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HM 289 Experiments with a Pelton turbine

Order code: **5201.07028900**

Information about product price on demand

Parameters

Quantitative unit	ks

GUNT HM 289

Pelton Turbine is an experimental unit designed for mounting on the HM 290 base unit, allowing detailed studies of the operation and performance characteristics of a Pelton turbine.

The transparent housing enables direct observation of the Pelton wheel and adjustable needle nozzle, allowing modifications of the nozzle cross-section. The turbine operates at a constant pressure, simulating real-world conditions, with the pressure being adjustable via HM 290. A wear-free eddy current brake is used to apply load to the turbine. Measurements include torque via a force sensor and speed via an optical sensor.

Water supply, flow rate measurement, and software-based data acquisition are all managed through the HM 290 base unit. This experimental setup provides a hands-on experience in studying hydraulic energy conversion and turbine performance, making it an ideal

educational tool for technical training and research in fluid mechanics and hydraulic engineering.

Technical Data & Specifications:

Pelton Turbine:

- Power output: approx. 70 W at 2700 min^{-1}
- Wheel diameter: 70 mm

Measuring Ranges:

- Torque: 0...0.5 Nm
- Speed: 0...9000 min^{-1}

Operating Conditions:

- Requires HM 290 for operation

Included Items:

- Pelton turbine with transparent housing
- Adjustable needle nozzle for modifying nozzle cross-sections
- Eddy current brake for controlled loading
- Force sensor for torque measurement
- Optical sensor for speed measurement

Dimensions & Weight:

- Dimensions (L × W × H): 350 × 250 × 300 mm
- Weight: approx. 5 kg