



ORCA

Energy-efficient refrigerated circulator designed to replace tap-water cooling

Sustainable Cooling Redefined.

Compact. Efficient. Precise.

The ORCA is a closed-loop recirculating chiller built around Grant's latest refrigeration technology – engineered specifically for energy-efficient laboratory cooling. It delivers stable, precise temperature control to replace costly, inconsistent and wasteful tap-water systems, helping laboratories dramatically cut water consumption and reduce utility spend.

By capturing and re-using waste heat, ORCA further lowers operational costs by easing demand on air-conditioning. Its smart, automatic adjustment to varying heat loads ensures consistent performance across a wide range of applications, providing a robust, efficiency-driven cooling solution for modern laboratory environments.



Temperature: -10 to 40°C
operating range with superb
±0.1°C stability

Reduce Waste: Replaces costly,
water-intensive tap-water cooling
systems

New Tech: Advanced refrigeration
automatically adjusts to heat
loads, using only the power
required

Compact: Small footprint to
minimise lost bench or floor
space

Ultra-Quiet Operation -
Only 49 dB, ideal for lab
environments.

Modern Design: Showcases
Grant's new, sleek brand
identity - an attractive
addition to any lab

Ease of Use: Intuitive,
straightforward
controls—no training
needed

Uncluttered Workspace:
Rear-mounted
connectors and switches
keep the bench clear



Slashing Utilities: Dramatically
lowers water use and recycles
heat - reduction in water and
HVAC costs

FEATURES

- Closed loop system with a 1.7L chamber fill capacity
- Simple to use user interface with intuitive controls
- Accessories including connectors, fluids and hoses to meet a wide range of applications
- Quiet operation with a noise level below 50dB
- No heater which means less energy required for use
- Small footprint for easy integration and less bench space lost
- Powerful pump to meet demanding applications
- New design with a modern fresh approach
- New technology to reduce energy use, waste heat and costs

Technical Specifications

		ORCA UK & EU	ORCA US
Dimensions	mm (wdh)	260 x 450 x 400	
Capacity	L	1.7	
Temperature Range	°C	-10 to 40	
Stability	±°C	0.1	
Setting Resolution	°C	0.1	
Cooling Power	@20°C W	300	
	@10°C W	180	
	@0°C W	80	
Flow Rate (max)	L/min	15	
Pump Pressure (max)	mbar	450	
Pump Connection	X2	Female 1/2 BSP Fittings*	
Min/Max Fluid Levels	mm	120/130	
Timer	min	1-999 with audible alarm	
Safety		High temperature warning alarm	
Weight	kg	20	
Noise	dB	49	
Electrical Supply	V, Hz	230, 50-60	120, 60
Regional Options		UK & EU cord sets	US cord set
Warranty	years	3	

*accessory pump connectors required prior to use. Grant offers extensive range, see accessories table



APPLICATIONS

- Maintaining condenser temperatures in rotary evaporation
- Circulating coolant through jacketed vessels
- Maintaining a controlled temperature in a reflux column
- Supporting analytical equipment such as spectrometers, refractometers, viscometers and benchtop analysers
- General laboratory use such as cooling heat exchange coils and removing heat from thermally sensitive devices
- Regulating temperatures in bioprocessing and biotechnology setups including bioreactors, fermenters and cell culture systems

Accessories

HOSE KITS	
Includes 2x 2m hose (ID 10mm), 2x 2m insulation, 4x hose clips and 2x hose barbs (2x 1/2")	HOSE10
Includes 2x 2m hose (ID 13mm), 2x 2m insulation, 4x hose clips and 2x hose barbs (2x 1/2" male to 13mm barb)	HOSE13
CONNECTORS	
2x 1/2" male to 10mm OD push fit (1/2" to 3/8") - for semi rigid tubing (not supplied by Grant)	C1-2M-10
2x 1/2" male to 12mm OD push fit (1/2" to 1/2") - for semi rigid tubing (not supplied by Grant)	C1-2M-12
2x 1/2" male to 10mm OD with 90° swivel elbow push fit (1/2" to 3/8") - for semi rigid tubing (not supplied by	SC1-2M-10
2x 1/2" male to 12mm OD with 90° swivel elbow push fit (1/2" to 1/2") - for semi rigid tubing (not supplied by	SC1-2M-12
2x Connector to attach to free fitting, cone tipped hosing (1/2" BSP male to M16-1 male (cone))	S1-2M-M161C
FLUIDS (UK ONLY)	
5L container of water and ethylene glycol – 80:20mix. Recommend for use over the temperature range of 0 to 30Cene glycol – 80:20mix. Recommend for use over the temperature range of 0 to 30C	WG8020
5L container of water and ethylene glycol – 50:50mix. Recommend for use over the temperature range of -30 to 30C	WG5050
5L container of deionised water	DEIOWATER



FLUIDS

We recommend the following fluids for use in the ORCA:

- 5 to 40°C - Water (do not use water below 5°C)
- 0 to 40°C - 80% water, 20% antifreeze - inhibited ethylene glycol
- -10 to 40°C - 50% water, 50% antifreeze - inhibited ethylene glycol