

Grant

Optima[™] range

Heating circulators, heated and refrigerated circulating baths

Optima™ range	2
INTUITIVE	year warranty
PRECISE	
VERSATILE >> A complete range - heating circulators, heated and refrigerated	
circulating baths - cover basic to sophisticated needs	
PRACTICAL	
RELIABLE >> Robust design. Built and tested in Grant's UK manufacturing facility	

Choose your heating circulator:



Combine with:

Refrigeration units

Stainless steel or plastic tanks





Optima[™] general purpose heating circulators T100 (VWR 89260-838) and TC120 (VWR 89260-840)

INTUITIVE Rotary dial and function key controls **CLEAR** Highly visible LED temperature display INTEGRATED > TC120 integrated pump for external circulation > Intelligent design, robust construction RELIABLE **PRECISION** > Excellent temperature control SAFE > Fixed and adjustable over temperature cut-out, clear alerts and alarms

Optima[™] advanced heating circulators TX150 (VWR 89260-842) and TXF200 (VWR 89260-844)

PRECISE	 Outstanding temperature control
INTUITIVE	 Icon driven, language independent, full colour screen
RELIABLE	 Smart design and robust construction
EASY	 Simple to create profiles/programs
HIGH SPEC	> USB/RS232, 5pt calibration, external probe socket, rela

USB/HS232, 5pt calibration, external probe socket, relay HIGH SPEC



	T100	TC120	TX150	TXF200
VWR Catalog number	89260-838	89260-840	89260-842	89260-844
Temperature range	ambient +5 to 100°C	ambient +5 to 120°C	ambient +5 to 150°C	ambient +5 to 200°C
Settable temperature range	0 to 100°C	-20 to 120°C*	-50 to 150°C*	-50 to 200°C*
Stability (DIN 12876-3 @70 °C)	±0.05°C	±0.05°C	±0.01°C with Labwise™	±0.01°C
Integral pump water flow / pump pressure	_	16L/min 210mBar	18L/min 310mBar	22L/min 530mBar
Programmable	-	-	1 program / 30 segments via Labwise™	10 programs / 100 segments

*Cooling accessory required

T-Clamp (VWR 89260-854) for flexibility

Attach a thermostat to any vertical sided vessel with a maximum wall thickness of 35 mm rectangular tanks and 30 mm circular tanks, capacity up to 50L











Optima[™] heated circulating baths

- > Efficient circulation for excellent temperature control **EFFICIENT PRACTICAL** > Excellent working area - gabled, hinged lid for tall vessels Modular format - combine a thermostat with a stainless VERSATILE steel or plastic bath > Intelligent design, robust construction RELIABLE
- **CONVENIENT** Drain tap for emptying, raised feet for repositioning, dual position mounting thermostat



Specifications

		Sta	Plastic tanks					
	ST5	ST12	ST18	ST26	ST38	P5	P12	P18
						201		
VWR catalogue numbers	89260-856	89260-858	89260-860	89260-862	89260-864	97025-496	47727-836	47727-838
Tank capacity	5L	12L	18L	26L	38L	5L	12L	18L
Temperature range	≤ 200°C	≤ 99°C	≤ 99°C	≤ 99°C				
Drain tap	-	•	•	•	•	-	-	-
Working area I x w / mm	150 x 150	205 x 300	385 x 300	385 x 300	575 x 300	120 x 150	210 x 280	280 x 325
Outer dimensions I x w x h / mm	330 x 280 x 200	360 x 330 x 200	540 x 330 x 200	540 x 330 x 255	730 x 330 x 255	240 x 330 x 180	415 x 350 x 180	600 x 365 x 180

Accessories (full range available on website vwr.com)

Lids

A choice of lids to help reduce evaporation/ heat loss and avoid sample contamination. Recommended when operating at 60°C and above



Stainless Steel Polypropylene

Lid

Spheres Recommended Alternative to lids when bath is being helps reduce evaporaused constantly with tion and heat loss. water above 90°C Recommended when operating at 60°C and



Racks

Racks for microtubes from 0.5ml to 1.5ml and tubes from Ø10mm to Ø30mm to optimise the use of available bath capacity



Raised Shelves Allows shallow vessels to be

accommodated

Refrigerated **Cooling Coils** C1G to allow systems to operate from 0 to 40°C and C2G for operation from -15



Heat Exchange Coil (CW5)

Attach to a supply of cooling tap water or refrigerated circulator for operation 2°C above coolant temperature



VWR part codes for heated circulating baths (thermostat with a tank)

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	ST5	ST12	ST18	ST26	ST38	P5	P12	P18
T100	10029-444	10029-446	10029-448	10029-450	10029-452	10029-438	10029-440	10029-442
TC120	10029-460	10029-462	10029-464	10029-466	10029-468	10029-454	10029-456	10029-458
TX150	10029-476	10029-478	10029-480	10029-482	10029-484	10029-470	10029-472	10029-474
TXF200	10029-492	10029-494	10029-496	10029-498	10029-500	10029-486	10029-488	10029-490

Applications

Media tempering, thawing & incubating samples, water analysis techniques, material testing, temperature probe calibration, thermostat calibration, temperature control of external equipment/vessels



Optima[™] refrigerated baths and circulators

POWERFUL	>	Excellent cooling performance
RELIABLE	>	Robust, premium materials and construction
SIMPLE	>	Easy to set up, use and maintain
QUIET	>	Quiet operation
PRECISE	>	Precise temperature control
QUALITY	>	Designed, manufactured and tested in Grant's

manufacturing facility in the UK



year warranty

Specifications

	R1	R2	R3	R4	LTC2	LTC4
VWR Catalog number	10067-590 (T100-R1) 10067-668 (TC120-R1) 10067-694 (TX150-R1) 10067-654 (TXF200-R1)	10067-592 (T100-R2) 10067-682 (TC120-R2) 10067-648 (TX150-R2) 10067-656 (TXF200-R2)	10067-650 (TX150-R3) 10067-658 (TXF200-R3)	10067-646 (T100-R4) 10067-684 (TC120-R4) 10067-652 (TX150-R4) 10067-660 (TXF200-R4)	89260-874 (TC120-R2)	89260-876 (TX150-R4)
Effective operating temperature range (Refrigeration unit and thermostat)	T100 0 to 100°C TC120 -20 to 100°C TX150 -20 to 100°C TXF200 -20 to 100°C	T100 0 to 100°C TC120 -20 to 100°C TX150 -20 to 100°C TXF200 -20 to 100°C	TX150 -30 to 100°C TXF200 -30 to 100°C	T100 0 to 100°C TC120 -20 to 100°C TX150 -30 to 100°C TXF200 -30 to 100°C	- 20 to 100°C	- 30 to 100°C
Capacity	5L	5L	5L	20L	5L	20L
Working area I x w / mm	110 x 145	110 x 145	110 x 145	230 x 305	110 x 145	230 x 305
Drain tap	-	•	•	•	•	•



Ready to use refrigeration systems

LTC2 89260-874 (TC120-R2) The TC120-R2 is available ready assembled with the thermostat mounted on the refrigerator and supplied with insulated tubing* and clips to form a ready-to-use system.

Note: Insulated tubing temperature range -40°C to 80°C.



LTC4 89260-876 (TX150-R4) The TX150-R4 programmable

refrigerated circulator is supplied with a thermostat, refrigerator, insulated tubing* and clips to form a ready-to-use system Self assembly required.

Note: Insulated tubing temperature range -40°C to 80°C.



Applications

Temperature control of external equipment including: rotary evaporators, spectrophotometers & refractometers. Circulation of temperature control fluid to jacketed vessels, cooling crystallisation vessels, temperature probe calibration, product testing, product QC, temperature control of external equipment



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