

# FerroCheck 2000 Series

## FERROUS METAL ANALYZER

Solvent-free, simple to use, fast and accurate results



The FerroCheck 2000 Series enables fast and simple measurement of the total ferrous wear content in oils and grease for condition based maintenance of machinery and engines.

Typical components trended for wear as part of a condition based maintenance program include:

- Gear boxes
- Turbines
- Hydraulics
- Transmissions
- Engines
- Pumps and compressors

### Accurate total ferrous measurement for in-service lubricants

Measure total ferrous content in parts per million (ppm) by weight

- Measures all ferrous material – normal machine wear and large abnormal wear particles.
- Highly accurate and repeatable
- Wide range of measurement
- Validation standards included

Easy to use

- Solvent-free operation and no sample preparation
- Requires less than 2 ml of sample to test
- Results in 30 seconds

Expanded I/O capability

- Automated data storage, export files in CSV format or use AMS OilView™ software interface

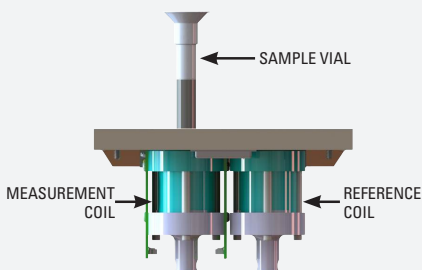
Portable, battery-powered design

- Lightweight and fits easily into a toolbox or carrying bag; capable of operation for over 4 hours before recharge. Unit plugs in for continuous use.

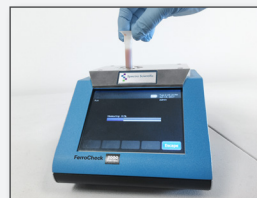
ASTM compliance

- ASTM method D8120 “Standard Test Method for Ferrous Debris Quantification”

	FerroCheck 2000	FerroCheck 2100
Oil	0-10,000 ppm	0-10,000 ppm
Grease	NA	0-15%



Schematic of Coil Around Sample



### Principle of Operation

The core of the FerroCheck 2000 is a pair of precision-rounded coils that when powered generate magnetic fields. When a small amount of in-service oil is inserted into one of the coils, ferrous particles such as iron, nickel and cobalt interact with the magnetic field and introduce current changes in the coils. The amount of current change is proportional to the amount of ferrous particles in the oil, calibrated in weight by parts per million (ppm).

## FerroCheck 2000 Series Product Information

PART NUMBERS	
800-00071	FerroCheck 2000 ferrous monitor for oil
800-00069	FerroCheck 2000 standard accessories kit. Includes instrument carrying case, dust cover, 1000 sample vials, 200 vial stoppers, and oil validation standards.
800-00081	FerroCheck 2100 ferrous monitor for oil and grease
800-00082	FerroCheck 2100 standard accessories kit. Includes instrument carrying case, dust cover, 1000 sample vials, 300 grease boats and spatulas, 200 vial stoppers, and oil and grease validation standards.
PRODUCT INFORMATION	
Applications	FerroCheck 2000: Lubricant oil FerroCheck 2100: Lubricant oil and grease
Output	Total ferrous, parts per million by weight
Methodology	ASTM D8120
Standard Calibrated Ranges	FerroCheck 2000: 0-2000 ppm, 2000-10,000 ppm FerroCheck 2100: 0-2000 ppm, 2000-10,000 ppm for oil 0-2000 ppm, 2000 ppm-15% for grease
Test Time	< 30 s
Limit of detection	3 ppm for oil, 7 ppm for grease
Repeatability	3% RSD
Calibration	Ferrous standards provided
OPERATIONAL SPECIFICATIONS	
Sample Volume	For oil with sampling vial: 1.5 ml With grease boat: 0.75 ml
Ambient Operating Temperature	10 to 40C
Relative Humidity	10-90% RH, non-condensing
Internal Data Storage	2,000 samples

RSD: Relative Standard Deviation



USER INTERFACE SPECIFICATIONS	
Display	6", fixed-angle, color touchscreen display
Data Transfer	USB flashdrive or to OilView LIMS software
Data Entry	Touchscreen
POWER REQUIREMENTS	
Power Source	Built in rechargeable NiCd battery
Power	100-240 VAC, 50/60 Hz, 3.5 watts for charger
Typical Runtime	Battery life 4-6 h or plug in for continuous use
MECHANICAL SPECIFICATIONS	
Dimensions (WxDxH)	17 cm x 20 cm x 13.5 cm (6.6 in x 7.8 in x 5.2 in)
Weight	2.9 kg
COMPLIANCE	
CE, FCC Class B, NEMA 2, IP31	
CONSUMABLES	
800-00070	FerroCheck 2000 consumables kit (500 samples). Includes 500 sample vials, 100 vial stoppers, and validation standards.
800-00075	FerroCheck 2100 consumables kit (500 samples). Includes 500 sample vials, 100 vial stoppers, 150 grease boats and spatulas, and validation standards.
600-00033	FerroCheck sample vials, qty 100
600-00031	Grease sample boats and spatulas, qty 50 each
600-00032	Grease boat, spatula and vial kit, qty 50 each
600-00074	FerroCheck sample vial stoppers, qty 100 each
600-00113	100 ppm verification fluid for FerroCheck (oil)
600-00114	5000 ppm verification fluid for FerroCheck (oil)
600-00124	Verification standard for grease, high range
600-00125	Verification standard for grease, low range

