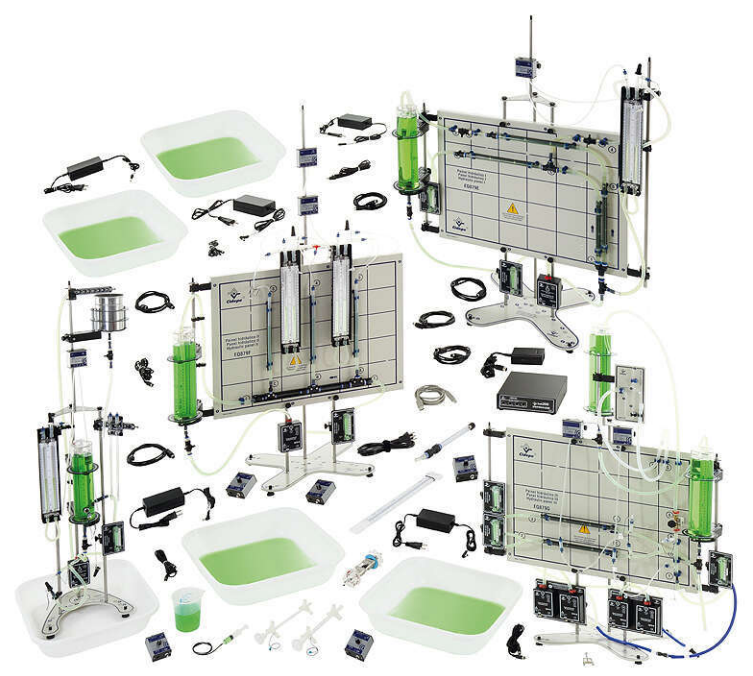

Kit for hydraulics with sensor, software and hydrodynamic interface - hydrodynamics

EQ310B

Function

It is geared towards the study of fluid mechanics, fluid dynamics, closed-tube manometers, hydraulic pumps, Reynolds number, flow, constant flow, variable flow, hydraulics, yield regimes, energy equation, laminar yield, energy line, piezometric line, distributed load loss, relative influence of localized load losses, stagnation pressure, elbows and bends, enlargement and narrowing, localized load loss, hydraulic piping systems, relative influences between the piping system and load lines, gear flow distribution, siphons, lifting systems, ramified systems, flow in ramified ducts, lifting height and manometric height, booster sets, cavitation, equivalent conducts, water intake between two tanks, manometric pressure, serial and parallel piping systems, associations of serial and parallel pumps, etc.

• Software for data acquisition, Windows 7/8/10 it exports data to software such as Excel and MatLab.

Portability:

• It does not require special installations;

• It operates on conventional benches;

• Average dimension of panels: width 900 mm, height 1300 mm and depth 500 mm;

Conveniences:

• Panels and components are screen-painted;

• Quick hitch connection (no glue or tools);

• Ducts are supported with magnetic fixture.

Low energy and water consumption:

• 1.5 L of water in a closed circuit;

• Highest power 50 W, 12 VCA / 2 A, no risk of electric shock.

Analog and digital meters:

• The experiment may be computer-assisted.

Transparent ducts;
Flow control:

• Pumps systems with electronic flow control.

Knowledge areas

Physics

Level

Graduation - Technical education