

Cold Trap Bath



Summary

In vacuum applications, a cold trap is a device that condenses all vapors (except the permanent gases) into a liquid or solid. The main purpose is to prevent vapors being produced by an experiment from entering the vacuum pump where they would condense and contaminate it. Cold traps can also cool surfaces or baffles to prevent oil vapors flowing from a pump into a chamber. In such a case, a baffle or section of pipe containing a number of cooled vanes, will be attached to the inlet of an existing pumping system.

Features

Improve pump working efficiency

- The low temperature of the cold trap can condense the water vapor directly in the cold trap, thus greatly improving the working efficiency of the vacuum pump.

Protect vacuum pump

- Pumps that use oil either as their working fluid (diffusion pumps), or as their lubricant (mechanical rotary pumps), are often the sources of contamination in vacuum systems. Placing a cold trap at the mouth of such a pump greatly lowers the risk that oil vapors will back stream into the cavity.

LCD PID controller

- P.I.D temperature controller provides accurate and reliable temperature control.
- Large LCD display screen and interface provides for user-friendly operation.

Energy conservation and environmental protection

- Non-freon refrigeration improve cooling efficiency, lower noise, longer life time ensures the stability for long time running.

Safety

- Temperature deviation alarm.
- Compressor over current, over heat, over load protection.

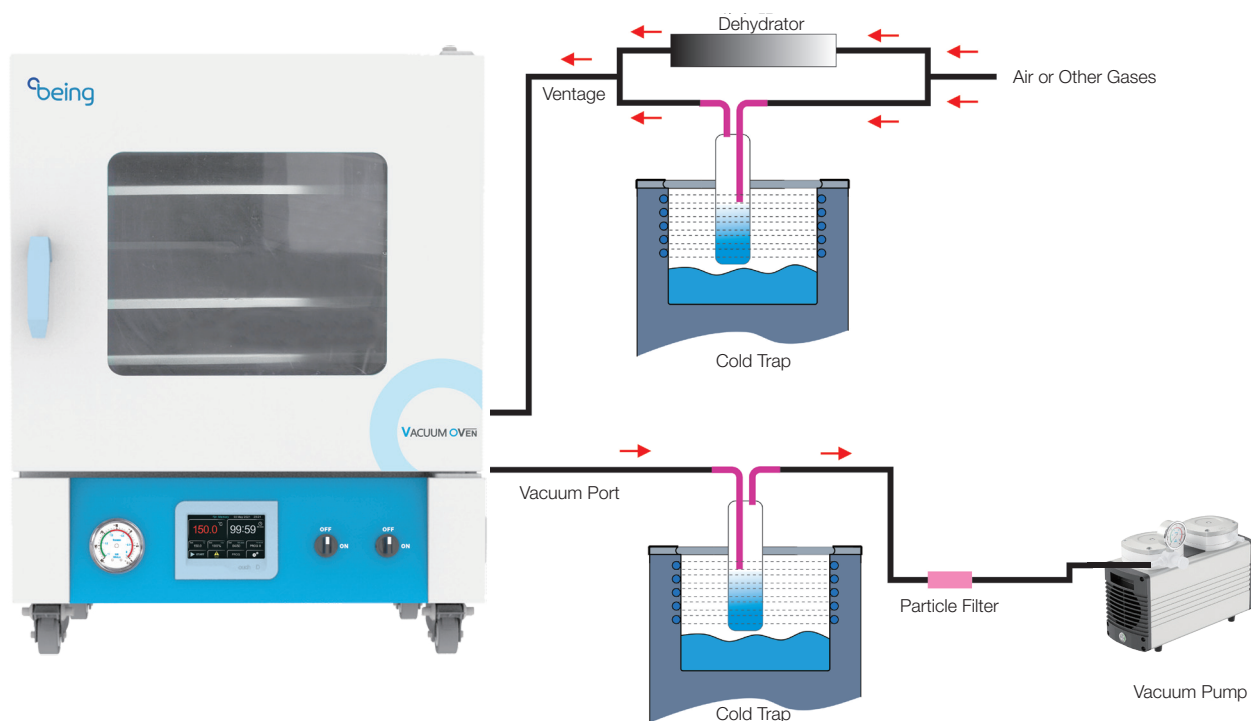
Design with

- 3 glass trap installation.
- Upside opened glass trap.
- Easy internal observation with PC Transparent Cover.
- Drain valve for easy discharge of collected liquid.
- S304 internal bath can be used to do water or ethanol cooling experiments. If equipped with glass condenser, it also can be used to deal with acid or organic solvents.

Option

- RS 485 connector and USB connector can connect computer to save the data.

Cold Trap Diagram



Specification

Model	BCT-05B / BCT-05B-T	BCT-05D
Collection methods	Immersion of Glass Condenser	
Collection amount	Max.0.5Kg	Max.0.4Kg
Lowest temp	- 40°C	- 80°C
Safety function	Delayed Start of Compressor, Leakage, Overcurrent, Overvoltage Protection	
Refrigerating capacity	Air Cooling 150W R404A	Air Cooling 55W R404A, R23
Cover interface material	Import PC	
Tank interior dimension(mm)	φ220mm×180mm	
Capacity(L)	5L	
PC capping diameter	φ50.3mm 3 holes	
Condenser diameter	φ10mm (Match the Diaphragm Pump)	
Interior dimension W×D×H(mm)	315×500×570	500×600×640
Power	850W	1300W
Electrical requirement	220V/50Hz	