

CRYO

# FTIR

# CRYOSTATS



## Cryostats for FTIR Experiments

Cryo Industries Variable Temperature Continuous Flow Cryostats (Models RC-102 and RC-152) are an excellent choice for Fourier Transform Infra-Red (FTIR) spectroscopy experiments.

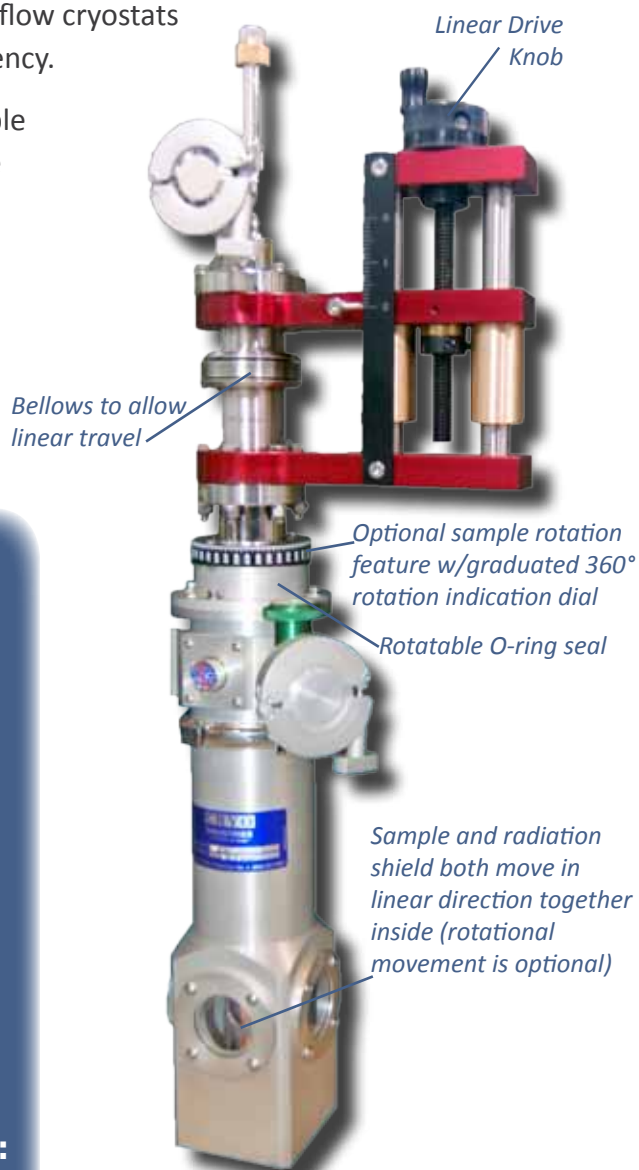
Model RC-102 (sample in vacuum) and Model RC-152 (sample in vapor) are superior, versatile flow cryostats that offer fast cooldown with high efficiency.

All Models come standard with a multiple position sample holder, mounting flange to fit spectrometer and a high efficiency cryogen transfer line.

Model RC-102 allows sample rotation with scale and Model RC-152 via a top-loading rotatable, adjustable sample positioner.

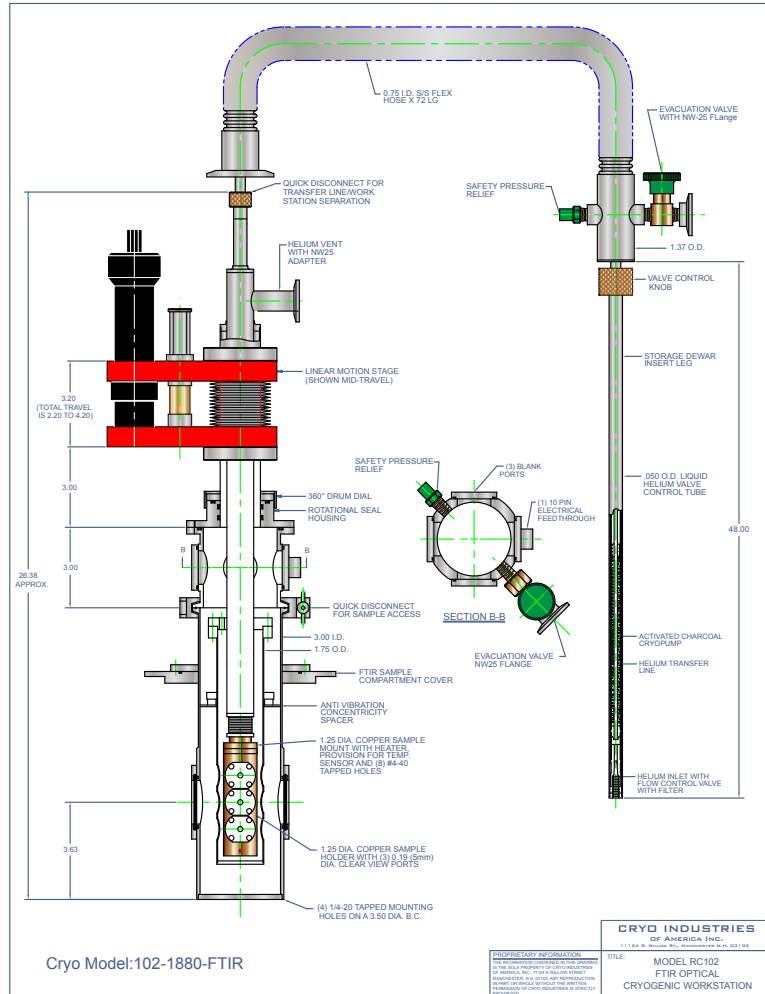
### Available Options Include:

- Remotely controlled linear manipulator and/ or rotary stage
- IR window materials (wedged or plane parallel)
- Operate with either LHe or LN2
- Electrical access to sample
- Complete systems available: temperature controller, pumping stations and storage dewars.
- Operating temperature range:  
RC-102: 2 K to 325 K  
RC-152: 1.5 K to 325 K



Model RC-102 with Linear Rotation

## Model RC-102 with Linear Rotation for FTIR

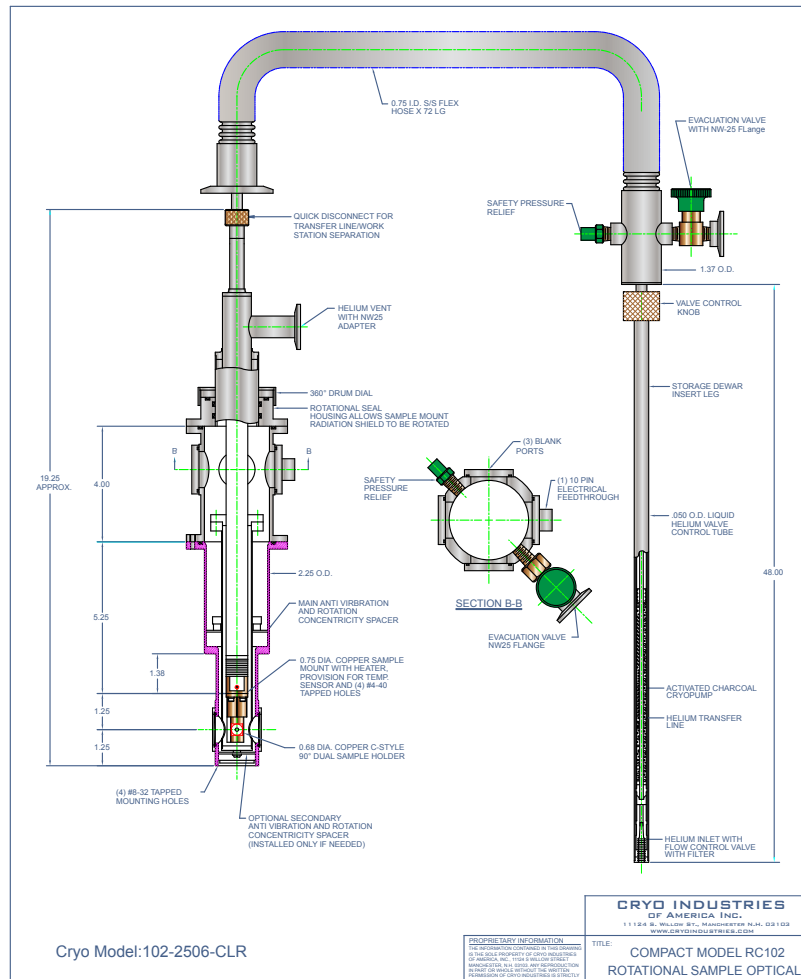


## System Features

Cryo Reference Drawing No.: 102-1880-FTIR

- <2K to 325K operating temperature range
- Operates with liquid helium or liquid nitrogen
- Operates in Push or Pull modes
- (4) 1.62 inch diameter clear view CFQ windows
- 1.25 inch diameter OFHC copper sample mount
- Hi Power Heater installed on sample mount
- Anti vibration and location concentricity spacer for sample mount
- Gold Plated optical OFHC copper T-Style Sample holder w/provision to hold (3) samples
- 360 degree drum dial with rotational housing seal for sample rotation
- 2 inch (5 cm) linear motion travel stage for linear sample movement
- (1) 10-pin electrical feedthrough with mate
- (3) spare blank feedthrough ports
- NW25 vapor pumping port
- Evacuation valve with NW25 interface flange
- Safety pressure relief
- Flexible stainless steel helium transfer line with flow control valve included
- Model CD-12A Silicon Diode Temperature Sensor - bolt on style - installed on sample mount (Sensor is removable or movable)

## Model RC-102 Compact with Sample Rotation



## System Features

Ref. Cryo Drawing: 102-2506-CLR

- <2K to 325K operating temperature range
- Operates with liquid helium or liquid nitrogen
- Compact 1.50" square window block design
- (2) 0.93 inch diameter clear view CFQ o-ring sealed windows (Removable)
- 0.75 inch diameter copper sample mount
- Gold Plated Copper C-style optical sample holder(As Per sketch)
- Hi Power Heater installed on sample mount
- (1) 10-pin electrical feedthrough with mate
- (3) Spare blank feedthrough ports
- NW25 vapor pumping port
- Evacuation valve with NW25 interface flange

- Safety pressure relief on vacuum space
- Flexible stainless steel transfer line with flow control valve
- Silicon Diode Temperature Sensor (SD) style installed on sample mount

Rotational sample mount design includes:

- 0-360 degree drum dial with rotational o-ring housing seal
- 1 degree graduations
- Anti vibration concentricity spacer
- Design allows external control to rotate sample mount and radiation shield together inside of outer windows

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