

At a Glance

Applications as varied as:

- Simulated operation in extreme cold and heat
- Low noise (<45dBA)
- Gale force winds
- Prolonged high speed operation (>250 km/hour)
- Condensed vehicle life tests (>100,000 miles).

Motor/generator power devices may be configured in-line, belt-driven or centre mounted between the rollers. Inertia ranges to cover motorcycles to heavy-duty commercial vehicles.

Low maintenance, high efficiency, reliability and precision are standard criteria across the range.

User interface

- PC-based user interface, integrated within a Microsoft Windows™ XP environment
- Common server for multibed applications.

Real-time control

- VME bus system with 14 slot rack
- 16-bit resolution for analog/digital and digital/analog conversions
- Ultra-fast response times
- Inertia verification with real-time output
- Modular software written in 'C++' for maximum flexibility

Major Users Include

- | | | | | | |
|--------------|--------------------|-----------|-------------------|----------|----------------|
| ● Volkswagen | ● Land Rover | ● Saab | ● Audi | ● MIRA | ● Hyundai |
| ● Ford | ● Daimler Chrysler | ● Volvo | ● Johnson Matthey | ● Shell | ● Renault |
| ● PSA | ● Nissan | ● Lotus | ● KIA | ● IDIADA | ● Lear Seating |
| ● Fiat | ● Seat | ● Skoda | ● Honda | ● ARAI | ● Triumph |
| ● Jaguar | ● BMW | ● Bentley | ● Torotrak | ● VTT | ● Calsonic |

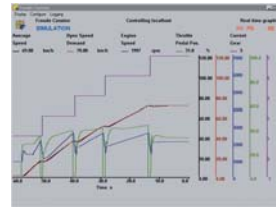
Quality Assurance

BS EN ISO 9001
Certificate of registration No. Q10350
BS EN ISO 14001
Certificate of registration no. EMS45645
Ford Q1 2002 Quality Operating System
Members of ASAM

- Modular hardware for dynamometer control, customer I/O, data logging, external control, monitoring and communication
- Ethernet and RS232 (including AK and ASAM protocol) communications available
- Direct on-line support, in real-time, via modem lines
- Software and system maintenance contracts available
- Systems upgrade compatibility
- Data logging, analysis, easy fault diagnosis, modem support and real-time graphics packages as standard.

Peripherals

- Robot drivers for endurance, emission and other applications
- Cooling fans - fixed or variable speed
- Automatic fuel-filling systems
- Programmable driver aids
- Data acquisition packages
- Data plotting packages
- Automated test scheduling
- Range of training packages.



Froude Hofmann can provide the complete solution to meet standard or specialised customer requirements for vehicle testing.

Skilled installation and commissioning engineers provide an efficient site service and on-going support is available from our Customer Service organization with fully trained technicians strategically based around the world.

Further information from:

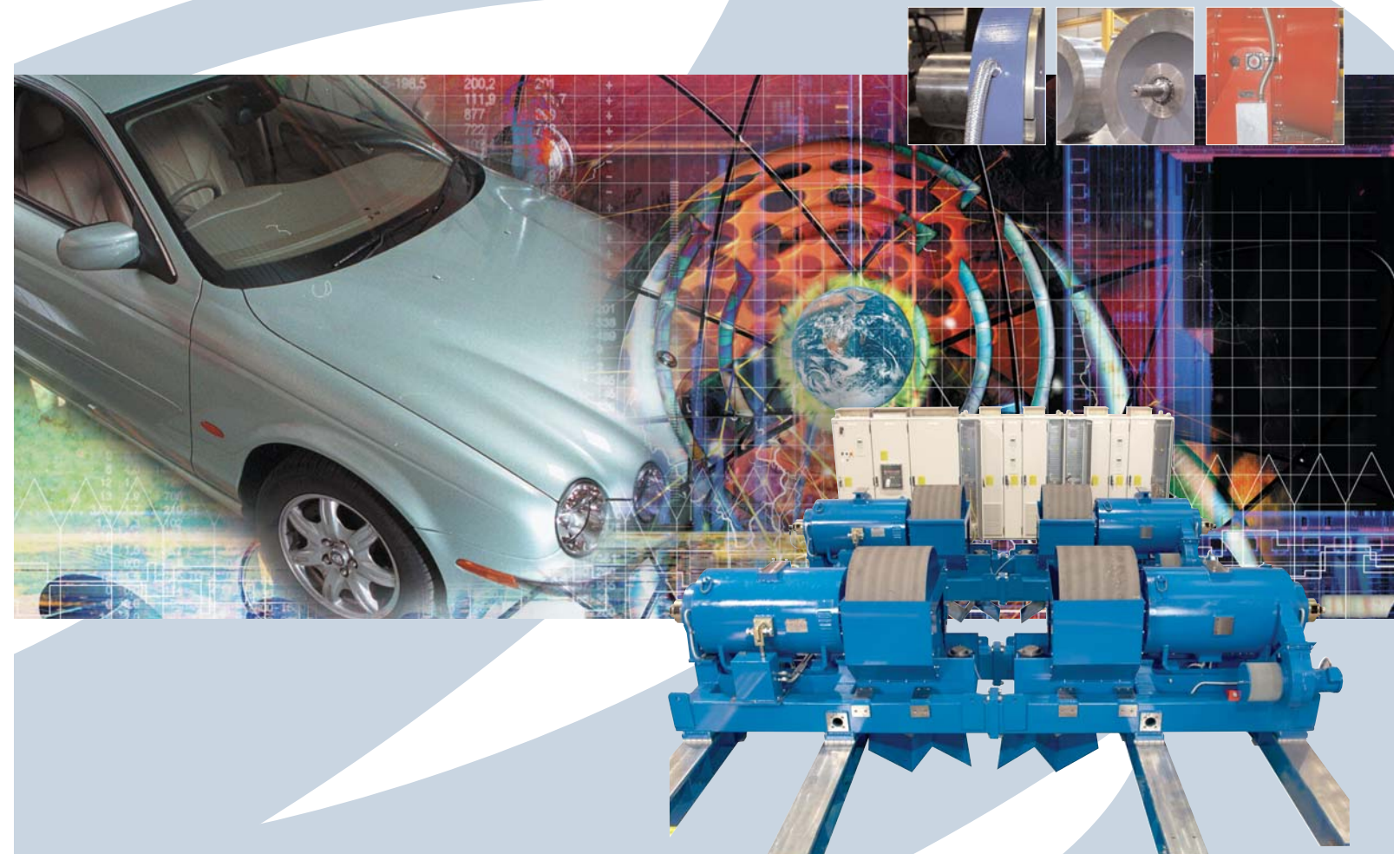
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Froude Hofmann maintains a policy of continuous research and development and specifications are subject to alteration without notice.

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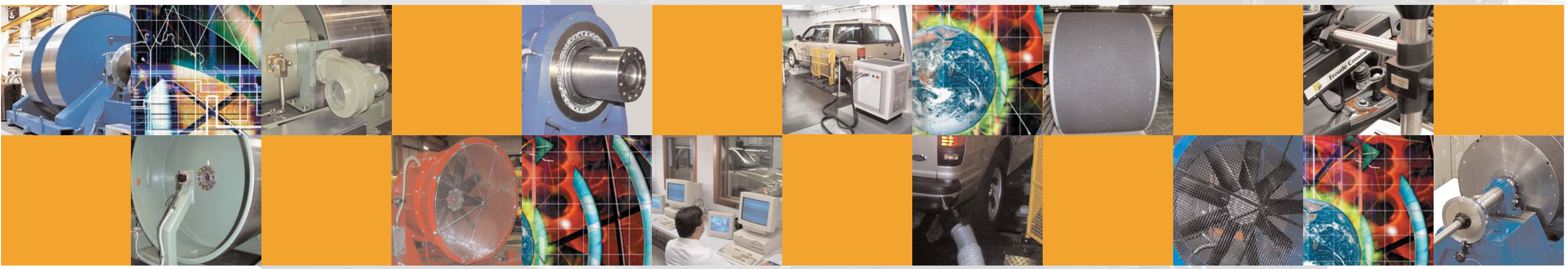
Vehicle Test Systems



VTSE 0506

Vehicle testing, where time counts!

Froude Hofmann supply a range of Vehicle Test System products to the automotive and commercial vehicle markets, specifically designed for testing passenger cars, light to heavy duty trucks, motor cycles, buses, agricultural vehicles and specific component sub-assemblies.



Froude Hofmann Vehicle Test Systems include chassis dynamometers that are of modular construction with innovative mechanical design and efficient, high response electrical inertia simulation. Control is provided by high accuracy VME based computer systems utilizing Windows™ XP user interface technology.

Industry standard test cycle programmes are incorporated within the powerful software as well as the facility to generate customer specific test sequences. Data acquisition and display is provided in realtime and off-line as required. This data can be manipulated and analysed in the Froude Hofmann data-plotting package.

The award winning Froude Hofmann Automatic Robot Driver System and Automatic Fuel Supply System are just two additional advanced technology options that enable Froude Hofmann to provide a complete automated test facility.

- Principal Applications**
- Exhaust emission testing
 - Endurance testing
 - Quality validation
- Specialist testing:
- Noise, Vibration and Harshness (NVH)
 - SHED
 - Wind Tunnel
 - EMC
 - Climatic
 - Performance

Exhaust Emission Testing
Exhaust emission testing is performed under strictly controlled environmental conditions, to specified test schedules under simulated driving conditions using human or robot drivers.

Automatic Endurance Testing
Endurance testing systems provide full 24 hour unattended vehicle testing under automatic control. Vehicle and component ageing can be analyzed within a controlled environment, or exposed to prevailing weather conditions. Froude's Automatic Fuel Supply System is a common addition to this facility to support continuous testing and safe working environment.

Quality Validation
Vehicles are taken from the production line at random or in a planned sequence for quality validation checks.

Specialist Testing
High performance Froude Hofmann application software controls the dynamometer to simulate a full spectrum of road load scenarios, enabling specific tests to be performed under laboratory conditions. Typical system configurations include 4x2, 4x4 and 'independent' roller dynamometers.

- Standard Vehicle Test Systems include:**
- 48 inch diameter roller chassis dynamometer with electrical inertia simulation (EIS)
 - Centre-mounted or in-line electrical machines
 - Automatic robot driver system
 - Automatic fuel supply system
 - Controllable air speed simulation fans
 - In-car data capture system (providing full journey simulation)
 - Data acquisition system
 - Data plotting package.

