

PA200 Dual Analysis Ferrograph



PRODUCT INTRODUCTION

Ferrography analysis is one of the important technologies for equipment condition monitoring and predictive maintenance, which can accurately and reliably predict the wear state and potential failure of machine lubrication parts, and promote maintenance actions to optimize the utilization and efficiency of equipment. Ferrographic analysis techniques developed by Shuhao Instruments set the standard for equipment diagnosis and are widely used in oil analysis laboratories worldwide. Ferrography is mainly used for image analysis of wear particles in lubricating oil. Ferrography technology is to use the magnetic field to separate the ferromagnetic wear particles and adhesive particles in the machine lubricating oil sample, and analyze the shape, size, quantity and particle size distribution of the deposition separation, so as to obtain the relevant information of the wear process. The standard test method is consistent with SHT0573-1993 lubricating oil wear particle test method (analytical ferrography). Ferrography technology can be used to diagnose and monitor the wear state of mechanical equipment in operation, so as to improve the reliability and safety of the system. One of the important tools for the application of ferrography is the ferrospectrometer.

The PA200 double analytical ferrospectrometer is designed as two independent loops, allowing simultaneous preparation of two oil samples. The operator can choose between automatic mode and semi-automatic mode.

MAIN FEATURES

- The water content of the oil has little effect on the preparation of the spectrum;
- Once the oil sample is ready and inserted, the instrument can proceed automatically and the operator can do other work;
- Adjustable sample flow rate to ensure consistent deposition and repeatability;
- Make 2 music pieces simultaneously in less than 20 minutes;
- The spectrum is transparent, allowing the distinction between metallic, organic, and nonmetallic particles for easier diagnosis;
- The particles are arranged according to their magnetization coefficient and size to facilitate the rapid analysis of the particles.
- Particle accumulation rarely occurs, which is easy to observe.

APPLICATION FIELD



PARAMETER

Project	Data
Mains supply	AC220V, 50Hz ;
Wear particle measurement range	0μm ~ 800μm;
Injection method	Micro pump pressure type, automatic sampling;
Cleaning method	Automatic cleaning and manual cleaning two ways;
Magnetic field	Maximum magnetic flux density 1.5T (±0.1T) Maximum magnetic field gradient > 0.5T/mm;
	Permanent magnet, high gradient magnetic field, iron particles neatly arranged, can avoid accumulation phenomenon;
	Use tetrachloroethylene as dilution and cleaning solvent;
Spectrum-making channel	Dual-channel synchronous spectroscopy;
Plate inclination	1°-5°;
	A sample of the standard abrasive particle atlas is provided
	Equipped with corresponding iron spectrum pieces and other consumable lifting accessories
Display screen	Equipped with two 1.54 inch OLED display, real-time display instrument status;
Oil sample transfer speed	10-30ml/h ;
Cleaning agent flow rate	10-30ml/h ;
Measurement resolution	1μm;
Sample size for a single analysis	1ml;
Oil delivery pipe size	Outer diameter 2.6 mm, inner diameter 1.8 mm;
Ferrographic substrate size	60×24×0.17mm;
	Comply with ASTM D7690, ASTM7684 and SH/T 0573 standards;
	Built-in waste liquid collection device, vacuum pump to extract waste liquid to waste liquid bottle;
Size	395mm*355mm*335mm (length * width * height) ;
Weight	About 14kg