

FLOW CONTROL TRAINER



Experimental capabilities

- Study of a loop of flow regulation
- Identification of the elements: Sensors, Regulator, Actuator, Disruptive element.
- Regulator configuration and command
- PID regulation or All or Nothing
- Visualization of different signals (by software, see next page)

Operating principle

The STL800 bench allows the study of the flow of regulation. A reservoir and a pump supply the piped water system. Two types of flowmeters measure the flow in the water system.

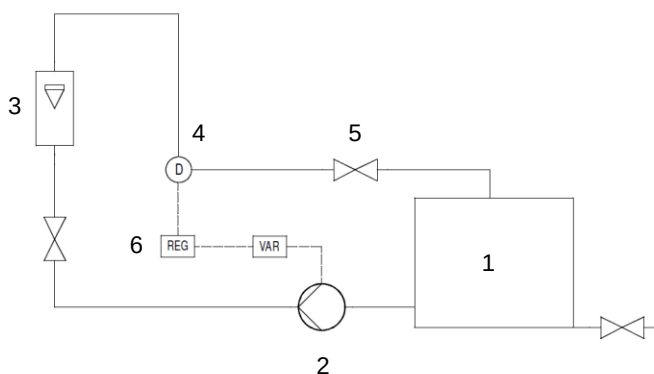
A digital PID controller receives the flow of information and needs to adjust the speed of the pump driven by the inverter to reach the setpoint.

The unit comes complete with instrumentation, technical and educational materials in French and all the accessories required for proper operation.

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

Its anodized aluminum structure gives it great robustness as well as a great flexibility of integration into your premises. The manufacture of this equipment meets the European machine directive

Illustrations



1 HDPE tank with drain valve

40L capacity

2 Three phase centrifugal pump

Maximum flow rate of 1,8m³/h

Maximum pressure of 35 mCE

3 Float flowmeter in PVC

Linear scale 0-1600 L/h

Direct reading by the position of the floater

4 Magneto-inductive transmission flowmeter

Scale 0-25 L/min

Analog output 4-20mA

5 Perturbation valve

Ball valve

6 Electronic regulator

Possibility to regulate in PID or all or nothing. Input signal 4 / 20mA output signal 4/20mA. The regulator has an RS485 communication interface for its supervision.

Services required

- Electricity: 230 VAC mono - 50 Hz - 16 A
- Water supply : 40 L
- Dimensions : (L x W x H mm) : 800 x 650 x 900
- weight (Kg): 45

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
- Electrical diagram
- Hydraulic diagram

STL800



Supervision

The bench is supplied with an interface software running on Windows and developed under Labview. It allows to modify the PID parameters and the setpoint, visualize the measurement and output power, auto launch of setting and plot the curves in real time. The image below shows the interface :

