FLUID MECHANICS

T-460 WATER JET TRAINING SET



GENERAL EXPLANATION

This training set is designed to demonstrate the fit of theory with the amount of momentum created by the water jet in the fluid spaces, using counterweights.

EXPERIMENTS

- 1. Momentum principle demonstration experiment
- 2. The effect of flow velocity on the formation of jet forces
- 3. The effect of flow rate on the formation of jet forces
- 4. The effect of different deflection angles

DIMENSIONS

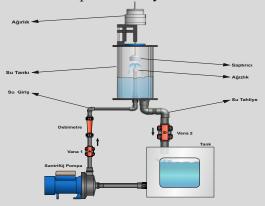
A x B x H : 750 x 600 x 1500 mm

PACKAGE INCLUDED

Device, device cover, 1 printed experiment report, circuit diagram and product catalog

TECHNICAL SPECIFICATION

The test fixture we use consists of a conical water pipe vertically placed in a transparent cylindrical container. The solid surface piece of flat plate to be tested in the experiment is attached directly to the water jet by a scalloped bell supported by a spring with a rolling support and with a sliding mass on it. At the base of the cylindrical vessel is a connection through which the water is transferred to the metering tank. The relationship between the momentum and the effective force of a water jet that changes direction by multiplying by a solid surface is experimentally tested.



TECHNICAL DETAILS

- 90° flat surface, 45/135° inclined surface, 180° semi-circular surface and 135° conical surface
- Measurement of momentum by flat plate and 30° type targets
- Rotameter type water flowmeter
- Different counterweights
- Control of jet flow rate with PVC valve
- Transparent main body
- 6 mm, 8 mm and 10 mm changeable tanks of the water jet
- The weight set must consist of at least the following weights;
 - -4x0,2N
 - -3x 0.3N
 - 3x 1N
 - 3x 2N
 - 3x 5N