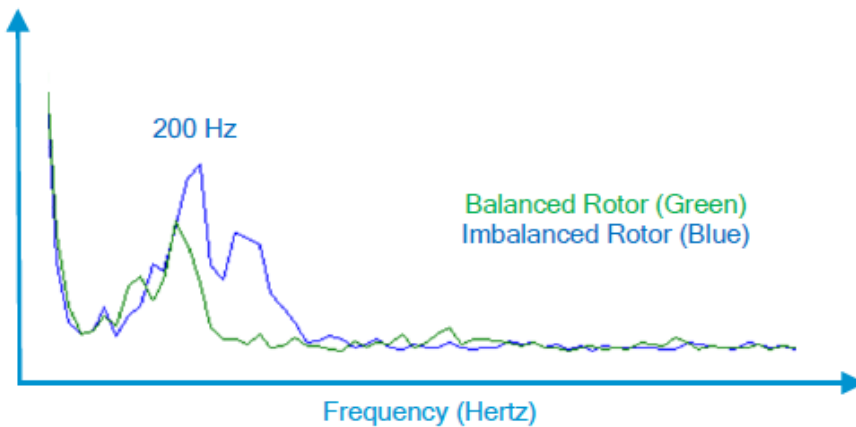


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Spin Tool Failure Monitors

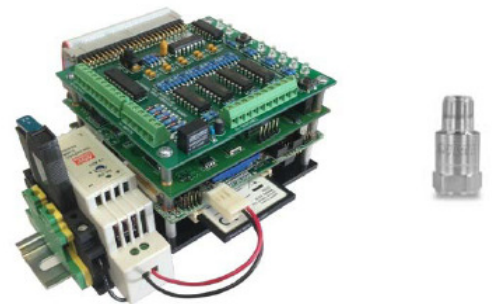
www.WetBenches.net

FSI and Semitool spin tools are workhorses in just about every wafer FAB. Like all equipment, these spin tools have occasional scrap events. Common scrap event failure mechanisms include unbalanced load, missing cassettes, motor degradation, bearing wear, and ferofleuridic seal failure.



Shown graphically, the vibration signatures of a balanced load at slow spin speed is vastly different than that of an unbalanced load. Armed with this information, our device is able to warn at any anomaly as well as drift. Knowing exactly what an unbalanced load vibration signature looks like, our device is equipped with the knowledge to prevent catastrophe.

Our wellness monitoring system is comprised of a piezoelectric accelerometer for monitoring each motor and an electronics package. It's small enough to mount inside the tool and can be set to just monitor and report. Or, it can be integrated to abort the tool in red alert situations. Through an optional connectivity package, we send detailed information to your host or your PC via Ethernet.



"If you want to find the secrets of the universe, think in terms of energy, frequency, and vibration"

- Nikola Tesla

Tesla had it right; everything that moves has a vibration signature. When FAB equipment runs as desired, its healthy vibration signature is as unique as a fingerprint. When that vibration signature drifts, you are experiencing an excursion.

This is the premise of our vibration based wellness monitors. This technology has been used for years in the US Military. Now, the semiconductor industry is embracing vibration based fault detection as well.

Vibration monitoring is a powerful predictive maintenance tool that provides a high resolution window into the health of your equipment.

If you can think of any applications where this technology can be deployed, we want to hear from you. Product development and custom solutions are an integral part of our growth strategy.