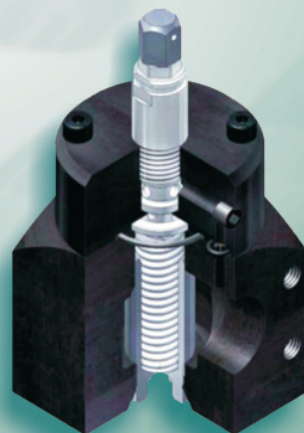
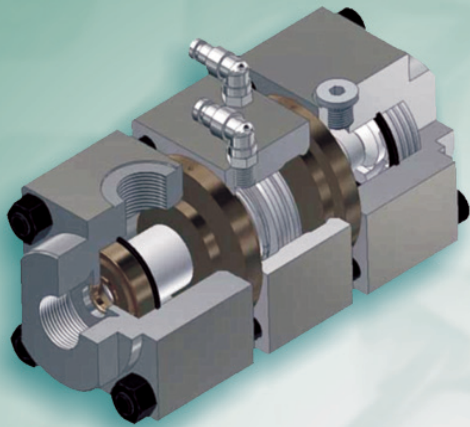




Quality Products for Mechanical  
& Fluid Power



# RELIEF VALVES FOR SCREW PUMPS







Relief and pressure controlled valves available from jbj Techniques are the natural complement to Screw Pumps.

A wide range of flow and operating ranges available, two or three ways, also for direct mounting on pump also available, as described in the following pages:

## VMPI

- Piloted pressure relief valve . . . . . page 2

## VCP

- Air piloted pressure control valve . . . . . page 5

## EV3

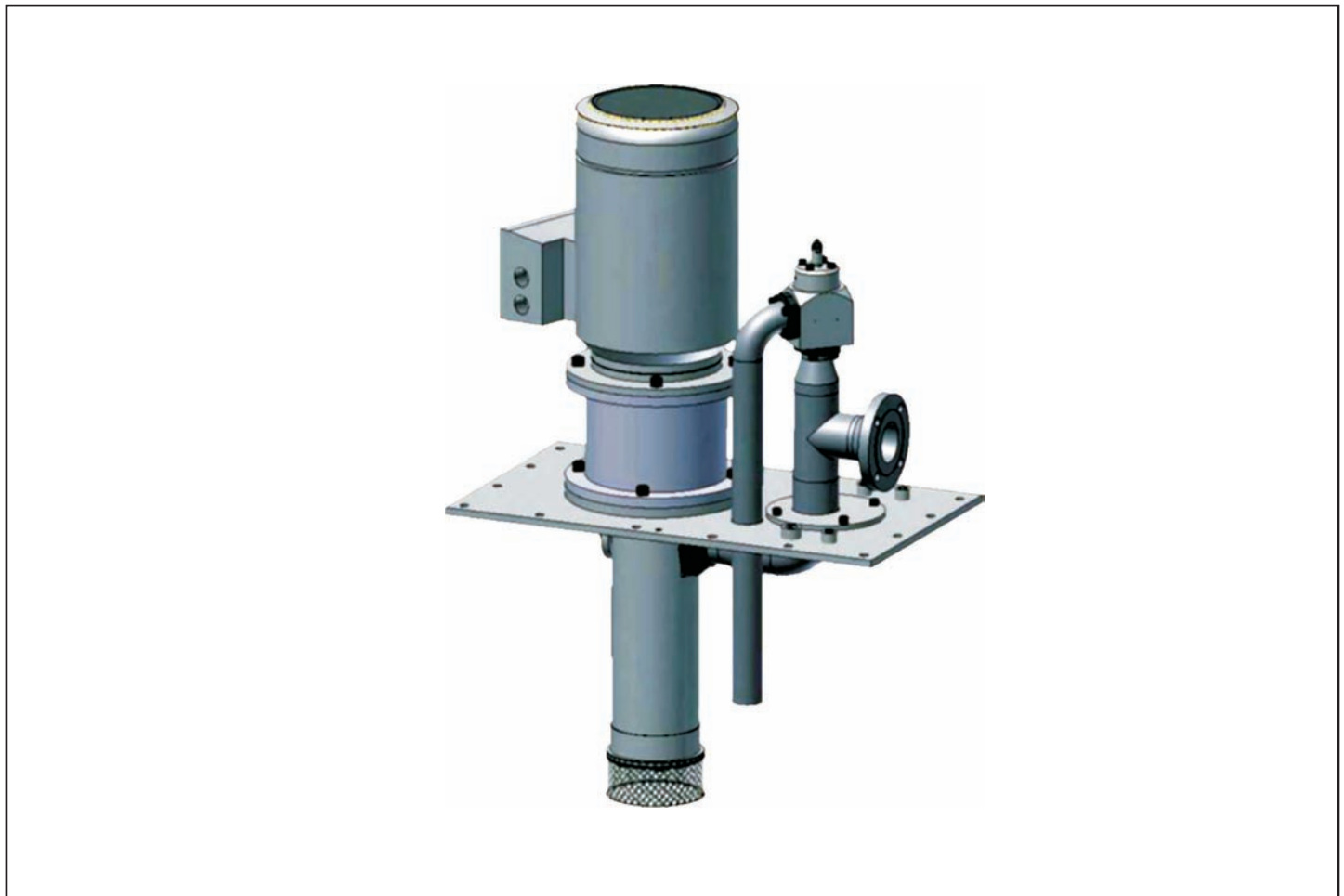
- 3 way valve with pressure limiting, air piloted . . . . . page 7

## VVP

- Two way safety valve . . . . . page 9

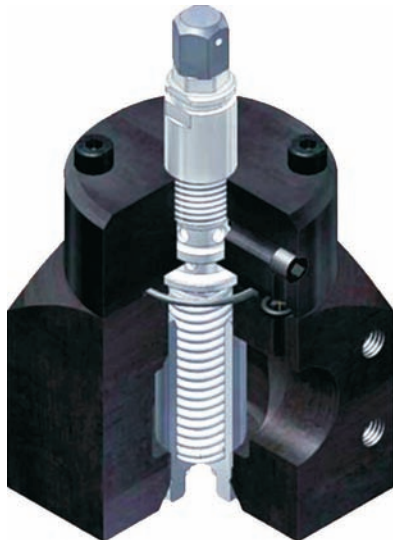
## BVP

- Pressure relief valve block – direct mounting . . . . . page 10

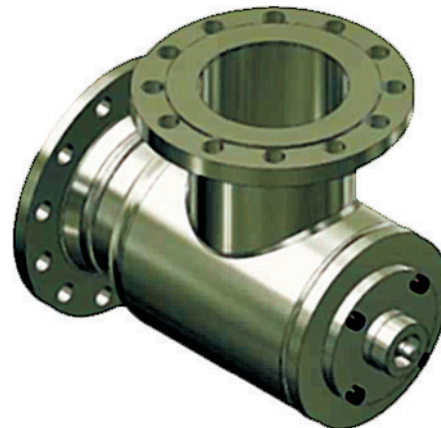




Pressure relief valve VMPI (pilot – operated)  
 For hydraulic oils, lubricating oils, fuel and cooling lubricants oils.



030, 042 & 060 Series made in Cast Iron G25 Steel



095 & 155 Series made in Stainless Steel

Standard performances for standard versions

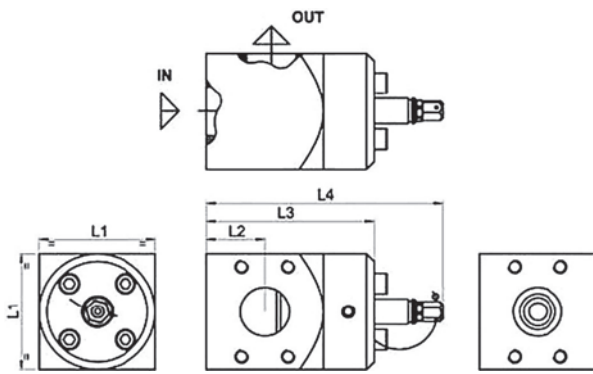
|                        |  |
|------------------------|--|
| Delivery flow          | from 30 to 10000 l/min (from 7,9 to 2640 USGPM)                    |
| Maximum pressure       | See dimensional chart*   |
| Kinematic viscosity    | from 3 to 400 cSt*   |
| Admissible temperature | from 0 to 100 °C (32 to 212 °F)                                    |
| Recommended filtration | 60 micron max, (not abrasive contaminant) ISO4406 19 / 16 – NAS 10 |

\* For every model standard characteristics see specific charts.

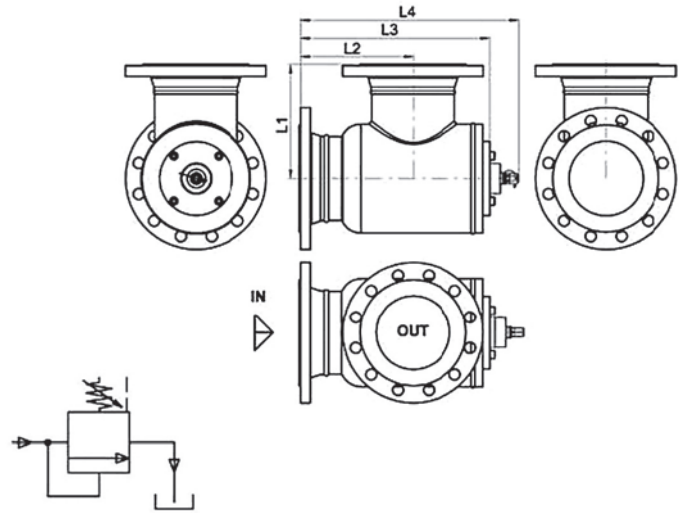
For different values contact **jbj Techniques Limited technical office, telephone: 01737 767493 or email: info@jbj.co.uk**



Pressure relief valve VMPI (pilot – operated)  
 For hydraulic oils, lubricating oils, fuel and cooling lubricants oils.



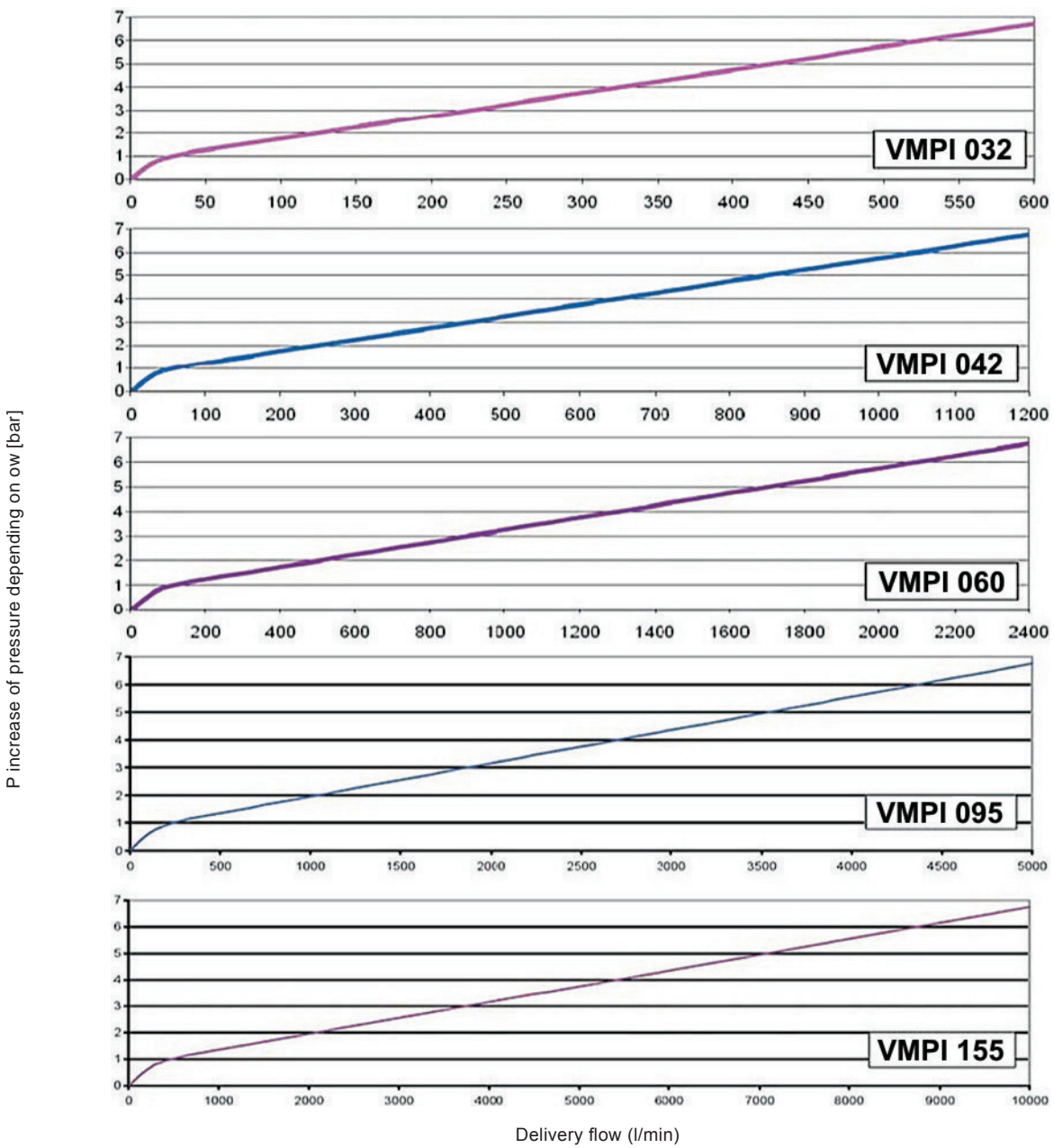
030, 042 & 060 Series made in Cast Iron G25 Steel



095 & 155 Series made in Stainless Steel

| Size     | Delivery flow (l/min) | Pressure* (bar) | IN - OUT                    |           | L1 (mm) | L2 (mm) | L3 (mm) | L4 (mm) |
|----------|-----------------------|-----------------|-----------------------------|-----------|---------|---------|---------|---------|
|          |                       |                 | Standard ref.               | Size      |         |         |         |         |
| VMPI 030 | 30 - 600              | 2 - 50          | SAE J 516 - 518<br>3000 psi | 1 1/2"    | 90      | 50      | 90      | 185     |
| VMPI 042 | 60 - 1200             | 2 - 50          | SAE J 516 - 518             | 2"        | 110     | 55      | 150     | 205     |
| VMPI 060 | 120 - 2400            | 2 - 50          | SAE J 516 - 518             | 3"        | 140     | 90      | 155     | 205     |
| VMPI 095 | 250 - 5000            | 2 - 16          | DN - PN 16<br>ANSI-ASA -150 | 150<br>6" | 230     | 230     | 366     | 440     |
| VMPI 155 | 500 - 10000           | 2 - 16          | DN - PN 16<br>ANSI-ASA -150 | 200<br>8" | 300     | 300     | 480     | 610     |

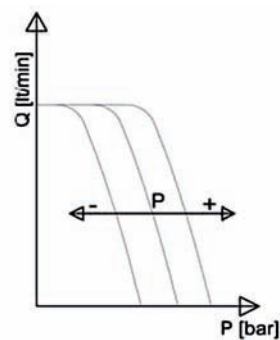
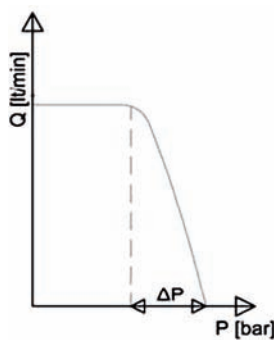
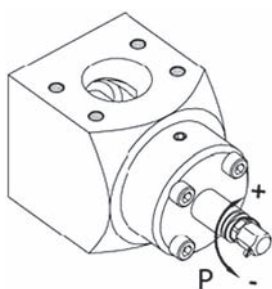
\* Setting range special versions: up to 150 bar for VMPI 030 and VMPI 042, 100 bar for VMPI 060.



N.B.: Graphics above refer to discharge lines without curves and negligible pressure drop.

**Pressure setting**

Setting the pressure increases by turning the adjusting knob clockwise





For hydraulic oils, lubricating oils, fuel oils and cooling lubricants emulsions.

Control is via pneumatic circuit :

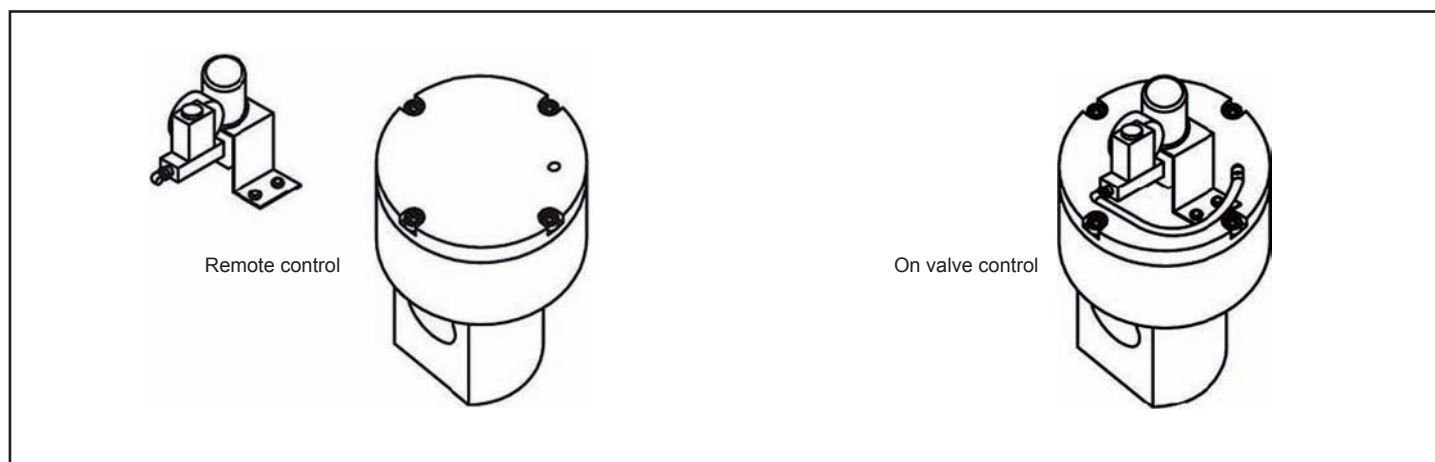
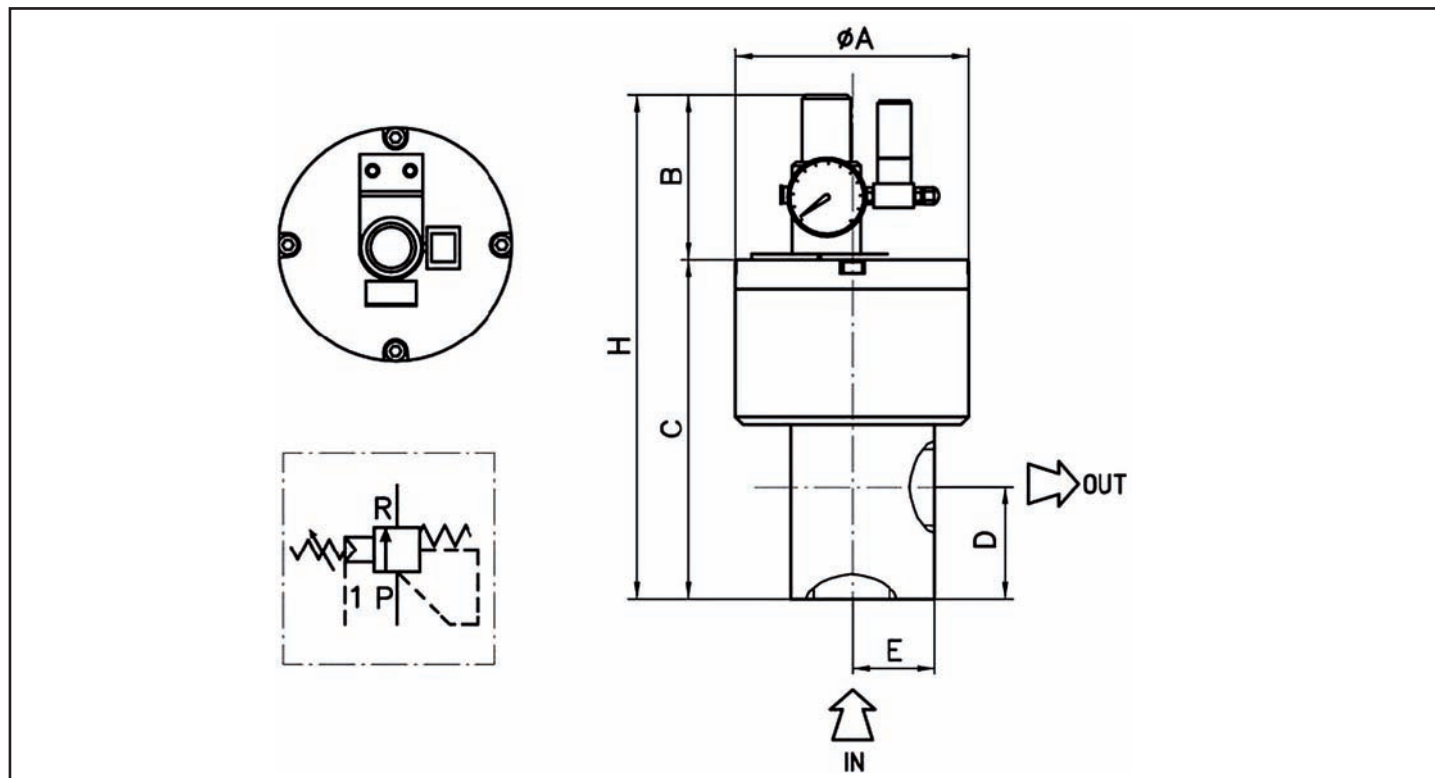
- ON / OFF function changes from free discharge to regulated pressure
- Max pressure is controlled by setting the pneumatic pressure (also refer to page 7)
- Pneumatic control-setting group can also be remotely mounted from valve (also refer to page 7) (suggested max 1 m tube).

Standard version characteristics

| Size                                    | VCP22  | VCP32                                |
|---|--|--------------------------------------|
| Delivery flow                           | 120 l/min  | 250 l/min                            |
| Maximum pressure                        | 5 - 100 bar  | 5 - 80 bar                           |
| Ratio regulated pressure / air pressure | 20/1 (5 bar air = 100 bar regulation)  | 10/1 (8 bar air = 80 bar regulation) |
| Electrovalve specs                      | 24 V DC (or 48 AC), duty 100%, normally open (no supply = valve in discharge), power 2 W DC, IP 65, Actuator port G1/8". |                                      |
| Fluid temperature                       | 0 - 60 °C  |                                      |
| Ambient temperature                     | 0 - 50 °C  |                                      |
| Weight                                  | 4.5 Kg   | 5.0 Kg                               |

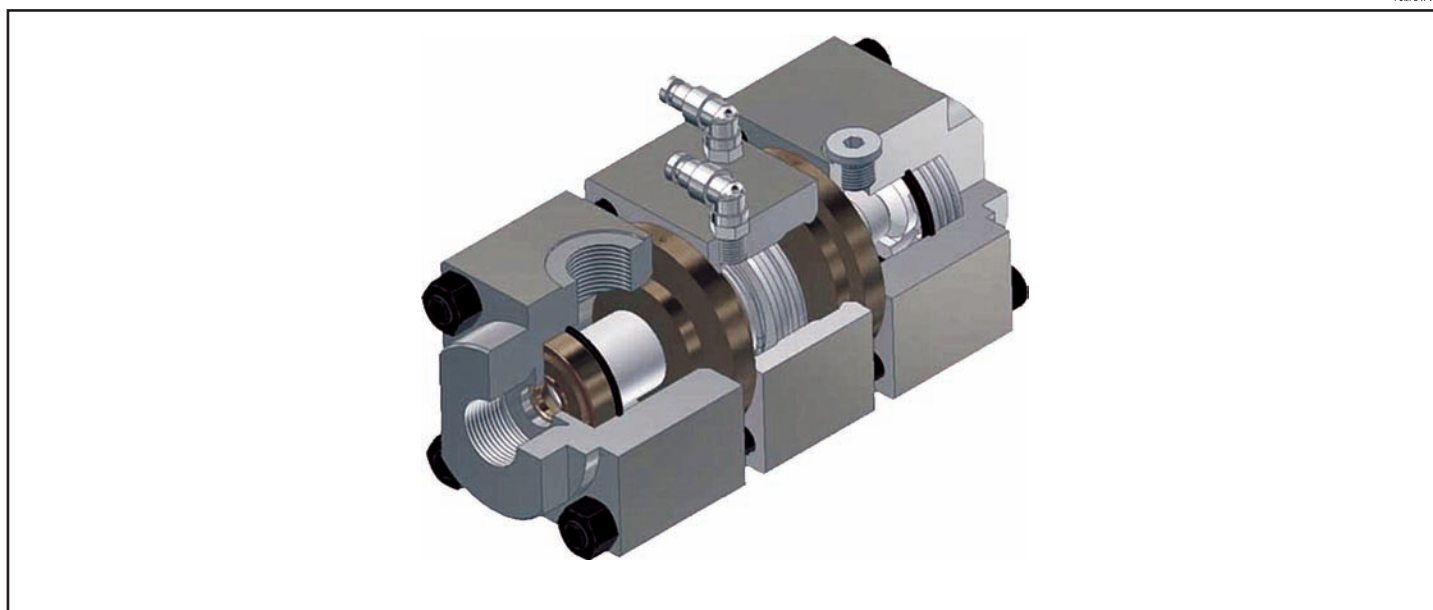
\* Reduced pressure limits apply due to fluid viscosity and driving speed - Consult the performance charts for the individual pump size.

For different functional characteristics, please contact our sales department.



| Size   | $\phi A$ | B  | Gas    |        | C   | D  | E  | H   |
|--------|----------|----|--------|--------|-----|----|----|-----|
|        |          |    | In     | Out    |     |    |    |     |
| VCP 22 | 120      | 95 | 1"     | 1"     | 175 | 60 | 40 | 270 |
| VCP 32 | 120      | 95 | 1 1/4" | 1 1/4" | 180 | 63 | 40 | 275 |





**EV3: 3 way valve with pressure control**

For hydraulic oils, lubricating oils, fuel oils and cooling lubricants emulsions.

Control is with pneumatic circuit:

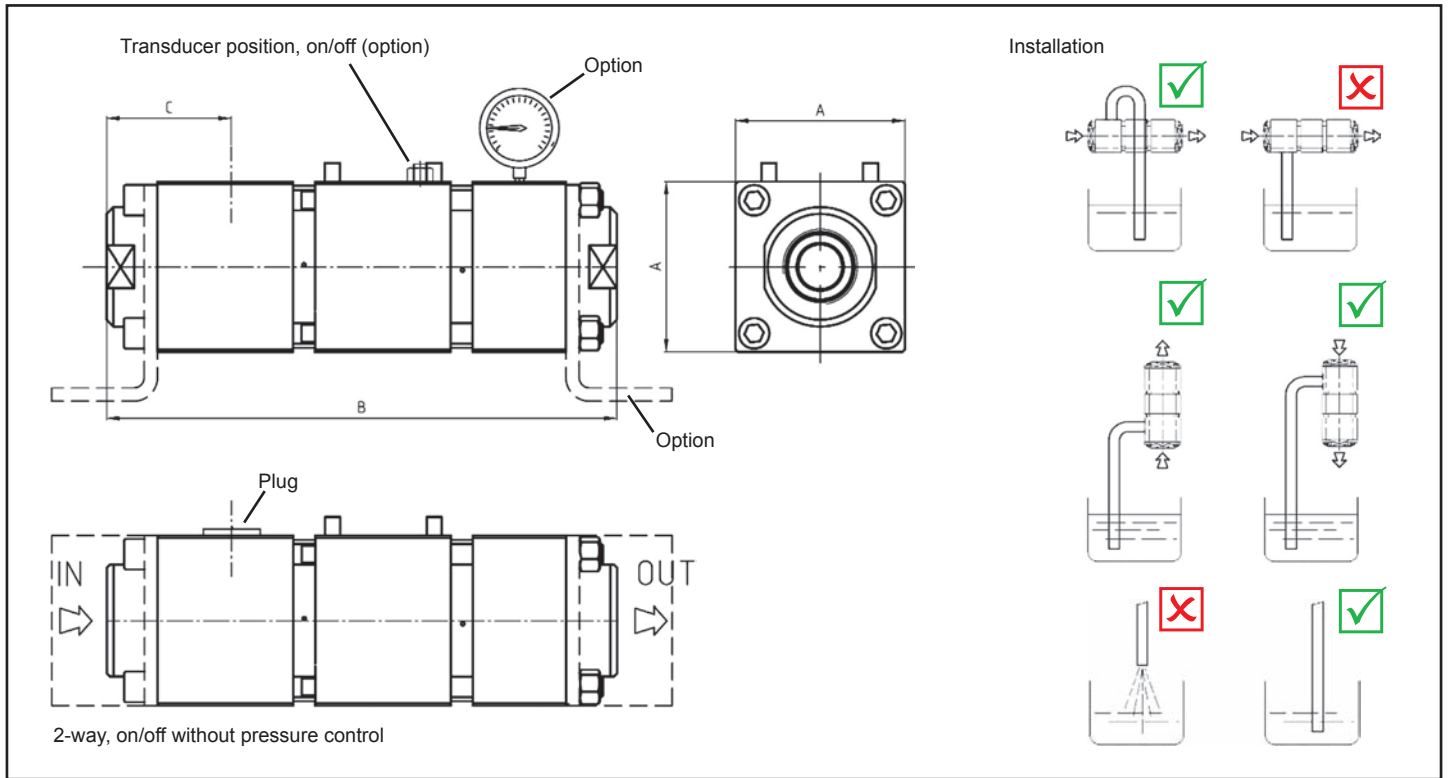
- ON / OFF function changes from free discharge to regulated pressure
- max pressure is controlled setting the pneumatic pressure
- pneumatic control-setting group can be also remote mounted from - valve (suggested max 1 m tube).
- option: proportional control valve pressure and on-off functions controlled by PLC or external control

**Standard version characteristics**

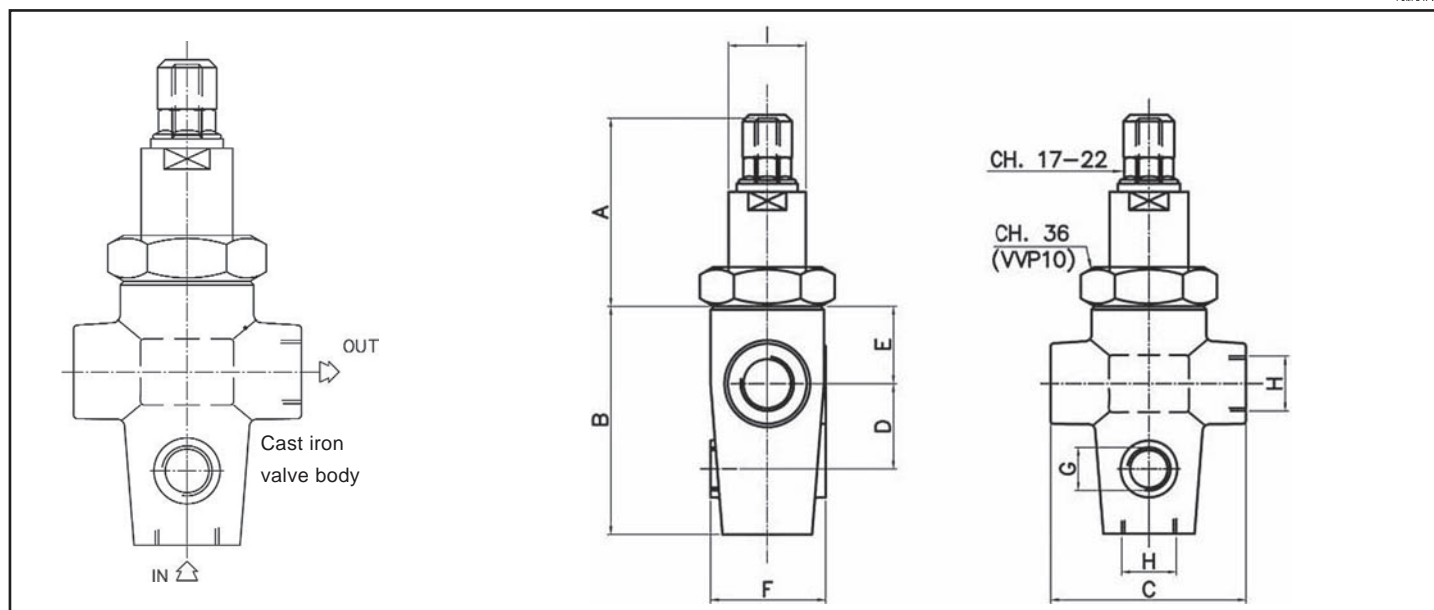
| Size                                    | EV3 - 3/4"   | EV3 - 1"1/4                                | EV3 - 2"                               | EV3 - 3"                               |
|---|--|--|--|--|
| Oil flow (3-20 cSt) **                  | 120 l/min  | 250 l/min                                  | 700 l/min                              | 1500 l/min                             |
| Emulsion flow **                        | 170 l/min  | 350 l/min                                  | 1000 l/min                             | 2000 l/min                             |
| Pressure setting                        | 15 to 100 bar  | 15 to 100 bar                              | 5 to 40 bar                            | 5 to 16 bar                            |
| Ratio regulated pressure / air pressure | 15:1<br>(6.6 bar air = 100 bar regulation)   | 15:1<br>(6.6 bar air = 100 bar regulation) | 7:1<br>(5 bar air = 35 bar regulation) | 7:1<br>(2 bar air = 14 bar regulation) |
| Electrovalve specs                      | 24 V DC (or 48 AC), duty 100%, normally open (no supply = valve in discharge), power 2 W. DC , IP 65, Actuator port G1/8". |  |  |  |
| Fluid temperature                       | 0 - 60°C   |  |  |  |
| Ambient temperature                     | 0 - 50°C   |  |  |  |
| Weight                                  | 4 kg   | 9 kg                                       | 20 kg                                  | 50 kg                                  |

Emulsion oil min 5%

\*\* ΔP IN-OUT 1-1,5 bar. - For different functional characteristics, please contact **jbj Techniques Limited technical office, telephone: 01737 767493 or email: info@jbj.co.uk.**



| Size      | A   | B   | BSPP In | BSPP (Out discharge) | BSPP Out | C   |
|-----------|-----|-----|---------|----------------------|----------|-----|
| EV3-3/4   | 80  | 210 | 3/4"    | 3/4"                 | 3/4"     | 48  |
| EV3-1 1/4 | 100 | 310 | 1 1/4"  | 1 1/4"               | 1 1/4"   | 75  |
| EV3-2     | 130 | 390 | 2"      | 2"                   | 2"       | 100 |
| EV3-3     | 180 | 540 | 3"      | 3"                   | 3"       | 135 |



VVP series valve

For hydraulic oils, lubricating oils, fuel oils and cooling lubricants emulsions.

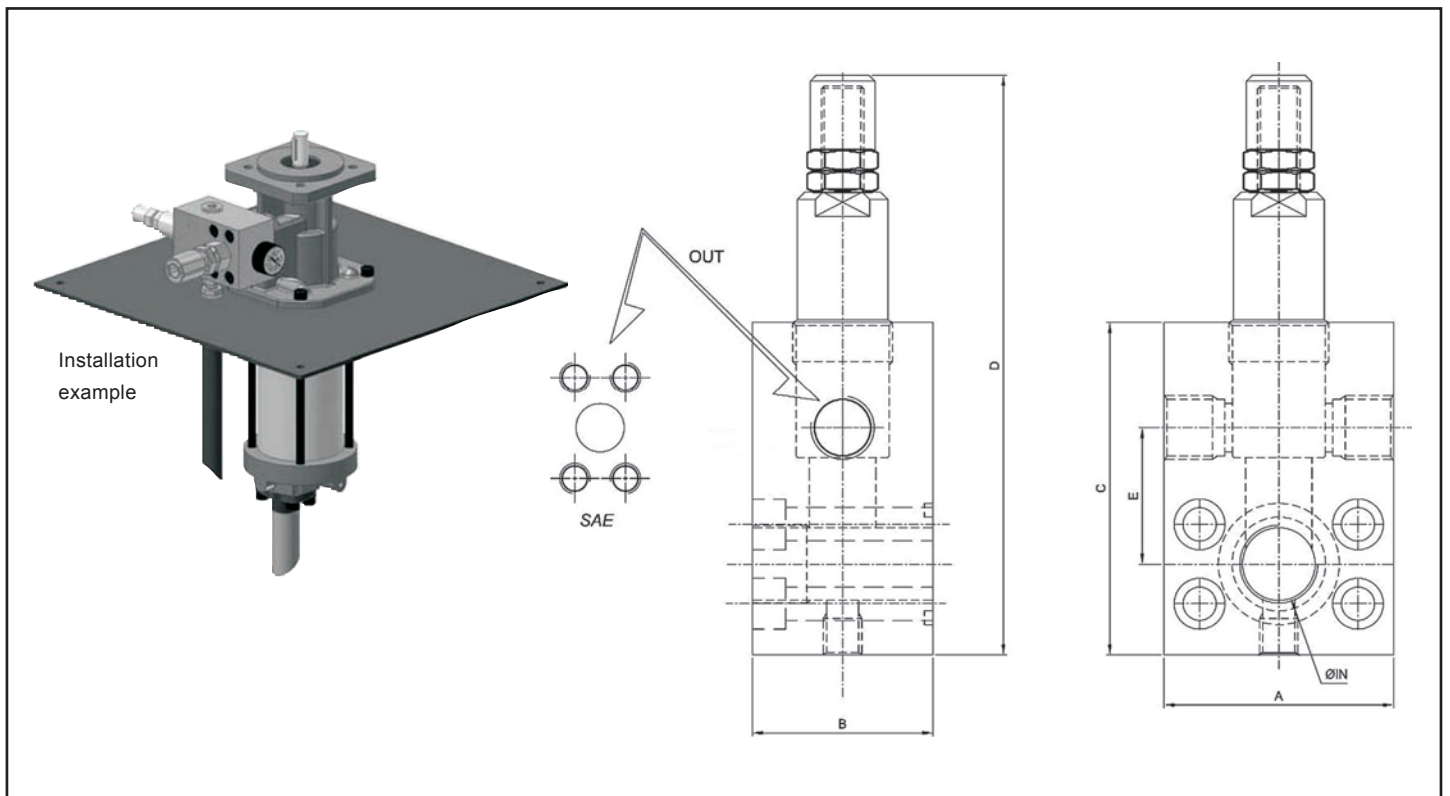
**Standard version characteristics**

|                        | VVP 10  | VVP 20          |
|------------------------|---|-----------------|
| Delivery flow          | 0 – 40 l/min  | 0 – 80 l/min    |
| Max pressure*          | up to 320 bar*  | up to 250 bar * |
| Kinematics viscosity   | 10 to 500 cSt   |                 |
| Admissible temperature | -25° to 75 °C   |                 |
| Recommended filtration | 75 micron max, suction side (not abrasive contaminant) - NAS 1638 |                 |

\* Reduced pressure limits apply due to fluid viscosity and driving speed - Consult the performance charts for the individual pump size

For different functional characteristics, please contact **jbj Techniques Limited technical office, telephone: 01737 767493 or email: info@jbj.co.uk.**

| Size   | A    | B    | C  | D  | E  | F  | G        | H        | I    |
|--------|------|------|----|----|----|----|----------|----------|------|
| VVP 10 | 58,5 | 70   | 60 | 26 | 24 | 35 | 1/4" GAS | 3/8" GAS | 21.5 |
| VVP 20 | 91   | 99,5 | 81 | 41 | 34 | 45 | 1/4" GAS | 1/2" GAS | 30   |



**BVPA series relief block valve.**

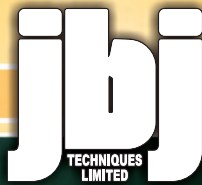
High pressure cooling and lubricating circuits for machine tools and deep hole drilling. Control is with pneumatic circuit:

**Standard version characteristics**

| Size                             | BVPA 03                                    | BVPA 04 | BVPA 05 |
|----------------------------------|--|---------|---------|
| Maximum delivery flow            | 250 l/min                                  |         |         |
| Media temperature                | 30 to 60°C                                 |         |         |
| Recommended filtration           | NAS1638, class 10 ISO4406 19 / 16 – NAS 10 |         |         |
| <b>Adjustable setting valves</b> |  |         |         |
| bar                              | 10 - 120                                   |         |         |
| 'O' rings                        | Viton                                      |         |         |

For different functional characteristics, please contact **jbj Techniques Limited technical office, telephone: 01737 767493 or email: info@jbj.co.uk.**

| Size   | A    | B    | C   | D     | E    | In                      | Out        |
|--------|------|------|-----|-------|------|-------------------------|------------|
| BVP 03 | 76.0 | 59.7 | 110 | 191.5 | 45.0 | SAE 1" + 3/4" GAS       | 1/2" GAS   |
| BVP 04 | 79.5 | 79.5 | 150 | 215.0 | 59.0 | SAE 1 1/4" + 1 GAS      | SAE 1"     |
| BVP 04 | 98.0 | 79.5 | 170 | 235.0 | 74.5 | SAE 1 1/2" + 1 1/4" GAS | SAE 1 1/2" |



an excellence in engineering

comprehensive range of components [www.jbj.co.uk](http://www.jbj.co.uk)



Gear Pumps/Motors



Mini Power Packs



Screw Pumps



Vane Pumps



Axial & Radial Piston Motors



Pneumatic Motors & Starters



BD Clutches & Gearboxes



BDS Clutches



Planetary Gearboxes



Splitter Gearboxes



Coolers



Oil Bath Clutches



LSHT Motors/Geared Motors



Bellhousings



Torsional Couplings



Torsionally Flexible Couplings



Torsionally Rigid Couplings



Anti-static/Flameproof Couplings



Tyre Couplings



Permanent Magnetic Couplings



Torque Limiting Couplings



Hydraulic Adaptors



Engine Adaptor Kits



Dampers



Pressure Intensifiers



Flow Dividers



Tanks/Accessories



Fluid Level Indicators



Flanges



Range of ATEX certified



quality products for mechanical & fluid power

01737 767493

info@jbj.co.uk

www.jbj.co.uk



jbj Techniques Limited is ISO certified, committed to international coordination & unification of industrial standards.

- registered in England No. 1185469 -

A range of products ATEX certified to directive 94/9/E requirements





**jbj Techniques Limited**  
28 Trowers Way Holmethorpe Industrial Estate  
Redhill Surrey RH1 2LW. UNITED KINGDOM

**quality products for mechanical & fluid power**



**01737 767493**



**info@jbj.co.uk**



**www.jbj.co.uk**



jbj Techniques Limited is ISO certificated,  
committed to international coordination &  
unification of industrial standards.

registered in England No: 1185469

A range of products ATEX certificated  
to directive 94/9/EC requirements

