

VWR[®] Temperature Control Equipment

Circulating Baths Specialty Baths General Purpose Water Baths Chillers

> 6800° sate

CONTENTS





VWR Circulating Bath Features

Precise and reliable, with sleek lines and large, intuitive digital displays, VWR Circulating Baths are exceptionally hard-working and easy to operate and maintain.



Intuitive touch-screen operation

The icon-driven SmartTouch interface leads you through menus, functions and options, enabling you to make any adjustments from the most basic to the most sophisticated, even with your gloves on.

Swivel 180™

The patented Swivel 180[™] Rotating Controller on VWR Circulating Baths lets you move the extra large temperature display independently from the bath, enabling you to clearly read the display from anywhere within a 180° viewing radius with the press of a button.





LidDock™

The lid stowing system gives the lid a convenient place to perch while you add liquid or work with samples, without interfering with controller viewing or operation. Condensation drains back into the reservoir as well, keeping your lab bench clean, dry and uncluttered.

DuraTop™

The precision-molded phenolic bath top remains cooler at high temperatures and resists laboratory chemicals. Plus, it's easily cleaned and disinfected.

Simplified setup and maintenance

Available on Refrigerated/Heated, Heat Only Circulating Baths and Polycarbonate Open Bath Systems, the front- or side-mounted drain makes it easy to remove liquid from the bath and clean it. The washable air filter helps you keep the circulator energy efficient and running at peak performance. DuraTop[™], and all surfaces, are chemical resistant and easy to sanitize. Setup instructions are printed "behind the grille."



WhisperCool™

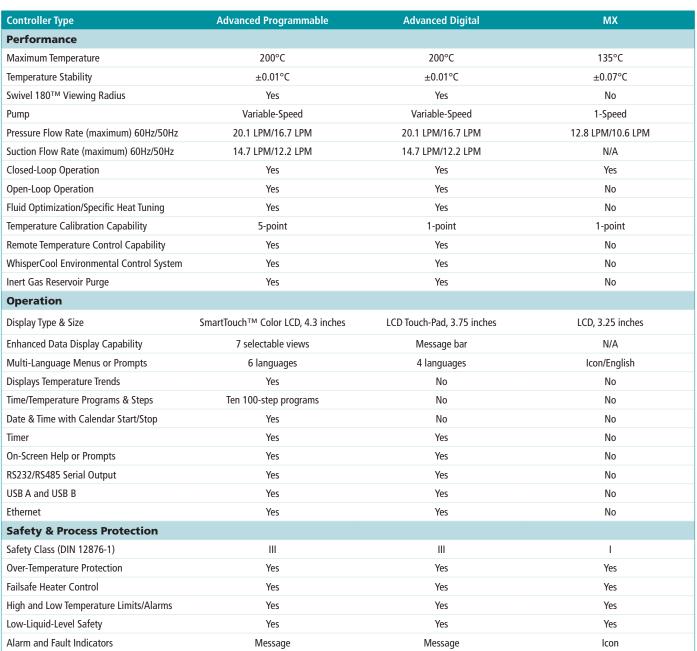
The patented WhisperCool[®] Environmental Control System, standard on most VWR Refrigerated/Heated Circulating Baths, reduces noise levels below conversational speech at a distance of two meters. In addition, the adaptive environmental technology optimizes performance, reducing overall energy consumption and prolonging equipment life.



VWR Controllers

It's important to choose the right controller to best fit your needs. That's why VWR provides three different controllers to choose from. The controllers range from the sophisticated Advanced Programmable down to the basic MX. Below are key specifications so you can decide which controller is right for you.





VWR® Circulating Baths



Refrigerated/Heated Circulating Baths



	Cat. No. (model 120VAC	C/60Hz)	Maximum	Minimum	Cooling	Working Access	
	Advanced Programmable	Advanced Digital	МХ	Temperature ¹	Temperature ²	Capacity	(L x W x D)	Drain
7 liters	89202-974	89202-970	89202-966*	200°C*	-20°C	200 watts		Yes
7 111015	89202-982	89202-978		200°C*	-40°C	505 watts	6.18 x 5.59 x 5 in	Yes
7 liters, low-profile		89202-962	89202-958*	200°C*	-20°C	200 watts	15.7 x 14.2 x 12.7 cm	Yes
15 liters	89202-990	89202-986		200°C	-30°C	915 watts	8.35 x 10.88 x 5.5 in	Yes
15 mers	89202-998	89202-994		200°C	-40°C	1000 watts	21.2 x 27.6 x 14 cm	Yes
20 liters	89203-006	89203-002		200°C	-30°C	915 watts	9.85 x 12.45 x 5.5 in 25 x 31.6 x 14 cm	Yes
28 liters	89203-014	89203-010		200°C	-30°C	915 watts	12.35 x 14.13 x 5.5 in 31.4 x 35.9 x 14 cm	Yes
45 liters**	89203-022	89203-018		135°C	-25°C	1400 watts	21.6 x 15.68 x 5.5 in 54.9 x 39.8 x 14 cm	Yes

1. Maximum temperature is controller dependent; see Circulator Controller Features.

2. Minimum temperature is shown with no external heat load.

* Maximum temperature for MX Controller is 135°C. ** 45 liter bath is 208-240VAC, 50/60Hz

Heated Circulating Baths



	Cat. No. (model 120VAC/60		C/60Hz)	Maximum	Minimum	Working Accord	
	Advanced Programmable	Advanced Digital	МХ	Temperature ¹	Temperature ²	Working Access (L x W x D)	Drain
7 liters	89202-930	89202-926	89400-970	200°C	Ambient +10°C	6.18 x 5.59 x 5 in 15.7 x 14.2 x 12.7 cm	Yes
15 liters	89202-938	89202-934	89400-974	200°C	Ambient +10°C	8.35 x 10.88 x 5.5 in 21.2 x 27.6 x 14 cm	Yes
20 liters	89202-946	89202-942	89400-978	200°C	Ambient +10°C	9.85 x 12.45 x 5.5 in 25 x 31.6 x 14 cm	Yes
28 liters	89202-954	89202-950		200°C	Ambient +10°C	12.35 x 14.13 x 5.5 in 31.4 x 35.9 x 14 cm	Yes

1. Maximum temperature is controller dependent; see Circulator Controller Features.

2. Minimum temperature is shown with no external heat load.

VWR® Heated Open Systems

Stainless Steel Heated Open Bath Systems



Cat. No. (120VAC/60Hz): 89202-918 Note: 240/50 units are available; inquire for catalog numbers.

The controller bridge rests securely on the deep drawn stainless steel reservoir, yet is easily removed for tank cleaning. The generous bath opening provides ready access to samples and included bath cover improves stability.

- Working temperatures from ambient +10°C up to 135°C
- MX Temperature Controller
- DuraTop[™] Chemical Resistant Bridge
- Lidded opening for optional cooling coil (10, 20 and 28 liter models)
- Economical alternative to integrated heating baths
- External circulation capability
- Complies with DIN 12876-1 Class I safety requirements for use with nonflammable liquids
- Includes bath cover

Polycarbonate Heated Open Bath Systems

The transparent polycarbonate reservoir lets you keep samples in clear view. The elevated tank bottom provides secure handholds when lifting or relocating the bath and is stable on uneven surfaces. The controller bridge is easily removed for tank cleaning and rests securely on reservoir top edge when in use.

- Working temperatures from ambient +10°C up to 85°C
- MX Temperature Controller
- DuraTop[™] chemical resistant bridge
- Lidded opening for optional cooling coil (17 and 28 liter models)
- Drain port (17 and 28 liter models)
- Complies with DIN 12876-1 Class I safety requirements for use with nonflammable liquids
- Includes bath cover



Cat. No. (120VAC/60Hz): 89202-898 Note: 240/50 units are available; inquire for catalog numbers.



	Cat. No. (model 120VAC/60Hz) MX	Maximum - Temperature ¹	Minimum Temperature ²	Tank Material	Working Access (L x W x D)	Drain
6 liters	89202-910	135°C	Ambient +10°C	Stainless Steel	3.9 x 4.3 x 6 in 10 x 11 x 15.2 cm	No
10 liters	89202-914	135°C	Ambient +10°C	Stainless Steel	3.9 x 10.1 x 6 in 9.9 x 25.5 x 15.2 cm	No
20 liters	89202-918	135°C	Ambient +10°C	Stainless Steel	10.4 x 9 x 6 in 26.4 x 22.8 x 15.2 cm	No
28 liters	89400-982	135°C	Ambient +10°C	Stainless Steel	10.1 x 8.4 x 8 in 25.7 x 21.4 x 20.3 cm	No
11 liters	89202-890	85°C	Ambient +10°C	Polycarbonate	8.3 x 6.1 x 8 in 21 x 15.6 x 20.3 cm	No
17 liters	89202-894	85°C	Ambient +10°C	Polycarbonate	4.1 x 12 x 8 in 10.5 x 30.5 x 20.3 cm	Yes
28 liters	89202-898	85°C	Ambient +10°C	Polycarbonate	12.4 x 12 x 8 in 31.5 x 30.5 x 20.3 cm	Yes

1. Maximum temperature is controller dependent for systems with stainless steel tanks; maximum temperature is dependent on tank material for systems with polycarbonate tanks.

2. Minimum temperature is shown with no external heat load.

Controller Type	МХ
Performance	
Maximum Temperature	135°C
Temperature Stability	±0.07°C
Pump	1-Speed
Pressure Flow Rate (maximum) 60Hz/50Hz	12.8 LPM/10.6 LPM
Closed-Loop Operation	Yes
Temperature Calibration Capability	1-point
Operation	
Display Type & Size	LCD, 3.25 inches
Multi-Language Menus or Prompts	Icon/English
Safety & Process Protection	
Safety Class (DIN 12876-1)	Ι
Over-Temperature Protection	Yes
Failsafe Heater Control	Yes
High and Low Temperature Limits/Alarms	Yes
Low-Liquid-Level Safety	Yes
Alarm and Fault Indicators	lcon



Immersion Circulators

Create a circulating bath using your own vessel or a VWR open bath tank.

Controller Type	МХ	LX
Performance		
Maximum Temperature	135°C	98°C
Temperature Stability	±0.07°C	±0.07°C
Heater	1100W	1100W
Pump	1-Speed	1-Speed
Adjustable Flow	Yes	No
Maximum Flow Rate gpm (l/min)	3.4 (12.8)	1.6 (6)
Maximum Pressure psi (bar)	1.8 (0.12)	0.72 (0.05)
Temperature Calibration Capability	1-point	1-point
Operation		
Display Type & Size	LCD, 3.25 inches	LCD, 3.2 inches
Multi-Language Menus or Prompts	Icon/English	Icon/English
Safety & Process Protection		
Safety Class (DIN 12876-1)	I	Ι
Over-Temperature Protection	Yes	Yes
Failsafe Heater Control	Yes	Yes
High and Low Temperature Limits/Alarms	Yes	No
Low-Liquid-Level Safety	Yes	Yes
Alarm and Fault Indicators	lcon	lcon
Built-in Timer	No	Yes
Cat. No. (120VAC/60Hz)	89202-886	89501-480





Immersion Circulators clamp securely to both straight and curved tank walls.



Convenient slide control on the MX Immersion Circulator allows you to easily adjust the flow rate.





Specialty Baths Coliform Baths

VWR Coliform Baths are equipped with MX Controllers, large bath openings and are ideal for fecal coliform and E.coli testing.

This coliform bath can be set to 44.5°C as specified in the "Standard Test Methods for the Examination of Water and Wastewater" (19th edition) for APHA, AWWA, WEF and EPA fecal coliform determinations.



Cat. No. (120VAC/60Hz): 89202-922 Note: 240/50 units are available; inquire for catalog numbers.

Key Specifications

Temperature Range: Ambient +10°C to 135°C Temperature Stability: ± 0.07 °C Heater: 1100W (60Hz) Working Access (L x W x D): 11.8 x 12.9 x 8.3 in 30 x 32.8 x 21.1 cm Overall Dimensions (L x W x H): 13.9 x 21.5 x 18 in 35.3 x 54.6 x 45.7 cm

- 28 liter reservoir with hinged, see-through cover
- Large, easy to read display
- DuraTop™
- Calibration Capability

Viscosity Baths

Configured for use with popular capillary viscometers, VWR Viscosity Baths are available with the Standard Digital Controller and either 3 square or 5 round lidded openings.

- 29 liter reservoir
- Includes tap water cooling coil

Controller Type	Standard Digital
Performance	
Temperature Stability	±0.04°C
Pump	2-Speed
Pressure Flow Rate (maximum) 60Hz/50Hz	11 LPM/10.2 LPM
Temperature Calibration Capability	1-point
Safety & Process Protection	
Safety Class (DIN 12876-1)	I
Over-Temperature Protection	Yes
Failsafe Heater Control	Yes
High and Low Temperature Limits/Alarms	Yes
Low-Liquid-Level Safety	Yes
Alarm and Fault Indicators	lcon

Key Specifications

Working Temperature: up to 85°C Heater: 1100W (60Hz) Working Depth: 11.25 in / 28.6 cm Overall Dimensions (L x W x H): 21.4 x 9 x 20.7 in 54.4 x 22.9 x 52.6 cm



pictured, 5 round holes: Cat. No. (120VAC/60Hz): 89202-902 Also available, viscosity bath with 3 square holes: Cat. No. (120VAC/60Hz): 89202-906

General Purpose Water Baths

VWR General Purpose Water Baths provide superior temperature control, range and uniformity. The large backlit LCD display displays set and actual temperature simultaneously.

The high clearance, hinged gable cover allows condensate to drain back into the bath and provides space for many different sizes of glassware. For example, the baths can easily contain 1L flasks (i.e. Erlenmeyer) and 1L bottles, while the 28L model can hold 2L flasks and bottles. The cover is also clear, allowing for increased visibility of the samples in the bath.

The 10, 20 and 28 liter models include a drain port for easy fluid changes. Recessed handles, located on the sides of each bath, make positioning or relocating the unit easy.



Cat. No. (120VAC/60Hz): 89501-472

Three user-defined, adjustable presets make selecting commonly used temperatures as simple as pressing a button.

The built-in timer alerts the user when samples are ready, eliminating the need for an additional, accessory timer.







- Clear high clearance hinged gable cover •
- Backlit LCD display •
- Three user-configured temperature presets for frequently used set points Built-in timer •
- •
- Built-in drain for 10, 20 and 28 liter models •
- Recessed handles •
- Calibration capability •

Capacity	2 liter	5 liter	10 liter	20 liter	28 liter
Temperature Range			Ambient +5°C to 99°C		
Temperature Stability			±0.1°C		
Working Access (L x W x D)	3.9 x 4.3 x 5.5 in 9.9 x 10.9 x 14 cm	5 x 10.8 x 5.5 in 12.7 x 27.4 x 14 cm	10.6 x 11.6 x 5.5 in 26.9 x 29.5 x 14 cm	9.5 x 17 x 5 in 24.1 x 43.2 x 12.7 cm	9.5 x 17 x 7 in 24.1 x 43.2 x 17.8 cm
Overall Dimensions (L x W x H)	9 x 12 x 13.5 in 22.9 x 30.5 x 34.3 cm	14.5 x 12 x 13.5 in 36.8 x 30.5 x 34.3 cm	15.5 x 17 x 15.5 in 39.3 x 43.2 x 39.3 cm	22.5 x 17 x 15.5 in 57.2 x 43.2 x 39.3 cm	22.5 x 17 x 18 57.2 x 43.2 x 45.7 cm
Heater (60Hz & 50Hz)	120 W	360 W	1000 W	1400 W	1400 W
Drain	No	No	Yes	Yes	Yes
Cat. No. (120VAC/60Hz)	89501-460	89501-464	89501-468	89501-472	89501-476

VWR® Benchtop Chillers

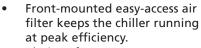
VWR Benchtop Chillers -20° to +50°C

VWR Benchtop Chillers are environmentally friendly, economical alternatives to tap-water cooling. The unique design of VWR Benchtop Chillers maximizes precious bench space without compromising cooling and pumping power.

Key Specifications

Working Temperature:-20°C to +50°CTemperature Stability:±0.1°CCooling Capacity @ 20°C:460W to 1290W

- Large, easy to read LED display
- Space-saving design
- Cooling at ambient temperatures as high as 35°C
- Low flow shutoff and alarm, high and low temperature alarms
- Simple setup, operation and maintenance
- Top-mounted fill port with spill protection cup prevents damage from spills when filling.



- Choice of pumps
- Lighted fluid level indicator on front panel for easy reading.





Close-up of LS display



Typical applications include chromatography equipment, lasers, rotary evaporators and other sensitive laboratory equipment where temperature control is critical.



LS Features

- Optimized for high performance at low temperatures
- Capable of cooling multiple rotary evaporators
- WhisperCool™ Environmental Control System

LM Features

- Optimized for high performance at low temperatures
- Ideal for benchtop rotary evaporators

MM Features

• Precise and stable temperature control at low temperatures

	LS5	Space Saving Chi	ller	LM6 Mi	LM6 Mini Chiller		ini Chiller
	Centrifugal	Centrifugal	Turbine	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Working Fluid Temperature Range		-20 to 40°C -4 to 104°F			o 30°C o 86°F		o 50°C 104°F
Temperature Stability				±0.1°C/±0.2°F			
Cooling Capacity (watts)							
20°C	1160	1290	900	560	420	460	435
10°C	1030	1130	790	470	340	320	305
0°C	680	750	540	350	250	215	195
Maximum Pump Pressure	9 psi 0.6 bar	14.5 psi 1.0 bar	43.4 psi 3.0 bar	5.1 psi 0.35 bar	14.5 psi 1.0 bar	5.1 psi 0.4 bar	14.5 psi 1.0 bar
Maximum Pump Flow	14.8 lpm 3.9 gpm	13.2 lpm 3.5 gpm	9.8 lpm 2.6 gpm	7.9 lpm 2.1 gpm	13.2 lpm 3.5 gpm	7.9 lpm 2.1 gpm	13.2 lpm 3.5 gpm
Reservoir Capacity				2.65 L (0.7 gal)			
Overall Dimensions (L x W x H)	23.9 x 10 x 19 in20 x 10 x 17 in60.7 x 25.4 x 48.3 cm50.8 x 25.4 x 43.2 cm						
Shipping Weight		102 lbs (46.3 kg)		76 lbs (34.5 kg)			
Cat. No. (model 120VAC/60Hz)	97058-180	97058-184	97058-188	97058-192	97058-196	97058-200	97058-204

VWR® Refrigerated Recirculating Chillers (1/4 to 1HP)

VWR Refrigerated Recirculating Chillers 1/4HP - 1HP

VWR Refrigerated Recirculating Chillers' patented WhisperCool® technology automatically adjusts the cooling fan speed to match the demand put on the system, making these high performance Recirculating Chillers exceptionally quiet and environmentally friendly.

Typical applications include AA furnaces, condenser cooling, ICP, laser etching, plasma etching, reaction vessels, rotary evaporators and vacuum systems.

Key Specifications

Working Temperature:-10°C to +40°CTemperature Stability:±0.1°CCooling Capacity @ 20°C:up to 2900W

- Large, dual displays present temperature and pressure or flow rate simultaneously
- Cooling at ambient temperatures as high as 35°C



- Choice of pumps and compressor sizes
- User-adjustable temperature, pressure and flow rate alarms
- External temperature tracking and communications capability (optional)

Compressor HP	1/4 HP	1/3 HP	1/2 HP	3/4 HP	1 HP
Magnetic Drive Cen	trifugal Pump				
Maximum Pressure psi (bar) 10 (.69)	10 (.69)	10 (.69)	10 (.69)	10 (.69)
Maximum Flow gpm (l/min	4.1 (15.5)	4.1 (15.5)	4.1 (15.5)	4.1 (15.5)	4.1 (15.5)
Cooling Capacity @ 20°C (Watts) 950	1430	1800	2350	2900
	13271-184	13271-192	13271-200		
208-230 VAC/60Hz				13271-208	13271-216
Positive Displaceme	nt Pump				
Maximum Pressure psi (bar) 100 (6.9)	100 (6.9)	100 (6.9)	100 (6.9)	100 (6.9)
Maximum Flow gpm (l/min	1.0 (3.8)	1.0 (3.8)	1.0 (3.8)	3.5 (13.2)	3.5 (13.2)
Cooling Capacity @ 20°C (Watts) 850	1400	1700	2300	2900
	13271-188	13271-196	13271-204		
208-230 VAC/60Hz				13271-212	13271-220
Turbine Pump					
Maximum Pressure psi (bar) 100 (6.9)	100 (6.9)	100 (6.9)	100 (6.9)	100 (6.9)
Maximum Flow gpm (l/min	3.5 (13.2)	3.5 (13.2)	3.5 (13.2)	3.5 (13.2)	3.5 (13.2)
Cooling Capacity @ 20°C (Watts) 850	1400	1700	2300	2900
	97044-090	97044-094	97044-098		
ی 208-230 VAC/60Hz				97044-102	97044-106

1. Cooling Capacity is based on 20°C (68°F) ambient temperature and a 50/50 mix of ethylene glycol and distilled water as coolant. Note: 240/50 units are available; inquire for catalog numbers.



Circulator and Specialty Baths Accessories	
13L Stainless Steel Open Tank	89200-986
28L Stainless Steel Open Tank	89200-988
8L Polycarbonate Open Tank	89200-990
11L Polycarbonate Open Tank	89200-992
14L Polycarbonate Open Tank	89200-994
17L Polycarbonate Open Tank	89200-996
23L Polycarbonate Open Tank	89200-998
28L Polycarbonate Open Tank	89201-000
External Pt100 Probe, 6" with 10' length cable	89201-004
External Pt100 Probe 6" with 25' length cable	89201-006
External Pt100 Probe 6" with 50' length cable	89201-008
RS232 cable, 9'	89201-010
Ethernet cable, 9'	89201-012
USB-A to mini-B cable, 9'	89201-016

Chiller Accessories	
Base with locking casters	89200-794
External Pressure Reducer (for PD or T pump chillers). Reduces chiller output to adjustable range of 10-45PSI	89200-796
External Bypass (for MD pump chillers)	89200-798
RS232 Retrofit kit	89200-800
Buna N Tubing, 1/2" ID, -40 to 120°C, 3'	89200-802
Tubing with Insulation, 1/2" ID, 6'	89200-812
Viton Tubing, 1/2" ID, -32 to 204°C, 3'	89200-804

Fluids	
polyclean ALGAECIDE, bottle, 8 oz.	71002-500
polyclean ALGAECIDE, case of 12 (8 oz. each)	71002-502
polycool EG -25 (ethylene glycol), 1 gal.	71002-504
polycool PG -20 (propylene glycol), 1 gal.	71002-506
polycool HC -50 (dynalene), 1 gal.	13272-034
polytherm S150, 1 gal.	13270-794
polytherm S250, 1 gal.	13270-792

Circulator and Specialty Baths Accessories continued	
Test Tube Rack for water baths; stainless steel, holds 15 maximum, 10-13mm	89201-044
Test Tube Rack for water baths; stainless steel, holds 15 maximum, 14-18mm	89201-046
Test Tube Rack for water baths, stainless steel, holds 30 maximum, 10-13mm	89201-048
Test Tube Rack for water baths, stainless steel, holds 30 maximum, 14-18mm	89201-050
Test Tube Rack, polycarbonate, holds 24 maximum, 10-18mm	89201-052
Test Tube Rack, polycarbonate, holds 52 maximum, 10-18mm	89201-054
Buna N Tubing, 1/4" ID, -40° to 120°C, 3'	89201-056
Insulation for 1/4" ID tubing, 3'	89201-062
Tube clamps for 1/4" and 3/8" ID tubing, stainless steel	89201-076

Chiller Accessories continued	
Viton Tubing, 5/8" ID, -32 to 204°C, 3'	89200-806
Viton Tubing, 3/4" ID, -32 to 204°C, 3'	89200-808
Viton Tubing, 3/8" ID, -32 to 204°C, 3'	89200-810
Insulation for 1/2" ID tubing, 3'	89200-812
Tube Clamps for 1/2", 5/8", and 3/4" ID tubing, stainless steel	89200-814
Manifold Kit, 2 ports with shutoffs	89200-828
Manifold Kit, 4 ports with shutoffs	89200-830



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