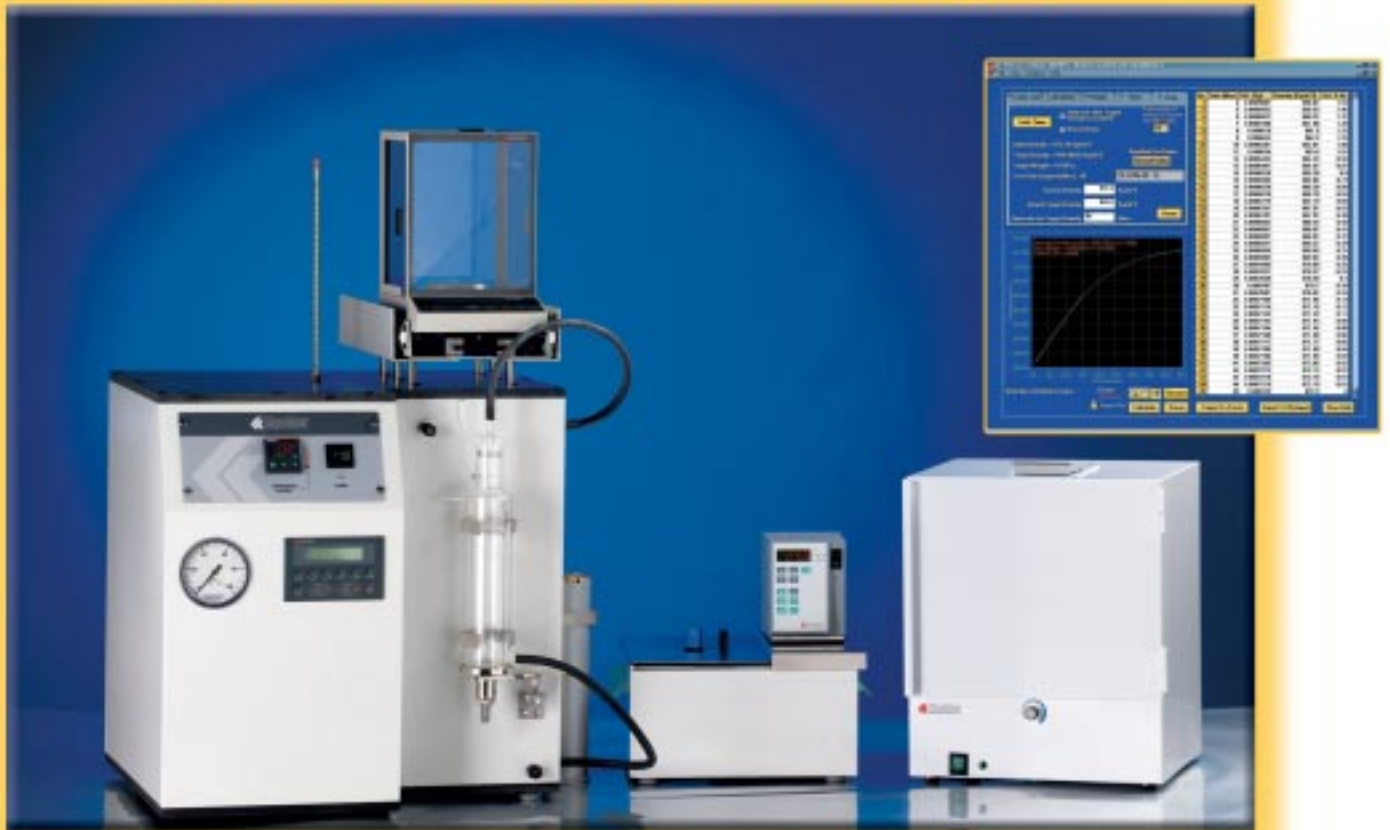


Air Release Value Apparatus & Software

www.koehlerinstrument.com





Air Release Value Apparatus & Software

Features & Benefits

- Complete instrument and data acquisition system exclusively designed for conducting ASTM D3427, IP 313 and related test methods
- Powerful software system for Windows®-based PC platforms automates sample density measurements and provides additional tools for the calculation of the air release value, the first order rate of air release, and the volume percent of air versus time
- High accuracy temperature control with digital setpoint and display
- Digital control panel leads user from start to finish of test operation
- Automatic calculation of final sample density for determination of air release value
- Redundant overtemperature protection circuitry assures safe operation

Air Release Value Apparatus consists of a test vessel and air flow control equipment for delivering heated air at the specified flow rate to a lubricating oil sample maintained at constant temperature. Microprocessor-based control panel guides user from start to finish of the test procedure, calculates sample target density, and provides the time operation for measuring the air release value of the test sample. The system includes drying oven for warming test oil at temperatures of up to 100°C; circulating bath with digital temperature controller and air bath for sinker; non-pulsating air pump; compressed air heater with digital temperature controller, overtemperature and overpressure protection; pressure gauge; thermometer; jacketed sample tube with air inlet/outlet tubes and baffle plate.

Air Release Software automatically calculates the sample target density/mass and then measures the air release value, providing hands-free data acquisition. First-order air release rate constant and the volume percent of air versus time are also determined for more detailed test analysis than required by ASTM D3427 or IP 313 test methods. The sophisticated Windows®-based software package features an easy-to-navigate operation, a straightforward user interface, minimal draw on Windows® memory resources, and automatic real-time data acquisition via RS232 connection or wireless communication option. The "test intelligent" software simplifies the testing process by providing sequential test prompts for guiding the operator with each step of the test procedure. The software package requires no PC hardware installation and includes the software installation CD and computer connection cables.

Test Method

The ability of a turbine, hydraulic, or lubricating oil to separate entrained air is a key performance characteristic in applications where agitation causes a dispersion of air bubbles in the oil. To determine air release properties, the sample is heated to a specified test temperature and blown with compressed air. After the air flow is stopped, the time required for the air entrained in the oil to reduce in volume to 0.2% is the air bubble separation time.

Specifications

Conforms to the specifications of:
 ASTM D3427; IP 313; DIN 51381;
 NF E 48-614
 Temperature Range:
 ambient to 75°C (167°F)
 Electrical Requirements:
 115V 60Hz, 3.0A
 230V 50Hz, 1.5A
 230V 60Hz, 1.5A

Dimensions l x w x h, in. (cm)

24x28x38¼ (61x71x97)
 (Air Release Value Apparatus only)

Net Weight for complete system:
 225 lbs (103kg)

Included Accessories

Jacketed Test Vessel
 ASTM 12C Thermometer
 Sinker
 Drying oven
 Pressure gauge
 Circulating Bath
 Air Bath for Sinker
 Balance
 Platinum Wire

Shipping Information

Shipping Weight for complete system:
 300 lbs (136kg)
 Dimensions: 50.7 Cu. ft.

Ordering Information

Catalog No.

K88500 Air Release Value Apparatus, 115V 60Hz
K88501 Air Release Value Apparatus, 230V 50Hz
K88502 Air Release Value Apparatus, 230V 60Hz

Accessories

K88520 Air Release Value Software Package
K88520-WLS Wireless Air Release Value Software Package
K88500-1 Jacketed Test Vessel

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