

# PRESSURE REGULATION TABLE BENCH



Non contractual photo

SERVICE: 220V SINGLE PHASE 50 HZ - 8A + GROUND, PNEUMATIC SUPPLY: 5 BAR, SANITARY WATER COMPUTER FOR USING

THE SOFTWARE **DIMENSIONS: 800 X 500 X 1100 MM** 

WEIGHT: 76KG

REFERENCE: MINIREG P

The MINIREG / P bench is designed for study and experimentation on a pressure control loop. The bench includes the control loop, measurement instrumentation, indication, recording and control. Disturbance circuits, step or other models make it possible to highlight the response of the process.

#### The bench covers a large number of themes that can be developed:

- Pressure measurement,
- Adjustment and calibration of the pressure sensor,
- Initiation to control and regulation,
- Automatic regulation methods,
- Setting by discontinuous actions, Regulator P,
- PI regulator,
- PID controller,
- Regulatory strategies,
- Process response,
- Temporal analysis.
- Precision and stability of a loop,
- Control valves,
- valve positioner,
- Electric transmitters,
- Intensity-pressure converter,
- Digital systems.

# It responds particularly to sectors:

- Industrial maintenance,
- Water professions,
- Chemical Engineering

## **Technical specifications:**

## Operative part

The bench consists of a chassis incorporating:

- A main tank 30 liters
- A centrifugal pump,
- A pneumatic control valve,
  A P / I converter,
- A pressure sensor: relative pressure transmitter 0/6 bar, 4/20 mA outbut.
- an accumulator,
- Three manometers,
- A set of manually operated valves,
- A circuit disturbing pressure.

## Control and control part

An electrical cabinet including:

- Equipment for supply and protection of the installation,
- The control organs,
- Shunts giving access to 4/20 mA measurement of the sensors and

the valve, - RS 232 connection (with USB adapter) for supervision - ASCON digital controller

#### Supervision

A set of supervision is included in the supply of the base bench. This set is composed of:

- A software "SUPERVISOR MINIREG / P" Autolink
- A connection cable,
- A software protection key

## Supervisor MINIREG / P

The MINIREG / P supervision software is structured on the basis of several screens, and allows to visualize:

- The general synoptic of the regulation with the digital display of the various regulation parameters, - The front of the digital controller with the animation of the bargraphs corresponding to PV, SP and OP, - The digital display of the values ??of PV, SP, Bp, Ti, Td - The command giving access to the modifications of the values ??of
- SP, Bp, Ti, Td
- The graph of tendencies PV,
- The graph, full screen, trends PV, SP and OP.

Operating system XP, Windows 7 64 or 32 bits This set requires the use of a microcomputer (not supplied)

**P V :** process variable,

SP: Consigne,

OP: Command signal, **Bp**: proportional band, Ti: Integration time, Td: Derivation time.