

IMPACT OF A JET APPARATUS



Experimental capabilities

- Comparison of the force applied by a jet on a hemispherical plate, a flat plate, or a conical plate
- Influence of the nozzle diameter
- Study of the relation between the water flow (impact velocity) and the force applied on the obstacle

Operating principle

The PBJ100 unit allows the study of the impact of a jet on different obstacles.
The water enters through the bottom of the device through a nozzle of known diameter and is directed to an obstacle.
The impact force of the water on the obstacle is measured using a weight on the axis of the obstacle.
The water is then returned to evacuate through the bottom.
Students will adjust various flow rates and measure the force applied to each nozzle combination and obstacle.
The robust design of this device makes it suitable for use in schools.
The materials used are resistant to corrosion.
This equipment can be used alone or with other compatible equipment from our range (see last section of this document).

Illustrations



Technical details

1. Load mass for measuring the force applied on the obstacle. A set is provided to cover the range required for practice
2. Obstacle support rod with guidance
3. Jet deflector obstacle. 3 obstacles are provided: flat plate diameter 74 mm, conical plate 120 ° diameter 60mm and hemi spherical plate 180° diameter 60mm
4. Interchangeable nozzle: diameter 5mm and 8mm
5. Quick coupling for removing obstacles
6. Transparent plastic test tube diameter 200mm length 340mm
7. Water outlet connection
8. Water supply connection
9. Support feet with non-slip pads

Services required

- Water supply: 40 L / min - 2 bars or supply by bench UTL 050 (option not included)
- Water drain: at ground level
- Dimensions: (LxWxH mm): 400 x 250 x 700
- weight (Kg): 20

Documentation

- User's manual
- Pedagogical manual
- Technical documentation of the components
- Lab exercises
- Certificate of conformity CE

Note : if the equipment installation is operated by our staff, all supplies and exhaust connections required must stand at less than 2m from the machine

Recommended equipment

- Hydraulic bench
- Ref : UTL 050