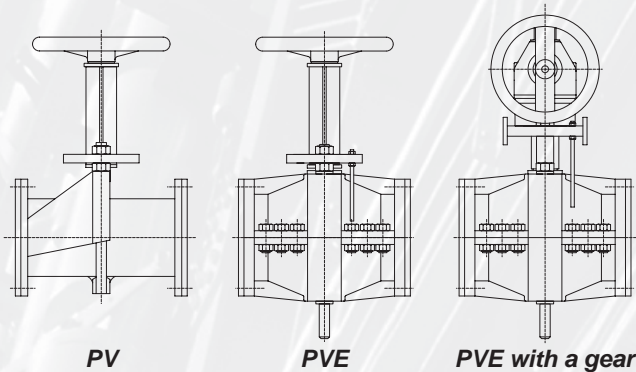


VALVE MODEL SELECTION

EXAMPLE: PVE100M10 - 203LR

| PVE | 100 | M | 10 | - | 2 | 0 | 3 | L | R |
|--|-----------------------------|----------------------------------|--|---|--|--|---|---|--|
| MODEL PV = open PVE = enclosed PVE/S = enclosed/sealed PVS = sealed | SIZE (DN) 25-1000 | ACTUATOR M = handwheel | PRESSURE CLASSES (PN) 1 = 1 bar 6 = 6 bar 10 = 10 bar 16 = 16 bar 25 = 25 bar 40 = 40 bar 64 = 64 bar 100 = 100 bar | | FLANGE DRILLINGS 1 = - 2 = DIN PN 10 3 = DIN PN 16 4 = DIN PN 25 5 = DIN PN 40 6 = ANSI 150 7 = ANSI 300 8 = BS TABLE D 9A = AS TABLE D 9B = AS TABLE E 9C = JIS 10 9D = JIS 16 Other on request | BODY MATERIAL * 0 = Fe 1 = - 2 = AISI 316 3 = aluminium 4 = other 5 = plastic | FLANGE SHAPE type 1 - 4 Determined by the valve manufacturer | OPENING TAGS L = opening tags | AUXILIARIES R = inductive limits T = mechan. limits X = other, must be specified |

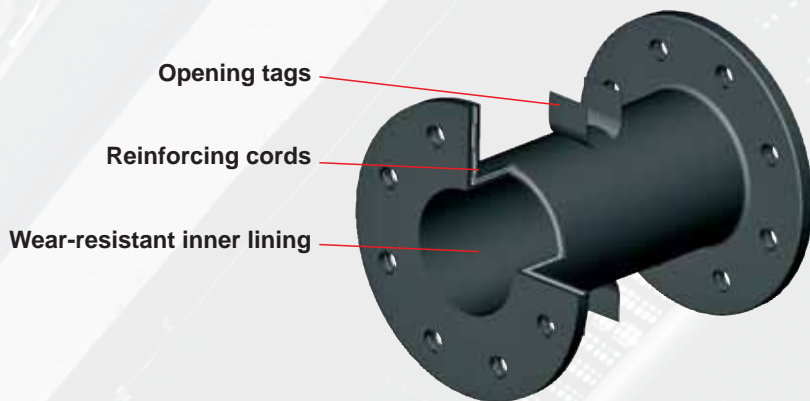
- *) Fe DN25-200: GRS 250 (EN 1561 EN-GJL-250), epoxy painted K18-E180/2-FeSa 2Ω
DN250...: fabricated Fe37B (EN 10025 S235JRG2), epoxy painted K180-E180/2-FeSa 2Ω
- AISI 316 DN25-200: casted (EN 10213-4 1.4408)
DN250...: fabricated (EN 10088-2 1.4432)
- Aluminium DN25-150: aluminium alloy (EN 1706 EN AC 44200) epoxy painted K18-E180/2-FeSa 2Ω
- Plastic Ciba 5000 series DN65---150; PA Blend DN250



SLEEVE MODEL SELECTION

EXAMPLE: SBRT 10100/250/3L2

| SBRT | 10 | 100 | / | 250 | / | 3 | L | 2 |
|--|------------------------------|-----------------------------------|---|--------------------------------------|---|---------------------|------------------------------|-------------------------|
| SLEEVE MATERIALS | PRESSURE CLASSES (PN) | SLEEVE INNER DIAMETER (MM) | | SLEEVE LENGTH (MM) | | FLANGE SHAPE | OPENING TAGS | FLANGE DRILLINGS |
| SBRT = styrene butadiene | 1 = 1 bar | 25 - 1000 | | Depends on the sleeve inner diameter | | type 1 | L = yes - = none | 1 = - |
| EPDM= ethylene propylene | 6 = 6 bar | | | | | type 3 | | 2 = DIN PN 10 |
| CR = chloroprene | 10 = 10 bar | | | | | type 4 | 3 = DIN PN 16 | |
| CSM = chloro-sulphone-ethene | 16 = 16 bar | | | | | | 4 = DIN PN 25 | |
| FPM = fluorine rubber | 25 = 25 bar | | | | | | 5 = DIN PN 40 | |
| HNBR= hydrogenated nitrile | 40 = 40 bar | | | | | | 6 = ANSI 150 | |
| IIR = butyl | 64 = 64 bar | | | | | | 7 = ANSI 300 | |
| NBR = nitrile | 100 = 100 bar | | | | | | 8 = BS TABLE D | |
| NBRF = nitrile foodstuff quality | | | | | | | 9A = AS TABLE D | |
| NR = natural rubber | | | | | | | 9B = AS TABLE E | |
| NRF = natural rubber foodstuff quality | | | | | | | 9C = JIS 10 | |
| PU = polyurethane | | | | | | | 9D = JIS 16 | |
| _/PU = PU coating inside the sleeve | | | | | | | X = other, must be specified | |
| _/M = Larox SensoMate sleeve | | | | | | | | |



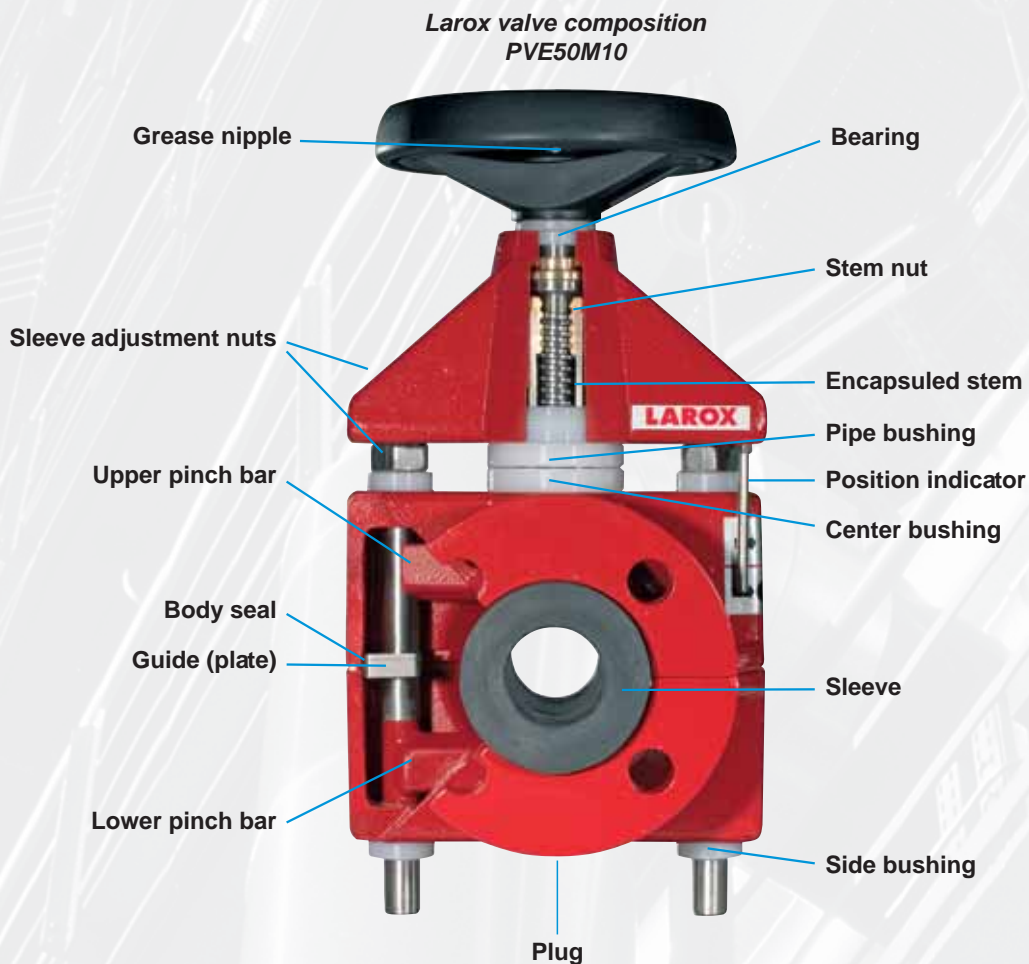
THE BUILT-IN QUALITY OF THE LAROX VALVE

Larox valve builds on several quality components. The highly resistant and durable sleeve forms an integral part of the valve structure and is the only part in contact with the medium. Centerline closing minimizes sleeve stretch.

The encapsulated stem mechanism is protected and lubricated to ensure trouble-free operation.

Stainless steel stem and sidebars add to improved wear and corrosion resistance.

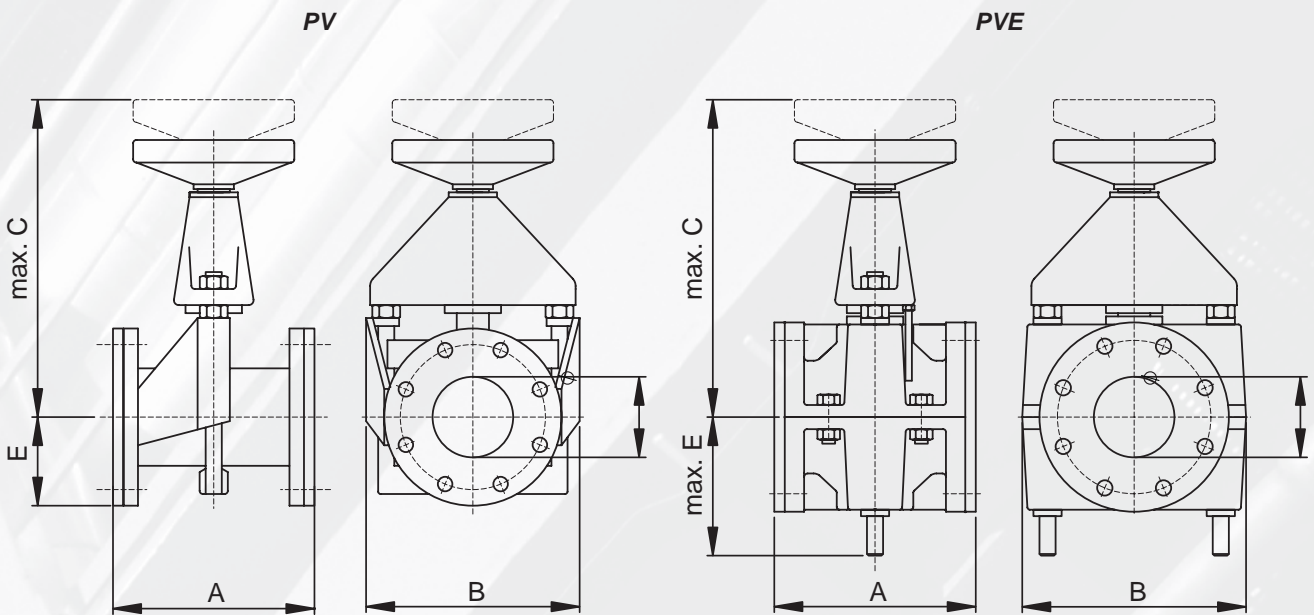
The enclosed Larox valves have external open/closed position indicators. Optional features include an alarm sensor for remote leakage detection. Maintenance is trouble-free as sleeve changes can be done without special tools.



Manual valves in 100% open, 50% open and fully closed positions.

MAIN DIMENSIONS

OPEN BODY AND ENCLOSED BODY



Weights are for body and sleeve **without actuator**.

| SIZE Ø | PN (BAR) | A (MM) | B (MM) | C (MM) | E (MM) | WEIGHT FE (KG) | WEIGHT AL (KG) |
|---------|----------|--------|--------|--------|--------|----------------|----------------|
| PV 80 | 1 - 25 | 200 | 235 | 370 | 100 | 22 | - |
| PV 100 | 1 - 25 | 250 | 265 | 410 | 110 | 29 | - |
| PV 125 | 1 - 25 | 310 | 325 | 465 | 135 | 46 | - |
| PV 150 | 1 - 16 | 375 | 381 | 560 | 143 | 67 | - |
| PV 200 | 1 - 16 | 500 | 461 | 690 | 170 | 88 | - |
| PV 250 | 1 - 10 | 625 | 545 | 865 | 210 | 137 | - |
| PV 300 | 1 - 6 | 750 | 704 | 1020 | 250 | 167 | - |
| PVE 25 | 1 - 25 | 165 | 125 | 255 | 87 | 11 | 7 |
| PVE 32 | 1 - 25 | 165 | 140 | 260 | 90 | 14 | 9 |
| PVE 40 | 1 - 25 | 165 | 180 | 265 | 105 | 16 | 9 |
| PVE 50 | 1 - 25 | 165 | 190 | 280 | 120 | 18 | 9 |
| PVE 65 | 1 - 25 | 165 | 210 | 310 | 136 | 22 | 12 |
| PVE 80 | 1 - 25 | 200 | 245 | 370 | 155 | 36 | 17 |
| PVE 100 | 1 - 25 | 250 | 278 | 410 | 175 | 46 | 25 |
| PVE 125 | 1 - 25 | 310 | 340 | 465 | 210 | 74 | 41 |
| PVE 150 | 1 - 16 | 375 | 400 | 560 | 240 | 106 | 74 |
| PVE 200 | 1 - 16 | 500 | 480 | 690 | 295 | 159 | - |
| PVE 250 | 1 - 10 | 625 | 570 | 865 | 380 | 213 | - |
| PVE 300 | 1 - 6 | 750 | 720 | 1020 | 445 | 279 | - |

Dimensions subject to change without notice. Larger sizes and higher pressures also available.
Dimensional drawings for higher pressure ratings available upon request.



TYPE APPROVAL
P-11460



ISO 9001