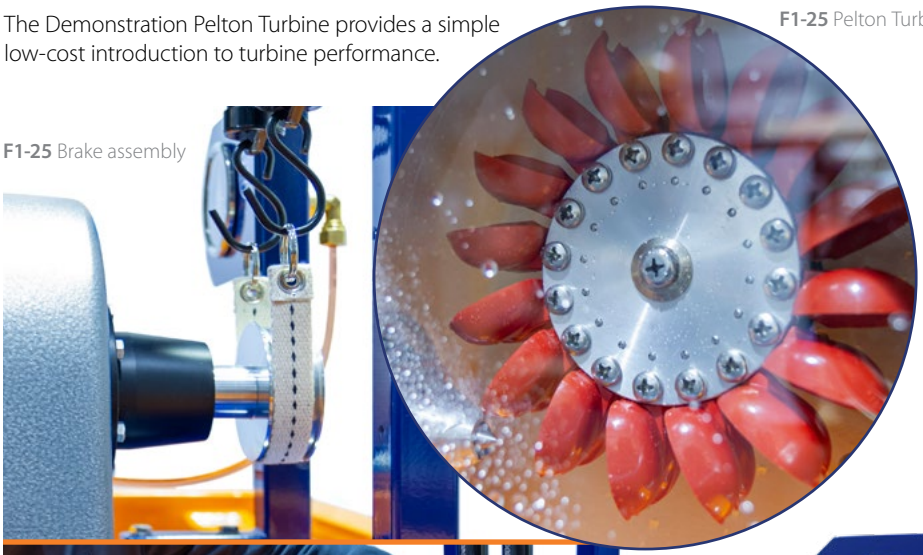
armfield

F SERIES

Demonstration Pelton Turbine - F1-25

The Demonstration Pelton Turbine provides a simple low-cost introduction to turbine performance.

F1-25 Brake assembly



F1-25 Pelton Turbine buckets

Pelton Turbine brake being operated

Experimental content

- To determine the operating characteristics of a Pelton Turbine
- Performance charts of power, speed, torque and efficiency
- Turbine output torque v rotor speed
- Turbine output power v rotor speed
- Turbine overall efficiency v rotor speed

Description

This accessory comprises a miniature Pelton wheel with a spear-valve arrangement mounted on a support frame which fits onto the hydraulics bench top channel. Mechanical output from the turbine is absorbed using a simple friction dynamometer.

Pressure at the spear-valve is indicated on a remote gauge.

A non-contacting tachometer option 100-2/1 may be used to determine the speed of the Pelton wheel. Basic principles of the Pelton turbine may be demonstrated and with appropriate measurements, power produced and efficiency may be determined.

Technical specifications

Speed range	0-2000 rpm
Brake power	10W
Pressure gauge range	0-25m H_2O
Force balance range	2x0-50 N spring balance
Number of Pelton buckets	16
Diameter of Pelton wheel	123mm

Requires Hydraulics Bench Service unit F1-10/F1-10-2

Overall dimensions

Length	0.40m
Width	0.30m
Height	0.60m

Ordering codes

- F1-25
- 100-2/1 Tachometer including carrying pouch

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Service and maintenance support: armfieldassist.com

Issue: 2
URL: http://www.armfield.co.uk/f1
Applications: ChE ME CE IP