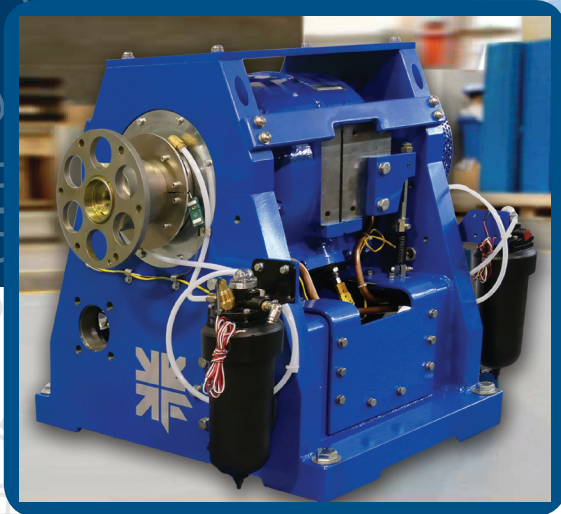


# F Range Hydraulic Dynamometers



## Froude – the Industry Standard

- Consistent and superior level of control throughout the speed range:
  - Speed measurement accuracy of +/- 1 rpm
  - Torque measurement accuracy of +/- 0.25% of full rated torque
- Lower inertia allows faster transient response and stable operation
- Flexible bedplate configuration
- Lower water flow requirements which saves on your water supply system
- Fail safe operation
- Wide operating envelope ideally matched to large range of engine applications
- Hydraulic power pack for lubrication and control
- Full warranty replacement of parts (not pro-rated like other manufacturers)
- Global support network



The most recognized engine-testing brand for over 135 years.

## Applications

Development, production and post overhaul testing of:

- Automotive gasoline and diesel engines
- Industrial and marine diesel engines
- High performance competition engines
- Turboprop, turboshaft and power generation turbines
- Engine components
- Electric motors

## Description

The Froude F range hydraulic dynamometers have been designed to be compact, robust and allow easy maintenance. As standard the machines are fitted with two half couplings allowing connection at either end. These, along with the rotor, are oil injected on to the main shaft thus eliminating stress raising keyways. Grease lubrication is replaced by the optional 'oil mist' system for the high speed versions.

Froude dynamometers are high performance machines and well known for their consistent high level control throughout the speed range. This is achieved through the innovative engineering behind our water outlet valve, rotor and stator design. We offer a system that is of high quality, reputable and competitively priced. Our flexible bedplate configuration allows ease of use, ease of maintenance and gives you flexibility to configure the system the way that suits you best. You will find Froude testing equipment throughout the world — the product of choice for OEMs, MROs and test facility suppliers.

# F Range Hydraulic Dynamometers

## Specification

The standard range of Froude F type hydraulic dynamometers extends from 750 kW up to 35,000 kW and speeds up to 14,000 rpm. Torque measurement accuracy is  $\pm 0.25\%$  of full rated torque of the dynamometer. Speed is measured by a pulse pickup operating with a 60 tooth wheel and gives accuracy of  $\pm 1$  rpm.

## Options

- High speed versions up to 16,000 rpm
- Calibration equipment
- Shaft bearing thermocouples
- Water inlet pressure switch
- Water inlet valve, pneumatic or servo operation
- Water outlet valve fail-safe device
- Water inlet and outlet thermocouples
- Bi-directional machines
- Paint color

## Peripherals

- Dynamometer and engine controllers
- Data acquisition systems including automatic test sequence control and graphical user interface

## Customer Service and Support

- Facilities planning and installation service
- Comprehensive in-house and/or on-site training for customer engineering, operator and maintenance personnel
- Tailored preventative maintenance contracts
- Technical helpline support

Froude maintains a policy of continuous research and development and specifications are subject to alteration without notice.



## Further information:

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