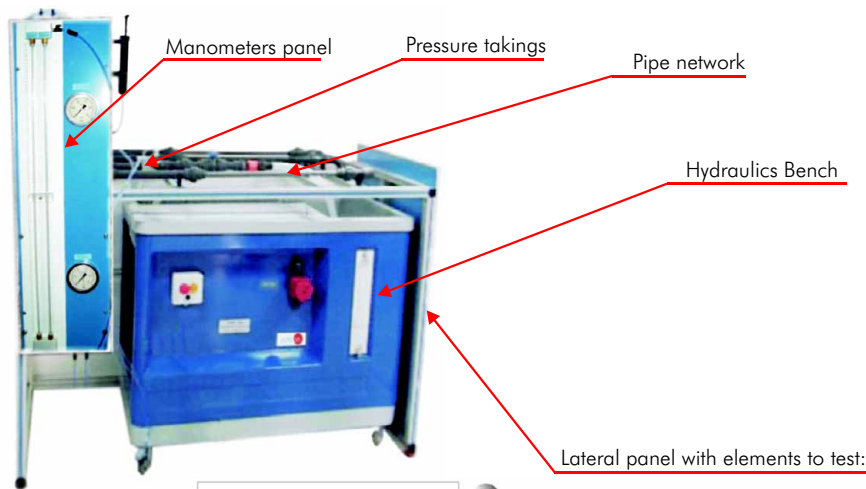


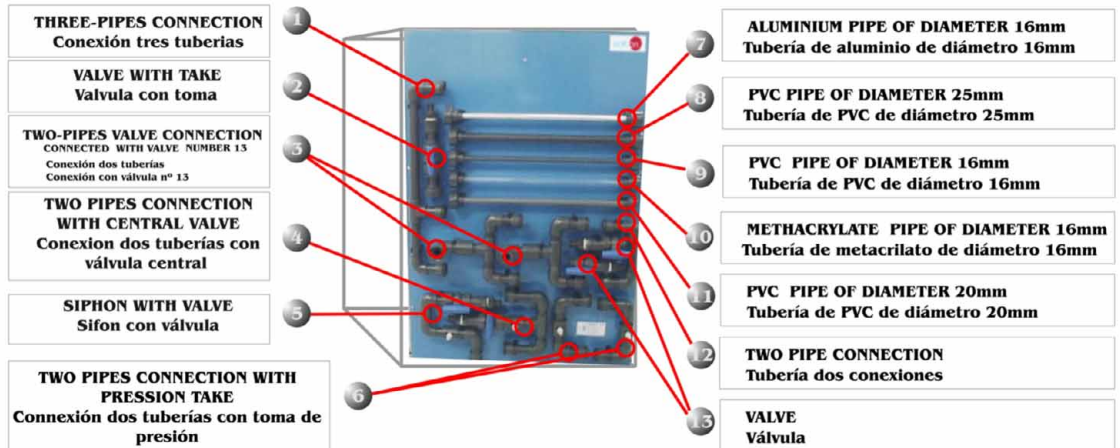


PROCESS DIAGRAM AND ELEMENTS ALLOCATION



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- Products
- Products range
- Units
- 8.-Fluid Mechanics and Aerodynamics



ISO 9000: Quality Management
(for Design, Manufacturing,
Commercialization and After-sales service)



European Union Certificate
(total safety)



Certificates ISO 14000 and
ECO-Management and Audit Scheme
(environmental management)



Worlddidac Quality Charter
Certificate
(Worlddidac Member)

DESCRIPTION

The EDIBON Pipe Network Unit has been designed for enabling different pipe network installations, measuring the flow and pressure, always using water as test fluid.

The objective of this unit is to simulate the problems that could be originated in pipe networks, having this pipes different lengths and diameters, as it happens in the cities.

With these studies, the dimensions of the networks will be clearer, in order to obtain the flow and pressure necessary for them.

A typical case is, for instance, a water distribution network in a town. Predictions of pressure and flow and their variations that take place in a network are of great interest, because, with these data, the pipe types required for such network could be determined with more accuracy.

SPECIFICATIONS

Anodized aluminium structure and panels in painted steel (epoxy paint).

Main metallic elements in stainless steel.

Diagram in the front panel with similar distribution to the elements in the real unit.

Pipes network.

Lateral panel where all test elements are located.

Test pipes:

Aluminium pipe, 16 mm outer diameter.

PVC pipe, 25 mm outer diameter.

PVC pipe, 16 mm outer diameter.

PVC pipe, 20 mm outer diameter.

Methacrylate pipe, 16 mm outer diameter.

Test Connections:

Connection of 4 pipes with drain or outlet valve.

Connection of 3 pipes.

Straight connection of a pipe with outlet valve.

Pipe connection with outlet pipe in the shape of a siphon.

Connection of 2 pipes with outlet valve. (3 units).

Connection of 2 pipes with pressure taking.

Connection of 2 pipes without pressure taking.

Manometers:

2 Manometric tubes, 1000 mm H₂O.

2 Bourdon type manometers, range: 0-2.5 bar.

Pressure takings in the test elements.

Valves for distributing the flow to the network.

Hydraulics Bench (FME00):

Mobile Hydraulics Bench, made in polyester reinforced with fibreglass, and mounted on wheels for mobility.

Centrifugal pump, 0.37 KW, 30-80 l/min at 20.1-12.8 m., single phase 220V./ 50 Hz or 110V./60 Hz.

Runner made in stainless steel.

Sump tank capacity: 165 litres.

Small channel: 8 litres.

Flow measurement: volumetric tank, gauged from 0 to 7 litres for low flow values and from 0 to 40 litres for high flow values.

Level tube with a scale that shows the water level in the upper tank.

Flow stilling baffle for reducing the turbulence rate.

Control valve for regulating the flow.

Remote hand-operating dump valve in the base of the volumetric tank.

Safety switch and contact light.

Manufactured with corrosion resistant materials ensuring a long life of the unit.

Cables and Accessories, for normal operation.

Manuals:

This unit is supplied with the following manuals: Required Services, Assembly and Installation, Starting-up, Safety, Maintenance, and Practices Manuals.

EXERCISES AND PRACTICAL POSSIBILITIES

Some Practical Possibilities of the Unit:

- 1.- Head losses in a PVC pipe.
 - 2.- Head losses in an aluminium pipe.
 - 3.- Head losses in a methacrylate pipe.
 - 4.- Study of head losses in pipes of the same material.
 - 5.- Study of head losses in function of the material.
 - 6.- Friction coefficient in a PVC pipe.
 - 7.- Friction coefficient in an aluminium pipe.
 - 8.- Friction coefficient in a methacrylate pipe.
 - 9.- Study of the friction coefficient in function of the material.
 - 10.- Study of the friction coefficient in function of the diameter.
 - 11.- Parallel network configuration for pipes of same material and different diameter.
 - 12.- Parallel network configuration for pipes of different material and same diameter.
 - 13.- Series network configuration for pipes of different material and different diameter.
 - 14.- Series network configuration for pipes of different material and same diameter.
 - 15.- Characteristics of a circular circuit.
 - 16.- Double piping circuit.
- Other possible practices:
- 17.- Filling the manometers.

REQUIRED SERVICES

- Electrical supply: single-phase 220V./50Hz or 110V./60Hz.
- Water supply and drainage.

DIMENSIONS & WEIGHTS

- Dimensions: 1500 x 1000 x 2200 mm. approx.
- Weight: 200 Kg. approx.

RECOMMENDED ACCESSORIES

- Chronometer.

AVAILABLE VERSIONS

Offered in this catalogue:

- AMT. **Pipe Network Unit, with Hydraulics Bench (FME00).**

Offered in other catalogue:

- AMTC. **Computer Controlled Pipe Network Unit, with Hydraulics Bench (FME00).**

*Specifications subject to change without previous notice, due to the convenience of improvements of the product.



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REPRESENTATIVE:

