

## **Flowrox™ Pinch valves Serie PV \_ PVE \_ PVE-S og PVS**

**General line off Flowrox™ heavy duty pinch valves  
Designed for shut off and control applications**



## PV \_ PVE \_ PVE-S \_ PVS Pinch valves

### Description:

Flowrox™ heavy duty pinch valves are designed for shut off and control applications involving abrasive or corrosive slurries, powders or granular substances. In the open position, the valve is full bore with no flow restrictions. During closing, two pinch bars squeeze the valve sleeve shut on the center line. Bubble tight shut-off is provided even if solids have built up on the sleeve wall.

Flowrox control valves are designed for demanding control applications, in which conventional valves encounter problems with wear due to increased turbulence. Controllability can be further improved, i.e. linearized and widened, with conical sleeves and smart positioners.

**PV** The open body pinch valve is designed for non-hazardous media, lower pressure, and operating temperatures than the enclosed body. This design isolates vibration and tolerates minor misalignment of the pipeline. It is also light-weight and easy to service.

**PVE** The enclosed body valve is the most common body type for Flowrox pinch valves. Its enclosed design prevents premature sleeve deterioration and protects the sleeve from the environment, making it extremely safe to operate

**PVE/S** PVE/S includes extra stem and body seals to provide a secondary containment of the fluid in the valve and to prevent leakage to the outside environment from the valve body.

**PVS** The structure of PVS encases all moving parts of the valve. It is optimized for high pressure applications and for aggressive and toxic mediums. The PVS structure has no rising parts.

### Benefits

- Improved process efficiency
- Improved customers productivity
- Accurate control
- Ease of maintenance
- Extended service intervals

### Features

- 100% tight shut-off
- When compressed, any crystallized particles flake off the sleeve surface.
- Full bore: Ensured free flow of the medium and less pumping energy is required.
- Improved controllability with conical sleeve results in linear control curve
- Only the sleeve is in contact with the medium and is the only replaceable part. Can be easily changed on site.
- High corrosion resistance and flexible sleeve.



### Sizes

DN 25 - 800 / 1" - 32"  
Bigger sizes on request

### Working pressure

Op til 100 bar / 1500 psi

### Pressure classes

- PN 1, PN 4, PN 6 og PN 10, PN 16, PN 25, PN 40, PN 64 og PN 100.

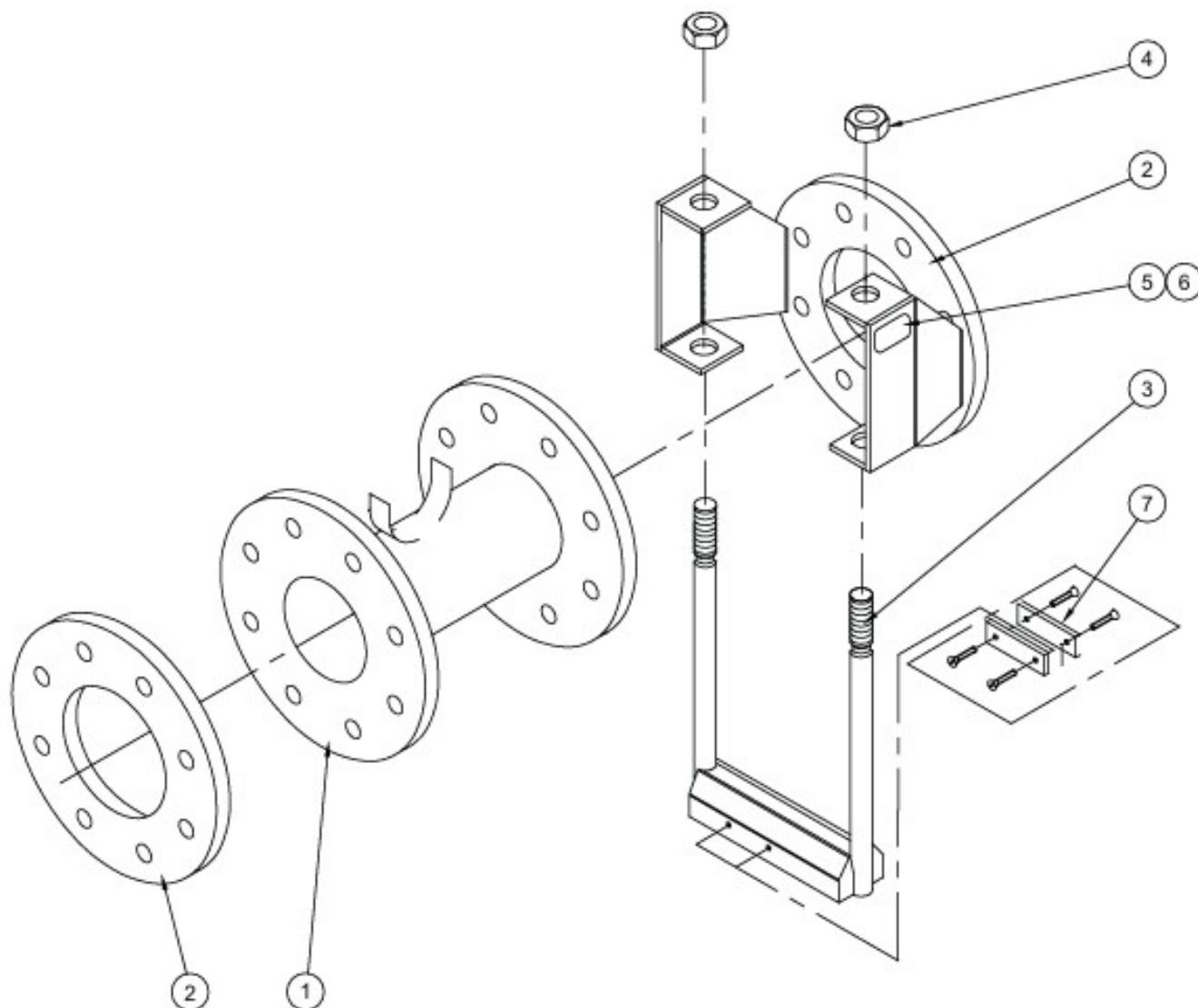
### Materials

- Cast iron / Ductile iron
- Welded steel
- AISI 316
- Aluminium
- Polyurethane/Polyamide

### Flange drilling

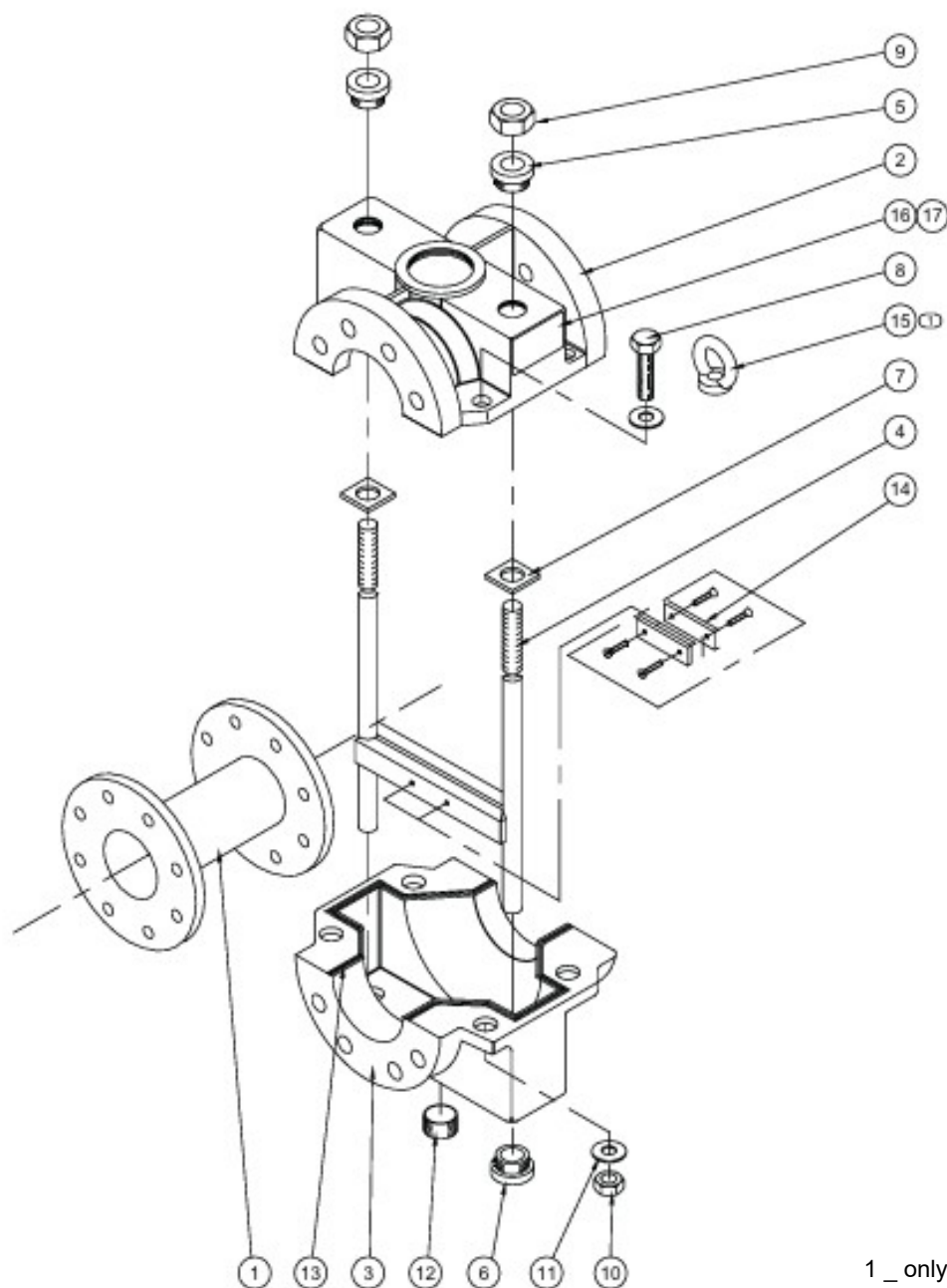
- DIN PN 10, DIN PN 16, DIN PN 25, DIN PN 40
- ASME B16.5 Class 150, ASME B16.5 Class 300
- BS tabel D, som tabel D, as table E
- JIS 10K, JIS 16K
- Others on request

**Exploded view and parts list**  
**Type: PV**



| Part | Description       |
|------|-------------------|
| 1    | Sleeve            |
| 2    | Body              |
| 3    | Lower pinch bar   |
| 4    | Hex nut           |
| 5    | Tag plate         |
| 6    | Hammerdrive screw |
| 7    | Fixing set        |

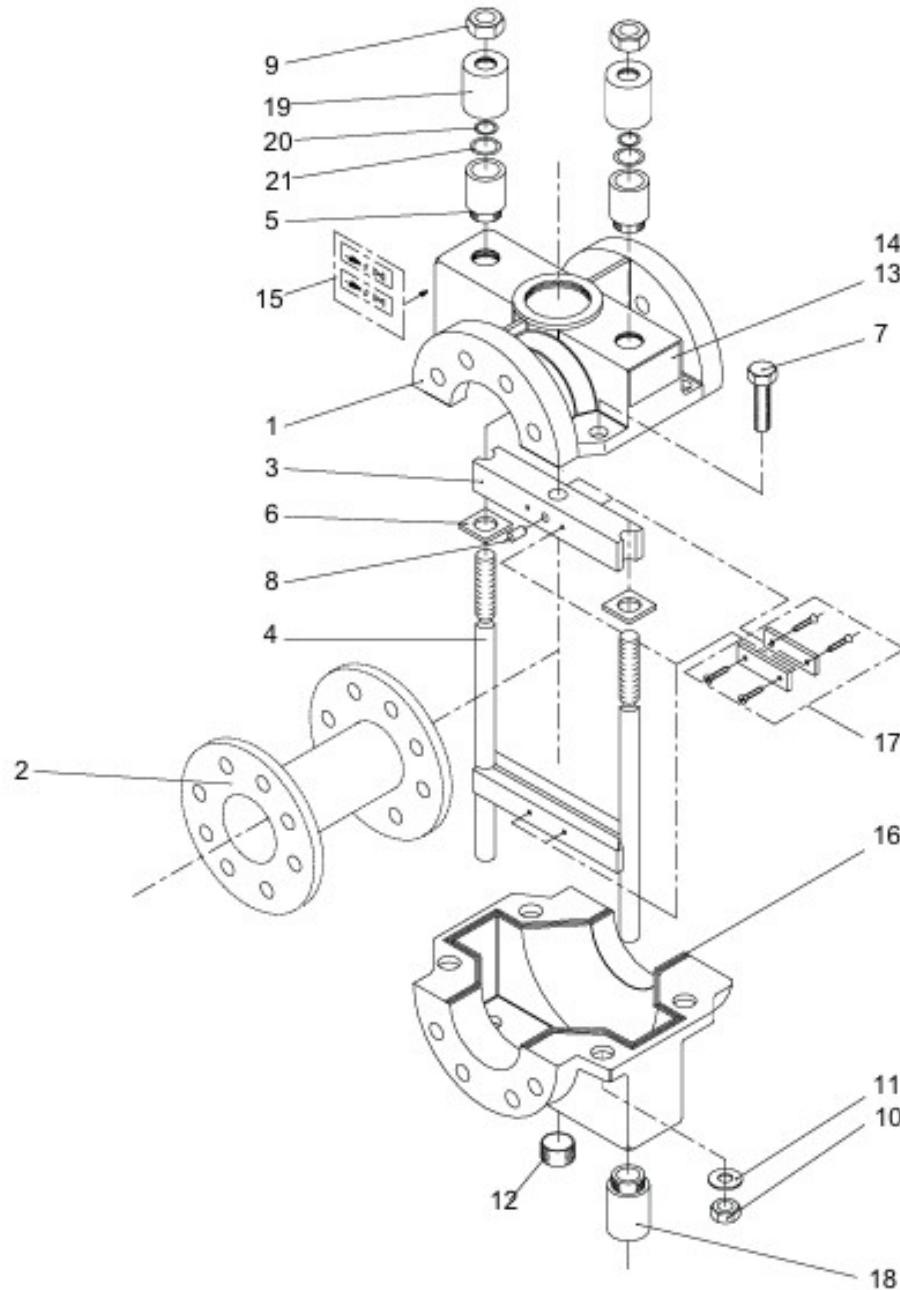
**Exploded view and parts list**  
**Type: PVE**



1 \_ only for standard versions

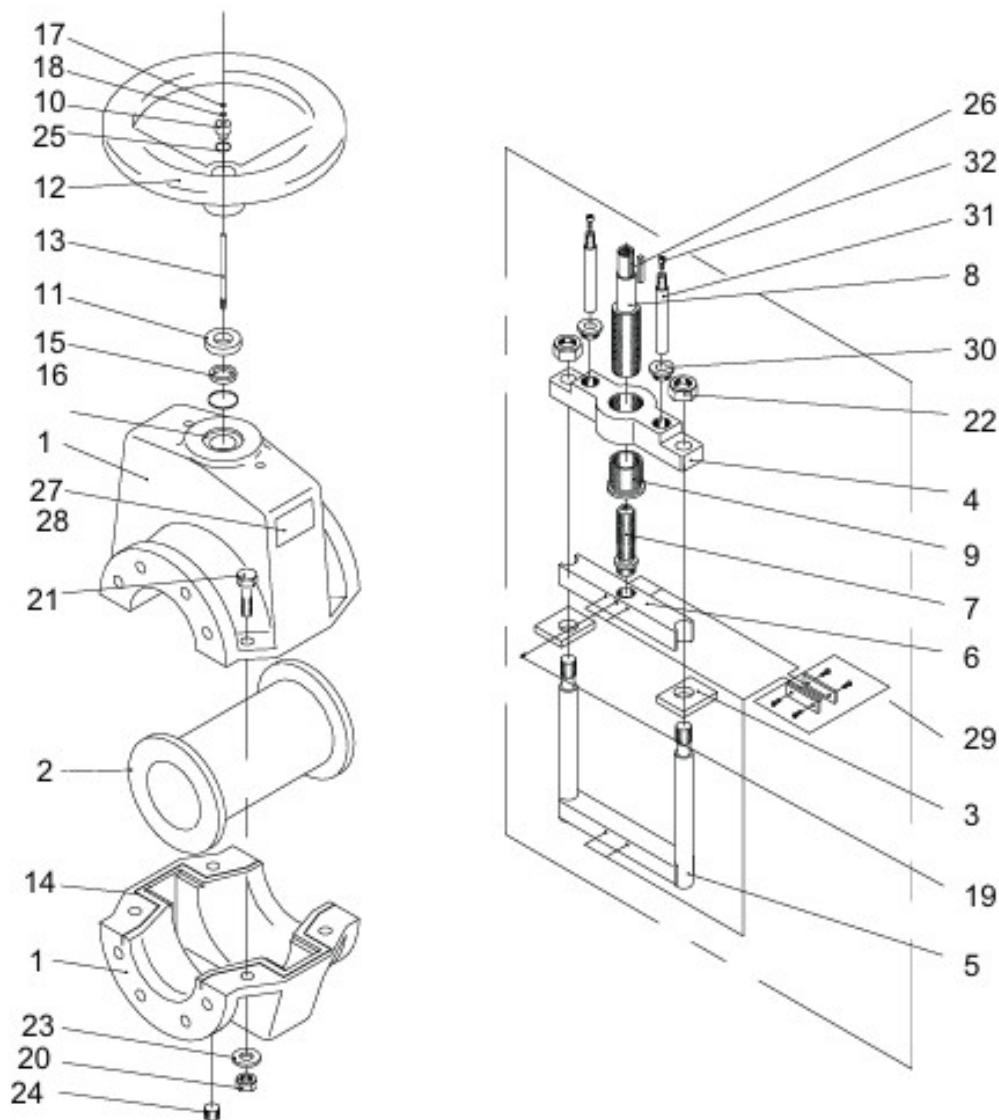
| Part | Description      | Part | Description       |
|------|------------------|------|-------------------|
| 1    | Sleeve           | 10   | Hex nut           |
| 2    | Upper Body       | 11   | Washer            |
| 3    | Lower Body       | 12   | Plug              |
| 4    | Lower pinch bar  | 13   | Sealing strip     |
| 5    | Threaded bushing | 14   | Fixing set        |
| 6    | Threaded bushing | 15   | Lifting eye nut   |
| 7    | Guide plate      | 16   | Tag plate         |
| 8    | Hex screw        | 17   | Hammerdrive screw |
| 9    | Hex nut          |      |                   |

**Exploded view and parts list**  
**Type: PVE/S**



| Part | Description     | Part | Description   |
|------|-----------------|------|---------------|
| 1    | Valve body      | 12   | Plug          |
| 2    | Sleeve          | 13   | Tag plate     |
| 3    | Upper pinch bar | 14   | Drive screw   |
| 4    | Lower pinch bar | 15   | Sticker       |
| 5    | Bushing         | 16   | Sealing       |
| 6    | Guide           | 17   | Fixing set    |
| 7    | Hex screw       | 18   | Bushing       |
| 8    | Set screw       | 19   | Cover bushing |
| 9    | Hex nut         | 20   | Sealing       |
| 10   | Hex nut         | 21   | Sealing       |
| 11   | Washer          |      |               |

**Exploded view and parts list**  
**Type: PVS**



| Part | Description      | Part  | Description       |
|------|------------------|-------|-------------------|
| 1    | Valve body       | 17-18 | Sealing           |
| 2    | Sleeve           | 19    | Set screw         |
| 3    | Guide            | 20    | Hex nut           |
| 4    | Attachment frame | 21    | Hex screw         |
| 5    | Lower pinch bar  | 22    | Hex nut           |
| 6    | Upper pinch bar  | 23    | Washer            |
| 7    | Pinch bar stem   | 24    | Plug              |
| 8    | Handwheel stem   | 25    | Locker            |
| 9    | Stem nut         | 26    | Wedge             |
| 10   | Bushing          | 27    | Tag plate         |
| 11   | Bushing          | 28    | Drive screw       |
| 12   | Handwheel        | 29    | Fixing set        |
| 13   | Indicator pin    | 30    | Bushing           |
| 14   | Sealing          | 31    | Guide bar *       |
| 15   | Sealing          | 32    | Hex socket head * |
| 16   | Sealing          |       |                   |

\* Not in all sizes

## Technical specifications

### Type

Heavy duty: PV, PVE og PVS

### Sizes

PV: DN 80 - 800 / NPS 3" - 32"

PVE, PVE/S, PVS: DN 25 - 800 / NPS 1" - 32"

### Temperature range

PV: -50°C - +50°C

PVE, PVE/S, PVS: -50°C - +160°C

### Pressure classes

PV: 25 bar / 375 psi

PVE, PVE/S, PVS: 0-100 bar / 0-1500 psi

### Actuators

- Manual
- Manual with gear
- Pneumatic
- Electric
- Hydraulic

### Construction materials

**Body material** Cast iron / Ductile iron  
Welded steel  
AISI 316  
Aluminium  
Polyurethane/Polyamide

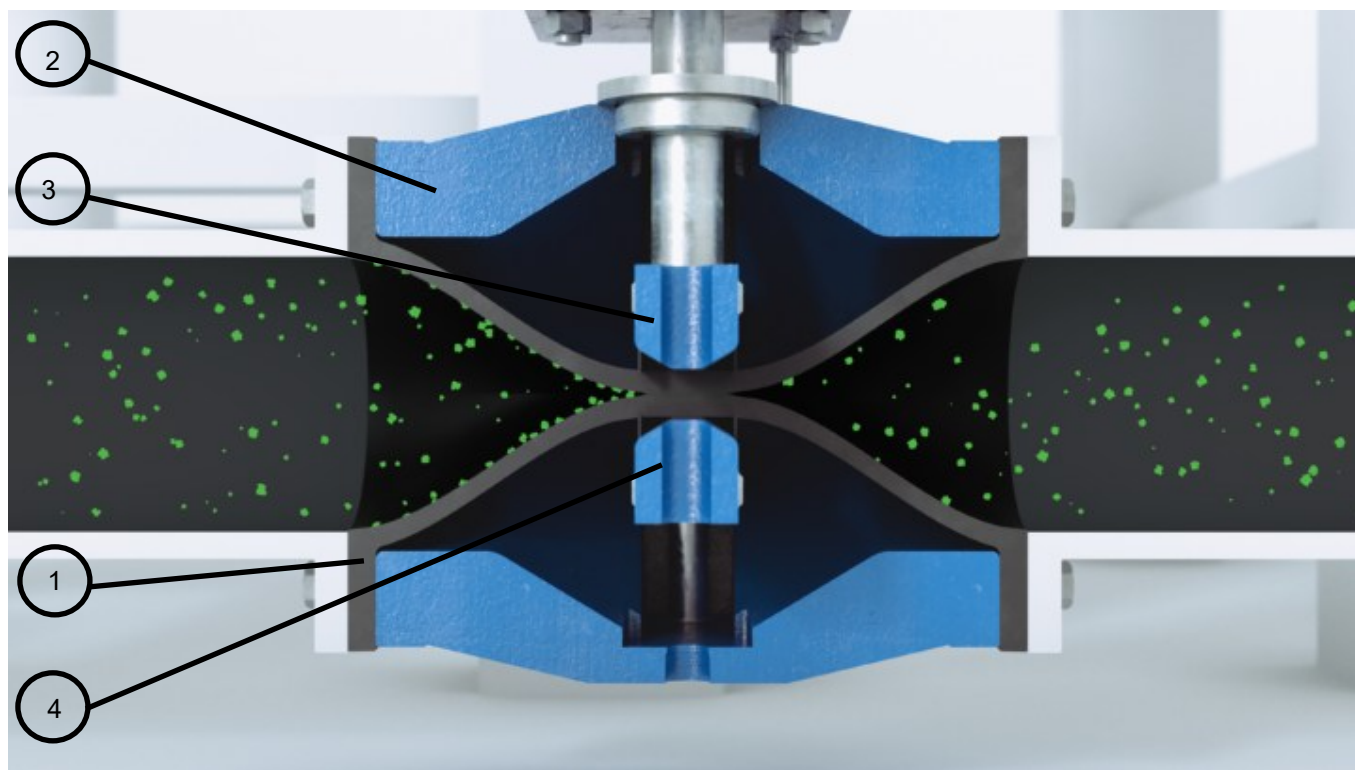
Flowrox valves; Standard sleeve material

| Rubber quality                             | Application examples                                                               | Temperature range | Typical media                                                      |
|--------------------------------------------|------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------|
| SBRT<br>Styren butadiene,<br>Flowrox-blend | High wearing<br>High cycle frequency                                               | -40°C - +110°C    | Abrasive materials, diluted acid, alkali and chemical applications |
| EPDM<br>Ethylenepropylene                  | Chemical applications<br>Applicable to 75% of all industrial chemical applications | -40°C - +120°C    | Concentrated and oxidizing chemicals                               |

Flowrox valves; Other sleeve material

| Rubber quality                                                   | Application examples                                                                               | Temperature range | Typical media                                                          |
|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------|
| NBR<br>Nitrile rubber                                            | Applications involving oils, fats and hydrocarbon                                                  | -30°C - +100°C    | Oils, fats, fuels, hydrocarbon, lubricants                             |
| NR<br>Natural rubber                                             | High wear applications                                                                             | -50°C - +75°C     | Abrasive materials, diluted acids, alkali and chemicals                |
| HNBR<br>Hydrogenated nitrile                                     | High temperature applications                                                                      | -30°C - +160°C    | Oils, fats, fuels, hydrocarbon, lubricants                             |
| NRF<br>Natural rubber<br>Foodstuff quality<br>White inner lining | Foodstuff applications<br>Fulfills FDA (Food and Drug Administration) requirements                 | -40°C - +75°C     | Media used in food and other CIP (Clean In Place) processes, Alcohol   |
| NBRF<br>Nitrile rubber<br>White inner lining                     | Applications involving fatty foodstuff<br>Fulfills FDA (Food and Drug Administration) requirements | -30°C - +100°C    | Vegetable and animal oils and fats                                     |
| EPDM/B<br>Ethylenepropylene<br>Flowrox-blend                     | Pulp and paper industry's green liquor application                                                 | -40°C - +100°C    | Green liquor, alkaline and extraneous matter in green liquor processes |
| CR<br>Chloroprene Rubber                                         | Special-purpose chemical applications<br>Resilient to ozone and adverse weather                    | -40°C - +100°C    | Chemicals, acids, several solvents, aliphatic oils, fats, lubricants   |
| FPM<br>Fluorine rubber (Viton)                                   | Special-purpose chemical applications<br>Resilient to ozone and adverse weather                    | -20°C - +120°C    | Chemicals, aliphatic oils, aromatic and halogenated hydrocarbon        |
| CSM<br>Chloro-sulphone-ethylene<br>(Hypalon)                     | Special-purpose chemical applications<br>Resilient to ozone and adverse weather                    | -40°C - +100°C    | Chemicals, acids, several solvents, aliphatic oils, fats, lubricants   |
| IIR<br>Butyl                                                     | Special-purpose chemical applications<br>Impermeable to gas                                        | -40°C - +100°C    | Concentrated and acidic chemicals, vegetable oils                      |
| PU<br>SBRT with polyurethane lining                              | Abrasive media applications                                                                        | -10°C - +80°C     | Abrasive materials, diluted chemicals, hydrocarbon, oils, lubricants   |

## Illusion of Pinch Valves in function



| Part | Description     |
|------|-----------------|
| 1    | Sleeve          |
| 2    | Body            |
| 3    | Upper pinch bar |
| 4    | Lower pinch bar |

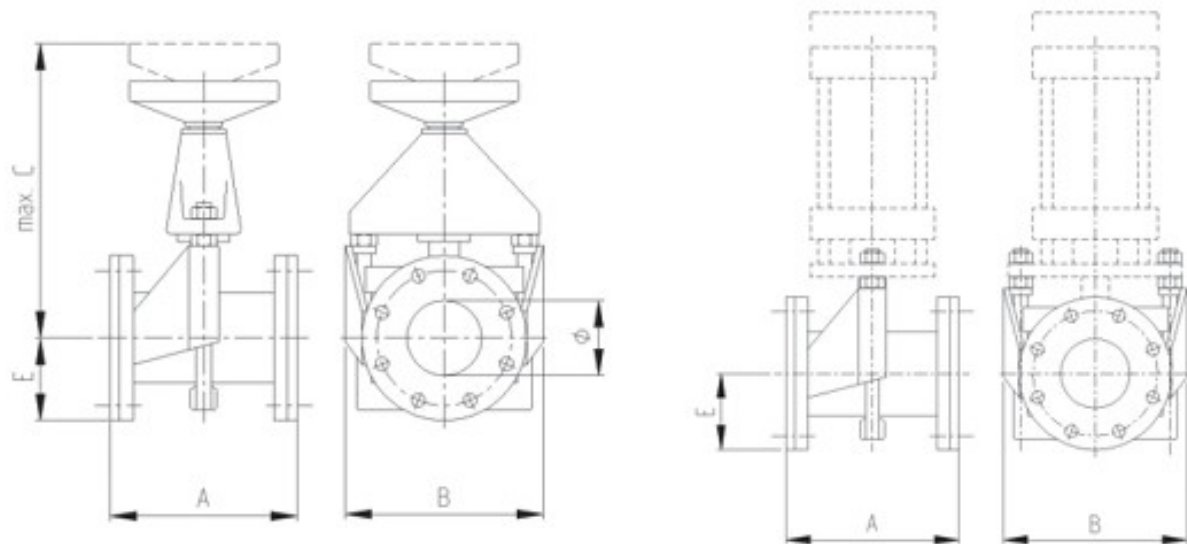
The operating principle of Flowrox pinch valves is simple. In the open position, the valve is full bore with no flow restrictions.

During closing, two pinch bars squeeze the valve sleeve shut on the centerline. The sleeve is naturally wear-resistant and when particles hit the sleeve's rubber surface, the energy is absorbed and released when the rubber bounces back.

Heavy duty pinch valves provide bubble tight shut-off even if solids have built up on the sleeve wall. When compressed, any crystallized particles flake off the sleeve surface. The full bore structure ensures free flow of the medium.

The construction and materials of the three main components (sleeve, body and actuator) can be tailored to suit your process conditions.

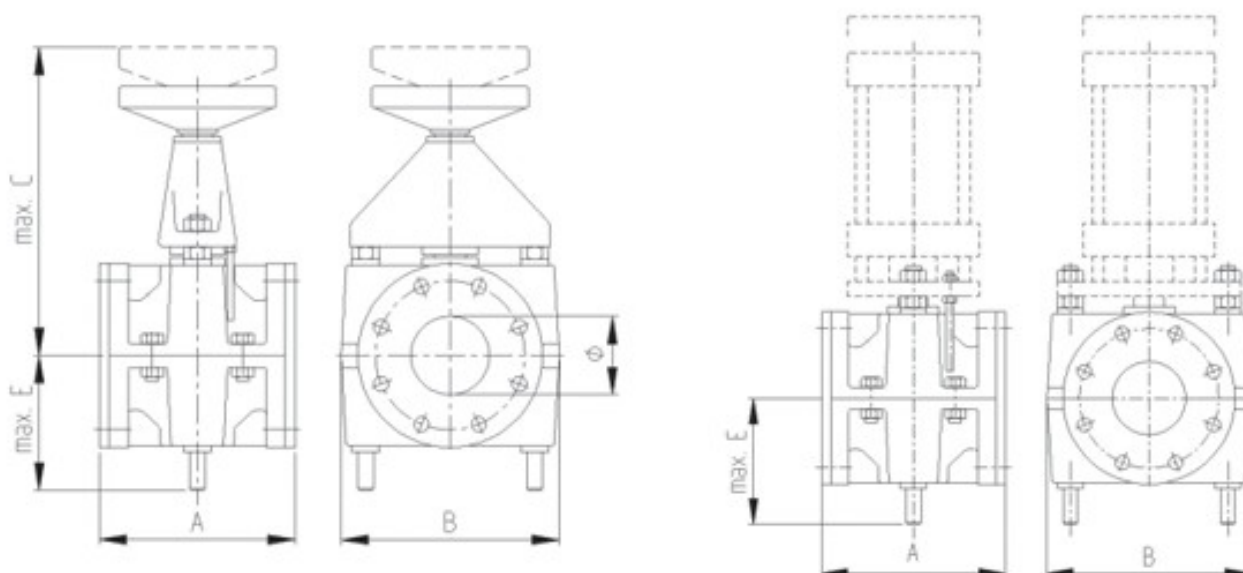
## Dimensions PV Pinch valve



| Valve size (PV) M & A | PN (bar) | A   | B   | C    | E   | Weight Manual valves (kg) | Weight Automatic valves (kg) |
|-----------------------|----------|-----|-----|------|-----|---------------------------|------------------------------|
| 80                    | 1-25     | 200 | 235 | 370  | 100 | 22                        | 14                           |
| 100                   | 1-25     | 250 | 265 | 410  | 110 | 29                        | 16                           |
| 125                   | 1-25     | 310 | 325 | 465  | 135 | 46                        | 23                           |
| 150                   | 1-16     | 375 | 381 | 560  | 143 | 67                        | 36                           |
| 200                   | 1-16     | 500 | 461 | 690  | 170 | 88                        | 47                           |
| 250                   | 1-10     | 625 | 545 | 865  | 210 | 137                       | 85                           |
| 300                   | 1-6      | 750 | 704 | 1020 | 250 | 167                       | 100                          |

| Valve size (PV) M & A | PN (PSI) | A    | B    | C    | E   | Weight Manual valves (lb) | Weight Automatic valves (lb) |
|-----------------------|----------|------|------|------|-----|---------------------------|------------------------------|
| 3"                    | 15-375   | 7,9  | 9,3  | 14,6 | 3,9 | 49                        | 31                           |
| 4"                    | 15-375   | 9,8  | 10,4 | 16,1 | 4,3 | 64                        | 36                           |
| 5"                    | 15-375   | 12,2 | 12,8 | 18,3 | 5,3 | 102                       | 51                           |
| 6"                    | 15-240   | 14,8 | 15,0 | 22,0 | 5,6 | 148                       | 80                           |
| 8"                    | 15-240   | 19,7 | 18,1 | 27,2 | 6,7 | 194                       | 104                          |
| 10"                   | 15-150   | 24,6 | 21,5 | 34,1 | 8,3 | 302                       | 188                          |
| 12"                   | 15-90    | 29,5 | 27,7 | 40,2 | 9,8 | 368                       | 221                          |

## Dimensions PVE Pinch valve



| Valve size<br>(PVE)<br>M & A | PN<br>(bar) | A   | B   | C    | E   | Weight<br>Manual valves<br>(kg) |    | Weight<br>Automatic valves<br>(kg) |    |
|------------------------------|-------------|-----|-----|------|-----|---------------------------------|----|------------------------------------|----|
|                              |             |     |     |      |     | FE                              | AL | FE                                 | AL |
| 25                           | 1-25        | 165 | 125 | 255  | 87  | 11                              | 7  | 8                                  | 4  |
| 32                           | 1-25        | 165 | 140 | 260  | 90  | 14                              | 9  | 10                                 | 5  |
| 40                           | 1-25        | 165 | 180 | 265  | 105 | 16                              | 9  | 12                                 | 6  |
| 50                           | 1-25        | 165 | 190 | 280  | 120 | 18                              | 9  | 13                                 | 7  |
| 65                           | 1-25        | 165 | 210 | 310  | 136 | 22                              | 12 | 17                                 | 9  |
| 80                           | 1-25        | 200 | 245 | 370  | 155 | 36                              | 17 | 27                                 | 13 |
| 100                          | 1-25        | 250 | 278 | 410  | 175 | 46                              | 25 | 33                                 | 17 |
| 125                          | 1-25        | 310 | 340 | 465  | 210 | 74                              | 41 | 48                                 | 25 |
| 150                          | 1-16        | 375 | 400 | 560  | 240 | 106                             | 74 | 75                                 | 43 |
| 200                          | 1-10        | 500 | 480 | 690  | 295 | 159                             | -  | 119                                | -  |
| 250                          | 1-6         | 625 | 570 | 865  | 380 | 213                             | -  | 161                                | -  |
| 300                          | 1           | 750 | 720 | 1020 | 445 | 279                             | -  | 212                                | -  |

| Valve size<br>(PVE)<br>M & A | PN<br>(PSI) | A    | B    | C    | E    | Weight<br>Manual valves<br>(lbs) |     | Weight<br>Automatic valves<br>(lbs) |    |
|------------------------------|-------------|------|------|------|------|----------------------------------|-----|-------------------------------------|----|
|                              |             |      |      |      |      | FE                               | AL  | FE                                  | AL |
| 1"                           | 15-375      | 6,5  | 5,0  | 10,1 | 3,4  | 25                               | 16  | 18                                  | 9  |
| 1 1/4"                       | 15-375      | 6,5  | 5,5  | 10,2 | 3,5  | 31                               | 20  | 22                                  | 11 |
| 1 1/2"                       | 15-375      | 6,5  | 7,1  | 10,4 | 4,1  | 36                               | 20  | 27                                  | 14 |
| 2"                           | 15-375      | 6,5  | 7,5  | 11   | 4,7  | 40                               | 20  | 29                                  | 16 |
| 2 1/2"                       | 15-375      | 6,5  | 8,3  | 12,2 | 5,4  | 49                               | 27  | 38                                  | 20 |
| 3"                           | 15-375      | 8    | 9,6  | 14,6 | 6,1  | 80                               | 38  | 60                                  | 29 |
| 4"                           | 15-375      | 10   | 10,9 | 16,1 | 6,9  | 102                              | 55  | 73                                  | 38 |
| 5"                           | 15-375      | 12,2 | 13,4 | 18,3 | 8,3  | 163                              | 91  | 106                                 | 55 |
| 6"                           | 15-240      | 14,8 | 15,7 | 22   | 9,4  | 234                              | 163 | 166                                 | 95 |
| 8"                           | 15-150      | 19,7 | 18,9 | 27,2 | 11,6 | 351                              | -   | 263                                 | -  |
| 10"                          | 15-90       | 24,6 | 22,4 | 34,1 | 15   | 470                              | -   | 355                                 | -  |
| 12"                          | 15          | 29,5 | 28,3 | 40,2 | 17,5 | 615                              | -   | 468                                 | -  |

## Type code

| 1.  | 2.   | 3. | 4. | 5.   | 6. | 7. | 8. | 9. | 10. | 11. | 12. | 13. |
|-----|------|----|----|------|----|----|----|----|-----|-----|-----|-----|
| PVE | 0100 |    |    | B025 | L  | 00 | A  | G  | N   | I   | A   | A   |

**PVE0100B025L00AGN1AA**

| 1. Sign | VALVE SERIES                      |
|---------|-----------------------------------|
| PV      | Pinch valve open model            |
| PVE     | Pinch valve Enclosed model        |
| PVE/S   | Pinch valve Enclosed/Sealed model |
| PVS     | Pinch valve Sealed model          |

| 2. Sign | BODY SIZE     |
|---------|---------------|
| 0025    | DN 25 1"      |
| 0032    | DN 32 1- 1/4" |
| 0040    | DN 40 1- 1/2" |
| 0050    | DN 50 2"      |
| 0065    | DN 65 2- 1/2" |
| 0080    | DN80 3"       |
| 0100    | DN100 4"      |
| 0125    | DN125 5"      |
| 0150    | DN150 6"      |
| 0200    | DN200 8"      |
| 0250    | DN250 10"     |
| 0300    | DN300 12"     |
| 0350    | DN350 14"     |
| 0400    | DN400 16"     |
| 0450    | DN450 18"     |
| 0500    | DN500 20"     |
| 0600    | DN600 24"     |

| 3. Sign | VALVE SERIES                                              |
|---------|-----------------------------------------------------------|
| /       | Only if reduced port valve required (CONTROL VALVES ONLY) |
| -       | Blank                                                     |

| 4. Sign | SLEEVE REDUCTION (REDUCTION UP TO TWO SIZES) |
|---------|----------------------------------------------|
| 0015    | DN 15 1/2"                                   |
| 0020    | DN 20 3/4"                                   |
| 0025    | DN 25 1"                                     |
| 0032    | DN 32 1- 1/4"                                |
| 0040    | DN 40 1- 1/2"                                |
| 0050    | DN 50 2"                                     |
| 0065    | DN 65 2- 1/2"                                |
| 0080    | DN 80 3"                                     |
| 0100    | DN 100 4"                                    |
| 0125    | DN 125 5"                                    |
| 0150    | DN 150 6"                                    |
| 0200    | DN 200 8"                                    |
| 0250    | DN 250 10"                                   |
| 0300    | DN 300 12"                                   |
| 0350    | DN 350 14"                                   |
| 0400    | DN 400 15"                                   |
| 0500    | DN 500 20"                                   |
| -       | Blank no reduction                           |

| 5. Sign | PRESSURE RATING                         |
|---------|-----------------------------------------|
| B001    | 1 BAR                                   |
| B006    | 6 BAR                                   |
| B007    | 7 BAR (Only AS Table D and BS Table D)  |
| B010    | 10 BAR                                  |
| B014    | 14 BAR (Only AS Table E and BS Table E) |
| B016    | 16 BAR                                  |
| B020    | 20 BAR                                  |
| B025    | 25 BAR                                  |
| B040    | 40 BAR                                  |
| B064    | 64 BAR                                  |
| B100    | 100 BAR                                 |
| B00Y    | Special                                 |

| 6. Sign | FLANGE DRILLING      |
|---------|----------------------|
| J       | PN 10 EN 1092        |
| K       | PN 16 EN 1092        |
| L       | PN 25 EN 1092        |
| M       | PN 40 EN 1092        |
| C       | ASME B16.5 Class 150 |
| D       | ASME B16.5 Class 300 |
| B       | BS TABLE D           |
| A       | AS TABLE D           |
| E       | AS TABLE E           |
| R       | JIS 10K              |
| S       | JIS 16K              |
| Y       | Other                |

| 7. Sign | BODY MATERIAL                    |
|---------|----------------------------------|
| 00      | Grey Cast iron EN 1561-GJL-250   |
| 02      | AISI 316 (EN 1.4408 / A351 CF8M) |
| 03      | Aluminum AlSi12                  |
| 04      | Welded steel                     |
| 05      | Polyurethane                     |
| 06      | Polyamide                        |
| YY      | Other                            |

| 8. Sign | SLEEVE MATERIAL                                |
|---------|------------------------------------------------|
| A       | SBRT Styrene Butadiene, Flowrox™ Blend         |
| B       | EPDM Ethylene Propylene                        |
| C       | NR Natural Rubber                              |
| D       | NBR Nitrile                                    |
| E       | CSM Chlorosulfonated Polyethylene (Hypalon™)   |
| F       | EPDMB Green Liquor Sleeve Flowrox™ Blend       |
| G       | CR Chloroprene                                 |
| H       | IIR Butyl                                      |
| I       | NRF Natural Rubber Foodstuff (No FDA approval) |
| J       | NBRF Nitrile Foodstuff (No FDA approval)       |
| K       | HNBR Hydrogenated Nitrile                      |
| L       | FMP Fluorine Rubber (Viton™)                   |

## Type code

| 9. Sign                 | SLEEVE TYPE                              |
|-------------------------|------------------------------------------|
| G                       | General (Full Bore)                      |
| FOR CONTROL APPLICATION |                                          |
| C                       | Conical even $DN \geq 80$                |
| S                       | Conical straight outer surface $80 > DN$ |

| 10. Sign | SLEEVE FEATURES/OPTIONS                                |
|----------|--------------------------------------------------------|
| A        | Flowrox SensoMate sleeve                               |
| B        | PU-Lining inside the sleeve (Available only with SBRT) |
| C        | Suction sleeve (For negative pressure)                 |
| N        | NONE                                                   |

| 11. Sign | BUSHING MATERIAL            |
|----------|-----------------------------|
| I        | UHMWPE (RCH1000) (Standard) |
| N        | None (Applies to PV Series) |
| Y        | Other                       |

| 12. Sign | FASTENERS MATERIAL      |
|----------|-------------------------|
| A        | FEZN (Standard)         |
| C        | All Stainless steel, A4 |
| Y        | Other                   |

| 13. Sign | FLANGE FACING                                                         |
|----------|-----------------------------------------------------------------------|
| A        | Standard EN 1092-1/A Flat Face                                        |
| B        | EN 1092-1/B1 Raised Face<br>(Only Certain size and pressure rating)   |
| R        | ASME B16.5 RF, Raised Face<br>(Only Certain size and pressure rating) |

## Type code \_ Manual actuator

| 1.   | 2. | 3. | 4.  | 5. | 6.   | 7. | 8.  | 9. |
|------|----|----|-----|----|------|----|-----|----|
| FXMH | 9  | 1  | PV6 | /  | 0100 | S  | 250 | N  |

**FXMH91PV6/0100S250N**

| 1. Sign | ACTUATOR SERIES                               |
|---------|-----------------------------------------------|
| FXMH    | Flowrox Manual actuator with direct handwheel |
| FXMC    | Manual with chainwheel                        |

| 2. Sign | HOUSING MATERIAL/ATTACHMENT FRAME          |
|---------|--------------------------------------------|
| 2       | AISI 316                                   |
| 3       | Aluminum, Painted (ONLY PV & PVE DN40-150) |
| 4       | Mild steel, painted                        |
| 9       | Not applicable (For PVEG, PVG series only) |

| 3. Sign | STEM MATERIAL |
|---------|---------------|
| 1       | Mild steel    |
| 2       | AISI 316      |
| 3       | AISI 304      |
| Y       | Other         |

| 4. Sign | MOUNTING FACE      |
|---------|--------------------|
| PV1     | PV                 |
| PV2     | PVE                |
| PV3     | PVE/S              |
| PV4     | PVS                |
| PV5     | PVEG               |
| PV6     | PVG                |
| SK1     | SKF/SKW (DN50-250) |

| 6. Sign | VALVE SIZE                                                                                     |
|---------|------------------------------------------------------------------------------------------------|
| 0025    | 0025, 0032, 0040, 0050, 0065, 0080, 0100, 0125, 0150, 0250, 0300, 0350, 0400, 0450, 0500, 0600 |

| 7. Sign | BUSHINGS                                      |
|---------|-----------------------------------------------|
| A       | Stainless steel (AISI 316)                    |
| B       | Brass (PVEG-series)                           |
| C       | Carbon Steel (PVG-series)                     |
| E       | PE-1000-AST – 50 °C to 80 °C (For Ex-areas)   |
| H       | High temperature (PA6G 30F) – 30 °C to 120 °C |
| N       | Not applicable                                |
| S       | PE-1000 – 50 °C to 80 °C                      |
| Y       | Other                                         |

| 8. Sign | HANDWHEEL SIZE                          |
|---------|-----------------------------------------|
| 150     | Direct handwheel Diameter 150 mm.       |
| 175     | Direct handwheel Diameter 175 mm.       |
| 200     | Direct handwheel Diameter 200 mm.       |
| 220     | For chainwheel 220 outer diameter.      |
| 225     | Direct handwheel Diameter 225 mm.       |
| 250     | Direct handwheel Diameter 250 mm.       |
| 320     | Direct handwheel Diameter 320 mm.       |
| 390     | For chainwheel D393-394 outer diameter. |
| 400     | Direct handwheel Diameter 400 mm.       |
| 600     | Direct handwheel Diameter 600 mm.       |
| 660     | For chainwheel D660 outer diameter.     |
| 800     | Direct handwheel Diameter 800 mm.       |
| YYY     | Other                                   |

| 9. Sign | BOLT MATERIAL                              |
|---------|--------------------------------------------|
| A       | FEZN (Standard)                            |
| C       | Stainless steel, A4                        |
| N       | Not applicable (For PVEG, PVG series only) |

| 10. Sign | SPECIAL FEATURES |
|----------|------------------|
| -        | Blank            |
| Y        | Other            |

## Type code \_ Pneumatic actuator

| 1.  | 2. | 3. | 4. | 5.   | 6. | 7.   | 8. | 9. | 10. | 11. | 12. | 13. | 14. | 15. | 16. |
|-----|----|----|----|------|----|------|----|----|-----|-----|-----|-----|-----|-----|-----|
| FXA | S  | 2  | F  | S080 | A  | 0100 |    |    | /   | S   | 1   | PV1 | /   | M   | N   |

**FXAS2FS080A0100/S1PV1/MN**

| 1. Sign | ACTUATOR SERIES            |
|---------|----------------------------|
| FXA     | Flowrox Pneumatic actuator |

| 2. Sign | APPLICATION               |
|---------|---------------------------|
| C       | For Control duty          |
| S       | Shut-Off, for On/Off duty |

| 3. Sign | CYLINDER ACTION                |
|---------|--------------------------------|
| 1       | Single acting, Spring to close |
| 2       | Double acting                  |
| 3       | Single acting, Spring to open  |

| 4. Sign | MODEL (Selected by Valmet Flow Control.) |
|---------|------------------------------------------|
| A       | Model A                                  |
| F       | Model F                                  |
| Y       | Other model                              |

| 5. Sign | CYLINDER SIZE     |
|---------|-------------------|
| S080    | ø80 mm            |
| S100    | ø100 mm           |
| S125    | ø125 mm           |
| S160    | ø160 mm           |
| S200    | ø200 mm           |
| S250    | ø250 mm           |
| T250    | øT250 mm (Tandem) |
| S320    | ø320 mm           |
| T320    | øT320 mm (Tandem) |
| S400    | ø400 mm           |
| S500    | ø500 mm           |
| S508    | ø508 mm           |
| S600    | ø600 mm           |
| S609    | ø609 mm           |
| S700    | ø700 mm           |

| 6. Sign | DESIGN                                         |
|---------|------------------------------------------------|
| A       | Standard                                       |
| B       | Double piston rod for Manual override.         |
| F       | Integrated positioner (FESTO DFPI-...-C1V-NB3) |

| 7. Sign | STROKE                                                                                                                                                           |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0100    | 0025, 0032, 0040, 0050, 0065, 0080, 0100, 0125, 0150, 0250, 0300, 0350, 0400, 0450, 0500, 0600, 0700, 0750, 0800, 0900, 1000, 1100, 1200, 1300, 1350, 1400, 1500 |

| 8. Sign | SEPARATOR                                       |
|---------|-------------------------------------------------|
| /       | Used only for <b>REDUCED BORE</b> pinch valves. |

| 9. Sign | REDUCED STROKE                                                                                                                                                   |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0080    | 0025, 0032, 0040, 0050, 0065, 0080, 0100, 0125, 0150, 0250, 0300, 0350, 0400, 0450, 0500, 0600, 0700, 0750, 0800, 0900, 1000, 1100, 1200, 1300, 1350, 1400, 1500 |
| -       | Blank                                                                                                                                                            |

| 10. Sign | SEPARATOR                                       |
|----------|-------------------------------------------------|
| /        | Used only for <b>REDUCED BORE</b> pinch valves. |

| 11. Sign | SEAL OPTION                             |
|----------|-----------------------------------------|
| S        | Standard temperature (NBR) -20...+80 °C |
| H        | High temperature -20...+120 °C          |
| C        | Cold temperature -40...+60 °C           |
| A        | Arctic temperature -50...+60 °C         |

| 12. Sign | CYLINDER MATERIAL                                          |
|----------|------------------------------------------------------------|
| 1        | Standard (Aluminum barrel/ Steel Chrome coated piston rod) |
| 2        | Aluminum barrel (painted) + AISI 316 piston rod            |
| 3        | AISI 316 (No painting)                                     |
| 4        | Fibreglass barrel & Aluminum flanges                       |
| Y        | Other                                                      |

| 13. Sign | MOUNTING FACE |
|----------|---------------|
| PV1      | PV AND PVE    |
| PV3      | PVE/S         |
| PV4      | PVS           |
| PV5      | PVEG          |
| PV6      | PVG           |
| SK1      | SKF & SKW     |
| SK2      | SKH           |

| 14. Sign | SEPARATOR |
|----------|-----------|
| /        |           |

| 15. Sign | MAGNETIC PISTON FEATURE |
|----------|-------------------------|
| M        | Magnetic piston (YES)   |
| N        | No                      |

| 16. Sign | INTEGRATED AIR TANK |
|----------|---------------------|
| N        | None                |

**Type code \_ Hydraulic actuator**

| 1.  | 2. | 3. | 4.  | 5. | 6.   | 7. | 8.  | 9. | 10. | 11. |
|-----|----|----|-----|----|------|----|-----|----|-----|-----|
| FXH | 2  | H  | 100 | A  | 0150 | /  | 100 | S  | 1   | PV1 |

**FXH2H100A0150/100S1PV1**

| 1. Sign | ACTUATOR SERIES            |
|---------|----------------------------|
| FXH     | Flowrox hydraulic actuator |

| 2. Sign | CYLINDER ACTION |
|---------|-----------------|
| 2       | Double acting   |

| 3. Sign | MODEL   |
|---------|---------|
| H       | Model H |
| Y       | Other   |

| 4. Sign | CYLINDER SIZE |
|---------|---------------|
| 040     | ø40 mm        |
| 050     | ø50 mm        |
| 063     | ø63 mm        |
| 080     | ø80 mm        |
| 100     | ø100 mm       |
| 125     | ø125 mm       |
| 160     | ø160 mm       |
| 200     | ø200 mm       |
| 250     | ø250 mm       |
| 320     | ø320 mm       |
| YYY     | Other         |

| 5. Sign | DESIGN                                                 |
|---------|--------------------------------------------------------|
| A       | Standard                                               |
| B       | Integrated solenoid valve(Normally Open) 24 VDC        |
| C       | Integrated solenoid valve(Normally Open) 110/120 VAC   |
| D       | Integrated solenoid valve(Normally Open) 230 VAC       |
| E       | Integrated solenoid valve(Normally Closed) 24 VDC      |
| F       | Integrated solenoid valve(Normally Closed) 110/120 VAC |
| G       | Integrated solenoid valve(Normally Closed) 230 VAC     |
| H       | Integrated solenoid valve(Fail Last) 24 VDC            |
| J       | Integrated solenoid valve(Fail Last) 110/120 VAC       |
| K       | Integrated solenoid valve(Fail Last) 230 VAC           |
| P       | Integrated positioner (ONLY FOR CONTROL VALVES)        |
| Y       | Other                                                  |

| 6. Sign | STROKE                                                                                                                                                           |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0100    | 0025, 0032, 0040, 0050, 0065, 0080, 0100, 0125, 0150, 0250, 0300, 0350, 0400, 0450, 0500, 0600, 0700, 0750, 0800, 0900, 1000, 1100, 1200, 1300, 1350, 1400, 1500 |

| 7. Sign | SEPARATOR                                                 |
|---------|-----------------------------------------------------------|
| /       | Only if reduced port valve required (CONTROL VALVES ONLY) |
| -       | Blank                                                     |

| 8. Sign | REDUCED STROKE                                                                                                                                                   |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0080    | 0025, 0032, 0040, 0050, 0065, 0080, 0100, 0125, 0150, 0250, 0300, 0350, 0400, 0450, 0500, 0600, 0700, 0750, 0800, 0900, 1000, 1100, 1200, 1300, 1350, 1400, 1500 |

| 9. Sign | SEAL OPTION                                               |
|---------|-----------------------------------------------------------|
| H       | High temperature (Viton) -15...200 °C                     |
| S       | Standard temperature (NBR) -30...+90 °C (Standard option) |

| 10. Sign | CYLINDER MATERIAL                                           |
|----------|-------------------------------------------------------------|
| 1        | Standard Steel flanges and barrel, Chrome coated piston rod |
| 2        | Standard Steel flanges and barrel, AISI 316 piston rod      |
| Y        | Other                                                       |

| 11. Sign | MOUNTING FACE |
|----------|---------------|
| PV1      | PV AND PVE    |
| PV3      | PVE/S         |
| PV4      | PVS           |
| SK1      | SKF & SKW     |
| SK2      | SKH           |