

Petrotech Ferrous Debris Quantification for ferrous debris in lubricants and greases MODEL FDQ 10

METHOD(S)- ASTM D 8184

SAMPLE TYPE- LUBRICANTS AND GREASES

B A C K G R O U N D

quantifying the concentration of total ferrous debris will provides a direct indication of wear in the machinery by enabling the user to pinpoint when there is a deviation from the normal buildup of ferrous debris shed by the machinery or when the concentration of ferrous debris has exceeded safe operating limits.device is mainly for rapid quantitative analysis of ferromagnetic wear particles in oil, and measures PDQ index in oil samples. The PDQ index is a dimensionless quantitative number, which has a good linear relationship with the content of ferromagnetic wear particles in the sample and the size of the wear particles. Since the PDQ index is more sensitive to large-size ferromagnetic wear particles, it is often used in conjunction with elemental analysis to improve the fault detection rate. each operation option is displayed on the display screen through a human-computer interaction interface. The user can select the applicable detection method and name the measurement data through the detailed settings and can also quickly detect the oil through the default settings. During the measurement, the display screen will display the detection results in real time. The test sample must be put into the oil sample container for testing.



TEST PROTOCOL

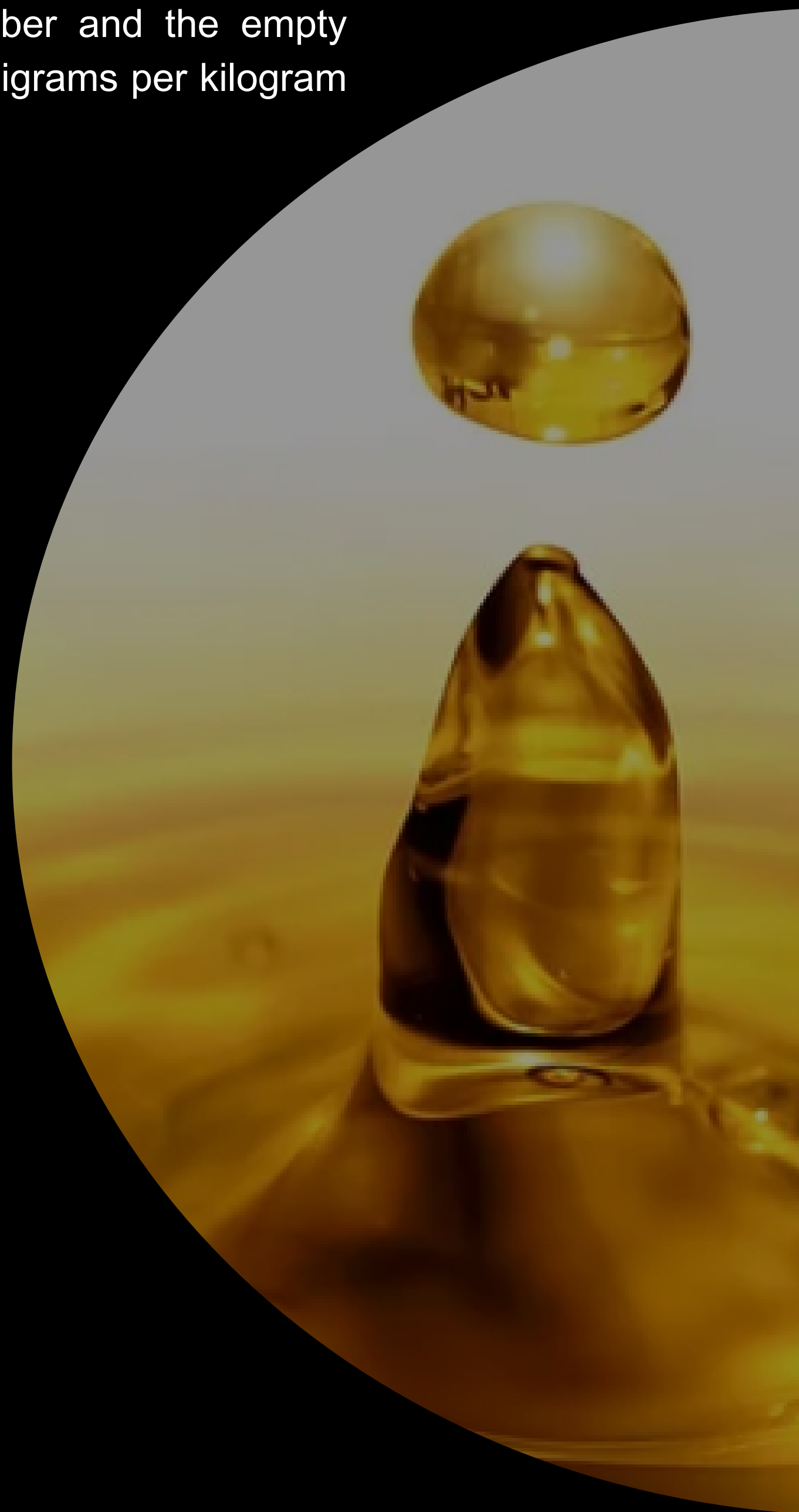
A sample of in-service lubricant or grease is taken from the machinery or equipment and transferred into a suitable measurement receptacle. The sample holder is then manually placed inside an indicated empty measurement chamber of a magnetometer apparatus, by measuring the difference in signal between the filled chamber and the empty chamber, the concentration of ferrous debris in milligrams per kilogram (mg/kg) or percent by mass is determined.

FEATURES

- Easy Operation
- Self-calibrate
- Highly sensitive on wear debris particles $>1\mu\text{m}$
- Short analysis time of 10 seconds
- 5.6" Colour Touch Screen with onboard Computer
- 0 – 15000 PQ Index

APPLICATIONS

- Oil Analysis Labs
- Oil & Gas processing
- Power Generation
- Offshore
- Transportation
- Aerospace
- Process Machinery
- Oil & Gas processing
- Military
- Manufacturing

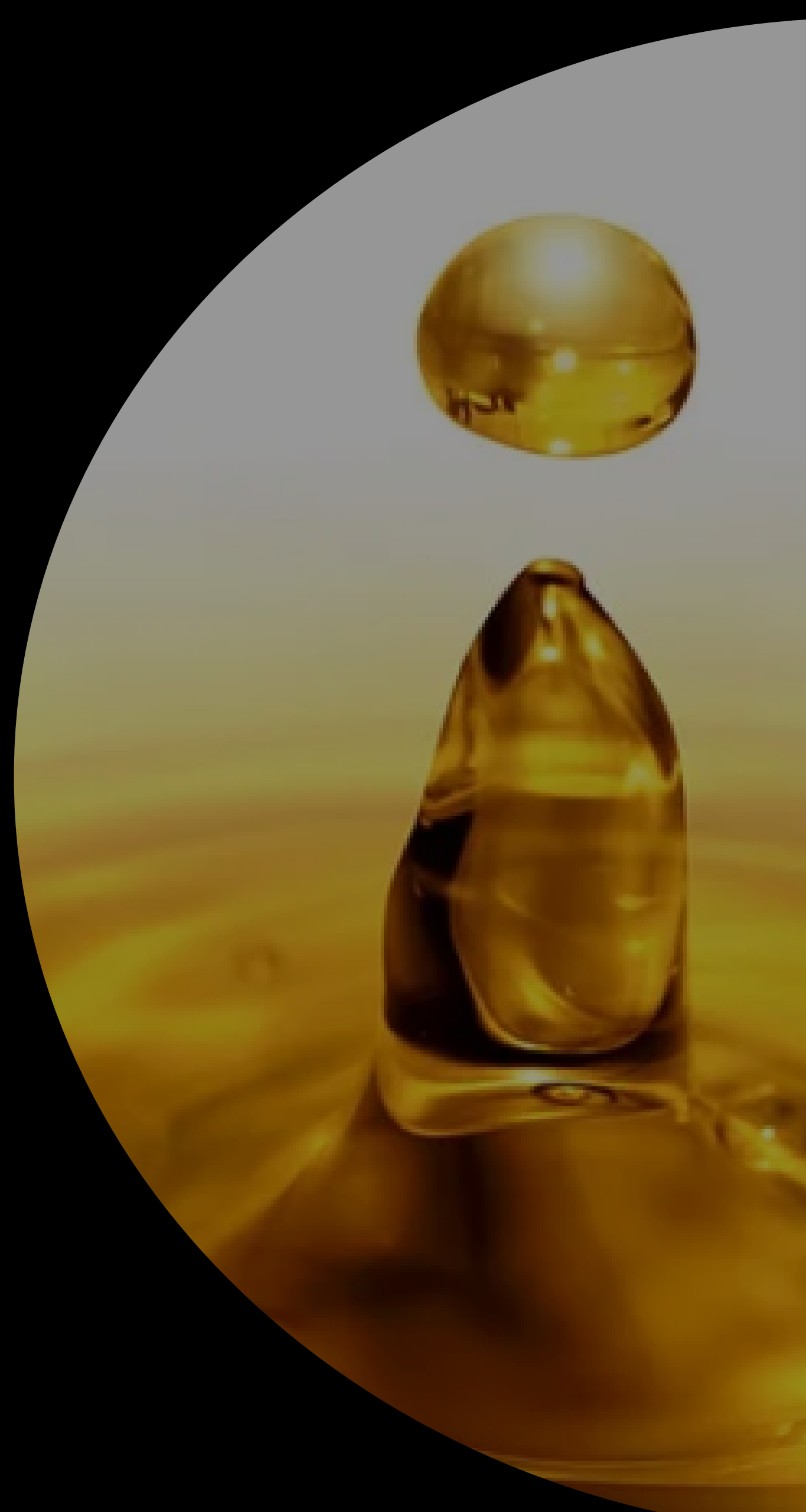


OUT OF BOX BUNDLE

- FDQ 10 unit
- 3 x Standard oil sample (0PQ and 750PQ)
- 100 x 5ml oil box
- Power adapter
- USB Cable
- One laminated page includes SOP (Standard Operating Procedures).
- Product Test report.
- USB memory stick Includes SOP, Test report and Instruction manual.

SPECIFICATIONS

- Method(s) : ASTM D 8120.
- Display : 5.6 inches TFT colour LCD display
- Measuring range : 0 – 15000 PQ
- Capture wear particle range : $> 1 \mu\text{m}$ (ferromagnetic wear particles)
- Measurement resolution : 1PQ (average resolution 0.1PQ)
- Measuring repeatability : $\pm 0.5\%$ or $\pm 3\text{PQ}$
- Connection : Type- A2.0 for connecting USB flash disk
- Communication:RS232 serial communication port
- Power Supply : AC 100V- 240V / 50 - 60Hz
- Power Consumption : $> 15\text{W}$
- Ambient Temperature : 10 – 30 C
- Environment humidity : 20 – 80 %
- Dimensions (W x D x H) : 400 x 265 x 185 mm
- Weight : $< 5 \text{ Kg}$



Ordering Information

PN	Contents
FDQ-00-10	FDQ 10 Ferrous Debris Quantification unit bundle