

LOW TEMPERATURE CRYOSTAT for AUTOMATED COLD PROPERTY ANALYZERS

- Five Year Guarantee Against Compressor Failure
- Quick Replacement with In Stock Unit in Event of Failure
- Ideal Replacement for ISL, FTS, Julabo and Neslab Cryostats
- Cryostat for ISL, Herzog, PAC, APEM, Linetronic Automated Analyzers
Cloud Point, Pour Point, Freeze Point, CFPP

The typical petroleum products testing laboratory has been burdened by frequent cryostat failures which cool the automated cold properties analyzers. This shutdown in data production impacts the expense budget requiring testing by an outside lab as well as cost of replacement of the cryostat's compressor. Such cryostats are used to cool automated analyzers for cloud, pour, freeze point and CFPP. Many of these analyzers are made by ISL, Herzog, PAC, APEM, or Linetronic.

Model MRCC-5 is based on the technology used successfully for decades for cooling the cold crank simulator (CCS) and mini-rotating viscometer (MRV). The refrigeration system has been especially designed to provide added cooling capacity and, more importantly, a system of internal backup to guard against cooling failure.

Lawler now offers a cryostat with a 5 year iron clad guarantee against compressor failure. In the unlikely event of cooling failure, Lawler will ship (from stock) a replacement Model MRCC-5. In addition, repairs, freight, and associated costs will be borne by Lawler. Considering costs of operation disruption, the premium cost of Model MRCC-5 over competitive cryostats pays for itself just in a singular case of a compressor failure.

Model MRCC-5 has a sealed bath of approximately 3 gallons capacity, with a drain valve and with an integral pump delivering -80°C liquid to the analyzers. To reduce icing, a typical problem with cryostats, the bath is heavily insulated with 3 inches of rigid urethane foam plus foam rubber. Provision has been made for purging the bath with dry gas to extend the useful life of the bath medium thus reducing shutdowns as well as disposal

Also for Methods:

ASTM	D97, D2500, D2386, D6371
IP	350
DIN	51 597, 51 421
ISO	3013, 3015, 3016
FTM	791-201, 1411
NF	T60-105, M07-048



▲ Model MRCC-5

costs. The cryostat's operating temperature range is from -20° to -80°C. The bath temperature is maintained to ±0.5°C by a digital indicating controller with resolution of 0.1°C. A float provides protection in the event of low bath medium level event, such as a rupture in the lines delivering the cold liquid to the analyzers.

Model MRCC-5 is a compact, casters mounted, floor model cabinet with approximate dimensions of 30 x 26 x 34 inches high (76 x 66 x 86 cm).

REFRIGERATED COOLERS for AUTOMOTIVE LUBRICANTS TESTING

- Heavy-Duty Refrigerated Coolers for Use with:
Cold Cranking Simulator (CCS) by ASTM D5293 and D2602
Mini-Rotary Viscometer (MRV) by ASTM D3829 and D4684
- Can Cool both CCS and MRV Simultaneously

The refrigerated baths are specifically designed to cool the CCS (cold cranking simulator) and the MRV (mini rotary viscometer) as per ASTM D5293, D2602, and D3829, D4684, respectively.

Model MRCC-2 is a bench top cooler with a bath (13 liter) capable of accepting two pumps for simultaneous delivery of cooling fluid to either the CCS or MRV instruments. Its lowest operating temperature is -50°C.

Also for Methods:

ASTM	D2606, D3829, D4684, D5293
IP	350
DIN	51-377

Model MRCC-3 is similar to Model MRCC-2, but has two independent 6 liter baths, each independently controlled, sharing a common refrigeration system. This unit allows the simultaneous operation of two CCS instruments, or two MRV, or one CCS and one MRV instrument testing at widely different temperatures.