

## FLOWMETER BENCH



*Non contractual photo*

**SERVICE : POWER SUPPLY: 230 V, 50 HZ,  
500 W CLEAN WATER: 4 BAR, 20 ° C, FOR  
FILLING WATER EVACUATION NEAR THE  
BENCH FOR EMPTYING  
DIMENSIONS : 2330 X 855 X 2120 MM**

**WEIGHT : ~150KG**

### REFERENCE : MP83-A

This bench allows the study of industrial flow meters by comparing their measurement technique and their accuracy.

- Study of the implantation of the sensors
- Study of the different cases of applications
- Calibration of the sensors

Determination of sensor characteristic curves and their accuracy

A centrifugal pump draws a non-compressible fluid (water) from a buffer capacity; this fluid is distributed via a membrane regulating valve and a float flowmeter on two pipes on which different flow sensors are mounted: a vane flowmeter, an electromagnetic flowmeter, a vortex flowmeter on the one hand, VENTURI and a standard diaphragm on the other hand (these two pressure-reducing devices are connected to a differential pressure sensor). The circulating fluid in closed circuit is returned to the buffer capacity.

The device is mounted on a stainless steel chassis, equipped with six adjustable feet.

### Technical specifications :

- A tank with emptying and racking.
- A centrifugal pump, stainless steel, three-phase.
- A variable speed drive allows, according to a flow setpoint from one of the flowmeters to regulate the speed of the pump.
- A float flowmeter.
- A pipe with a selection valve comprising:
- Pallet Flowmeter - For low viscosity liquids (A plastic finned turbine rotates in relation to the flow on an axis. An O-magnet transmits this rotation to a Hall sensor mounted outside the housing. coupled to the sensor converts the frequency into instantaneous flow)
- A vortex flowmeter, output 4 to 20 mA with compact transmitter and local display.
- A pipe with a selection valve comprising:
- VENTURI tube, DN25, in Altuglas with "U" pressure gauge and connection for differential pressure sensor,
- One diaphragm, DN25, in Altuglas with U-gauge and connection for differential pressure sensor,
- A differential pressure sensor, output 4 to 20 mA connected to an indicator with extraction of square root for determination of the flow.
- A vertical pipe, comprising an electromagnetic flowmeter for conducting liquids (A voltage is induced in the fluid which is sensed by two measuring electrodes and informs a converter on the speed of the fluid), DN15, output 4 to 20 mA (protocol Hart) with compact transmitter and local display.
- An electrical box, waterproof IP 55, including:
- A lockable disconnector
- A power-on LED

- A key emergency stop
- A speed variator
- A 4-position selector for selecting the regulator input (choice of measurement)
- A flow indicator

### **OPTIONS :**

Ultrasonic Flowmeter Mass flow meter (Coriolis force) for all liquids