

**DESIGNATION**

U-manometer is designed for measurement of momental pressure loss of filtration media.  
U-manometer is auxiliary measurement and is not necessary to provide calibration.

**UNITS**

**Scale** glued in the middle of U-manometer is expressing values in mm of water gauge (mm WS).

Basic physical unit is Pascal (Pa).

Calculation from water gauge to Pascals is as follows: **1 mm WS = cca 10 Pa.**

**OPERATION AND MAINTENANCE OF U-MANOMETER**

In normal condition, tubes of the U-manometer are not connected to the metal end pieces firmly mounted on the filter's side-board.

If willing to measure the pressure loss, it is:

- necessary to add water (H<sub>2</sub>O) so that the level reaches 0,
- it is also necessary to add tubes, both simultaneously.

Metal end-pieces should occasionally be made passable - they shall be cleaned by puncturing a wire (dust formed).

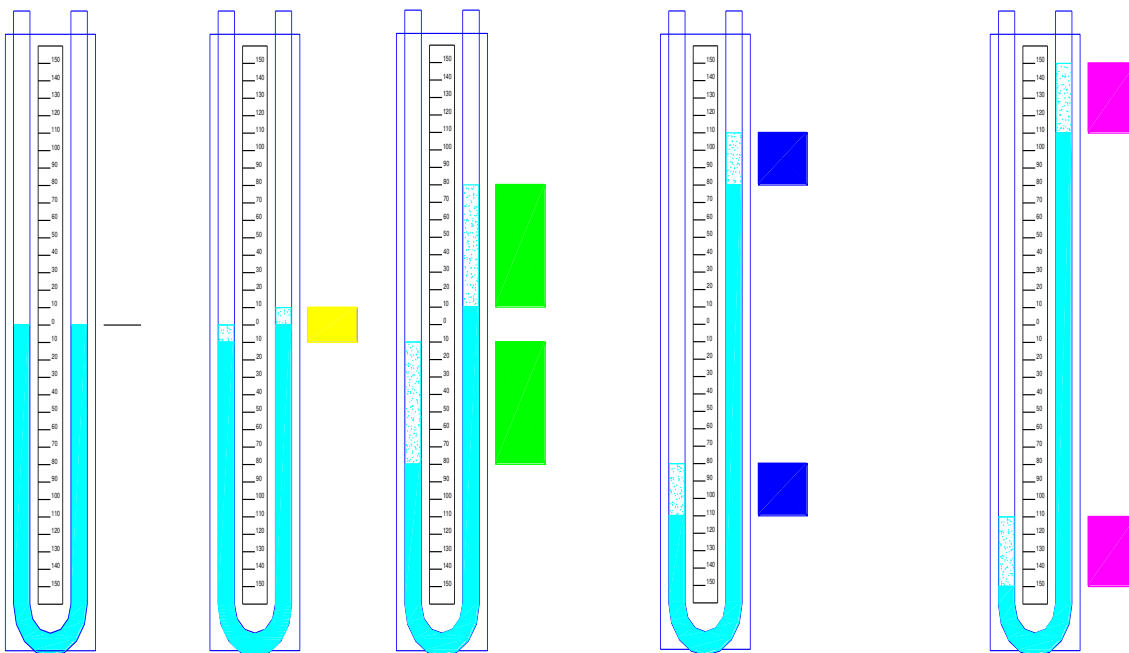
In order to get better visibility, the original fluid has been coloured; density for H<sub>2</sub>O remains unchanged, e.g.  $\rho = 1\ 000\ \text{kg/m}^3$ .

In the wintertime, H<sub>2</sub>O may get frozen in the U tube; therefore we recommend removing the tube and placing it in the warm environment.

If the U tube is filled with alcohol, it is required to make conversion of  $\Delta p$  to H<sub>2</sub>O by multiplying the measured value with 0,79.

**OPERATING CONDITIONS  $\Delta p$  OF THE FILTRATION DEVICE**

<p><b><math>\Delta p = 0\ \text{Pa}</math></b> <b>Equipment is switched off</b></p>	<p><b><math>\Delta p \leq 200\ \text{Pa}</math></b> <b>Equipment is new</b></p>	<p><b><math>\Delta p = 200\text{--}1600\ \text{Pa}</math></b> <b>Usual operating condition</b></p>	<p><b><math>\Delta p = 1600\text{--}2200\ \text{Pa}</math></b> <b>Increased <math>\Delta p</math></b> <b>Operating condition can be consulted with the manufacturer ☒</b></p>	<p><b><math>\Delta p = 2200\text{--}3000\ \text{Pa}</math></b> <b>High <math>\Delta p</math></b> <b>shall be consulted with the manufacturer ☒</b></p>
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☒ Please, get the following data ready before consulting the manufacturer:

- Tables for measurements of  $\Delta p$  during at least 50 operating hours (measured in the frequency of about 5 hours);
- values of the adjusted deceleration of regeneration after switching the device off and  $\Delta p$  before switching the device off,  $\Delta p$  after deceleration of regeneration and after re-starting the device.