



AQUATRAP®

AquaTrap® is an economic means of removing extra water vapor from your vacuum chamber. The low profile, compact refrigerator body allows for simple installation on existing systems with minimal design or hardware changes. The system's operating temperature and design are compatible with water partial pressures below 1×10^{-10} Torr.

Features and Benefits

- Increase water pumping by a factor of up to 10 when combined with a turbopump.
- Refrigeration achieved right at the coldtrap, eliminates cumbersome cold lines.
- Patented gas expansion refrigeration eliminates any additional vibration to the vacuum system.
- Low profile design 38 mm (1.5") thickness for minimum system disruption.
- Unique pumping surface provides maximum conductance for optimum pumping speed.
- Designed for years of maintenance free operation.



Compressor

Compressor was designed and developed based on standard household refrigerator compressors. A proprietary refrigerant operates at a nominal 114 to 125 Kelvin without requiring electronic temperature controls. Combining this refrigerant with a unique oil filtration design makes the compressor highly reliable, economic and virtually maintenance free.

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| Dimensions: | 44.5 cm (17.5") width x 35.6 cm (14.0") height x 27.9 cm (11.0") depth |
| Weight: | 31.8 kg (70lbs) |
| Power Requirements: | 500 Watts nominal 110/220 Volt 60/50 Hz |

Gas Lines

These stainless steel braided flex lines operate at ambient temperature and are equipped with self-sealing Aeroquip couplings. The system utilizes both a supply and return line in standard lengths of 3.3 meters (10 feet) up to a maximum of 15 meters (50 feet). Copper gas lines are available up to 45.6 meters (150 feet).

Cold Trap

AquaTrap's unique low-profile pump body has a thickness of only 38 mm (1.5 inches). The engineering design encompasses several patented features that will ensure the unit's durability and make the AquaTrap® a welcome addition to the user's system.

- There are no fasteners present on the vacuum side of the AquaTrap eliminating any concern that this hardware could damage the turbopump.
- Nickel-plated surfaces that come in contact with the gas stream to insure high corrosion resistance.
- In-chamber designs available for water pumping up to 15,000 l/sec
- Right angle models for installations where space is limited.

AquaTrap® comes assembled with an encapsulated temperature sensor and heater for temperature monitoring and rapid warm-ups. Also integrated into the unit's design is a nitrogen purge that simultaneously cleans the refrigeration coil and provides flow across the pumping louver during warmup.

Controller

A unique controller expressly designed and developed for use with the AquaTrap® manually or via an RS-232. It can be used to rapidly heat the cold trap. Indicator lights signal when the unit is warming and when it is at operational temperature. Digital read-out is provided so that the system's user can easily read the operating temperature. It is ¼ DIN rack mountable and can be located any distance from the working unit.

Systems shortly available, pls ask for price.