

# POLYCOLD® P-102 CRYOCOOLER

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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 downtime due to running out of liquid nitrogen.

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.

## Applications

- Helium mass spectrometer leak detectors
- Mechanical pumps
- Chevron baffles for four-inch 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  $10^{-8}$  torr
- Quick and easy installation
- Fast payback through savings on liquid nitrogen
- Effectively stop backstreaming
- Supply uninterrupted cooling of cryosurfaces



The P-102 can be used with a cold probe or chevron baffle

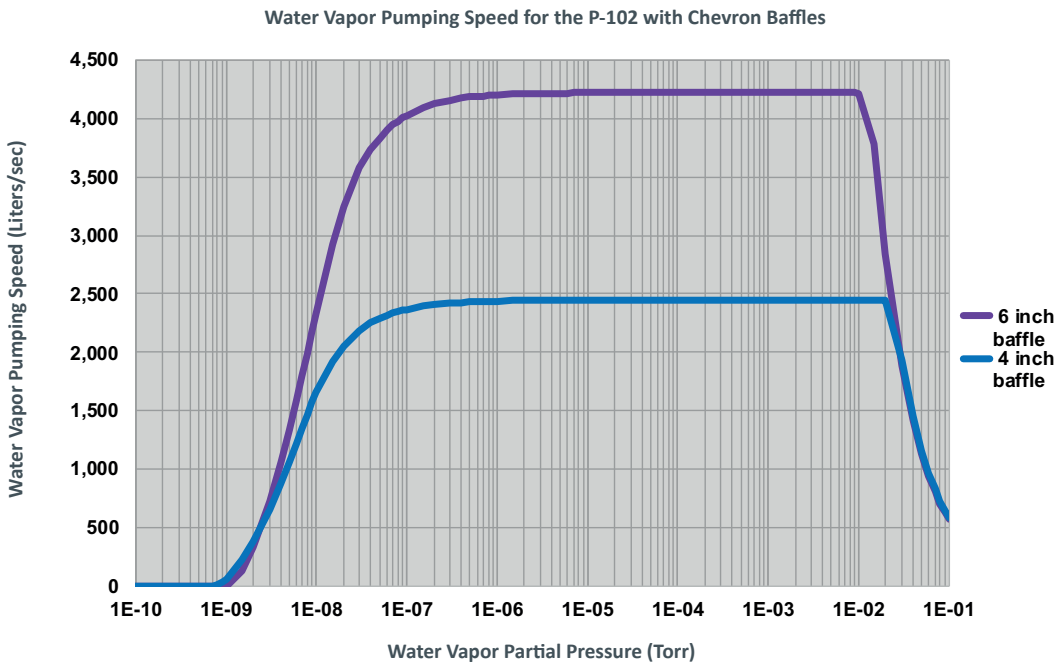
## Features and Benefits

- Eliminate the cost, inconvenience and hazards of liquid nitrogen with comparable performance
- -110° to -135° C (163° K to 138° K)
- Continuous cooling
- Heat removal to 120 Watts
- Vacuum system cold trap cooling
- Mass spectrometer and leak detector 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 certified to Low Voltage and EMC Directive

**Polycold® P-102 Cryocooler Specifications**

<b>Physical Data</b>		<b>Utilities</b>	
Initial Cooldown Time, hr.	1.5	Standard electrical, +/- 10%	208-230 /1 / 50-60
Flex line length, in. (mm)	54 (1372)	Current, amps	7.5
Dimensions:		Cooling	Forced Air
Width, in. (mm)	20.5 (521)	<b>Baffles and Cold Probes</b>	
Depth, in. (mm)	17.3 (440)	Chevron Baffles, opaque, low-profile, spool piece style	
Height, in. (mm)	32.5 (826)	<b>Part number</b>	
Weights, with lines, lb (kg)	180 (82)	4 CB, nominal 4-inch chevron baffle	460514
		6 CB, nominal 6-inch chevron baffle	460003
		<b>Cold Probes</b>	
		Trap housing for mechanical pump traps	461002
		Cold probe, stainless steel, "Easy Clean"	462021

**Polycold® P-102 Cryocooler Performance**



**GLOBAL CONTACTS**

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