

Centrifugal Pump Characteristics Apparatus (EDC-FM-130CP)

EXPERIMENTAL DATA:

- Accommodation with operating performance and features of a centrifugal pump through tests.
- Power and efficiency curves:
 - Measuring the electrical initiative power.
 - Determining the hydraulic power.
 - Scheming the efficiency.

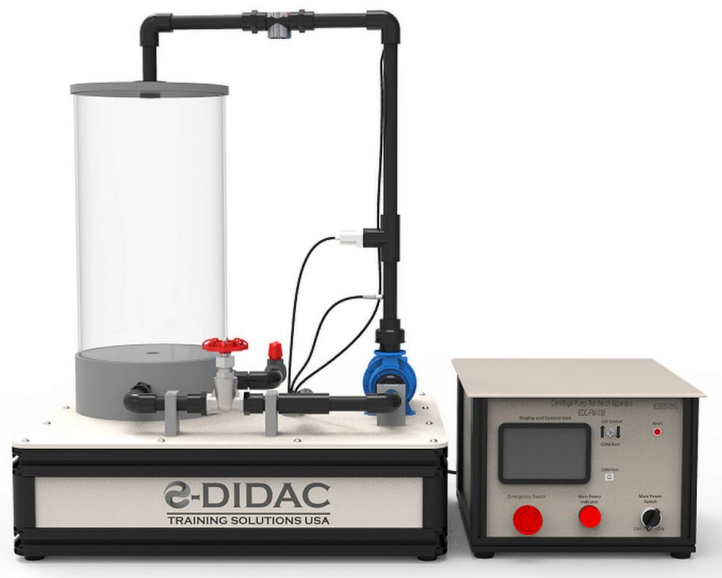


DESCRIPTION:

A centrifugal pump is a powered device intended to move a fluid by means of the transmission of rotational energy from one or more driven rotors, called impellers. Fluid enters the quickly rotating impeller along its axis and is cast out by centrifugal force along its circumference through the impeller's vane tips.

There are three other different options in this apparatus:

- Variable speed of the pump.
- Transparent head of the pump.
- Pump with both variable speed and transparent head.



SPECIFICATIONS:

- Examination of Centrifugal Pump.
- Flow changing using valve at inlet.
- Pressure changing by changing valve position at outlet.
- Drive with variable speed via frequency converter.
- Valve to adjust the head.
- Manometers on the inlet and outlet side of the pump.
- Digital pressure and flow sensors.
- LCD Display for pressure and flow measuring values.
- Closed loop path for flow of water.
- Tank for the storage of water.
- Optional software with control functions and data acquisition via USB under Windows 8.1, 10.

SCOPE OF DELIVERY:

- 1 Experimental unit
- 1 Set of instructional material
- 1 Online access to the Media Center

DIMENSIONS AND WEIGHT:

- **Dimensions:** 1100 x 640 x 600mm (L x W x H)
- **Weight:** Approx. 46kg

TECHNICAL DATA:

Centrifugal Pump:

- **Type:** Self-priming
- **Maximum Flow Rate:** 2700L/h
- **Maximum Head:** 36m

Motor:

- **Type:** Asynchronous motor
- **Nominal Power:** 450W
- **Speed Control:** Variable speed via frequency converter

Measuring Ranges:

- **Outlet Pressure:** -1 to 5 bar
- **Inlet Pressure:** -1 to 1.5 bar
- **Speed:** 0 to 3000 rpm
- **Power Measurement:** 0 to 1000W

Power Supply:

- **Voltage:** 230V
- **Frequency:** 50Hz
- **Phase:** Single-phase

