

PQ Test

Detection of ferromagnetic wear particles in oil



Industries concerned

- Automotive
- Rail
- Marine
- Navy
- Power production
- Mine
- Aerospace
- Industry
- Analysis service

The PQ Test is a fast, accurate, and user-friendly instrument designed for the measurement of ferromagnetic wear particles in lubricating oils and greases.

It determines the PQ Index, a dimensionless value that correlates directly with the concentration and size of ferromagnetic particles in the oil. Highly sensitive to large wear debris, the PQ Index is often used alongside elemental analysis to significantly improve machinery fault detection.

- Reliable and repeatable on-site analysis
- Clear interface and simple operation with a 5.6" touch screen

- Extremely easy to operate, no training required
- Fast analysis: results available in 11 seconds
- Real-time display of measurement results
- Built-in trend monitoring for comparative analysis

Measuring principle

The PQ Test operates by placing the oil sample inside a strong, uniform magnetic field. Ferromagnetic wear particles present in the oil disturb this field in proportion to their quantity and size. The instrument detects this disturbance and converts it into a PQ index, a dimensionless value that increases as wear debris becomes more abundant or larger.

Because the PQ index responds strongly to large ferromagnetic particles, it provides an early and reliable indication of abnormal wear. The measurement is fast, fully automatic, and displayed in real time, allowing operators to assess equipment condition within seconds.

Features

- Dimensions: 40 x 26 x 18 cm
- Weight: 5.5 kg
- Screen: 5.6-inch touchscreen – 640 × 480 pixels
- Power: AC 100–240V 50Hz/60Hz
- USB port: software update / test records export
- RS232 port: connect to computer through ModBus communication

Product code

PQ Test: IT9004