

# EDWARDS POLYCOLD® COOLING SOLUTIONS

Edwards Polycold® cooling solutions bring significant productivity improvement to material converting applications while minimising the environmental footprint.

## Polycold® MaxCool Cryochillers

Polycold® MaxCool Cryochillers are closed loop cryogenic refrigeration systems that provide up to 4000 watts of cooling. They can be used to capture water vapour at high-pumping speeds up to 400.000 l/sec and other condensable substances, or cool objects to very low temperatures as low as -145° C, for coating and other vacuum and non-vacuum applications.



## Polycold® PCC Compact Coolers

The Polycold® PCC is a compact, high-performance cooling system that brings efficiency and reliability to your applications. PCC delivers proven, dependable cooling and is designed to ensure repeatable performance and minimise maintenance costs. Its compact design and remote cold end give you a robust system with a small footprint. This low-vibration heat removal system reaches temperatures as low as -203° C (70 Kelvin).



## Polycold® PGC-152 Gas Chiller

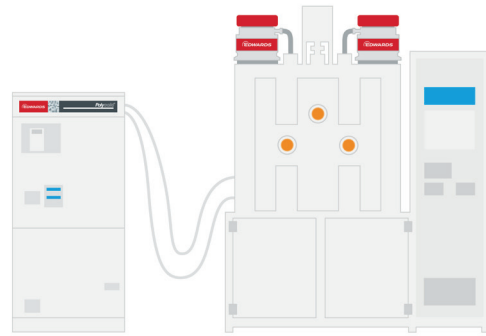
Polycold® Gas Chillers use Polycold®'s auto-cascade refrigerant cycle with a mixed gas refrigerant, to provide ultra-low temperatures **without the cost, risk or inconvenience of liquid nitrogen**. Now you can cool your dry gas to temperatures between -90° C and -125° C without sacrificing high flow rates. The PGC-152 is CE marked and meets SEMI S2 requirements. Polycold's proprietary and patented refrigerant mixtures are fully compliant with current European environmental regulations. The Polycold® PGC Gas Chillers are the most cost-effective systems available to cool a gas stream in this low temperature range.



## Polycold® MaxCool/STP Turbopump process solution

Edwards and Polycold have integrated into a single solution partner to deliver innovative vacuum and cooling systems. We strive to increase your productivity, enhance your final product quality and lower your cost of ownership while helping you to meet your carbon footprint targets.

Polycold® MaxCool Cryochiller working with Edwards STP Turbomolecular vacuum pumps as an integrated system offers a complete solution for most demanding high-quality coating applications.



### Features and benefits

- STP turbopumps reduce power consumption compared to a diffusion Pump by > 90%
- 100% uptime no yearly services or oil changes
- Increased pumping performance with any orientation direct mounting
- Very low ambient noise and low vibration
- Reduced space requirements
- Ultra clean safe operation eliminating risk of contamination

We recommend replacing 20" diffusion pumps with a single 4500 l/s maglev turbopump.

### Example of possible savings

	Edwards HT20 diffusion pump	STP-iXA4506 maglev turbopump	% Reduction	CO2 reduction per year (tonnes)
Power consumption	12.6 kW	0.3 kW*	98%	57.9 pa**
Water consumption	960 l/hr	180 l/hr	81%	

\* at 300 sccm gas load power

\*\* energy source units vs kW/h

Kg CO2 = kWh 0.537

Source: Department for Environment, Food, Rural Affairs, UK

### GLOBAL CONTACTS

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