SpectraQuest, Inc.

Bearing/Balancing Fault Simulator With AC Drive

- Portable, robust, cost-effective balance and bearing vibration trainer
- Ideal for teaching multi-plane balancing with centerhung / overhung rotors
- Can be setup to exhibit bearing fault frequencies both further away from, and closer to multiples of the shaft rotational speed (RPM)
- Develop signal processing techniques to identify bearing fault frequencies in the presence of defects, at multiples of shaft RPM, without using high-resolution spectra
- Use the BBS to recognize the vibration spectra of different bearing faults
- 10 different application specific study kits available

The Bearing/Balancing Simulator (BBS) is specifically designed to demonstrate and support the study of bearing faults and unbalance under controlled conditions. The BBS is a variable speed machine that can be used to generate each type of fault individually or in combinations, providing a stable platform for study. Since bearing related problems are very common, it is essential to have a thorough understanding of the associated fault signatures that occur under a variety of operating conditons. The same can be said for unbalance, where a properly balanced machine will save a factory on machine down time, replacement parts, inventory, and energy consumption. The BBS is available with either an AC drive or DC drive. The ten option kits include: eccentric rotor, cocked rotor, bent shaft, 5/8" and 1" diameter bearing fault kits, 5/8" and 1" diameter bearing loaders, 5/8" diameter sleeve bearings, and tachometer with analog output.

Specifications:

General: ½ HP AC induction motor with variable speed drive to 4,000 RPM, 110/220 Volts, 60/50Hz, split bracket bearing housings with features for span reconfiguration, precision machined baseplate with vibration isolators

Rotors: 2 aluminum with one row of 18 tapped holes

Safety: Clear, impact resistant cover

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