

Precision Water Baths



**Exceptional performance and reliability
for laboratory applications**

Analyze • Detect • Measure • Control™

Thermo
ELECTRON CORPORATION

Precision

Water Baths from Thermo

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Value, Performance and Reliability

Thermo's Precision Water Baths provide exceptional performance and reliability for your laboratory applications. With a 50-year history of providing quality and value, the Precision name is trusted by the world's leading scientists for their clinical and research needs. Available in a variety of models and capacities, all Precision Water Baths can be equipped with a broad range of accessories to support your specific application requirements.



Applications

	General Purpose	Circulating		Shaking		Steaming
	Models 180 and 280 Series	Models 260, 265, 270	Coliform	Models 25 & 50	Dubnoff and Shallow Form	4-Hole and 8-Hole
Bacteriological Examinations	■	■	■	■	■	
Coagulation Tests	■	■		■		
Coliform Determinations		■	■	■		
Copper Strip Corrosion Tests	■	■			■	■
Crude Oil Studies	■	■				
Cytochemistry	■	■			■	
Dialysis					■	
Demulsibility Studies	■	■				
Enzyme Studies		■			■	
Electrophoresis Gel Destaining				■		
Environmental Studies	■	■	■	■	■	
Food Processing QC	■	■	■	■		
Genetic Studies	■	■		■	■	
Hormone Studies	■	■		■	■	
Immunological Research	■	■		■	■	
Incubation for Microbiological Assays	■	■	■	■		
Incubation for Microcentrifugation Tubes	■				■	
Melting Agar	■					■
Metallurgical Analysis	■	■		■	■	■
Molecular Biology	■	■		■	■	
Protein Analysis	■	■				
Radioactive Isotope Uptake Studies	■	■		■	■	
Radiochemistry	■	■		■		
Serological Research	■	■		■	■	
Thawing	■	■		■	■	
Thawing Blood	■	■		■	■	
Thawing Cryopreservation Vials	■					■
Tissue Culture Research	■	■		■	■	
Virology Research	■	■		■	■	
Warming Reagents	■	■				
Water Quality Research	■	■	■	■	■	

Precision General Purpose Water Baths

Features:

- Easy-to-maintain, seamless stainless-steel interior chamber and epoxy powder-coated exterior resist corrosion and chemical damage
- Free stainless-steel diffuser shelf
- Free stainless-steel gable cover, all baths except Models 181/281
- Models 181/281 come with a polypropylene gable cover
- Choice of analog or digital temperature control
- Free thermometer on analog models
- Eight sizes. Choose chamber capacities ranging from 1.5 to 43 liters
- Over-temperature safety circuitry prevents thermal runaway
- Front mounted controls simplify operation
- UL listed (120 V)
- A free duck in every bath!

Specifications

Models	180	280	181	281
Chamber Capacity¹	0.4 gallon / 1.5 liters	0.4 gallon / 1.5 liters	0.7 gallon / 2.5 liters	0.7 gallon / 2.5 liters
Temperature Display	0° to 100° C (Thermometer)	0° to 100° C (Digital LED)	0° to 100° C (Thermometer)	0° to 100° C (Digital LED)
Maximum Temperature²	95.0°C	95.0°C	99.9°C	99.9°C
Temperature Uniformity	±0.2°C at 37°C	±0.2°C at 37°C	±0.2°C at 37°C	±0.2°C at 37°C
Temperature Sensitivity	±0.1°C at 37°C	±0.1°C at 37°C	±0.1°C at 37°C	±0.1°C at 37°C
Dimensions (L x W x H)				
Chamber	6 x 11.5 x 2 in. (15.2 x 29.2 x 5.1 cm)	6 x 11.5 x 2 in. (15.2 x 29.2 x 5.1 cm)	6 x 5 x 6 in. (15.2 x 12.7 x 16.2 cm)	6 x 5 x 6 in. (15.2 x 12.7 x 16.2 cm)
Exterior without cover	8.9 x 14 x 6.7 in. (22.3 x 35.6 x 17.1 cm)	8 x 14 x 6.7 in. (20.3 x 35.6 x 17.1 cm)	9.75 x 8 x 9.7 in. (27.1 x 20.3 x 24.8 cm)	9.75 x 8 x 9.7 in. (24.8 x 20.3 x 24.8 cm)
Electrical Specs (50/60Hz)				
120V	225 Watts (2.0 Amps)	225 Watts (2.0 Amps)	225 Watts (2.0 Amps)	225 Watts (2.0 Amps)
230V	225 Watts (1.0 Amps)	225 Watts (1.0 Amps)	225 Watts (1.0 Amps)	225 Watts (1.0 Amps)
BTU Output	768	768	768	768
Shipping Data				
Dimensions (L x W x H)	12.25x19.25x12.25 in. (31.1 x 48.9 x 31.1 cm)	12.25x19.25x12.25 in. (31.1 x 48.9 x 31.1 cm)	12.25x13.75x12.25 in. (31.1 x 34.9 x 31.1 cm)	12.25x13.75x12.25 in. (31.1 x 34.9 x 31.1 cm)
Weight	12 lbs (5.4 kg)	12 lbs (5.4 kg)	12 lbs (5.4 kg)	12 lbs (5.4 kg)
Volume	1.6 cu. ft. (0.05 cu. meter)	1.6 cu. ft. (0.05 cu. meter)	1.2 cu. ft. (0.03 cu. meter)	1.2 cu. ft. (0.03 cu. meter)
Catalog Number new (old)				
120V (UL listed)	2823 (51221070)	2825 (51221044)	2827 (51221064)	2829 (51221046)
230V ³	2824 (51221071)	2826 (51221045)	2828 (51221211)	2830 (51221047)

Models	182	282	183	283
Chamber Capacity¹	1.5 gallon / 5.5 liters	1.5 gallon / 5.5 liters	3.2 gallon / 12 liters	3.2 gallon / 12 liters
Temperature Display	0° to 100° C (Thermometer)	0° to 100° C (Digital LED)	0° to 100° C (Thermometer)	0° to 100° C (Digital LED)
Maximum Temperature²	99.9°C	99.9°C	99.9°C	99.9°C
Temperature Uniformity	±0.2°C at 37°C	±0.2°C at 37°C	±0.2°C at 37°C	±0.2°C at 37°C
Temperature Sensitivity	±0.1°C at 37°C	±0.1°C at 37°C	±0.1°C at 37°C	±0.1°C at 37°C
Dimensions (L x W x H)				
Chamber	11.5 x 6 x 6 in. (29.2 x 15.2 x 15.2 cm)	11.5 x 6 x 6 in. (29.2 x 15.2 x 15.2 cm)	11.5 x 12.5 x 6 in. (29.2 x 31.7 x 15.2 cm)	11.5 x 12.5 x 6 in. (29.2 x 31.7 x 15.2 cm)
Exterior without cover	16.2 x 8 x 9.75 in. (41.0 x 20.3 x 24.8 cm)	15.25 x 8 x 9.75 in. (38.7 x 20.3 x 24.8 cm)	16.2x14.75x 9.75 in. (41.0 x 37.5 x 24.8 cm)	15.25 x 14.75 x 9.75 in. (38.7 x 37.5 x 24.8 cm)
Electrical Specs (50/60Hz)				
120V	300 Watts (2.5 Amps)	300 Watts (2.5 Amps)	400 Watts (3.3 Amps)	400 Watts (3.3 Amps)
230V	300 Watts (1.3 Amps)	300 Watts (1.3 Amps)	400 Watts (1.75 Amps)	400 Watts (1.75 Amps)
BTU Output	1025	1025	1366	1366
Shipping Data				
Dimensions (L x W x H)	19.25 x 12.25 x 12.25 in. (48.9 x 31.1 x 31.1 cm)	19.25 x 12.25 x 12.25 in. (48.9 x 31.1 x 31.1 cm)	20.5 x 18 x 12.75 in. (52.1 x 45.7 x 32.4 cm)	20.5 x 18 x 12.75 in. (52.1 x 45.7 x 32.4 cm)
Weight	16 lbs (7.3 kg)	16 lbs (7.3 kg)	20 lbs (9.1 kg)	20 lbs (9.1 kg)
Volume	1.6 cu. ft. (0.05 cu. meter)	1.6 cu. ft. (0.05 cu. meter)	2.7 cu. ft. (0.08 cu. meter)	2.7 cu. ft. (0.08 cu. meter)
Catalog Number new (old)				
120V (UL Listed)	2831 (51221073)	2833 (51221048)	2835 (51221060)	2837 (51221050)
230V ³	2832 (51221068)	2834 (51221049)	2836 (51221062)	2838 (51221051)

1. Filled 1" (25 mm) from top of chamber

2. With gable cover

3. 50/60 Hz

See water bath accessories on back cover.



Precision 281 Digital Water Bath with optional thermometer

Precision 183 Analog Water Bath

Precision 288 Digital Water Bath with optional thermometers

Specifications

Models	184	284	185	285
Chamber Capacity¹	5.2 gallon (19.5 liters)	5.2 gallon (19.5 liters)	4.9 gallon (18 liters)	4.9 gallon (18 liters)
Temperature Display	0° to 100° C (Thermometer)	0° to 100° C (Digital LED)	0° to 100° C (Thermometer)	0° to 100° C (Digital LED)
Maximum Temperature²	99.9°C	99.9°C	99.9°C	99.9°C
Temperature Uniformity	±0.2°C at 37°C	±0.2°C at 37°C	±0.2°C at 37°C	±0.2°C at 37°C
Temperature Sensitivity	±0.1°C at 37°C	±0.1°C at 37°C	±0.1°C at 37°C	±0.1°C at 37°C
Dimensions (L x W x H)				
Chamber	14 x 12 x 8 in. (35.6 x 30.5 x 20.3 cm)	14 x 12 x 8 in. (35.6 x 30.5 x 20.3 cm)	19.5 x 11.5 x 6 in. (49.5 x 29.2 x 15.2 cm)	19.5 x 11.5 x 6 in. (49.5 x 29.2 x 15.2 cm)
Exterior without cover	19.7 x 15.75 x 9.75 in. (49.9 x 40 x 24.8 cm)	18.75 x 15.75 x 9.75 in. (47.6 x 40 x 24.8 cm)	23.9 x 13.75 x 9.75 in. (60.7 x 34.9 x 24.8 cm)	23 x 13.75 x 9.75 in. (58.4 x 34.9 x 24.8 cm)
Electrical Specs (50/60Hz)				
120V	600 Watts (5.0 Amps)	600 Watts (5.0 Amps)	600 Watts (5.0 Amps)	600 Watts (5.0 Amps)
230V	600 Watts (2.6 Amps)	600 Watts (2.6 Amps)	600 Watts (2.6 Amps)	600 Watts (2.6 Amps)
BTU Output	2048	2048	2048	2048
Shipping Data				
Dimensions (L x W x H)	23.5 x 18 x 12.75 in. (59.7 x 45.72 x 32.4 cm)	23.5 x 18 x 12.75 in. (59.7 x 45.72 x 32.4 cm)	27.5 x 16.5 x 14.75 in. (69.9 x 41.9 x 37.5 cm)	27.5 x 16.5 x 14.75 in. (69.9 x 41.9 x 37.5 cm)
Weight	25 lbs (11.3 kg)	25 lbs (11.3 kg)	30 lbs (13.6 kg)	30 lbs (13.6 kg)
Volume	3.1 cu. ft. (0.09 cu. meter)	3.1 cu. ft. (0.09 cu. meter)	3.9 cu. ft. (0.11 cu. meter)	3.9 cu. ft. (0.11 cu. meter)
Catalog Number new (old)				
120V (UL listed)	2839 (51221075)	2841 (51221052)	2843 (51221065)	2845 (51221054)
230V ³	2840 (51221069)	2842 (51221053)	2844 (51221066)	2846 (51221055)

1. Filled 1" from top of chamber
2. With gable cover
3. 50/60 Hz

Models	186	286	188 (Dual chamber)	288 (Dual chamber)
Chamber Capacity¹	11.4 gallon (43 liters)	11.4 gallon (43 liters)	3.2 gallon ⁴ (12 liters)	3.2 gallon ⁴ (12 liters)
Temperature Display	0° to 100° C (Thermometer)	0° to 100° C (Digital LED)	0° to 100° C (Thermometer)	0° to 100° C (Digital LED)
Maximum Temperature²	99.9°C	99.9°C	99.9°C	99.9°C
Temperature Uniformity	±0.2°C at 37°C	±0.2°C at 37°C	±0.2°C at 37°C	±0.2°C at 37°C
Temperature Sensitivity	±0.1°C at 37°C	±0.1°C at 37°C	±0.1°C at 37°C	±0.1°C at 37°C
Dimensions (L x W x H)				
Chamber	16 x 28 x 6.5 in. (40.6 x 71.1 x 16.5cm)	16 x 28 x 6.5 in. (40.6 x 71.1 x 16.5cm)	11.5 x 12.5 x 6 in.1 (29.2 x 31.7 x 15.2cm)	11.5 x 12.5 x 6 in.1 (29.2 x 31.7 x 15.2cm)
Exterior without cover	21.6 x 31.5 x 9.75in. (55.0 x 80 x 24.8cm)	20.7 x 31.5 x 9.75in. (52.7 x 80 x 24.8cm)	16.1 x 29 x 9.75in. (41.0 x 73.7 x 24.8cm)	15.2 x 29 x 9.75in. (38.7 x 73.7 x 24.8cm)
Electrical Specs (50/60Hz)				
120V	1200 Watts (10.0 Amps)	1200 Watts (10.0 Amps)	800 Watts (6.7 Amps)	800 Watts (6.7 Amps)
230V	1200 Watts (5.2 Amps)	1200 Watts (5.2 Amps)	800 Watts (3.5 Amps)	800 Watts (3.5 Amps)
BTU Output	4095	4095	2732	2732
Shipping Data				
Dimensions (L x W x H)	24 x 36.25 x 18 in. (61 x 92.1 x 45.7cm)	24 x 36.25 x 18 in. (61 x 92.1 x 45.7cm)	18 x 34 x 12.75 in. (45.7 x 86.4 x 32.4cm)	18 x 34 x 12.75 in. (45.7 x 86.4 x 32.4cm)
Weight	56 lbs (25.4 kg)	56 lbs (25.4 kg)	40 lbs (18.1 kg)	40 lbs (18.1 kg)
Volume	9 cu. ft. (0.25 cu.meter)	9 cu. ft. (0.25 cu.meter)	4.5 cu.ft. (0.13 cu.meter)	4.5 cu.ft. (0.13 cu.meter)
Catalog Number new (old)				
120V (UL listed)	2847 (51221072)	2849 (51221056)	2851 (51221061)	2853 (51221058)
230V ³	2848 (51221074)	2850 (51221057)	2852 (51221063)	2854 (51221059)

1. Filled 1" (25 mm) from top of chamber
2. With gable cover
3. 50/60 Hz
4. Each chamber

See water bath accessories on back cover.

Precision Circulating Water Baths



Precision 260 Circulating Water Bath with optional Petri dish rack

Features

- Microprocessor control with digital LED display
- Water flow directed around bath perimeter
- Elevated sample platform for more thorough circulation
- Easy-to-maintain, corrosion resistant construction
- Over-temperature protection capability
- Single switch control for heater and circulator pump
- Stainless-steel gable cover and diffuser shelf are standard equipment
- Meets ASTM E715 Class IIA standards for uniformity
- UL listed (120 V)
- Free Duck!

Microprocessor-controlled Baths Combine Operational Simplicity With Excellent Temperature Uniformity.

Precision Circulating Water Baths are ideal for applications where temperature uniformity and control are critical, such as enzymes and serology. Available in three different models, these high performance baths range in capacity from 19 liters to 89 liters and include a stainless steel diffuser shelf and a gable cover as standard equipment.



Precision 270 Circulating Water Bath



Precision 265 Circulating Water Bath with optional Petri dish rack

Specifications

Models	260	265	270
Chamber Capacity¹	5.1 gallons / 19 liters	9.1 gallons / 34.5 liters	23.8 gallons / 89 liters
Maximum Temperature²	99.9°C	99.9°C	99.9°C
Temperature Uniformity at 37°C	±0.05°C	±0.05°C	±0.05°C
Temperature Sensitivity	±0.05°C	±0.05°C	±0.05°C
Dimensions (L x W x H)			
Chamber	12 x 15 x 7.5 in. (30.5 x 38.1 x 19.0 cm)	12 x 27 x 7.5 in. (30.5 x 68.6 x 19.0 cm)	18 x 36 x 9.5 in. (45.7 x 91.4 x 24.1 cm)
Shelf	11 x 14.5 in. (27.9 x 36.8 cm)	11 x 26.5 in. (27.9 x 67.3 cm)	17 x 35 in. (43.2 x 88.9 cm)
Exterior	14 x 24.5 x 9.5 in. (35.6 x 62.2 x 24.1 cm)	14 x 36.5 x 9.5 in. (35.6 x 92.7 x 24.1 cm)	20 x 45 x 12 in. (50.8 x 114.3 x 30 cm)
Electrical Specs (50/60Hz)			
120V	1000 Watts 8.3 Amps	1550 Watts 12.9 Amps	1550 Watts 12.9 Amps
230V	1000 Watts 4.3 Amps	1550 Watts 6.7 Amps	1550 Watts 6.7 Amps
BTU Output	3415	5294	5294
Shipping Information			
Dimensions (L x W x H)	25 x 34.5 x 15.5 in. (63.5 x 87.6 x 39.4 cm)	27 x 45.5 x 21 in. (68.6 x 115.5 x 53.3 cm)	27 x 46 x 21 in. (68.6 x 116.8 x 53.3 cm)
Weight	45 lbs. (20.4 kg)	68 lbs. (30.8 kg)	85 lbs. (38.5 kg)
Volume	7.7 cu. ft. (0.22 cu. meter)	14.9 cu. ft. (0.42 cu. meter)	15.1 cu. ft. (0.43 cu. meter)
Catalog Number new (old)			
120 V (UL listed)	2864 (51221035)	2866 (51221039)	2868 (51221036)
230V ³	2865 (51221037)	2867 (51221040)	2869 (51221038)

1. Filled to 1" (25 mm) from top of chamber

2. With gable cover

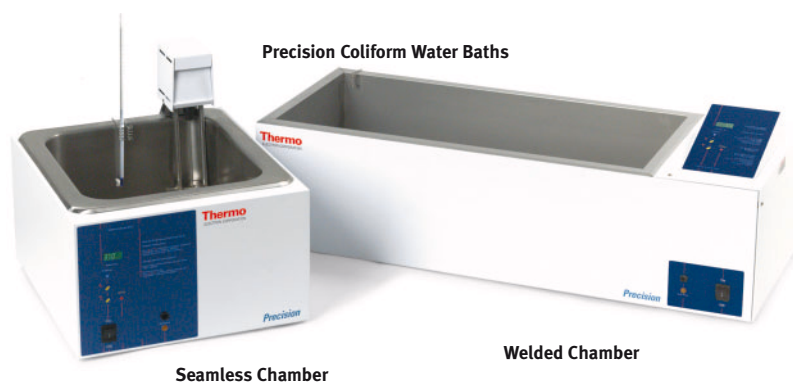
3. 50/60 Hz (Includes European style 50 Hz power cord; standard 220V 60 Hz power cord available separately. Part number 34400001)

See water bath accessories on back cover.

Precision Coliform Water Baths

Features

- Factory pre-set temperatures for easy use, even by untrained operators
- Microprocessor control with digital LED display
- Water pump gently directs water flow around bath perimeter for non-turbulent agitation
- Over-temperature protection capability
- Rugged stainless-steel construction with easy to clean epoxy-powder coated exterior
- Free stainless-steel gable cover and diffuser shelf
- Meets APHA, AWWA, EPA, WPCF, and AOAC high performance standards
- UL listed (120V)
- Free Duck!



The Precision Model 251 and 253 Coliform Baths are designed specifically for fecal coliform determination. Each bath is factory calibrated and can be field calibrated from the front panel without the use of tools. The preset temperature feature is standard on both coliform baths for ease of use. Both baths meet stringent performance requirements. The Model 251 comes with a seamless chamber and the Model 253 comes with a larger-welded chamber. Free stainless-steel gable cover and diffuser shelf.

Specifications

Models	Small Coliform Bath Model 251	Large Coliform Bath Model 253
Chamber Capacity¹	4.8 gallons (17.5 liters)	9.1 gallons (34.5 liters)
Temperature Range	35.0°C – 45.5°C	35.0°C – 45.5°C
Factory Preset Temperatures	35.0°C, 41.5°C, 44.5°C, 45.5°C	35.0°C, 41.5°C, 44.5°C, 45.5°C
Temperature Uniformity	±0.05°C	±0.05°C
Temperature Sensitivity	±0.05°C	±0.05°C
Dimensions (L x W x H)		
Chamber	14 x 12 x 8 in. (35.6 x 30.5 x 20.3 cm)	12 x 27 x 7.5 in. (30.48 x 68.6 x 19.0 cm)
Diffuser Shelf	12 x 10 in. (30.5 x 25.4 cm)	11 x 26.5 in. (28 x 67.3 cm)
Exterior	18.5 x 15.5 x 9.5 in. (47 x 39.4 x 24.13 cm)	14 x 36 x 9.5 in. (35.6 x 91.4 x 24.1 cm)
Electrical Specs (50/60Hz)		
120V	600 Watts 5.0 Amps	1550 Watts 12.9 Amps
230V	600 Watts 2.6 Amps	1550 Watts 6.75 Amps
BTU Output	2049	5294
Net Weight	27 lbs. (12.2 kg)	46 lbs. (20.8 kg)
Shipping Dimensions (L x W x H)	27 x 21 x 16 in. (68.6 x 53.3 x 40.6 cm)	27 x 46 x 21 in. (68.6 x 116.8 x 53.3 cm)
Shipping Weight	35 lbs. (15.8 kg)	60 lbs. (27.2 kg)
Catalog Number new (old)		
120V (UL listed)	2860 (51221031)	2862 (51221033)
230V ²	2861 (51221032)	2863 (51221034)

1. Filled to 1" (25 mm) from top of chamber

2. 50/60 Hz (Includes European style 50 Hz power cord; standard 220V 60 Hz power cord available separately. Part number 34400001)

See water bath accessories on back cover.

Precision Reciprocal Shaking Water Baths

Features

- Microprocessor control with digital LED display and shaker control
- Adjustable shaking speed from 30 to 200 OPM
- Over-temperature protection capability
- Rugged stainless-steel construction with easy to clean epoxy-powder coated exterior
- Push-button convenience for entry of temperature and shaking speed
- Automatic motor shut-down capability
- Meets ASTM Method E 715 Class IIA standards
- UL listed (120 V)
- Free Duck!



Thermo has designed the Precision Reciprocal Shaking Baths for life science and QA/QC applications. With two sizes to choose from, both baths provide sample agitation with excellent temperature uniformity. The push-button input of desired temperature and shaking speed help to make the baths easy to use, while meeting the stringent standards for laboratory testing.

Specifications

Models	25	50
Chamber Capacity¹	3.9 gallons (14.5 liters)	7.1 gallons (26.5 liters)
Maximum Temperature²	99.9°C	99.9°C
Temperature Uniformity at 37°C	±0.05°C	±0.1°C
Temperature Sensitivity	±0.05°C	±0.05°C
Oscillation per Minute	30 to 200	30 to 200
Stroke Length	0.5 to 1.5 in. (1.3 to 3.8 cm)	0.5 to 1.5 in. (1.3 to 3.8 cm)
Dimensions (L x W x H)		
Chamber	12 x 15 x 7.5 in. (30.5 x 38.1 x 19.05 cm)	12 x 27 x 7.5 in. (30.5 x 68.6 x 19.05 cm)
Removable Tray	11.5 x 12 x 6.5 in. (29.2 x 30.5 x 16.5 cm)	11.5 x 24 x 6.5 in. (29.2 x 61 x 16.5 cm)
Exterior	14 x 24.5 x 9.5 in. (35.6 x 62.2 x 24.1 cm)	14 x 36.5 x 9.5 in. (35.6 x 92.7 x 24.1 cm)
Electrical Specs (50/60Hz)		
120V	1000 Watts 8.8 Amps	1550 Watts 12.9 Amps
230V	1000 Watts 4.4 Amps	1550 Watts 6.5 Amps
BTU Output	3415	5294
Shipping Data		
Dimensions	17 x 28.5 x 16.5 in. (43.2 x 72.4 x 41.9 cm)	17 x 40.5 x 16.5 in. (43.2 x 102.9 x 41.9 cm)
Weight	48 lbs. (22.2 kg)	62 lbs. (27.2 kg)
Volume	7 cu. ft. (0.20 cu. meters)	15.1 cu. ft. (0.43 cu. meters)
Catalog Number new (old)		
120V (UL listed)	2870 (51221080)	2872 (51221081)
230V ³	2871 (51221203)	2873 (51221082)

1. Filled 3.5" (89 mm) from top of chamber

2. With gable cover

3. 50/60 Hz (Includes European style 50 Hz power cord; standard 220V 60 Hz power cord available separately. Part number 34400001)

See water bath accessories on back cover.

Precision Shallow Form Reciprocal Shaking Baths

Features

- Microprocessor control with digital LED display and shaker control
- Adjustable shaking speed from 30 to 200 OPM
- Push-button convenience for entry of temperature and shaking speed
- Over-temperature protection capability
- Automatic motor shut-down capability
- One-piece, easy-to-remove tray for easy use and maintenance
- Free stainless-steel gable cover included
- Meets ASTM Method E 715 Class IIA standards
- UL listed (120 V)
- Optional O₂/N₂/CO₂ flowmeter
- Optional gassing hoods
- Free Duck!



Precision Shallow Form Shaking Bath with optional thermometer

Precision's Shallow Form Reciprocal Shaking Baths have a capacity of 14.5 liters (3.9 gallons), however the removable tray provides a depth of only 3.5 inches (8.9 cm) for use with smaller sample containers. This bath can be equipped with optional 3-gas (oxygen, nitrogen, and CO₂) flowmeter and gassing hoods.

Specifications

Model	Shallow Form Shaking Bath
Chamber Capacity¹	3.9 gallons (14.5 liters)
Maximum Temperature²	99.9°C
Temperature Uniformity at 37°C	±0.05°C
Temperature Sensitivity	±0.05°C
Oscillation per Minute	30 to 200
Stroke Length	0.5 to 1.5 in. (1.3 to 3.8 cm)
Dimensions (L x W x H)	
Chamber	12 x 15 x 7.5 in. (30.5 x 38.1 x 19 cm)
Removable Tray	11.5 x 11 x 3.5 in. (29.2 x 27.9 x 8.9 cm)
Exterior	14 x 24.5 x 9.5 in. (35.6 x 62.2 x 24.1 cm)
Electrical Specs (50/60Hz)	
120V	1000 Watts 8.3 Amps
230V	1000 Watts 4.3 Amps
BTU Output	3415
Shipping Data	
Dimensions	17 x 28.5 x 16.5 in. (43.2 x 72.4 x 41.9 cm)
Weight	55 lbs. (24.9 kg)
Volume	5.1 cu. ft. (0.14 cu. meters)
Catalog Number new (old)	
120V (UL listed)	2874 (51221079)
230V ³	2875 (51221078)

1. Filled 3.5" (89 mm) from top of chamber

2. With gable cover

3. 50/60 Hz (Includes European style 50 Hz power cord; standard 220V 60 Hz power cord available separately. Part number 34400001)

See water bath accessories on back cover.

Precision Dubnoff Reciprocal Shaking Baths

Features

- Dubnoff baths equipped with gassing hoods: 1 large and 2 small
- Microprocessor control with digital LED display and shaker control
- Adjustable shaking speed from 30 to 200 OPM
- Push-button convenience for entry of temperature and shaking speed
- Over-temperature protection capability
- Automatic motor shut-down capability
- One-piece, easy-to-remove tray for easy use and maintenance
- Free stainless-steel gable cover included
- Meets ASTM Method E 715 Class IIA standards
- UL listed (120 V)
- Optional O₂/N₂/CO₂ flowmeter
- Free Duck!



Precision Dubnoff Shaking Bath with large gassing hood

Precision's Dubnoff Reciprocal Shaking Baths are designed specifically for applications that require your samples to be incubated in a controlled atmosphere. This bath has a capacity of 14.5 liters (3.9 gallons), and has a depth of 3.5 inches (8.9 cm). One large and two small gassing hoods are included with each bath along with the gable cover. An optional 3-gas (oxygen, nitrogen, and CO₂) flowmeter is available for precise control of the atmosphere surrounding your important samples.

Specifications

Model	Dubnoff Metabolic Shaking Bath
Chamber Capacity ¹	3.9 gallons (14.5 liters)
Maximum Temperature ²	99.9°C
Temperature Uniformity at 37°C	±0.05°C
Temperature Sensitivity	±0.05°C
Oscillation per Minute	30 to 200
Stroke Length	0.5 to 1.5 in. (1.3 to 3.8 cm)
Dimensions (L x W x H)	
Chamber	12 x 15 x 7.5 in. (30.5 x 38.1 x 19 cm)
Removable Tray	11.5 x 11 x 6.5 in. (29.2 x 27.9 x 16.5 cm)
Exterior	14 x 24.5 x 9.5 in. (35.6 x 62.2 x 24.1 cm)
Electrical Specs (50/60Hz)	
120V	1000 Watts 8.2 Amps
230V	1000 Watts 4.3 Amps
BTU Output	3415
Shipping Data	
Dimensions	17 x 28.5 x 16.5 in. (53.3 x 72.4 x 41.9 cm)
Weight	55 lbs. (24.9 kg)
Volume	5.1 cu. ft. (0.14 cu. meters)
Catalog Number new (old)	
120V (UL listed)	2876 (51221076)
230V ³	2877 (51221077)

1. Filled 3.5" (89 mm) from top of chamber

2. With gable cover

3. 50/60 Hz (Includes European style 50 Hz power cord; standard 220V 60 Hz power cord available separately. Part number 34400001)

See water bath accessories on back cover.

Precision Concentric Ring Electrical Steaming Baths

Features

- 4- and 8-hole models enlarge from 7/8 inch to maximum opening diameters of 5 and 6 inches respectively
- Copper-clad immersion heaters provide bath temperatures up to 100 °C
- Easy to operate with a 4-position switch and 3 different heat settings
- Adjustable water level regulator maintains bath depth at the desired level
- Stainless-steel cabinets with flanged cabinet top for table-top installations
- Rugged epoxy-coated, corrosion-resistant stand
- Accommodates most laboratory glassware



Precision Concentric Ring Electrical Steaming Baths

Precision Concentric Ring Electrical Steaming Baths are designed to gently warm samples, make concentrates, and melt solids such as agar. Available in both 4-opening and 8-opening models, they accommodate various sizes of glassware and evaporating dishes, including round-bottom flasks. Flange-formed stainless-steel rings nest smoothly and become progressively larger as each concentric ring is removed. Copper-clad immersion heaters provide bath temperatures up to 100 °C. These baths require hardwire installation by a qualified electrician and need to be hooked up to a continuous water source.

Specifications

Models	4-Hole Steaming Bath	8-Hole Steaming Bath
Maximum Temperature	100°C	100°C
Time to reach 100°C	63 minutes	65 minutes
Heater Settings		
Low	275 W	500 W
Medium	550 W	1000 W
High	1100 W	2000 W
Minimum Opening Diameter (with cover removed)	7/8 in. 22 mm	7/8 in. 22 mm
Minimum Opening Diameter (all rings removed)	5 in. 125 mm	2 at 4 in. / 100mm 4 at 5 in. / 125mm 2 at 6 in. / 150mm
Dimensions (L x W x H)¹		
Without Support Stand	15 x 15 x 4 in. (38.1 x 38.1 x 10.2 cm)	15.5 x 29 x 4.5 in. (39.4 x 73.7 x 11.4 cm)
With Support Stand	15 x 15 x 13 in. (38.1 x 38.1 x 33.0 cm)	15.5 x 29 x 13.5 in. (39.4 x 73.7 x 34.3 cm)
Electrical Specs (50/60Hz)		
120V	1100 Watts 9.2 Amps	2000 Watts 16.7 Amps
230V	1100 Watts 4.6 Amps	2000 Watts 8.3 Amps
BTU Output	3757	6830
Shipping Data		
Dimensions (L x W x H)	20.5 x 20.5 x 21 in. (52.1 x 52.1 x 53.3 cm)	25 x 34.5 x 15.5 in. (63.5 x 87.6 x 39.6 cm)
Weight	20 lbs (9.1 kg)	30 lbs (13.6 kg)
Volume	5.1 cu. ft. (0.14 cu. meters)	7.7 cu. ft. (0.22 cu. meters)
Catalog Number new (old)		
120V	2896 (51220041)	2898 (51220042)
230V ²	2897 (51220202)	2899 (51220043)

1. Water regulator adds 2.5 in. (63.5 mm) to exterior width of 4-hole bath and exterior length of 8-hole bath.
2. 50/60 Hz

See water bath accessories on back cover.

Precision Water Bath Accessories



Water Level
Regulator Kit



Oakite
Sanitizer



Petri Dish Rack



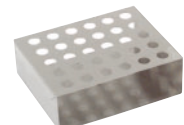
High Wall Tray



Test Tube Clips



Gassing Hood



Microfuge Test Tube
Rack



Test Tube Trays



Ring Sets

Ordering Information

For General Purpose and Circulating Baths

Water Level Regulator Kit

Adjustable float valve automatically opens when the water level in the bath falls below preset limits to keep the bath full. Valve and float are mounted on a removable bonnet for easy maintenance and service. Kit includes 6 ft. (1.8 meters) 1/4 in. I.D. Tygon tubing, nylon fittings, clamps, and adjustable mounting bracket.

Description	Cat. No.
Regulator Kits for Steaming Water Baths	3166211
For Circulating, Reciprocal Shaking, and Coliform Baths	3166223

Sample Racks

Stainless Steel Racks hold Petri dishes or test tubes.

Description	Cat. No.
Petri Dish Rack Measures 9 3/4 x 8 3/4 x 6 1/4 in. (248 x 222 x 159 mm). Holds 80 50 mm Petri dishes or 30 90 mm Petri dishes.	3166183
Test Tube Rack Measures 10 x 8 1/2 x 5 1/2 in. (254 x 216 x 140 mm). Openings are 1 in. (25 mm) square. Holds 50 test tubes up to 25 mm from 97 to 150 mm high.	3161601

Oakite Sanitizer

Description	Cat. No.
A safe yet effective quaternary ammonium type germicide and disinfectant. 1 quart (0.946 liter)	3166250

Glass Thermometers*

Non-hazardous glass thermometers read in 1.0°C increments.

Description	Cat. No.
Model 180 and 280 General Purpose Baths, 0°C to 105°C, 6.5 in. (165 mm) long	3175997
All other Precision 180 and 280 Series General Purpose, Circulating and Shaking Baths. 0°C to 100°C 12 in. (305 mm) long	3166220

*All thermometers are for monitoring purposes only!

For Reciprocal, Shaking, Shallow Form and Dubnoff Baths

Gassing Hood

For use with Dubnoff and Shallow Form Shaking Baths. Permits control over the atmosphere surrounding the sample. Also improves temperature uniformity and reduces energy consumption. Polished stainless steel with plastic gas fitting. Each bath will accommodate 1 large hood or 2 small hoods.

Description	Cat. No.
Small (5.6 x 11.35 in.)	3162639
Large (11.21 x 11.35 in.)	3162640

Oxygen/Nitrogen/CO₂ Flowmeter

For use with Dubnoff and Shallow Form Shaker Baths. Independent controls regulate flow of gas to sample environment. Permits flow rates from 0 to 10 CFH (0 to 4719 cc/minute).

Description	Cat. No.
Flowmeter	3166181

Microfuge Test Tube Rack

For use with Shallow Form or Dubnoff baths; requires Clip Fastener. Measures 5 x 4 x 1-1/2 in. (127 x 101 x 39 mm).

Description	Cat. No.
0.5 ml tubes (holds 63) (not shown)	3166184
1.5 ml tubes (holds 30)	3166185

Test Tube Tray

For use with Reciprocal, Dubnoff, and Shallow Form Shaking Baths. Measures 5 x 10.2 in. (12.7 x 25.9 cm).

Description	Cat. No.
Holds 10-13 to 25 mm test tubes	3161597

Flask Tray

For use in Reciprocal, Dubnoff, and Shallow Form Shaking Baths. Measures 5 x 10.2 in. (12.7 x 25.9 cm).

Description	Cat. No.
25 ml flask (Holds 18 clips)	3161599
50 ml flask (Holds 10 clips)	3166228

Test Tube Clips

For use in Reciprocal, Dubnoff, and Shallow Form Shaking Baths. Stainless steel. Each requires one fastener.

Description	Cat. No.
Holds 13 mm to 25 mm tube	3166216

Flask Clips and Fasteners

For use in Reciprocal, Dubnoff, and Shallow Form Shaking Baths. Secure various size flasks to bath platform. Stainless steel. Each requires one fastener.

Flask Clip Capacities

Flask Vol.	Model 25, Shallowform, Dubnoff		Cat. No.
	Model 50	Model 50	
25 ml	20	48	3166227
50 ml	15	36	3166198
125 ml	9	24	3166221
250 ml	6	14	3166566
500 ml	4	12	3166199
1000 ml	2	5	3166200

Clip Fasteners (One required per flask clip or tube. Package of 25.) 3166189

High Wall Tray

Description	Cat. No.
For use with Precision Shallow Form, Dubnoff, and Shaking Bath Model 25 (11.25 x 12.5 x 7.5 in.)	3164716
For use with Precision Shaking Bath Model 50. (11.25 x 24 x 7.5 in.)	3164717

For Steaming Baths

Ring Sets

For Steaming Baths. Stainless Steel ring sets nest smoothly and become progressively larger as rings are removed.

Description	Cat. No.
4 in. (100 mm)	3166186
5 in. (125 mm)	3166187
6 in. (150 mm)	3166215

Concentric Ring Cover

Stainless steel cover converts the Model 184 or 284 Utility Bath for use as a steaming bath. Five openings (3 small, 2 large) accommodate glassware ranging in diameter from 4/5 to 4 in. in 1 in. (2 to 10 cm) increments. Openings enlarge as rings are removed.

Description	Cat. No.
Concentric Ring Cover	3161593

Gable Covers

Replacement Gable Covers are available. Contact your Thermo representative for details.