

48" Roll Chassis Dynamometer

for endurance, emissions, fuel economy and performance testing



- 48" roll with center mounted AC motor design
- Exceeds US EPA and European emissions test requirements
- High accuracy and repeatability with high response
- Real time control processor and distributed I/O architecture
- Clean power IGBT AC drive technology
- Field proven design and technology
- Low maintenance and lifecycle costs
- Global service support

fact sheet:

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Hofmann TeSys center-mounted AC emissions chassis dynamometer is available in standard LDV (Light Duty Vehicle) and MDV (Medium Duty Vehicle) versions for both 2WD and 4WD configurations. The chassis dynamometer utilises an AC motor mounted between 48" rolls. This provides a compact solution with minimum pit area requirements. The dynamometer and peripheral equipment are designed for quick and efficient set-up, with an important emphasis on operator safety and ease of use.

Applications

- ✓ Vehicle exhaust emissions testing
- ✓ Fuel economy testing
- ✓ Climatic and environmental testing
- ✓ Vehicle road load simulation for customer test requirements
- ✓ Performance testing

Features

- ✓ Self-compensating frictionless design
- ✓ Thermally stabilized load measurement system
- ✓ Twin encoders for increased accuracy
- ✓ Compact design AC motor with low vibration, efficient cooling and high performance
- ✓ Real time control processor and distributed I/O architecture
- ✓ Graphical user interface with Windows 10 OS
- ✓ Vehicle restraint system
- ✓ Personnel safety protection
- ✓ Above or below floor load calibration equipment
- ✓ IGBT 4 quadrant AC drive with power recuperation

Services

- ✓ Facilities planning and installation services
- ✓ Comprehensive in-house and/or on-site training for customer engineering, operator and maintenance personnel
- ✓ Tailored preventative maintenance contract
- ✓ On-line diagnostics and support
- ✓ Technical helpline support

Options

- 2WD, 4WD or 4x4 independent
- 2WD upgradeable to 4WD
- High speed version up to 300km/h
- Increased power/force options
- Climatic design (typically -40°C to 60°C) and insulated pit options
- Integrated or stand-alone robot driver
- Automatic vehicle centering and lift systems
- Drivers-aid laptop/PC
- Wheel guards/roll covers
- Single point restraint
- PEMS (Portable Emission Measurement System) for CO, CO₂, NO_x in real-time mode
- Test facility host computer system
- Data acquisition with powerful graphical presentation and analysis package
- Vehicle cooling fans

Accuracies

| at up to 4m/s ² | 2WD | 4WD |
|----------------------------|------------|------------|
| Transient force | ±3.5 N | ±5 N |
| Steady state force | ±2.5 N | ±4 N |
| Load repeatability | ±1.5 N | ±3 N |
| Speed control | ±0.01 km/h | ±0.01 km/h |
| Inertia simulation | <50 ms | <50 ms |
| Front/rear roll sync | N/A | ±0.02 km/h |

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