

8.- FLUID MECHANICS

8.1. FLUID MECHANICS MODULAR LABORATORY

LIFLUBA

Basic **Fluids Mechanics Integrated** Laboratory

More than **35 different units** to perform basic experiments:

Base Units

FME00. **Hydraulics Bench**.

FME00/B. Basic Hydraulic Feed System.

Measurement

FME02. Flow over **Weirs**.

FME10. **Dead Weight** Calibrator.

FME18. **Flow Meter** Demonstration.

FME26. **Depression** Measurement System (vacuum gauge).

FME30. Transparent Vortex Flow Meter.

FME30/L. **Vortex** Flow Meter.

FME32. Static **Pitot Tube**.

FME34. Fluid Statics and **Manometry**.

FME36. **Rotameter**.

Hydrostatics

FME08. **Hydrostatic** Pressure.

FME11. **Metacentric Height** Demonstration.

FME11-A. Metacentric Height Demonstration of a **"V" Shaped** Floating Body.

FME11-B. Metacentric Height Demonstration of a **"U" Shaped** Floating Body.

FME33. **Pascal's Principle** Demonstration.

FME35. **Fluid** Properties.

Hydrodynamics

FME01. **Jet Impact** on Surfaces.

FME03. **Bernoulli's Theorem** Demonstration.

FME04. **Orifice** Discharge.

FME14. **Free** and **Forced** Vortex.

FME17. Orifice and **Free Jet** Flow.

FME19. **Cavitation Phenomenon** Demonstration.

FME22. **Venturi**, Bernoulli and Cavitation Unit.

Flow Visualization

FME06. **Osborne Reynolds'** Demonstration.

FME09. Flow Visualization in **Channels**.

FME20. **Laminar Flow** Demonstration.

FME25. Flow channel, length: 1 m.

FME31. Horizontal Osborne Reynolds Demonstration.

Hydraulic Machines: Pumps

FME12. **Series/Parallel** Pumps.

FME13. **Centrifugal** Pump Characteristics.

Hydraulic Machines: Turbines

FME16. **Pelton** Turbine.

FME21. **Radial** Flow Turbine.

FME27. **Axial** Flow Turbine.

FME28. **Francis** Turbine.

FME29. **Kaplan** Turbine.

Hydraulic Piping System

FME05. Energy Losses in **Bends**.

FME07. Energy Losses in **Pipes**.

FME15. Water **Hammer**.

FME23. Basic Pipe **Network** Unit.

FME24. Unit for the Study of **Porous Beds** in Venturi Tubes (**Darcy's Equation**).

8.2. MEASUREMENT



HEMP
**Pressure
Measurement
Unit**

8.5. HYDRAULIC CHANNELS



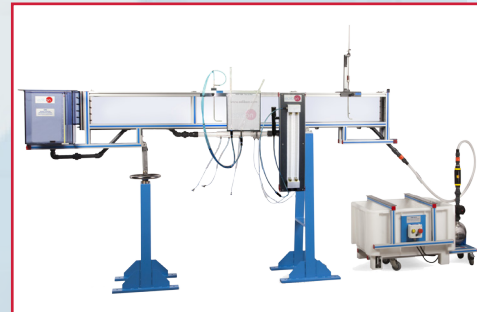
CFGC
**Computer Controlled
Flow Channels**
(different sections and
length)

8.3. HYDROSTATICS



BHI
**Hydrostatics Bench
& Fluid Properties**

CAS
**Sediment
Transport
Demonstration
Channel**



8.4. FLOW VISUALIZATION



TAVF180/100
**Flow Visualization
Aerodynamic Tunnel**



LFA
**Laminar Flow Visualization
and Analysis Unit**

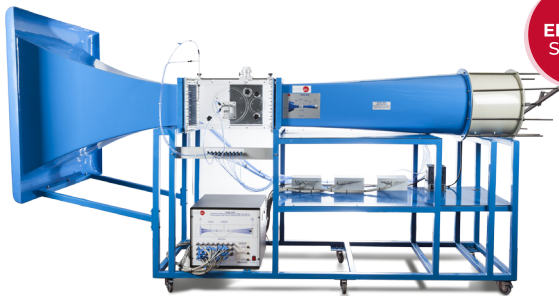


HVFLM-4
**Mobile Bed and Flow
Visualization Unit**
(working section:
4000x610 mm)

HVFLM-2
Mobile Bed and Flow Visualization Unit
(working section: 2000x610 mm)

8.- FLUID MECHANICS

8.6. AERODYNAMICS



with
EDIBON
SCADA

TA300/300C
Computer Controlled **Aerodynamic Tunnel**,
300 x 300 mm

★ Ask us for different dimensions ★

8.8. FLUID PIPING SYSTEM



with
EDIBON
SCADA

HFCC
Computer
Controlled **Flow
of Compressible
Fluids Unit**

with
EDIBON
SCADA



AFTC
Computer Controlled **Fluid Friction in Pipes**,
with Hydraulics Bench (FME00)

8.7. FLUID MACHINES

PBOC
Computer Controlled **Multipump Testing Bench**
(4 types of pumps)



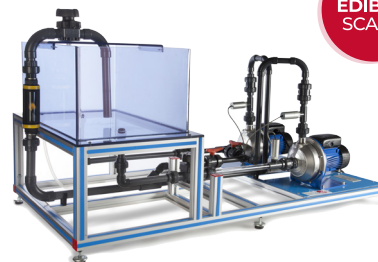
with
EDIBON
SCADA

HCCC
Computer
Controlled **Centrifugal
Compressor
Demonstration
Unit**



with
EDIBON
SCADA

PBSPC
Computer
Controlled **Series/
Parallel
Pumps
Bench**



COMPUTER CONTROLLED TECHNOLOGY

EDIBON SCADA System



Control Interface



Data
Acquisition
Board



Supervisory
Software



8.9. INSTALLATIONS AND MAINTENANCE



PVFA
**Pipes, Valves and
Fittings Assembly
Unit**

TEV4V
**Four-Way Mixing
Valve Training Unit**

