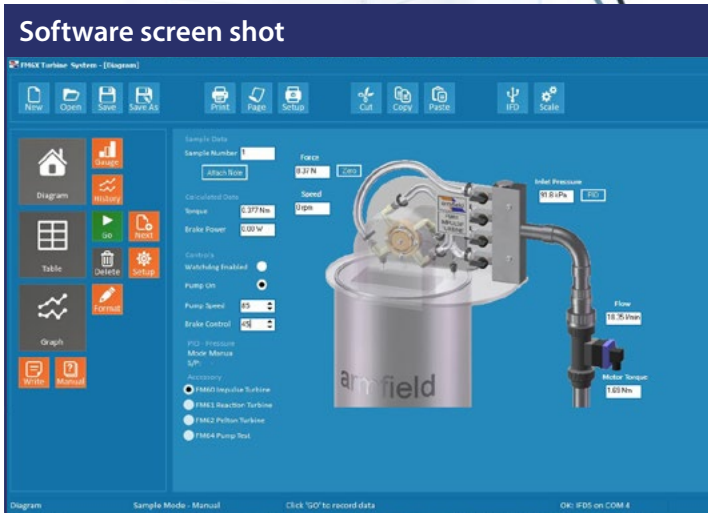
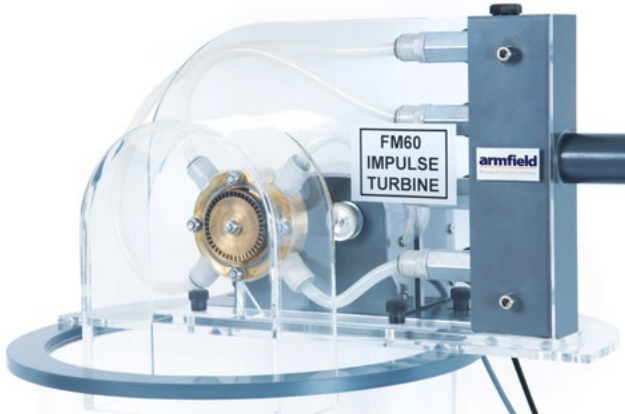


FM SERIES

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



Technical specifications	
Maximum power:	35W
Maximum speed:	7,000rpm
Maximum torque:	0.15Nm
Pressure Sensor:	0 to 100psi
Turbine Diameter:	50mm
Turbine Shaft Dia:	7mm
<i>Two year warranty on this product</i>	

Overall dimensions	
Length	0.56m
Width	0.13m
Height	0.29m
Packed and crated shipping specifications	
Volume	0.20m ³
Gross weight	20kg

UK office - email: sales@armfield.co.uk tel: +44 (0) 1425 478781 (for ROW)
 USA office - email: info@armfield.inc tel: +1 (609) 208-2800 (USA only)

Impulse Turbine – FM60

Description

The FM60 consists of an inlet manifold which supplies water to four jets which are equally spaced around the turbine runner. Each of the jets can be individually controlled using ball valves. The runner itself is mounted on a horizontal shaft with a clear acrylic splash guard to enable 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 impulse turbine, including the relationships of:
 - volume flow rate
 - head
 - torque produced
 - power output
 - efficiency to rotational speed
- ▶ Comparison of throttle and nozzle control of an Impulse 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



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

Scale



Ordering specification

- ▶ Small-scale hydropower unit designed to demonstrate the operating principles of an impulse turbine
- ▶ Horizontal shaft and transparent guarding enable excellent visibility
- ▶ 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

- ▶ FM60
- ▶ 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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