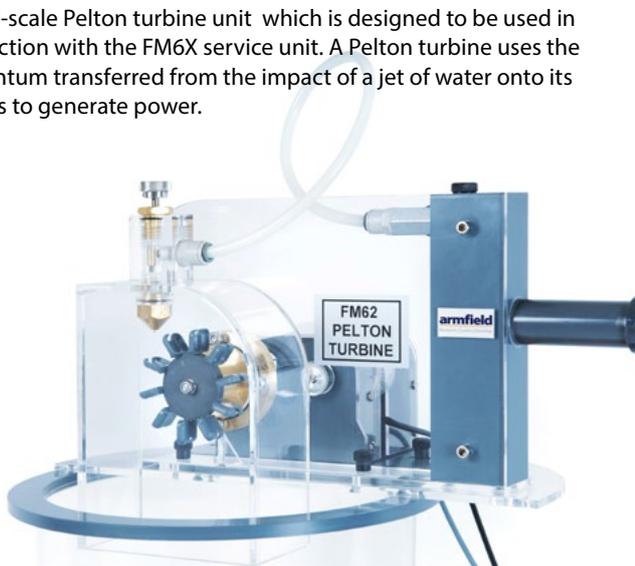
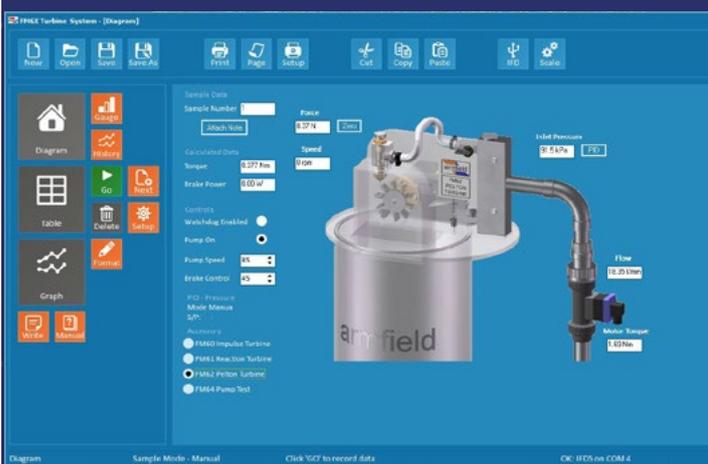


A small-scale Pelton turbine unit which is designed to be used in conjunction with the FM6X service unit. A Pelton turbine uses the momentum transferred from the impact of a jet of water onto its buckets to generate power.



Software screen shot



Technical specifications

| | |
|--|-----------|
| Maximum power: | 35W |
| Maximum speed: | 7,000rpm |
| Maximum torque: | 0.15Nm |
| Buckets: | 10 |
| Bucket dimensions: | 21X16.5mm |
| Spears Nozzle Diameter: | 5mm |
| <i>Two year warranty on this product</i> | |

Overall dimensions

| | |
|--------|-------|
| Length | 0.52m |
| Width | 0.14m |
| Height | 0.33m |

Packed and crated shipping specifications

| | |
|--------------|--------------------|
| Volume | 0.20m ³ |
| Gross weight | 20kg |

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 USA office - email: info@armfield.inc tel: +1 (609) 208-2800 (USA only)

Pelton Turbine – FM62

Description

The FM62 consists of an inlet manifold which supplies water to a spear valve that allows users to vary the jet cross section while maintaining the water velocity.

The runner itself is mounted in a clear acrylic enclosure to allow maximum visibility of the workings.

The unit incorporates a pressure sensor to measure the inlet condition of the water. This pressure can be accurately controlled using the software supplied with the service unit

Demonstration capabilities

- ▶ Determining the characteristics of the Pelton Turbine, including the relationships of:
 - volume flow rate
 - head
 - torque produced
 - power output
 - efficiency to rotational speed
- ▶ Comparison of throttle control and spear valve control of a Pelton turbine

Software

The ArmSOFT software enables the operator to control the pump speed 0 to 100%. Feedback from the sensors is then displayed in real time for the end user with simultaneous data logging.

The data trend is also displayed graphically in real time and can be exported to another platform such as Excel for further analysis.

Requirements

Scale



- ▶ FM6X
- ▶ Armfield IFD7
- ▶ Software requires a computer running Windows XP or above with a USB port (computer not supplied by Armfield)

Ordering specification

- ▶ Small-scale hydropower unit designed to demonstrate the operating principles of a Pelton turbine
- ▶ Transparent guarding enables excellent visibility of the Pelton wheel operation
- ▶ Mounts on a dedicated service unit
- ▶ Connects to a PC via the service unit and a USB interface device
- ▶ Software compatible with Windows XP through to Windows 10

Ordering codes

- ▶ FM62
- ▶ FM6X
- ▶ IFD7-A: 220-240V / 1Ph / 50Hz
- ▶ IFD7-G: 220-240V / 1Ph / 60Hz

Issue: 2

URL: <http://www.armfield.co.uk/fm>

Applications



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