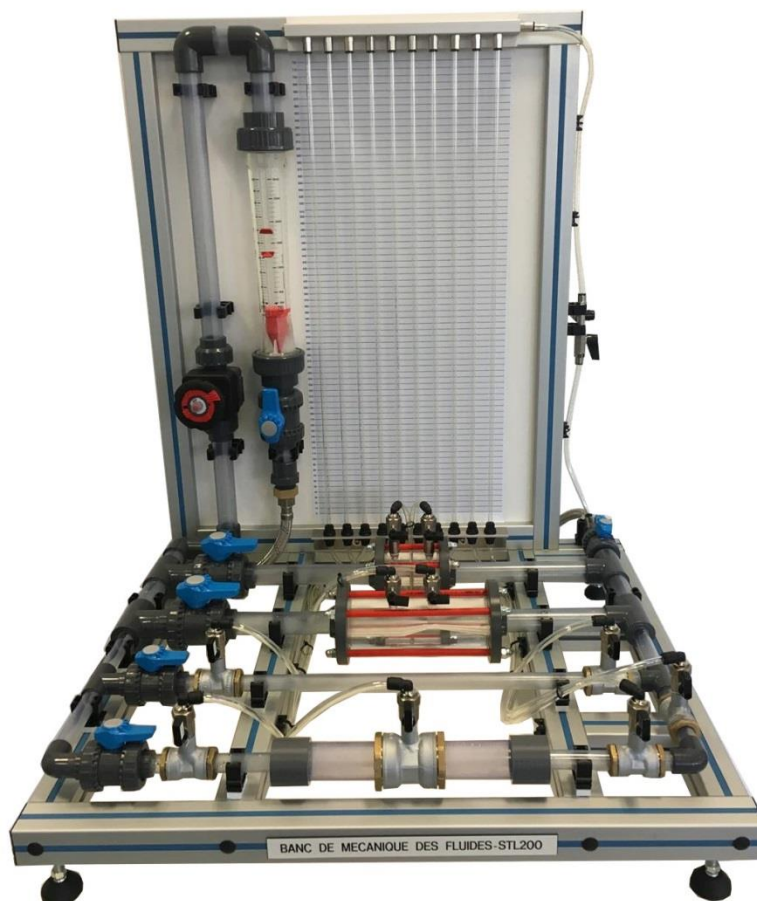


FLOW MEASUREMENT AND FLUID DYNAMICS



Experimental capabilities

- Application of Bernoulli's theorem for an incompressible fluid
- Study of pressure losses in an orifice plate flowmeter
- Study of pressure losses in a venture flowmeter
- Determination of pressure losses for a sudden increase in diameter and sudden decrease in diameter
- Study of the singular pressure losses in a 90° elbow
- Study of the regular pressure losses for a straight length

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Dans le cadre de l'amélioration permanente de nos produits, ce descriptif technique est susceptible d'être modifié sans préavis
As part of the continuous improvement of our products, this technical specification may be modified without previous notifying

Operating principle

The bench STL200 allows the study of the losses of charge of various components and to measure flow rates by the mean of Bernoulli's theorem on deprimogenic organs (Venturi and orifice plate).

For this, water circulates in a hydraulic circuit comprising the classic elements of an installation (elbows, sudden contraction and enlargement, orifice plate and venturi), to measure the pressure losses using a bank of water manometer tubes.

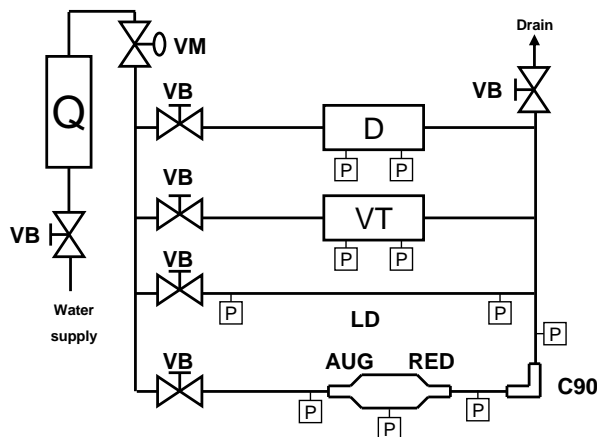
The bench is equipped with a flowmeter which makes it possible to study the relationship between the flow rate and the pressure drop on each element.

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

Its anodized aluminum structure on wheels makes it very robust as well as a great flexibility of integration into your premises.

The manufacture of this equipment meets the European machine directive

Illustrations



VM membrane valve

Q Graduated Rotameter

Linear scale 0-3000 L/h

Direct reading by the position of the float

VB Ball valve

P Pressure tap connected to a bank of water manometer tubes

The bank of water manometer tubes is composed of 10 piezometric tubes allowing the measurement of the losses of load

Scale of measurement: 0 to 700mmWC

D Transparent orifice plate flowmeter with stainless steel plate

Inside diameter: 17.24 mm

Outside diameter: 26.7 mm

Pressure taps for flow measurement connected to the bank of water manometer tubes(x2)

VT Flowmeter with transparent venturi effect

Inlet diameter: 26.7 mm

Diameter at the neck: 13.9mm

Pressure taps for flow measurement connected to the bank of water manometer tubes(x2)

LD Translucent PVC tube length D20mm outside

Pressure taps connected to the bank of water manometer tubes (X2)

AUG sudden enlargement outer diameter 20-40mm

Load pressure taps connected to the bank of water manometer tubes (X2)

RED sudden contraction outer diameter 20-40mm

Load pressure taps connected to the bank of water manometer tubes(X2)

C90 90 ° short radius PVC elbow

Load pressure taps connected to the bank of water manometer tubes(X2)

bank of water manometer tubes

Graduation from 0 to 700mm every 2mm

10 transparent measuring tubes

Purge valve and vent valve of the tubes

Services required

- Water supply : 2000 L/h – 3 bars
- Or supply by the bench UTL 050 (not included)
- Dimensions: (LxWxH mm): 775 x 700 x 950
- weight (Kg): 40

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

Documentation

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

Recommended equipment

- Water supply unit

- Ref : UTL 050