



## INTRODUCTION

Fluid mechanics is the branch of physics included in the mechanics of continuous media that studies the movement of fluids, as well as the forces that cause it.

The Hydraulics Bench, "FME00", provides the facilities to support a wide range of hydraulic models, each of which has been designed to demonstrate a particular aspect of hydraulic theory.



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## GENERAL DESCRIPTION

The Hydraulics Bench, "FME00", is formed by a movable hydraulics bench used to hold a wide variety of modules, which allow the student to experiment with the problems presented by fluid mechanics.

It is an autonomous unit with tank and pump.

Innovative water saving system consisting of a high capacity sump tank and spillway that sends the excess of water back to the tank.

Easy access drain valve.

The volumetric measuring tank is stepped to accommodate for low or high flow rates. A measuring cylinder (1 l – capacity) is included in the supply for the measurement of very small flow rates.

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

Flow adjusted by means of a membrane valve.

Flow stilling baffle for reducing the turbulence rate.

Specially designed channel, in the upper part, to support the modules on test.

The modules are easily mounted on its top without the use of tools. This ensures its simplicity.

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

Centrifugal pump.

Pump breaker starting, safety and contact light.

To be used with the different units of Fluid Mechanics Area: "FME" type modules, Fluid Friction in Pipes Equipment "AFT", etc.

## SPECIFICATIONS

Mobile hydraulic bench, made of fibreglass reinforced polyester, and mounted on wheels for its mobility.

Centrifugal pump, 0.37 KW, 30 – 80 l/min at 20.1 – 12.8 m, single-phase 200 VAC – 240 VAC/50 Hz or 110 VAC – 127 VAC/60 Hz.

Runner made of stainless steel.

Sump tank capacity: 165 l.

Small channel: 8 l.

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

Control valve for regulating the flow.

Open channel to place the test module.

Measuring cylinder is provided for the measurement of small flow rates.

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

Rapid and easy interchange of the different modules.

## EXERCISES AND PRACTICAL POSSIBILITIES

1.- Flow measurement.

### REQUIRED SERVICES

- Electrical supply: single-phase 200 VAC – 240 VAC/50 Hz or 110 VAC – 127 VAC/60 Hz.
- Water supply and drain.

### REQUIRED ACCESSORIES

- FME00-CR. Chronometer.

### DIMENSIONS AND WEIGHTS

Dimensions: 1130 x 730 x 1000 mm approx.

(44.48 x 28.74 x 39.36 inches approx.)

Weight: 70 kg approx.

(154 pounds approx.)

## ADDITIONAL RECOMMENDED ELEMENTS (Not included)

-FME-DFM. Digital Flow Meter.

## SIMILAR UNITS AVAILABLE

Offered in this catalog:

- FME00. Hydraulics Bench.

Offered in other catalog:

- FME00/B. Basic Hydraulic Feed System.

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



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Edition: ED01/20  
Date: November/2020

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