GRANT

SUSTAINABLE COOLING

ROTARY EVAPORATION · SOLVENT RECOVERY

Replace tap-water cooling. Recover more solvent.

The Grant ORCA is a closed-loop recirculating chiller engineered to cool your rotary evaporator condenser — without a single drop of mains water.

Discover the ORCA →

Rotary evaporation depends on effective condenser cooling — insufficient cooling means solvent losses and reduced yield. Most labs still cool their condensers from a mains tap. It's simple, but it's increasingly recognised as costly and unsustainable, consuming thousands of litres a day and drifting with the seasons.

THE PROBLEM

The challenges with tap-water cooling

- **Water waste** — a single unit can consume 300–600 litres per hour, hundreds of thousands per year.
- **Variability** — mains temperatures fluctuate seasonally, causing inconsistent condensation.
- **Flood risk** — hose connections to glassware can fail, leaking and damaging equipment.
- **Regulatory pressure** — LEAF and ISO are driving institutions to eliminate mains-water cooling.
- **Rising utility costs** — water rates continue to increase year on year.

1.7 L	50%+	±0.1°C
water used per year, down from hundreds of thousands of litres	lower running cost vs a comparable conventional chiller	stability across a -10 to +40°C range

THE SOLUTION

Why the Grant ORCA?

Adaptive refrigeration

The ORCA automatically matches its cooling power to the heat load (0–300 W), drawing only the energy required — and captures and reuses waste heat, eliminating the need for a conventional heater.

Precise, stable control

-10°C to +40°C with ±0.1°C stability, giving consistent condenser performance regardless of ambient or seasonal conditions — directly improving yield consistency and reproducibility.

Zero water waste

A fully closed loop recirculates the same fluid continuously — reducing consumption from hundreds of thousands of litres a year to just 1.7, supporting LEAF, ISO and institutional water targets.

Running-cost advantage

At 100 W, the ORCA runs at roughly £188/year against ~£400 for a comparable conventional chiller — a saving of over 50%. With water charges eliminated too, it pays for itself over time.

AT A GLANCE

Cost & resource comparison

	Grant ORCA	Tap water / conventional chiller
Running cost @ 100 W	**~£188/yr**	~£400/yr
Running cost @ 300 W	**~£300/yr**	Higher
Water use per year	**1.7 L**	100,000s of litres
Temperature stability	**±0.1°C**	Seasonal drift
Waste-heat reuse	**Yes**	No

Running costs include electricity plus HVAC load — over 50% lower than a comparable conventional chiller, plus an annual water saving of up to several hundred thousand litres per rotary evaporator.

Clearly labelled ½" BSP inlet and outlet connections, with insulated hose kits for a reliable, leak-free fit to standard rotary evaporator glassware.

BUILT SUSTAINABLY

Sustainability credentials

- ✓ Zero ongoing water consumption
- ✓ Adaptive energy use — draws only the cooling power required
- ✓ Reduced HVAC / heat-rejection load
- ✓ UK-designed and UK-manufactured
- ✓ ISO 14001 certified, EcoVadis top 15% rating
- ✓ LEAF compatible · 3-year warranty

EASY TO FIT

Straightforward to integrate

The compact footprint means no unnecessary bench space is taken. BSP pump connections match standard rotovap fittings, the front panel needs no specialist training, and a built-in timer plus high-temperature and low-level protection make unattended runs safe. At 49 dB, it stays quiet in open-plan labs.

Ready to eliminate mains-water condenser cooling, cut utility costs and support your LEAF or ISO 14001 goals?

Buy the ORCA now

GRANT

Grant Instruments (Cambridge) Ltd
Evolution House, Royston Gateway, Royston
Precision temperature control & life-science instrumentation since 1949.