

CRYOCOOL: 3-IN-1 UNIT



Cryocool-Low Temperature

- *Liquid Helium Gas Stream Cooling (11 K - 325 K)*
- *Liquid Nitrogen Gas Stream Cooling (77 K - 325 K)*
- *Liquid Nitrogen Generation*

CRYOCOOL: 3-IN-1 UNIT

The revolutionary CRYOCOOL: 3-in-1 Unit features:

- Liquid Helium Gas Stream Cooling (11 K - 325 K)
- Liquid Nitrogen Gas Stream Cooling (77 K - 325 K)
- Liquid Nitrogen generation (liquefaction)

**WITH NO MODIFICATIONS TO THE
SYSTEM NECESSARY!**



Cryocool: Gas Stream Cooler

**Versatile
Design**

Cryocool: Liquid Nitrogen Generator



**Amazing
Value**

CRYOGEN FREE GAS STREAM CRYOCOOLER

CRYO's closed cycle 'CRYOCOOLERS' provide a continuous cold helium or nitrogen gas stream – without using liquid helium or liquid nitrogen. The refrigerator provides the cooling needed. This technology was developed for NASA to test gas sensors and has now been transferred for use in crystallography.

Cryo Industries of America has been manufacturing gas cooling systems for over 25 years.



Cryocool-Low Temperature 10 K Model

The limitation to the base temperature is the cooling power of the refrigerator - not the system design. By changing to a larger refrigerator lower temperatures -not previously available - are obtained! This multi-gas capability is a feature unique to the CRYOCOOL-G2.

The standard operating base temperature for Cryocool Models is as follows:

Cryocool-G2: 78 K to 300 K

Cryocool-G2b: 28 K to 300 K

Cryocool-LT: 8 K to 300 K

The CRYOCOOL-G2, G2b and LT feature **'Never-Ice' technology - no shield gas is needed – ever!**

The never-ice warm nozzle maintains an ice-free environment at low temperatures, inside and out.

The complete system provides a simple push-button operation.

These systems were designed to be able to cool different flowing gases - not just nitrogen. This benefit means lower temperatures are available by simply switching from nitrogen to helium gas.



Cryocool-G2 78 K Model

LIQUID NITROGEN GENERATION

GAS IN - LIQUID OUT!

The innovative Cryocool design liquefies nitrogen gas and transfers it.

Nitrogen Gas flows into the Cryocool Liquefier via the inlet port and liquid nitrogen or liquid helium flows out the nozzle.

This small foot-print design allows for ease of use. There is no need to bring your experiment or separate laboratory dewars to the generator.

Reduced safety risks by eliminating storage and use of high pressure tanks

No more waiting for deliveries

Eliminates cost of buying LN₂

LIQUID NITROGEN GENERATION FEATURES:

- Produces 19 l/day of liquid nitrogen
- 24 hour/day automatic operation
- Optional nitrogen gas generator



Cryocool-3-in-1 Unit connected to Optional Liquid Nitrogen Storage Dewar



Optional Nitrogen Gas Generator

Optional Nitrogen Gas Generator

The optional Nitrogen gas generator extracts nitrogen gas from the air using PSA (Pressure Swing Adsorber) technology providing higher purity nitrogen gas than membrane type systems.

It supplies a continuous stream of clean dry nitrogen gas with consistent purity

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