

## Benefits

- Eliminate the cost, inconvenience and hazards of liquid nitrogen with comparable performance
- -110° to -135° C (163K to 138K)
- Continuous Cooling
- Heat Removal to 120 Watts
- Vacuum System Cold Trap Cooling
- Mass Spectrometer Leak Detector Cold Trap Cooling
- Cold Traps
- Cooling of Flange Mounted Cryocoils for Turbomolecular Pumps
- Parylene Coating Traps
- Compliant with European Application Refrigerants EC/1005/2009, The Montreal Protocol and The US EPA SNAP
- CE Mark to Low Voltage and EMC Directives

Polycold® Cryocoolers provide compact, easy-to-use alternatives to liquid nitrogen in small vacuum systems. These cryogenerators use safe, non-flammable, non-toxic, HCFC-Free refrigerants in a closed-loop system. This means no moving of heavy dewars and no running out of liquid nitrogen with resultant downtime.

Installation is quick and easy. The cold trap is inserted into the housing, or the baffle is installed between the diffusion pump and the high-vacuum valve. Cold probes or chevron baffles (cryosurfaces) are integral to the refrigerant line and are not detachable from it without loss of refrigerant. Cryosurfaces for all major leak detectors and other small vacuum systems are available.

## Applications

- Helium mass spectrometer leak detectors
- Mechanical pumps
- Chevron baffles for four- and six-inch diffusion pumps
- Small chamber cold/vapor trapping probes

## Polycold® Portable Cryocoolers

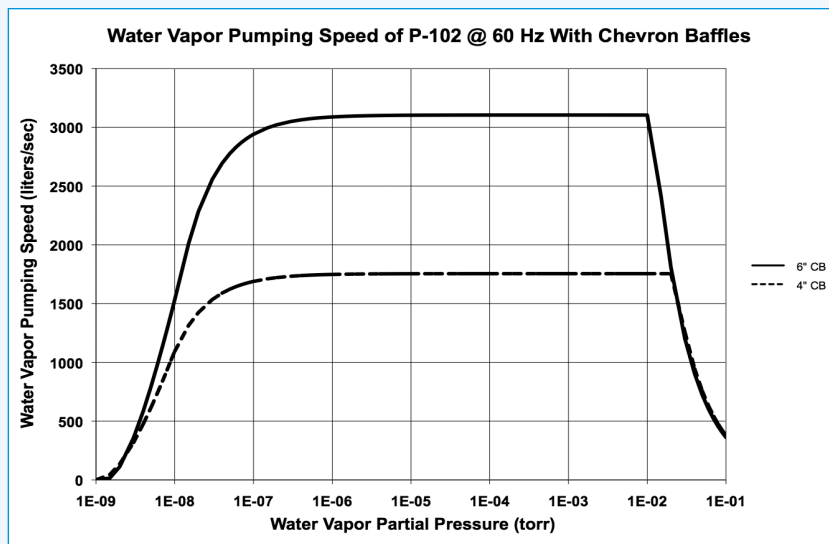
- Replace liquid nitrogen in cold traps in high vacuum systems
- Provide high-speed pumping of water vapor to the  $10^{-8}$  torr range
- Are quickly and easily installed
- Give a fast payback through savings in handling liquid nitrogen
- Effectively stop backstreaming
- Supply uninterrupted cooling of cryosurfaces



The P-102 with Cold Probe

Cryobaffle

## Performance



## Specifications

Physical Data	Model P-102
Initial Cooldown Time, hr.	1.5
Flex line length, in. (mm)	54 (1372)
Dimensions:	
Width, in. (mm)	20.5 (521)
Depth, in. (mm)	17.3 (440)
Height, in. (mm)	32.5 (826)
Weights, with lines, lb (kg)	180 (82)
<b>Utilities</b>	
Standard electrical, $\pm$ 10%	202-230 / 1 / 60 200 / 1 / 50
Current, amp	7.5
Cooling	Forced Air
<b>Baffles and Cold Probes</b>	
Chevron Baffles, opaque, low-profile, spool piece style	
-4 CB, nominal 4-inch chevron baffle, p/n 460514	
-6 CB, nominal 6-inch chevron baffle, p/n 460003	
<b>Cold Probes</b>	
Trap housing for mechanical pump traps, p/n 461002	
Cold probe, stainless steel, "Easy Clean," p/n 462021	

For more information, please contact your local Brooks Automation sales representative or visit [www.brooks.com](http://www.brooks.com).

