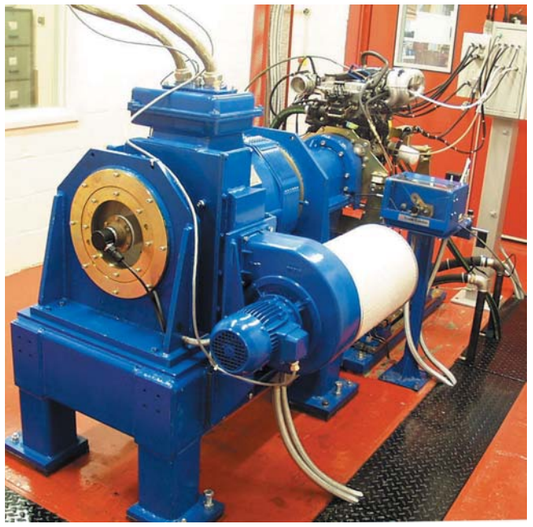
Total System Capability

From the planning and specifying of the engine test facility to the installation, commissioning and training on the test equipment, Froude Hofmann can provide a total solution.

Our team of experienced multi-disciplined engineers form the core skill base on which our business is built. From mechanical and electrical design of dynamometers to the development of sophisticated software systems for control and data acquisition, we can meet your requirements.

The combined resources from our operations in the UK, Germany and the USA integrate to meet the increasing demands of the market. The solutions we provide to the global customer base aim to meet these requirements of:

- Cost competitive
- On-time delivery
- Total customer support
- High quality reliable products
- Customer satisfaction



Typical engine test installation

Major Users Include

- Ford
- PSA
- Jaguar
- Land Rover
- Nissan
- BMW
- Lotus Engineering
- Bentley
- KIA
- MIRA
- Shell
- IDIADA
- Hyundai
- Triumph
- Delphi
- Lubrizol
- Toyota
- Aston Martin
- Steyr Daimler Puch
- Ricardo
- Scania
- Perkins
- MAN
- Prodrive Tickford
- Daedong
- MTU
- Proton
- Harley Davidson
- Honeywell
- Cummins
- Wartsila
- Weber
- Tianjin
- Mahle
- JCB
- VTT

Quality Assurance ISO9001

Certificate No. Q10350

Quality Assurance ISO14001

Certificate No. EMS45645

Quality Assurance ISO9001

Certificate No. 08 100 1785

Ford Q1:2002

Member

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Froude Hofmann

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Engine Test Systems

Engine Test Systems

Froude Hofmann is one of the World's leading suppliers of engine testing systems. We are able to offer one of the most comprehensive range of electric and hydraulic dynamometers available from any supplier, for automotive, heavy duty and industrial diesel engines, marine and gas turbine applications. Together with our Texcel digital control and data acquisition system we can provide solutions from simple overhaul test applications through to high level research and development.

Control and Data Acquisition

The Texcel V10 combines sophisticated software functionality with an intuitive easy to use Graphical User Interface. Its modular software packages enable the system to be used on overhaul, race engine, quality audit, mechanical durability and performance and evaluation testing requirements. This approach provides the user with the option to start with a basic initial system with the ability to add additional software modules increasing the systems functionality as the testing requirements of the test cell change. Texcel V10 can be used with eddy current, hydraulic and AC dynamometers, enabling it to be utilised in a wide variety of engine testing applications.

A typical engine test also requires the measurement of fuel consumption, blow-by, smoke and emissions. The Texcel software has been designed to operate with a wide range of these devices making it the heart of the test cell in acquiring important test data.

Test Control Features at a glance

- PC Windows™ based Graphical User Interface
- Programmable test sequencer
- Steady state and transient testing
- Exhaust emisiion test cycles
- Road load profiling
- Transmission simulation
- Integrated digital control and data acquisition
- ASAM MCD and ACI interfaces
- Powerful logging and alarm capability
- Powerful post test data analysis package
- Network connectivity

AC Dynamometer Systems

Froude Hofmann range of AC dynamometers is designed to meet the rigorous requirements of high performance engine development testing. The low inertia AC motor is mounted on a robust base frame that also supports a separate jackshaft to provide exceptional over hung load capability for the engine drive shafts. Torque is measured by an in-line torque hub in the foot mounted version and by a load cell in the trunnion bearing mounted version.

AC Dynamometer at a glance

- Power – 140 to 690kW
- Steady state and transient test capability
- Road profile, vehicle inertia and transmission simulation.
- Fast and accurate dynamic response
- Low inertia
- High speed operation
- High overhung load capability
- Air cooled
- IGBT control
- Four quadrant control
- Quality Audit testing
- Engine Development testing

Eddy Current and Hydraulic Dynamometers

The eddy current and hydraulic dynamometers have been designed to be compact, robust with low maintenance requirements. They are designed for use in R&D, quality audit, production and post overhaul testing applications. They can also be used on component test rigs, transmission test rigs and electric motor testing applications. Due to its robust easy to use design the eddy current dynamometers provide an ideal solution for educational applications. The F type and LS types of hydraulic dynamometers are the ideal for the arduous requirements of heavy industrial and marine diesel applications.

Engine Test Cell Products

Froude Hofmann provide a range of standard in-cell products to complete the test cell installation. this includes engine and dynamometer test stands, engine oil and water cooling modules, throttle actuators, shut down actuators and engine start systems. We can also assist in design studies for the necessary services such as exhaust, ventilation and cooling water systems.