



CIVILIZED CARBON RESIDUE ANALYSIS

MCRT-140

Micro Carbon Residue Tester ASTM D 4530

- Automates ASTM D 4530 (ISO 10370) carbon residue testing; provides results equivalent to the Conradson Carbon method (ASTM D 189)
- Processes up to 12 samples simultaneously; permits standard sample to be run with every test
- Simple microprocessor-controlled operation
- User-programmable oven time-temperature sequences for special or proprietary test procedures
- Celsius or Fahrenheit temperature display option
- Sealed oven and directed exhaust provide clean, fume-free analysis
- CE compliant



The Conradson Carbon method (ASTM D 189) for measuring a material's tendency to degrade thermally and form coke under high temperature pyrolyzing conditions is a difficult and messy procedure. Moreover, a typical D 189 carbon residue analysis can easily take 90 minutes or more of a skilled operator's time.

The Alcor MCRT-140 on the other hand, frees skilled lab personnel for more important tasks. The operator only has to weigh the initial and final samples and start the test. The MCRT-140 automatically executes the factory-programmed ASTM D 4530 test program. Plus for added convenience and versatility, it can even be programmed to automate your own specialized time-temperature test profiles.

Civilized Carbon Residue Analysis



EXECUTES ASTM D 4530 TESTING WITH MICROPROCESSOR PRECISION

The Alcor MCRT-140's powerful microprocessor-based controller provides digital control over all ASTM D 4530 test steps, delivering results equivalent to Conradson Carbon (ASTM D 189) with significantly less fuss and inconvenience.

Each step of the test procedure — from initial sample warmup right through the final cool down — is precisely and automatically regulated. Plus for operator convenience, the current test status is also displayed on the bright LED readout. The MCRT-140 even alerts you to any temperature or nitrogen pressure problems which were detected during the test.



ACCOMMODATES A WIDE RANGE OF SAMPLES

The MCRT-140 is designed to process up to 12 samples simultaneously. This multiple sample capability not only increases productivity, but also allows the running of a standard sample in every test to help verify testing accuracy.

It accommodates sample sizes from 0.1 to 2 grams (depending on carbon residue content) and permits routine analysis for carbon residue from less than 0.1% to over 30%.

ENVIRONMENTALLY FRIENDLY OPERATION

The MCRT-140's sealed oven and directed exhaust results in much cleaner analysis compared to Conradson Carbon. Nitrogen purge gas continuously blankets the oven and removes harmful vapors, which are either condensed into an external trap or vented to exhaust.

Specifications

Operating Parameters

Oven Capacity	600 ml (approximate)
Temperature Range	Ambient to 600°C
Time Control	Multiple programmable steps (seconds, minutes, hours for each step)

Physical

Dimensions (W x D x H)	39 x 41 x 44 cm 15.5 x 16.0 x 17.5 inches
Weight	16.5 Kg (36.5 lbs)
Shipping (W x D x H)	51 x 51 x 61 cm 20 x 20 x 24 inches; 24.5 Kg (54 lbs) boxed

Installation Requirements

Power	115/230 VAC, 50/60 Hz 15/8 amp max.
Nitrogen	140 kPa (20 PSIG) minimum, cylinder preferred (approximately 37 L (1.3 ft ³) per 95 minute test)
Close proximity to hood for vapor exhaust Access to analytical balance (0.1 mg accuracy)	

Supplied Accessories

2 ml and 15 ml vials (for 180 tests)
Glass condensate trap with gasket
Sample baskets for 2 ml and 15 ml vials
Oven seal lid
Exhaust chimney
User manual

Optional Accessories

Carbon Residue Reference Samples (1 oz.)	
Low Carbon #1, 0.3% Carbon*	P/N 73122
Low Carbon #2, 2.4% Carbon*	P/N 73130
Medium Carbon, 10.6% Carbon*	P/N 73123
High Carbon, 24.1% Carbon*	P/N 73124
<i>*Exact % Carbon content may change without notice</i>	
Vials	
Small (2 ml), Box of 144	P/N 17622
Large (15 ml), Box of 144	P/N 17623
Tall (4 ml), Box of 144	P/N 17659

MCRT-140 Ordering Information

115 VAC, 50/60 Hz	P/N 85414
230 VAC, 50/60 Hz	P/N 85415

Due to our commitment to continual product improvement, specifications subject to change without notice.



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Bulletin No. MCRT-140 1/00 5K
Printed in U.S.A.