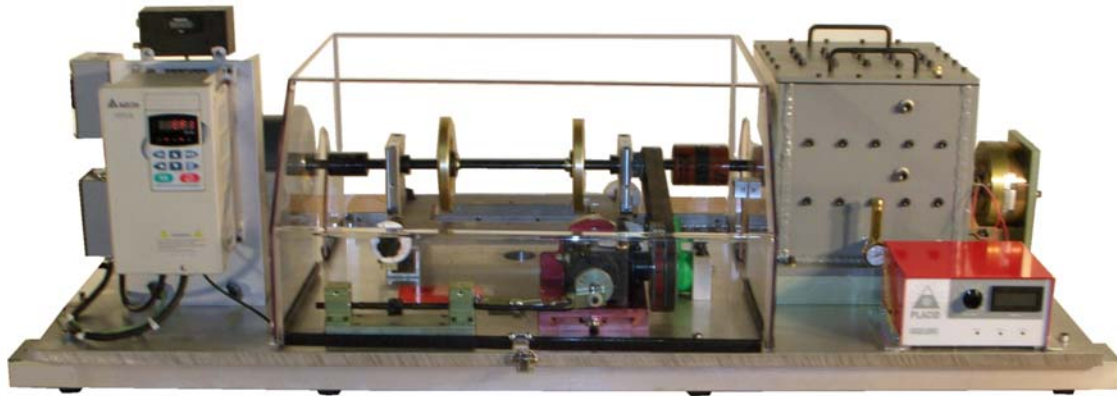




Machinery Fault & Dynamics Simulator



An optimum device for research in machinery fault diagnosis and gearbox dynamics

SpectraQuest's Machinery Fault & Dynamics Simulator has been specifically designed to simulate different machinery faults and gearbox dynamics phenomena for experimental and educational purposes. It is robust to provide appropriate stiffness and sufficiently spacious for ease of component placement, setup, and installation of monitoring devices. The PC controllable brake on the main gearbox provides the capability of the loading effect study.

Key Features

- An optimum balanced simulator between the size, weight, functionality, robustness, operation convenience, and versatility.
- A compact turn-key system for different mechanical faults simulations.
- PC controllable 3 HP drive motor and brake magnetic loader.
- By disconnecting the main gearbox from the driveline, the simulator performs as a standard Machinery Fault Simulator™.
- Custom designed parallel shaft two stages main gearbox can be configured as single/double stage reduction/increaser. A powerful tool for gear dynamics study.

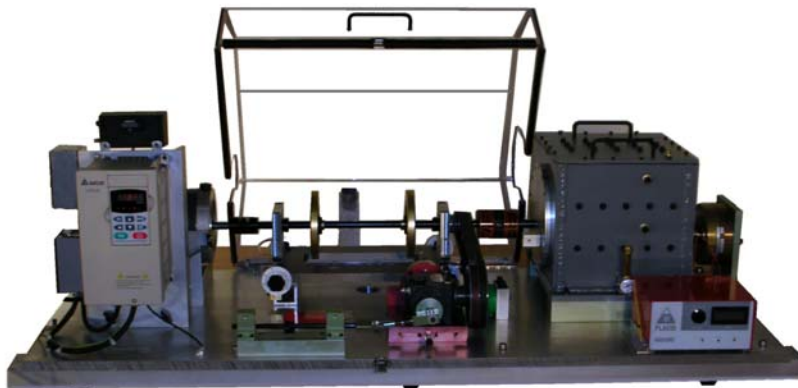
- Easy to install gears of different sizes/types (spur and helical), and to introduce a variety of faults for controlled studies.
- Features modular, re-locatable component configurations, convenient instrument mounting, drive train alignment, gear changing, and robust design.
- Panel controlled magnet brake system for convenient and accurate load control.
- The driveline is designed in a way which can accommodate different types of sensors easily.
- Great potential for further customized modification and upgrade.

Applications

1. Designed for research in the fields of machinery condition monitoring and fault diagnostics.
2. Different types of machine mechanical faults, balance, misalignment, rolling element bearing, bent/bow shaft, cocked rotor, belt, sheave, mechanical rubbing, etc.
3. Gearbox diagnostics. Spur, bevel and helical gears can be seed faulted and studied.
4. Gearbox dynamics and noise study.

Specifications

- Weight: 500 lbs
- Max Speed: 3,600 RPM
- Dimensions: 58" (length) x 24" (width) x 14.5" (height)
- Motor: 3 HP driver



SpectraQuest, Inc.
Richmond, Virginia
Phone:(804)261-3300
Fax:(804)261-3303
www.spectraquest.com