PAC | solid partners proven solutions

MCRT 160

Micro Carbon Residue Tester

- In compliance with ASTM D4530 (equivalent to ASTM D189)
- Processes up to 12 samples simultaneously
- Routine analysis for carbon residue from less than 0.1% to over 30%
- Sealed oven and directed exhaust provide clean, fume free analysis

MCRT 160

PRECISE MICRO CARBON RESIDUE ANALYSIS

Alcor's MCRT-160 provides safe measurements of petroleum products with a tendency to thermally degrade and form coke under high temperature pyrolyzing conditions.

Its powerful digital control over all ASTM D4530 test steps delivers results equivalent to Conradson Carbon (ASTM D189) with significantly less inconvenience or fuss. A typical D189 carbon residue analysis can easily take 90 minutes or more of a skilled operators time.

With the MCRT-160, the operator only has to weigh the initial and final samples and start the test, which allows the lab personnel to perform other tasks during the testing cycle. The MCRT-160 automatically executes the factory programmed ASTM D4530 test program. Plus, for added convenience and versatility, it can even be programmed to automate your own specialized time-temperature test profiles.

KEY ADVANTAGES

ASTM D4530 PRECISION

- Precisely controls each test step — from initial sample warm-up through final cooldown
- One button test initiation
- Overnight test mode
- Continually monitors temperature and nitrogen pressure, alerting technician when parameters exceed operation

ENVIRONMENTALLY FRIENDLY OPERATION

- Sealed oven and directed exhausts results in much cleaner analysis compared to Conradson Carbon
- Nitrogen purge gas continuously blankets oven and removes harmful vapor, which are either condensed into an external trap or vented to exhaust

ULTIMATE TESTING VERSATILITY

- Processes up to 12 samples simultaneously, enhancing laboratory's test productivity
- Allows standard sample to be run with every test for verification of test accuracy
- Accommodates sample sizes from 0.1 to 2 grams (depending on carbon residue content)
- Permits routine analysis for carbon residue from 0.1% to over 30%

STANDARD METHODS

IN COMPLIANCE

- ASTM D4530
- IP 398
- ISO 10370
- GB/T 17144
- JIS K2270

IN CORRELATION

- ASTM D189
- DIN 51551
- IP 13
- ISO 6615

SIMPLE AND EASY
The gravity seal lid is designed to give a perfect sealing and it's very easy to manipulate

DATA ACCESS
Displays test status on LED readout for easy viewing

ONE BUTTON OPERATION
Initiate a test ith a simple push of a button

FLEXIBILITY
Accommodates sample sizes from 0.1 to 2 grams (depending on carbon residue content)

SAFETY FIRST
Automatic flow control with internal pressure regulator

SPECIFICATIONS

Standard Test Methods	IN COMPLIANCE: ASTM D4530 IP 398 ISO 10370 GB/T 17144 JIS K2270	IN CORRELATION: ASTM D189 DIN 51551 IP 13 ISO 6615
Oven Capacity	600 ml (approximately)	
Temperature Range	Ambient to 775°C	
Time Control	Multiple programmable steps	
Overnight Test Mode	Continues nitrogen flow for up to 16 hours after cool-down	
Safety	High temperature limit-switch with auto shut down and audible alarm; test won't start in over-temperature state. Automatic flow control with internal pressure regulator to maintain constant pressure; pressure gauge in kPa and PSIG scales; pre-test low/high flow check and adjustments; low pressure switch with auto shut down and audible alarm.	
Nitrogen Requirement	135 to 1000 kPa (20-145 psig); cylinder preferred, approx. 37L (1.3 ft3) per 95 minute test	
Electrical	Voltage selector switch, easily convert: 120VAC & 230VAC IEC-320 connector for detachable power cord	
Other	Close proximity to hood for vapor exhaust; access to analytical balance (0.1 mg accuracy)	
Weight	13 kg (28.5 pounds)	
Size - w x d x h	26 cm x 38 cm x 56 cm (10¼ x 15 x 22 inches)	

Continuing research and development may result in specifications or appearance changes at any time

ABOUT PAC

PAC develops advanced instrumentation for lab and process applications based on strong **Analytical Expertise** that ensures **Optimal Performance** for our clients. Our analyzers help our clients meet complex industry challenges by providing a low cost of ownership, safe operation, high performance with fast, accurate, and actionable results, high uptime through reliable instrumentation, and compliance with standard methods.

Our solutions are from industry-leading brands: AC Analytical Controls, Advanced Sensors, Alcor, Antek, Herzog, ISL, Cambridge Viscosity, PSPI, and PetroSpec. We are committed to delivering superior and local customer service worldwide with 16 office locations and a network of over 50 distributors. PAC operates as a unit of Roper Technologies, Inc., a diversified technology company and a constituent of S&P 500, Fortune 1000, and Russell 1000 indices.

HEADQUARTERS

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