

## Flow Control Unit



**Product Categories:** [Engineering Equipment](#), [Heat Transfer Lab](#)

**Product Page:** <https://www.labappara.com/product/flow-control-unit/>

### Product Description

#### Flow Control Unit

The present set-up is designed to study a PID Controlled Flow Process in the industry. Water is pumped from the sump tank by means of a centrifugal pump to a Pneumatic Control Valve and after passing thorough the Rota-meter it return back to the sump. The Differential Pressure transmitter with an Orifice-meter is fitted in the water line.

The flow of water in the line is sensed by the transmitter and communicated to the digital indicating controller. This measured variable is compared with the Set Point by controller and output is generated and given to I/P converter, which in turn supply the 3-15 Psig pressure to vary the opening of the Pneumatic control valve to eliminate the error observed.

As the opening of pneumatic control valve varies, the flow of water in the line gets effected. This process goes on until the Set Point target is achieved. A ball valve is also provided in the water line to disturb the system and to observe the effect of disturbance. As the water returns in the sump tank again, the system operates in close circuit. Provided Rota-meter enables to get the direct reading of flow of water in the line. These units along with necessary piping are supported in a

well-designed housing and are fixed on base plate.

The present set-up is completely computerized controlled. The Digital Indicating Controller have a facility to interface the system with computer which enables to change the PID parameters using computer. The educational software and data-logging package has been developed for unit.