

# Operating Instructions

(English)

## Separator Ref. OP0023



**(Arémeca)**  
-Instrumentation-

**europascal**  
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Your Model : .....

Serial number : .....

Made the : .....



# SUMMARY

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Read the instructions before handling and retain this information for future use

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The OP0023 Separator is designed to prevent oil from entering oxygen manometers or other manometers to be tested with air, water or industrial alcohol etc., and to avoid contamination of your standard instrument. It works with liquid/liquid only, not air/liquid.

When the calibration pressure doesn't allow the use of a dead weight pressure operated air, the separator OP0023 can be used with a dead weight models BH1 or BH2.

This accessory described in this manual is designed and manufactured in AREMECA (France).

Our products follow manufacturing procedures and controls in line with our Quality System ISO9001 and in accordance with the standards in force.

This manual commissioning informs the user about the functioning of the instrument and the safety limits for work peacefully.

This manual is an integral part of the device. It must be kept close to the workstation and accessible at any time by the user.

AREMECA reserves the right to alter the content or form of this manual at any time and without notice. And to make technical amendments to change the product.

Responsibility AREMECA is not liable for any damage caused by :

- not in accordance with intended usage,
- non compliance with instructions for use,
- use of the instrument by unqualified untrained operator ,
- a transformation / modification of the device carried by the user.

The operator must have read and understand prior to operating mode and use the device to start handling.

### **a) Design**

The OP0023 Separator works with liquid/liquid only, not air/liquid. For air manometers, you can use water or alcohol. Its internal membrane ensures no mixing or contamination of the calibration bench or pressure gauge..

The OP0023 separator comprises :

- a pressure chamber in corrosion-resistant 13% chromium steel,
- a stainless steel cover with a G1/2 connection for the manometer to be calibrated. Other fittings are available as options.
- and a synthetic rubber pocket (membrane) to separate the fluid in the manometer chamber from that in the calibrator chamber. Bleed points are provided to evacuate air from each fluid.

### **b) Applications**

The Separator OP0023 can be used up to a maximum operating pressure of 800 bar or 11600 PSI

The G3/4 female connection on the base allows connection to BH1, BH2 and BH3 scales and CH1 and CH2 compressors up to 1200 bar. If you wish to connect the separator to a scale above 1200 bar, you will need to order a special M16x150 male /G3/4 male connection. Please note that the compressor can be used up to 800 bar.

The pockets are made in two types of materials :

- Pocket VITON : standard material is identified by a green dot. It offers excellent resistance to oils, fuels, lubricants, synthetic hydraulic fluids, and the most mineral acids and many aliphatic and aromatic hydrocarbons as solvents acting on other rubbers. Some of them are carbon tetrachloride, toluene and benzene. The separator OP0023 can be used for testing gauges with solvents of industrial alcohol and water, but not suitable for air.
- Pocket BUTYL : Another pocket rubber suitable for brake fluid and skydrol and girling 6293 is optional

### **c) Precision**

The erreur induced by pocket rubber doesn't exceed 0.014 bar (0.2 PSI) for a bourdon tube with liquid and 0.028 bar (0.4 PSI) if the gauge contain air and if is used as recommended.

It is recommended for cleaning and filling the interior of the gauge or sensor using cleaning bench Ref.OP0062.

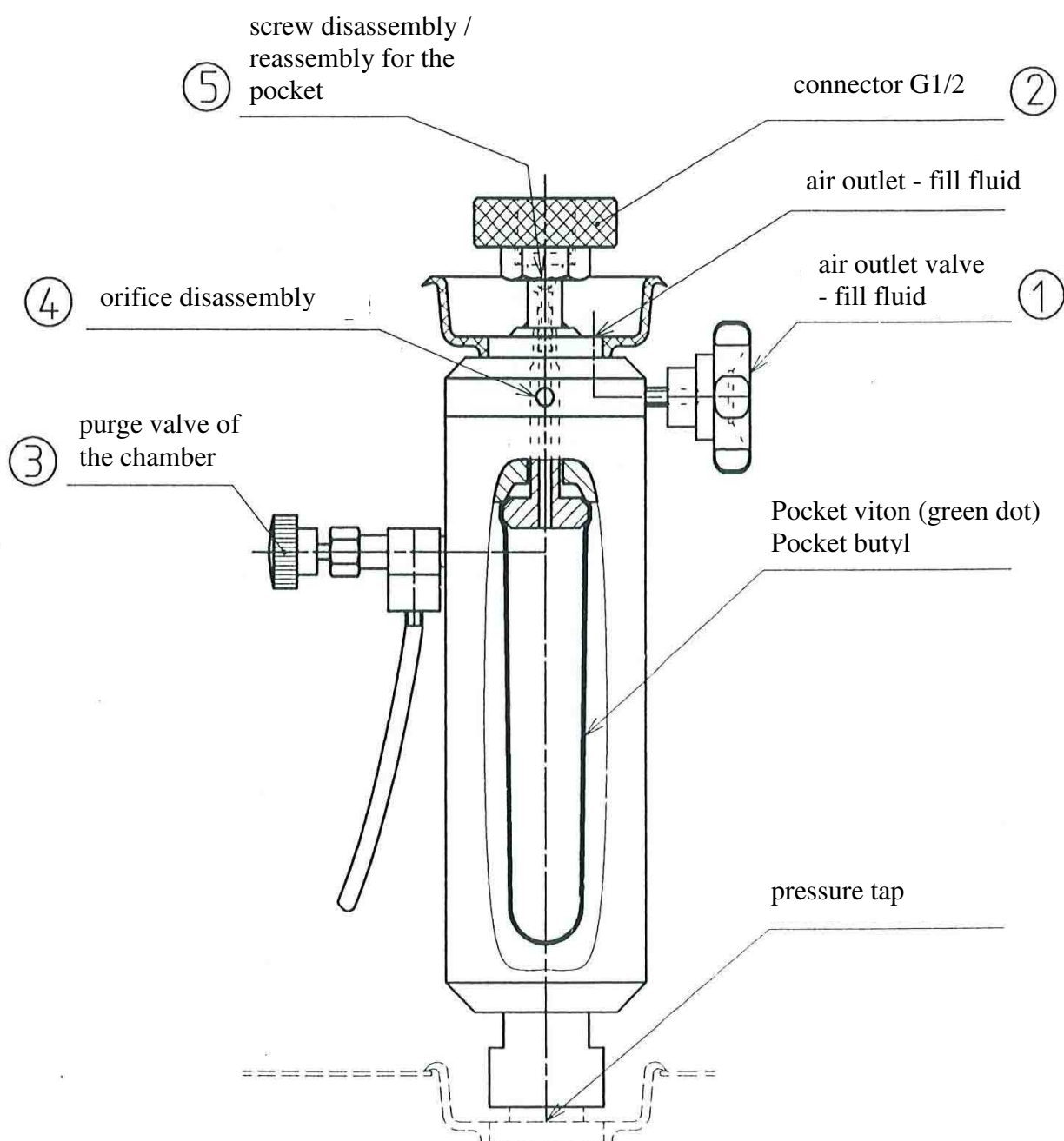
### **a) Unpacking the unit**

The OP0023 Separator is supplied with :

- instructions for use,
- the butyl or viton bag chosen when ordering is already in place in the separator.
- the G1/2 outlet fitting (or the fitting chosen from our 17 standard fittings).

Note: if you require more than one fitting, our fitting cases are available.

### **b) Separator diagram**



**Max pressure : 800 bar**

### **c) Installation**

- a - Reset the balance pressure generator, i.e. open the valve(s) and turn the capstan counter-clockwise until it reaches the low stop. Make sure there's enough oil in the comparator tank, as the separator will increase the useful oil volume.
  - b - Place Separator OP0023 on the right-hand outlet fitting of the balance, making sure to leave the gasket in place on the base before screwing the separator clockwise.
  - c - Remove the yellow plug, then the G1/2 connector rep2 and sealing ring fitted on the separator, to gain access to the fluid filling area for the manometer test. Open valve rep1 counter-clockwise and pour in the fluid until the overflow appears in the separator's drip tray. This fills the internal diaphragm.
  - d - Close the rep1 valve clockwise, then replace the sealing ring and the G1/2 fitting or any of our standard 17 fittings. Finally, fit the manometer to be calibrated to the fitting.
  - e - Open the separator's air outlet valve rep1 and pour the fluid intended for manometer calibration (e.g. water) through outlet G1/2 rep2, until it appears in the upper retention tray. (A syringe or funnel can be used for this operation). Carry out this operation without pressure, i.e. with the scale compressor completely unscrewed and the scale valves open.
  - f - Open the small purge valve in chamber rep3 counter-clockwise by about 2 turns and expel the oil contained in the entire pressure generator + separator network by turning the generator capstan clockwise until all the air has been expelled from the system. Air bubbles may appear in the generator tank and at the outlet of the rep3 bleed valve. When all the air is evacuated, oil may come out of the small bleed valve.
- Important :** For the 1st use, the volume of oil contained in the separator is large, so it is advisable to repeat the to-and-fro movement of the piston several times while turning the capstan. Add oil to the pressure generator reservoir if necessary.
- g - Close the small rep3 bleed valve, and you're ready to work.

### **d) Test gauge**

- a - To build up the pressure of your device, please refer to its operating instructions.
- b - It is important to build up the pressure in the balance or bench and to take the measurement after a stabilization time of about 5 minutes.
- d - Before removing the manometer from the separator, the pressure in the scale must be completely reduced.
- e - Before testing another manometer, please go back to step e-) of the installation.
- f - When not in use, ensure that the bag is not subjected to any pressure.

### a) Cleaning

The OP0023 Separator requires little maintenance. Only the bag needs replacing; **the appearance of oil on the liquid in the connection or in the bag indicates a bag rupture.**

Underfilling may damage the pocket, don't forget to fill it before use.

The maximum volume of fluid in the pocket is : 50ml

#### To change the pocket

- a - remove the cover by inserting an axis into the outlet **rep4**.
- b - Unscrew **rep5** then remove the pocket of his support.
- c - Put a new pocket and screw **rep5**, check the o-ring and replace it if necessary.
- d - Screw the set on the separator

## Notes

## Notes

