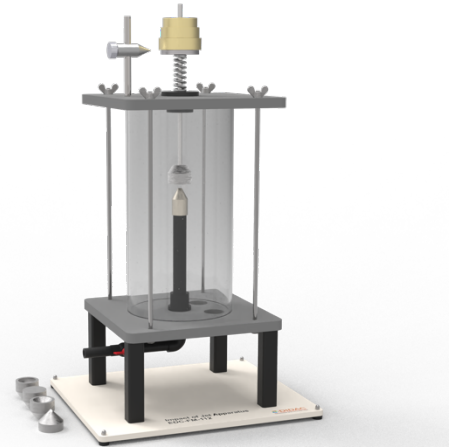


Impact of Jet Apparatus (EDC-FM-112)

EXPERIMENTAL DATA:

- Study of the jet forces.
- Measurement of the impact force on flat, hemispherical, angled flat and conical plates and comparison with momentum change.
- Measurement of flow rate and flow velocity.



DESCRIPTION:

An impact of jet apparatus is used to investigate the reaction force produced by the impact of a jet of water on to various target vanes. This type of impact forces of water is used to drive the turbines. In EDC-FM-112 jet forces are generated and studied with the aid of a water jet that acts on and is diverted by an interchangeable deflector. The experimental unit includes a transparent PPI tank, a nozzle, four PVC interchangeable deflectors with different deflection angles and a weight-loaded scale. The force of the water jet is adjusted via the flow rate. Experiments study the influence of flow velocity and flow rate as well as of different deflection angles. The jet forces generated by the water jet are measured on the weight-loaded scale. The forces are calculated using the momentum equation and compared with the measurements.

The equipment requires a Hydraulics Bench (EDC-FM-100) as the source of water supply.

TECHNICAL DATA:

- Tank:
 - Transparent PMMA
 - Inner diameter: 200mm.
 - Height: 350mm.
- Nozzle:
 - Diameter: 8mm and 5mm
 - Distance between nozzle and target 20mm and diameter of target plate 30mm
- Deflector:
 - Flat surface: 90°.
 - Oblique surface: 45°/135°.
 - Semi-circular surface: 180°.
 - Conical surface: 135°.

DIMENSIONS AND WEIGHT:

L x W x H (mm):350 x 350 x 700
 Weight: 18 kg

SCOPE OF DELIVERY:

- 1 x EDC-FM-112
- 1 x Set of weights
- 1 x Instructional Manual

