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## Customized Test System for Steam Turbine Engines

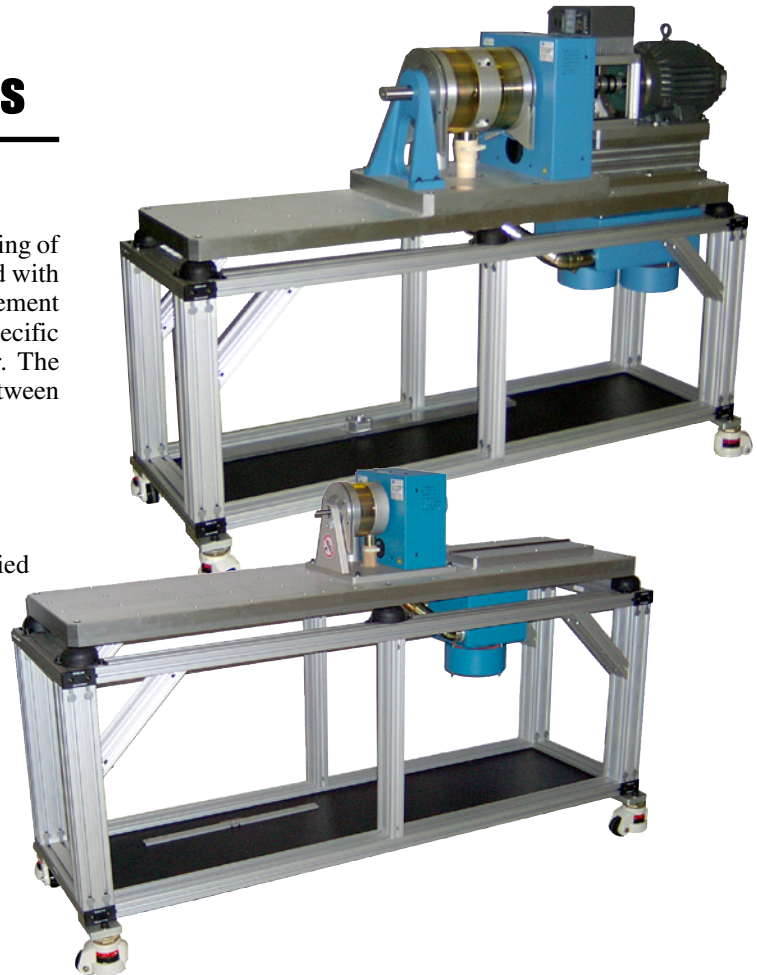
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### APPLICATION

This Custom Motor Test System is designed for the testing of steam turbine engines. The dynamometers are equipped with a variable speed back-drive motor that allows measurement of total friction and windage of the entire driveline at specific speeds, using a Magtrol In-Line Torque Transducer. The motor/drive/transducer assembly can be easily ported between the two dynamometers as needed.

### COMPONENTS

- 2 Custom Dynamometer Tables
- ED-815 Engine Dynamometer and Blower: modified with through shaft for back drive
- HD-710 Hysteresis Dynamometer and Blower: modified with through shaft for back drive
- DSP6001 High-Speed Programmable Dynamometer Controller
- TM 206 In-Line Torque Transducer
- 6400 Torque Transducer Display
- Custom Back-Drive Motor Assembly
- Metal Bellows Couplings



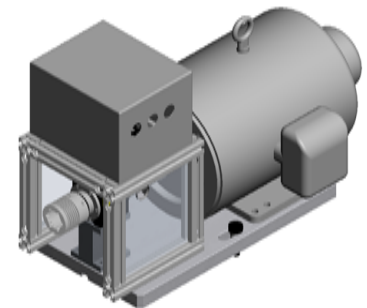
### CUSTOM TABLE

All of the components mentioned above are mounted on a versatile table that can be easily reconfigured and retrofitted to any Magtrol dynamometer. The cart is constructed from lightweight aluminum with casters for smooth mobility, and is sturdy enough to support even the heaviest of Magtrol dynamometers. When at rest and in operation, hand-operated leveling jacks, with rubber pads for vibration control, lift the casters from the floor to provide a solid foundation.

Neoprene dome-style mounts are added between the base of the dynamometer and the table to provide vibration, shock and noise isolation for rotating equipment. These mounts have an interlocking steel design that will stay intact even if the rubber fails. The table also includes a custom blower mount to optimize cooling, calibration beam, tools and accessories. Optional 19" rack mounts can be added for supporting controllers, readouts or power analyzers.

### BACK-DRIVE MOTOR ASSEMBLY

Magtrol's custom back-drive motor assembly provides easy coupling with no tools required. It's rotating components are completely enclosed with Lexan® safety guards. The system is keyed keeping the back-drive assembly centered with the dynamometer



and is securely mounted to the base plate. Mounting screws provide positive positioning for coupling engagement.



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