

## BASE MODULE FOR EXPERIMENTS IN FLUID MECHANICS



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### Experimental capabilities

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- **Water supply testing devices used in fluid mechanics**
- **The volumetric flow rate measurement for large and small flow rates**
- **Study of weirs in the integrated channel**
- **The numerous complementary of the range of mechanical fluids allows to realize the complete studies**

## Operating principle

The UTL 015 is a bench allowing the water supply in a closed circuit, the determination of the volumetric flow rate as well as the positioning device on the worktop of the base module and collecting of the dripping water.

The closed water circuit consists of an underlying storage tank equipped with a powerful pump and a measuring tank placed above and designed to collect the water at the outlet.

The measuring tank at several levels is suitable for small and large volumetric flow rates. For very small volumetric flow rates, one uses a graduated measuring beaker. The volumetric flow rates are determined using a stopwatch.

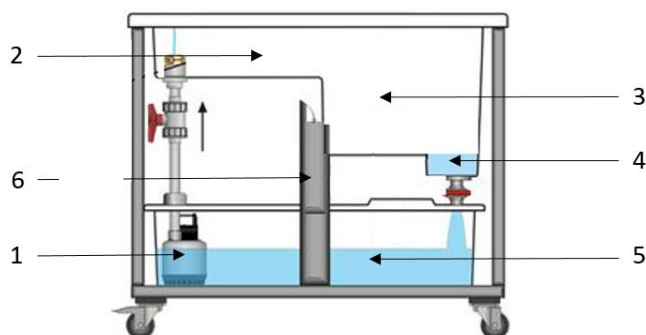
The worktop placed on the upper part allows to position the various devices of the mechanical fluids of the range.

A test channel is integrated into the worktop. It is intended for tests realized with weirs.

The robust design of this equipment makes it perfectly suited for use in schools.

Its anodized aluminum profile structure on multidirectional wheels with brakes makes it extremely robust as well as great flexibility of integration into your premises. The manufacturing of this equipment meets the European machine directive

## Illustrations



## Technical details

### 1. Centrifugal pump

- Body, stainless steel wheel
- $Q = 160 \text{ L/min}$  and  $H_{mt} = 23 \text{ mCE}$
- Electrical power :  $0,75 \text{ kW}$

### 2. Work surface with integrated channel

- Channel:  $530 \times 150 \times 180 \text{ mm}$
- Ability to integrate of the weirs (supplied)
- Overflow system

### Tank divided into two for the volumetric flow rate measurements

### 3. Large measurement basin

- Volume  $40 \text{ L}$

### 4. Small basin of $10 \text{ L}$

- Volume  $10 \text{ L}$

### 5. Storage tank with submersible pump

- Volume  $180 \text{ L}$

### 6. Level indicator

### Accessories:

Small graduated beaker for measurement of very small flow rates

Volume de  $2 \text{ L}$ , scale  $50 - 100 - 500 \text{ ml}$

Stopwatch with measuring range  $0-9 \text{ h } 59 \text{ min } 59 \text{ s}$

The tank are made of reinforced plastic glass fiber

## Services required

- Power supply :  $230 \text{ VAC} - 50 \text{ Hz} - 20 \text{ A}$
- Power supply type: 1 phase + Neutral + Earth.
- Water supply:  $15 \text{ L/min} - 3 \text{ bar}$  (tank filling)
- Dimensions: (L x W x H mm):  $1250 \times 800 \times 1100$
- Weight (Kg): 85

## Documentation

- User's manual
- Technical documentation of the components
- Lab exercises
- Certificate of conformity CE

Note : if the equipment installation is operated by our staff, all supplies and exhaust connections required must stand at less than 2m from the machine