

## General line Flowrox™ pinch valves Series PVG and PVEG

Flowrox general line pinch valves are robust and cost-effective valves with simple, single sided closing mechanism. The PVG valves have a strong cast. The PVEG valves have a corrosion resistant and light-weight plastic body.

These valves are ideal for low cycle applications involving abrasion, corrosion and aggressive slurries. Through the reliability and structure, they offer substantial savings based on improved performance, long service lifetime and low total cost of ownership.



### Benefits

- Long service intervals
- Only one wearing part
- Excellent for dry powders
- Simple sleeve replacement

### Features

- Full bore, no flow restrictions
- Only sleeve is in contact with medium, only one wearing part
- Self cleaning, no jamming
- Several options for sleeve materials, process fit
- Simplified construction, low initial cost

### Sizes

DN 50–250/2” - 10”

### Working pressure

Up to 10 bar / 150 psi

### Pressure classes

- PN 4, PN 6 and PN 10
- 60 psi, 90 psi and 150 psi

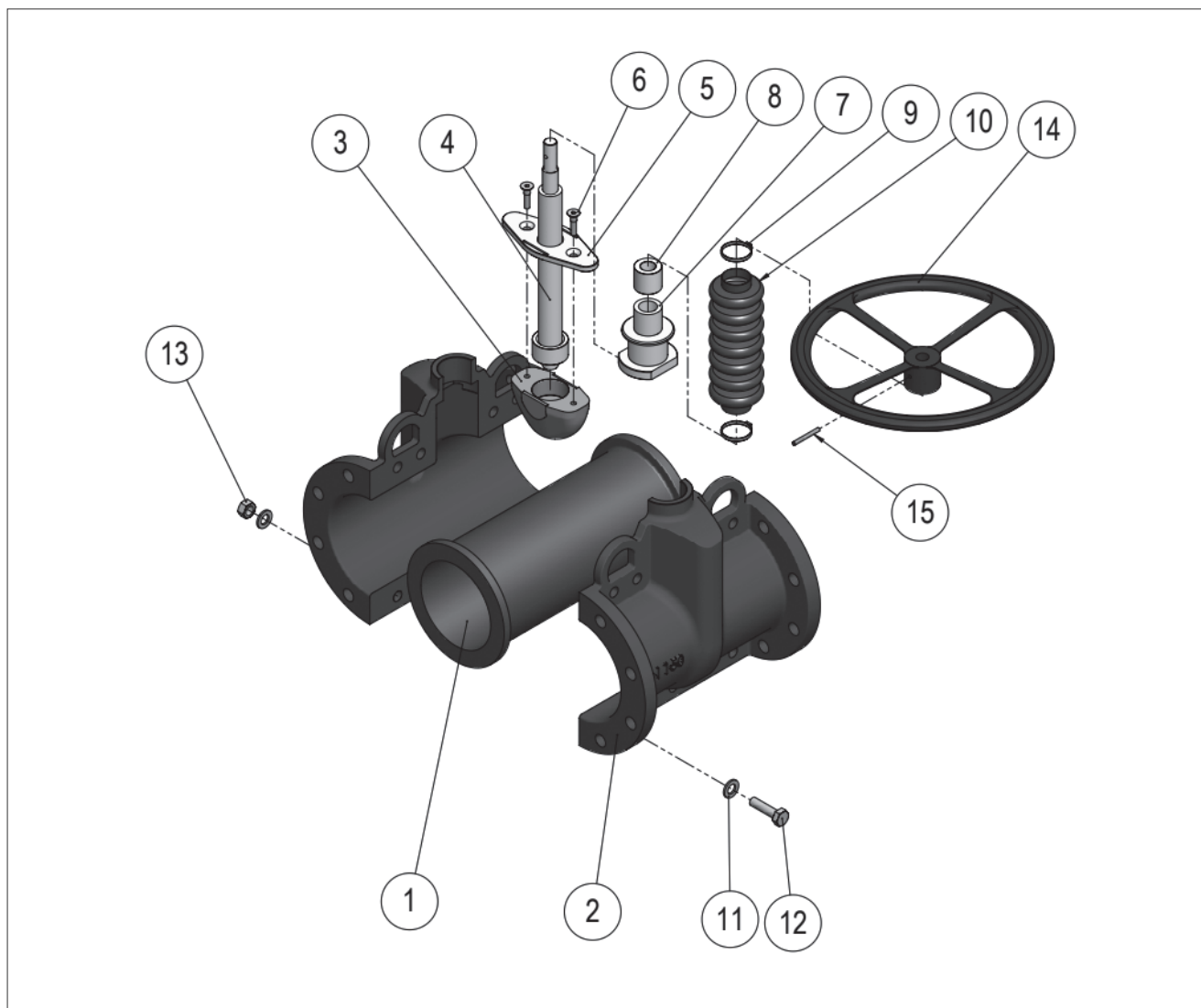
### Materials

- Cast iron
- Polyamide

### Flange drillings

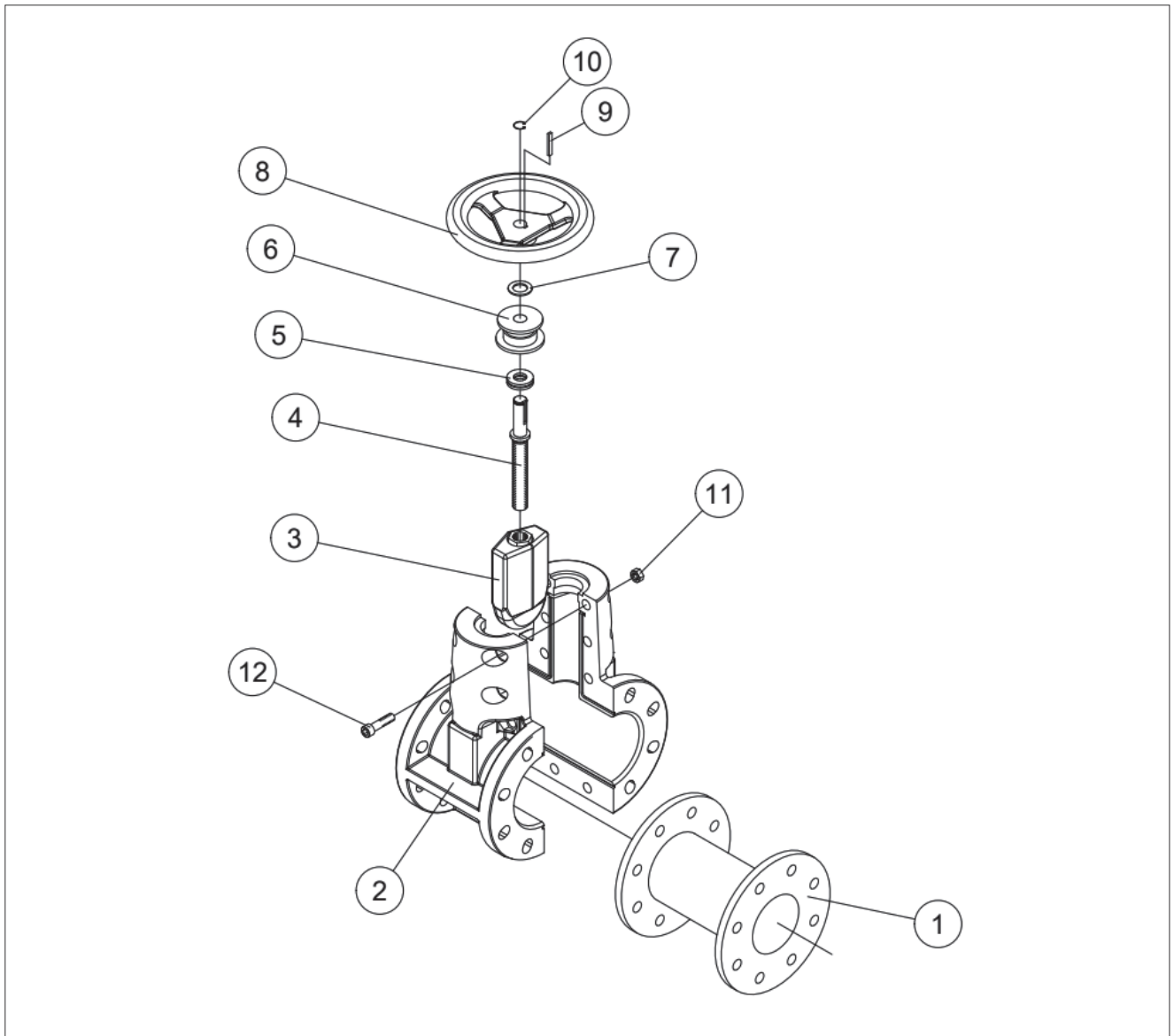
- DIN PN 10
- ASME B16.5 Class 150

## Exploded view and parts list, type PVG



| Part | Description        |
|------|--------------------|
| 1    | Sleeve             |
| 2    | Valve body         |
| 3    | Pusher             |
| 4    | Stem               |
| 5    | Pusher plate       |
| 6    | Hex socket screw   |
| 7    | Thread bushing     |
| 8    | Bellows bushing    |
| 9    | Cable tie          |
| 10   | Bellows            |
| 11   | Washer             |
| 12   | Hex screw          |
| 13   | Nut                |
| 14   | Hand wheel         |
| 15   | Slotted spring pin |

## Exploded view and parts list, type PVEG



| Part | Description      |
|------|------------------|
| 1    | Sleeve           |
| 2    | Body             |
| 3    | Pusher           |
| 4    | Stem             |
| 5    | Bearing          |
| 6    | Bushing          |
| 7    | Slide ring       |
| 8    | Handwheel        |
| 9    | Key              |
| 10   | Retaining ring   |
| 11   | Hex nut          |
| 12   | Hex socket screw |

## Technical specifications

**Type:**

General line PVG and PVEG type pinch valves.

**Sizes:**

DN 50 - 250 / NPS 2" - 10"

**Temperature range:**

0 °C...+70 °C / 32 °F...+158 °F PVEG

0 °C...+110 °C / 32 °F...+230 °F PVG

**Pressures classes:**

| Series | Valve size, DN/inch | Pressure class, bar/psi |      |        |
|--------|---------------------|-------------------------|------|--------|
|        |                     | M                       | A    | E      |
| PVG    | 50/2                | 10/150                  | 6/90 | 10/150 |
|        | 80/3                | 10/150                  | 6/90 | 10/150 |
|        | 100/4               | 10/150                  | 6/90 | 10/150 |
|        | 150/6               | 10/150                  | 6/90 | 10/150 |
|        | 200/8               | 6/90                    | 4/60 | 6/90   |
|        | 250/10              | 6/90                    | 4/60 | 6/90   |
| PVEG   | 50/2                | 10/150                  | 6/90 | -      |
|        | 80/3                | 10/150                  | 6/90 | -      |
|        | 100/4               | 10/150                  | 6/90 | -      |
|        | 150/6               | 10/150                  | 6/90 | -      |

Suitable to be fitted between flanges acc. to:

- DIN PN 10
- ASME B16.5 Class 150

**Actuators:**

- Manual
- Pneumatic
- Electric

**Construction materials:**

Body material: Cast Iron

Polyamide

Sleeve material: SBRT = styrene butadiene rubber

EPDM = ethylene propylene diene monomer

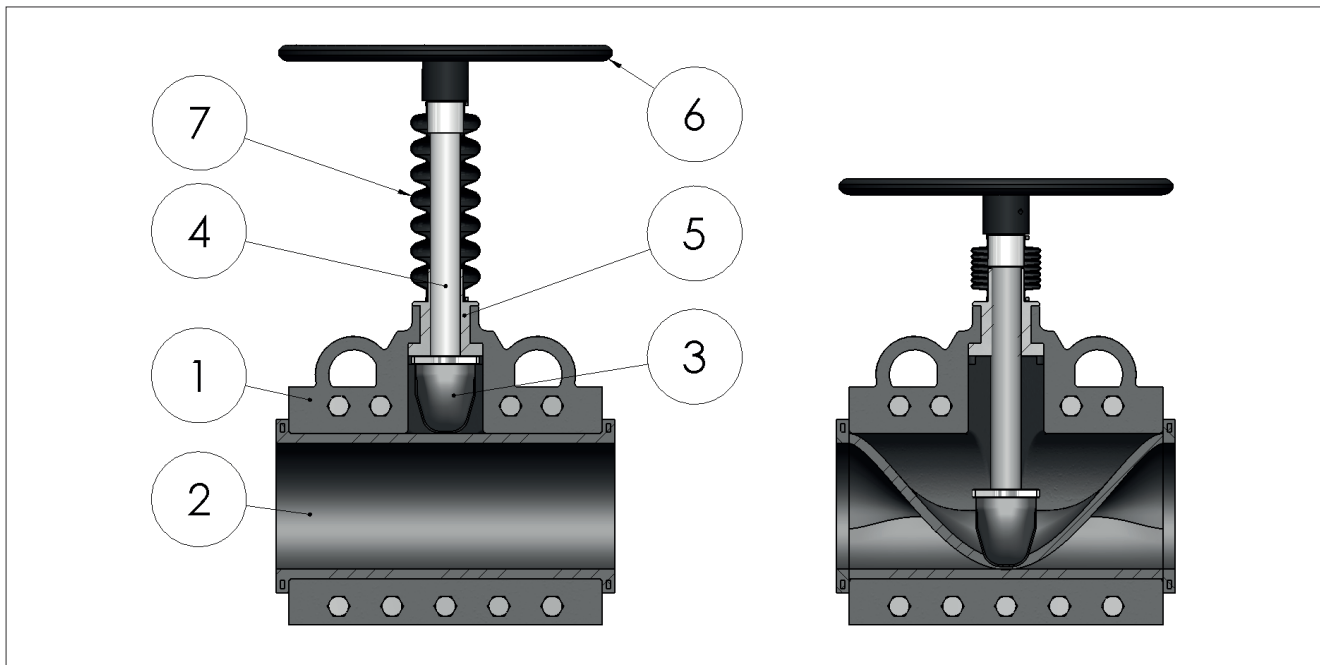


Figure 1

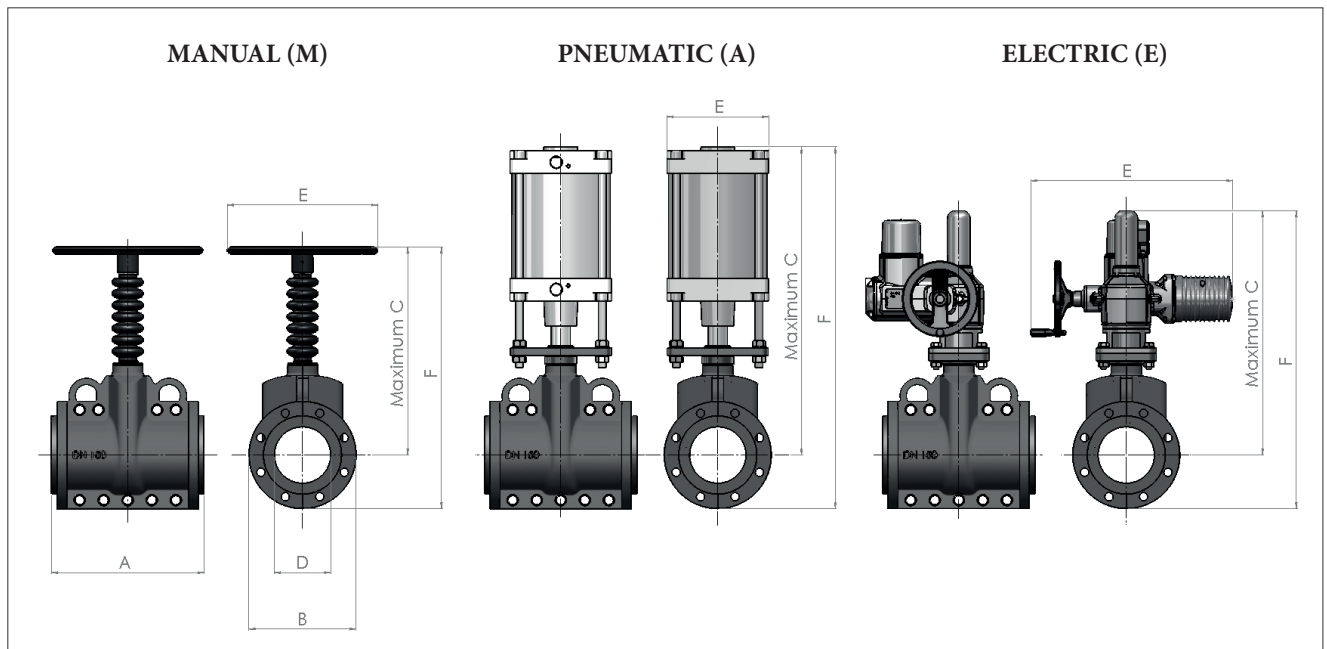
| Part | Description      |
|------|------------------|
| 1    | Body             |
| 2    | Sleeve           |
| 3    | Pusher           |
| 4    | Stem             |
| 5    | Threaded bushing |
| 6    | Hand Wheel       |
| 7    | Bellows          |

Flowrox PVG valve is built with a cast body and a rubber sleeve as a standard structure. Removable sleeve means no metal parts are in contact with the process medium.

In the open position the valve provides full bore through which the medium can travel. There are some structural differences between valve sizes, but the main components are shown in Figure 1.

When closing the valve, the upper side of the sleeve is pushed progressively toward the other side until it reaches the fully closed position. When the valve is fully closed, the sleeve is squeezed between the pusher on actuator and valve body, effectively sealing and completely containing the line pressure.

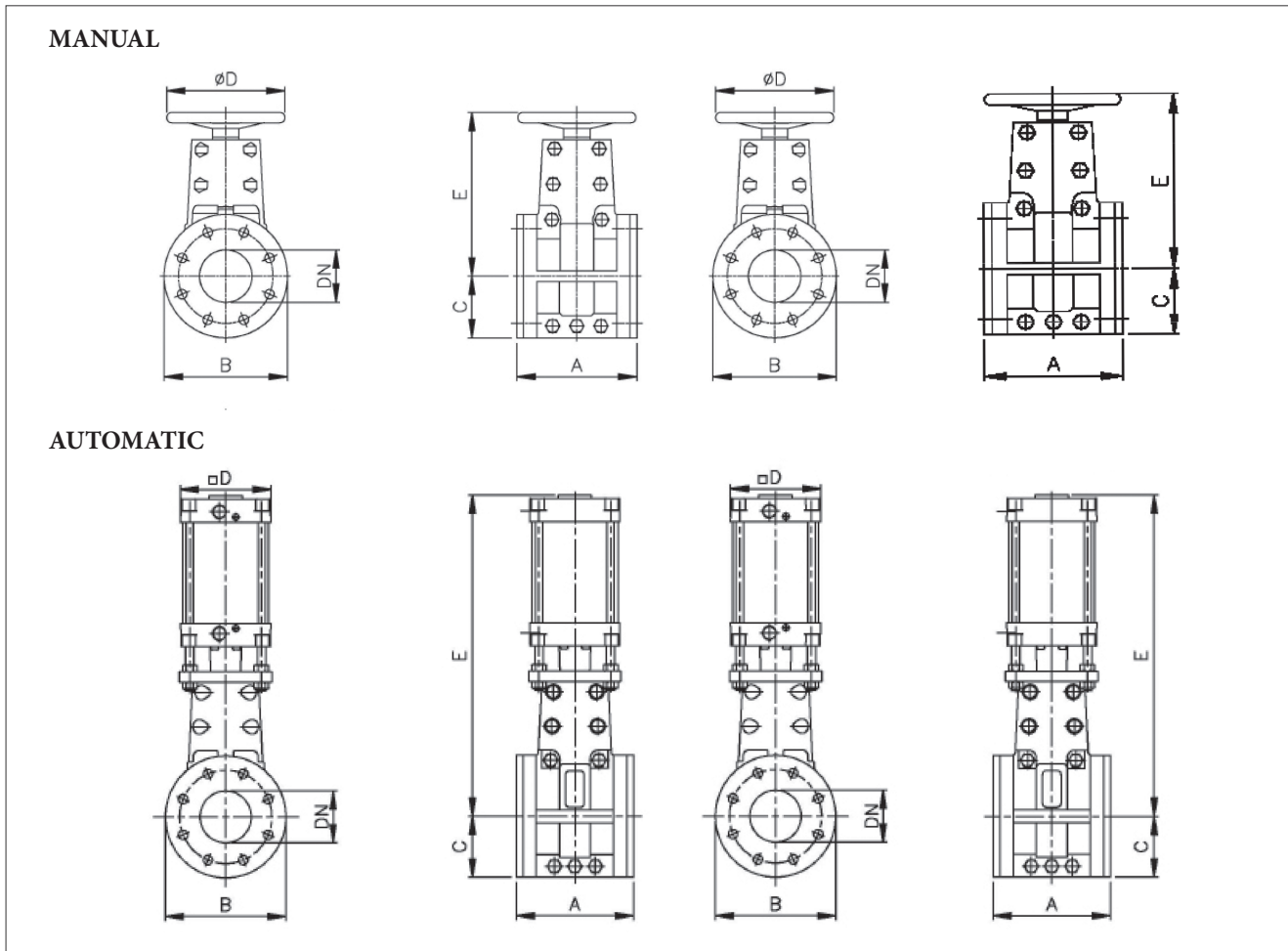
## Dimensions, PVG valves



| Valve size (DN) | A   | B   | C   |      |     | D   | E   |     |     | F   |      |     | Weight (kg) |     |     | Max pressure (bar) |   |    |
|-----------------|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|------|-----|-------------|-----|-----|--------------------|---|----|
|                 |     |     | M   | A    | E   |     | M   | A   | E   | M   | A    | E   | M           | A   | E   |                    |   |    |
| 50              | 190 | 165 | 280 | 398  | 474 | 50  | 150 | 110 | 515 | 363 | 481  | 556 | 14          | 18  | 45  | 10                 | 6 | 10 |
| 80              | 254 | 200 | 344 | 482  | 505 | 80  | 200 | 135 | 515 | 444 | 582  | 605 | 21          | 30  | 53  | 10                 | 6 | 10 |
| 100             | 305 | 228 | 394 | 568  | 526 | 100 | 250 | 176 | 515 | 508 | 682  | 640 | 30          | 43  | 60  | 10                 | 6 | 10 |
| 150             | 406 | 285 | 553 | 774  | 650 | 150 | 400 | 270 | 536 | 696 | 917  | 792 | 49          | 60  | 98  | 10                 | 6 | 10 |
| 200             | 521 | 343 | 645 | 871  | 697 | 200 | 600 | 270 | 536 | 817 | 1043 | 868 | 96          | 141 | 144 | 6                  | 4 | 6  |
| 250             | 635 | 406 | 785 | 1412 | 749 | 250 | 600 | 270 | 536 | 988 | 1615 | 952 | 140         | 215 | 188 | 6                  | 4 | 6  |

| Valve size (inch) | A    | B    | C    |      |      | D   | E    |      |      | F    |      |      | Weight (lbs) |     |     | Max pressure (PSI) |    |     |
|-------------------|------|------|------|------|------|-----|------|------|------|------|------|------|--------------|-----|-----|--------------------|----|-----|
|                   |      |      | M    | A    | E    |     | M    | A    | E    | M    | A    | E    | M            | A   | E   |                    |    |     |
| 2                 | 7.5  | 6.5  | 11.0 | 15.7 | 18.7 | 2.0 | 5.9  | 4.3  | 20.3 | 14.3 | 18.9 | 21.9 | 31           | 40  | 99  | 150                | 90 | 150 |
| 3                 | 10   | 7.9  | 13.5 | 19.0 | 19.9 | 3.1 | 7.9  | 5.3  | 20.3 | 17.5 | 22.9 | 23.8 | 46           | 66  | 117 | 150                | 90 | 150 |
| 4                 | 12   | 9.0  | 15.5 | 22.4 | 20.7 | 3.9 | 9.8  | 6.9  | 20.3 | 20.2 | 26.9 | 25.2 | 66           | 95  | 132 | 150                | 90 | 150 |
| 6                 | 16   | 11.2 | 21.7 | 30.5 | 25.6 | 5.9 | 15.7 | 10.6 | 21.1 | 27.4 | 36.1 | 31.2 | 108          | 108 | 216 | 150                | 90 | 150 |
| 8                 | 20.5 | 13.5 | 25.4 | 34.3 | 27.4 | 7.9 | 23.6 | 10.6 | 21.1 | 32.2 | 41.1 | 34.2 | 212          | 311 | 317 | 90                 | 60 | 90  |
| 10                | 25   | 16.0 | 30.9 | 55.6 | 29.5 | 9.8 | 23.6 | 10.6 | 21.1 | 38.9 | 63.6 | 37.5 | 309          | 474 | 414 | 90                 | 60 | 90  |

## Dimensions, PVEG valves



| Valve size (PVEG) M&A | A   | B   | C     | D   |     | E   |     | Weight (kg) |    | Max pressure (Bar) |   |
|-----------------------|-----|-----|-------|-----|-----|-----|-----|-------------|----|--------------------|---|
|                       |     |     |       | M   | A   | M   | A   | M           | A  | M                  | A |
| 50                    | 178 | 165 | 82,5  | 175 | 116 | 230 | 435 | 6           | 11 | 10                 | 6 |
| 80                    | 203 | 209 | 104,5 | 200 | 136 | 290 | 545 | 8           | 18 | 10                 | 6 |
| 100                   | 229 | 235 | 117,5 | 225 | 176 | 320 | 630 | 11          | 25 | 10                 | 6 |
| 150                   | 406 | 280 | 140   | 400 | 270 | 450 | 840 | 29          | 74 | 10                 | 6 |

| Valve size (PVEG) M&A | A  | B   | C   | D    |      | E    |      | Weight (lbs) |     | Max pressure (PSI) |    |
|-----------------------|----|-----|-----|------|------|------|------|--------------|-----|--------------------|----|
|                       |    |     |     | M    | A    | M    | A    | M            | A   | M                  | A  |
| 2                     | 7  | 6.5 | 3.2 | 6.9  | 4.6  | 9.0  | 17.1 | 14           | 25  | 150                | 90 |
| 3                     | 8  | 8.2 | 4.1 | 7.9  | 5.4  | 11.4 | 21.5 | 18           | 40  | 150                | 90 |
| 4                     | 9  | 9.3 | 4.6 | 8.9  | 6.9  | 12.6 | 24.8 | 25           | 55  | 150                | 90 |
| 6                     | 16 | 11  | 5.5 | 15.7 | 10.6 | 17.7 | 33.0 | 64           | 163 | 150                | 90 |

## Type code

### General line pinch valves

| 1.  | 2.   | 3. | 4.   | 5. |
|-----|------|----|------|----|
| PVG | 0100 | J  | B010 | A  |

**PVG0100JB010A**

| 1. Sign | VALVE SERIES                       |
|---------|------------------------------------|
| PVEG    | General Pinch valve plastic body   |
| PVG     | General Pinch valve Cast iron body |

| 3. Sign | FLANGE DRILLING      |
|---------|----------------------|
| C       | ASME B16.5 Class 150 |
| J       | PN 10 EN 1092        |

| 2. Sign | BODY SIZE |     |
|---------|-----------|-----|
| 0050    | DN 50     | 2"  |
| 0080    | DN80      | 3"  |
| 0100    | DN100     | 4"  |
| 0150    | DN150     | 6"  |
| 0200    | DN200     | 8"  |
| 0250    | DN250     | 10" |

| 4. Sign | PRESSURE RATING |
|---------|-----------------|
| B006    | 6 BAR           |
| B010    | 10 BAR          |

| 5. Sign | SLEEVE MATERIAL                        |
|---------|--|
| A       | SBRT Styrene Butadiene, Flowrox™ Blend |
| B       | EPDM Ethylene Propylene                |

## Flowrox™ valves manual actuator type code

| 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            |



## Flowrox™ valves pneumatic actuator type code

|     |    |    |    |      |    |      |    |    |     |     |     |     |     |     |     |
|-----|----|----|----|------|----|------|----|----|-----|-----|-----|-----|-----|-----|-----|
| 1.  | 2. | 3. | 4. | 5.   | 6. | 7.   | 8. | 9. | 10. | 11. | 12. | 13. | 14. | 15. | 16. |
| FXA | C  | 2  | A  | S200 | A  | 0150 |    |    | /   | S   | 1   | PV1 | /   | M   | C   |

## FXAC2AS200A0150/S1PV1/MC

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

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

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

| 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  |

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

| 10. Sign | SEPARATOR |
|----------|-----------|
| /        |           |

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

| 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         |

| 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           |

| 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  |

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

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

| 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 |

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

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

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





**Valmet Flow Control Oy**

Marssitie 1, 53600 Lappeenranta, Finland.

Tel. +358 10 417 5000.

[www.valmet.com/flowcontrol](http://www.valmet.com/flowcontrol)

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