

# 15. WATER BATH

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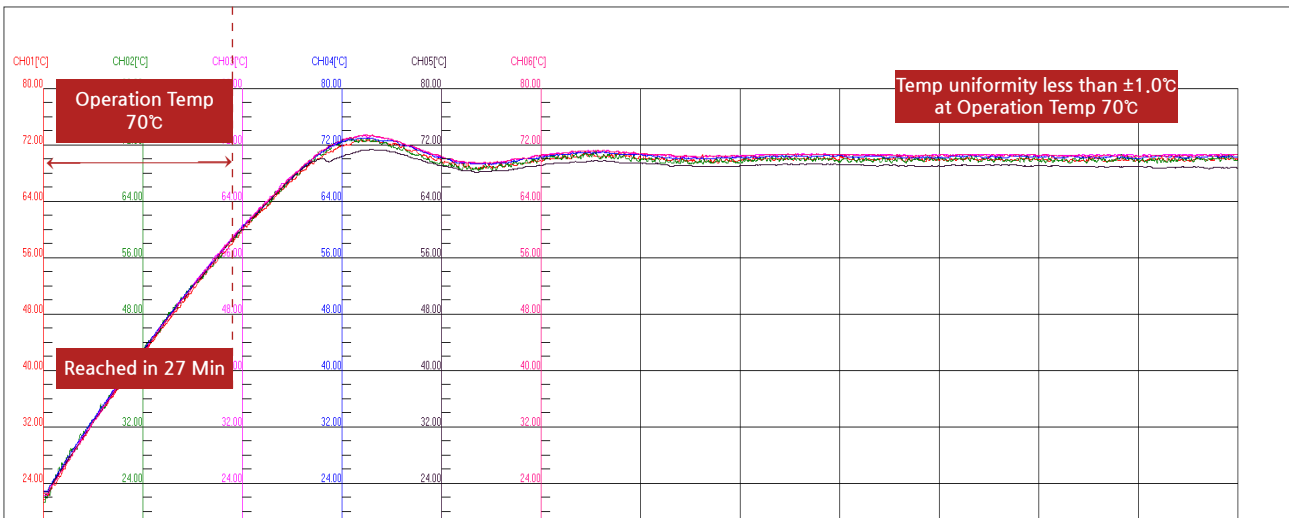


General-Purpose Water Bath .....	162
General-Purpose Oil Bath .....	165
Circulating Water Bath .....	166
Refrigerated Circulating Bath .....	168
Recirculating Chiller .....	170
Water Bath with Gable Cover / Concentric Ring Cover .....	172
Mini Water Bath .....	173
Digital Dry Bath .....	174

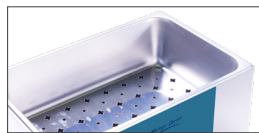
# General-Purpose Water Bath -Feature

This unit is for heating materials in a gradual manner until it reaches a certain temperature. It can also be used for keeping materials warm over a certain set period. It is commonly used in cooking, scientific researches and other related industries concerned with this function.

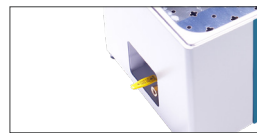
## Uniformity sheet



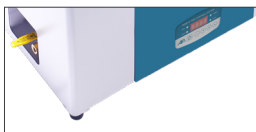
## Feature



Stainless steel



Drain port



Prevention of slipperiness  
rubber foot

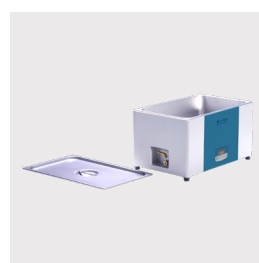


Safety devices  
heater cover



Digital PID controller

# Digital General-Purpose Water Bath



Model	SH-WB-6GDN	SH-WB-11GDN	SH-WB-22GDN
Temp Range	Ambient +5°C to 99°C (Ambient + 9°F to 210°F)		
Temp Controller	Digital PID Controller		
Time Range	00.00 to 99HR 59MIN (MIN SEC) Selectable Digital Display		
Capa	6 L	11 L	22 L
Dimension Internal (WxDxH )	300x150x150mm	300x240x150mm	500x295x150mm
	11.81x5.90x5.90"	11.81x9.45x5.90"	19.69x11.61x5.90"
Dimension External (WxDxH )	340x190x295mm	330x270x295mm	565x330x295mm
	13.38x7.48x11.61"	12.99x10.62x11.61"	22.24x12.99x11.61"
Net weight	6 Kg	6.8 Kg	8.5 Kg
Material Internal	Stainless Steel		
Material External	Steel Plate With Powder Heating Coated		
Material Lid	Stainless Steel		
Heater Capa	600 W	1000 W	2000 W
Circulation Pump	None		
Drain Valve	None		Yes
Electrical Requirements 120V ,50/60Hz, 1Φ	5.1 A	8.6 A	17.4 A
Cat. No.	WB6GDN120	WB11GDN120	WB22GDN120
Electrical Requirements 230V,50/60Hz, 1Φ	2.7 A	4.5 A	9.1 A
Cat. No.	WB6GDN230	WB11GDN230	WB22GDN230

#### • Accessory

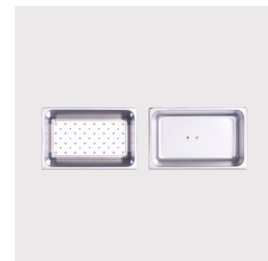
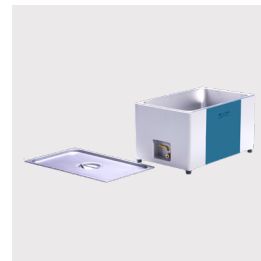
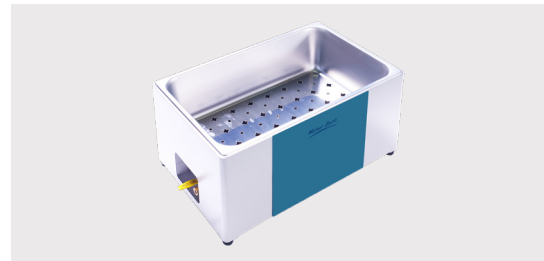
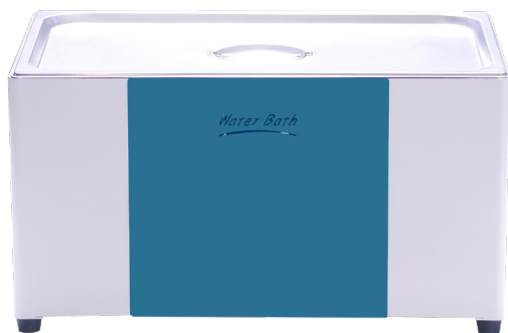
- Heater cover
- Bath Lid

#### • Safety Device

- Automatic reset function incoming power cut
- Buzzer on when set time arrived
- Electric leakage circuit breaker

Analogue (Economy Model)

## General-Purpose Water Bath



Model	SH-WB-6GAN	SH-WB-11GAN	SH-WB-22GAN
Temp Range	Ambient +5°C to 99°C (Ambient + 9°F to 210°F)		
Temp Controller	Temp Dial Controller		
Capa	6 L	11 L	22 L
Dimension Internal (WxDxH)	300x150x150mm	300x240x150mm	500x295x150mm
	11.81x5.90 x5.90"	11.81x9.45x5.90"	19.69x11.61x5.90"
Dimension External (WxDxH)	340x190x295mm	330x270x295mm	565x330x295mm
	13.39x7.48x11.61"	12.99x10.62x11.61"	22.24x12.99x11.61"
Net weight	6 Kg	6.8 Kg	8.5 Kg
Material Internal	Stainless Steel		
Material External	Steel Plate With Powder Heating Coated		
Material Lid	Stainless Steel		
Heater Capa	600 W	1000 W	2000 W
Circulation Pump	None		
Drain Valve	None		Yes
Electrical Requirements 120V, 50/60Hz, 1Φ	5.1 A	8.6 A	17.4 A
Cat. No.	WB6GAN120	WB11GAN120	WB22GAN120
Electrical Requirements 230V, 50/60Hz, 1Φ	2.7 A	4.5 A	9.1 A
Cat. No.	WB6GAN230	WB11GAN230	WB22GAN230

• **Accessory**

- Heater cover
- Bath Lid

• **Safety Device**

- Automatic reset function incoming power cut
- Buzzer on when set time arrived
- Electric leakage circuit breaker

# General-Purpose Oil Bath

A General-Purpose Oil Bath is made for samples that requires a temperature higher than 100°C. This is not respected by water's boiling point at 100°C. To accommodate this need, this equipment can process on a higher temperature upto 300°C. It is commonly used in the fields of culinary, scientific researches and other related industries.



Model	SH-WB-10GDH	SH-WB-20GDH	SH-WB-40GDH
Temp Range	Ambient +10°C to 300°C (Ambient +18°F to 572°F)		
Temp Controller	Digital PID Controller		
Capa	13 L	24 L	48 L
Dimension Internal (W×D×H)	250x300x170mm	350x400x170mm	600x400x200mm
	9.84x11.81x6.69"	13.78x15.75x6.69"	23.62x15.75x7.87"
Dimension External (W×D×H)	635x385x345mm	732x485x345mm	1035x500x390mm
	25.00x15.15x13.58"	28.81x19.09x13.58"	40.74x19.68x15.35"
Weight	21 Kg	29 Kg	38 Kg
Material Internal	Stainless Steel		
Material External	Steel Plate With Powder Heating Coated		
Heater Capa	2 KW	3.5 KW	4.8 KW
Electrical Requirements 120V ,50/60Hz, 1Φ	17.3 A	30.7 A	44.1 A
Cat. No.	WB10GDH120	WB20GDH120	WB40GDH120
Electrical Requirements 230V,50/60Hz, 1Φ	9.0 A	16.0 A	23.0 A
Cat. No.	WB10GDH230	WB20GDH230	WB40GDH230

#### • Accessory

- Heater cover
- Bath Lid

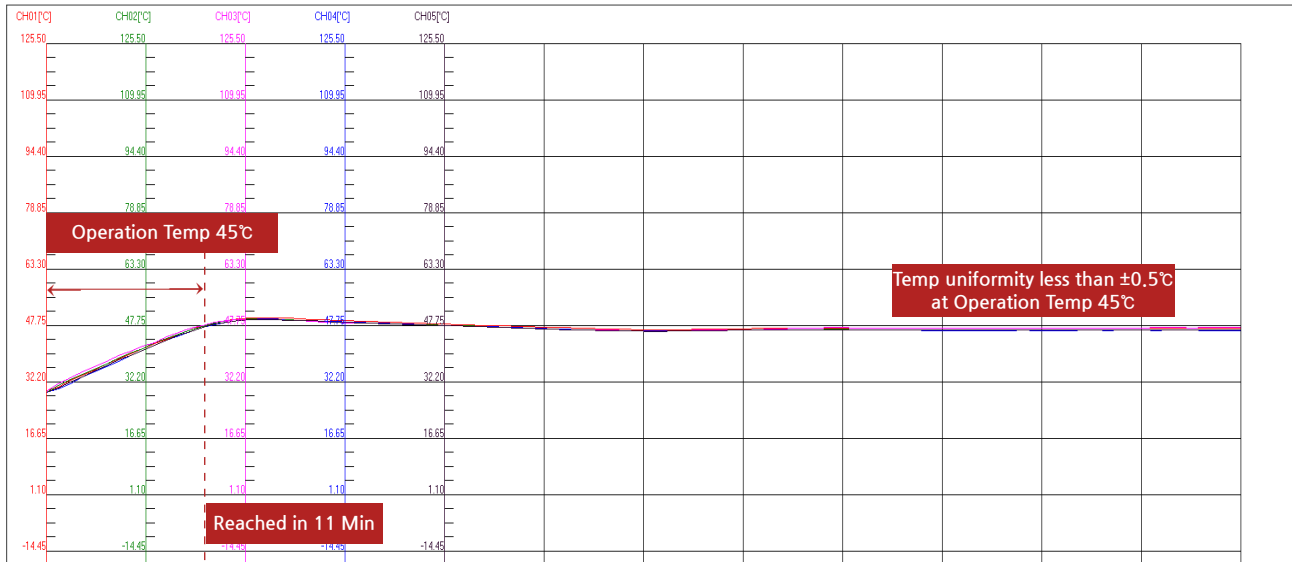
#### • Safety Device

- Automatic reset function incoming power cut
- Buzzer on when set time arrived
- Electric leakage circuit breaker
- Over temperature protection

# Circulating Water Bath -Feature

Circulating Water Bath contains both a circulation pump and a series of input-output nozzles in order to supply uniform water temperature to a specified storage tank. With its powerful circulation and the distribution degree of constant temperature in the bath is sufficient. Also, a circulation with an external device such as an evaporator is made possible through this model.

## Uniformity sheet



## Feature



External port  
(IN and OUT)



Stainless steel



Drain valve



Prevention of slipperiness  
rubber foot



Safety devices

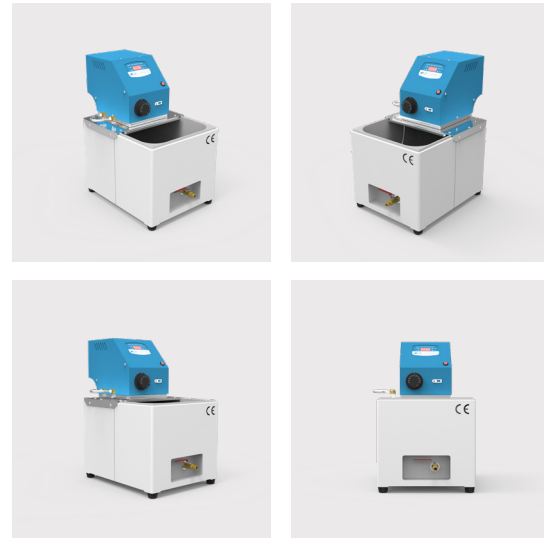
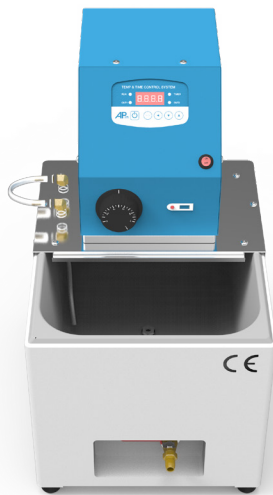


Digital PID controller



RS-485  
or  
RS-232C interface

# Circulating Water Bath



Model	SH-WB-11CDN	SH-WB-22CDN	SH-WB-48CDN
Temp Range	Ambient +5°C to 99°C (Ambient + 9°F to 210°F)		
Temp Controller	Digital PID Controller		
Time Range	00.00 to 99HR 59MIN (MIN SEC) Selectable Digital Display		
Capa	10.8 L	21.8 L	48 L
Heater Capa	800 W	1500 W	4000 W
Dimension Internal (WxDxH)	240x300x150mm	290x500x150mm	600x400x200mm
	9.45x11.81x5.90"	11.42x19.69x5.90"	23.62x15.75x7.87"
Dimension External (WxDxH)	340x390x470mm	335x600x470mm	1005x485x440mm
	13.38x15.35x18.50"	13.18x23.62x18.05"	39.56x19.09x17.32"
Top Open (WxD)	240x124mm	293x265mm	600x400mm
	9.45x4.88"	11.54x10.44"	23.62x15.75"
Net weight	10 Kg	16 Kg	33 Kg
Material Internal	Stainless Steel		
Material External	Steel Plate With Powder Heating Coated		
Electrical Requirements 120V ,50/60Hz, 1Φ	6.7 A	12.5 A	33.3 A
Cat. No.50 (60Hz)	WB11CDN120-50 (WB11CDN120-60)	WB22CDN120-50 (WB22CDN120-60)	WB48CDN120-50 (WB48CDN120-60)
Electrical Requirements 230V,50/60Hz, 1Φ	3.5 A	6.5 A	17.4 A
Cat. No.50 (60Hz)	WB11CDN230-50 (WB11CDN230-60)	WB22CDN230-50 (WB22CDN230-60)	WB48CDN230-50 (WB48CDN230-60)

• **Accessory**

-Bath Lid

• **Option**

-RS-485 interface  
-RS-232C interface

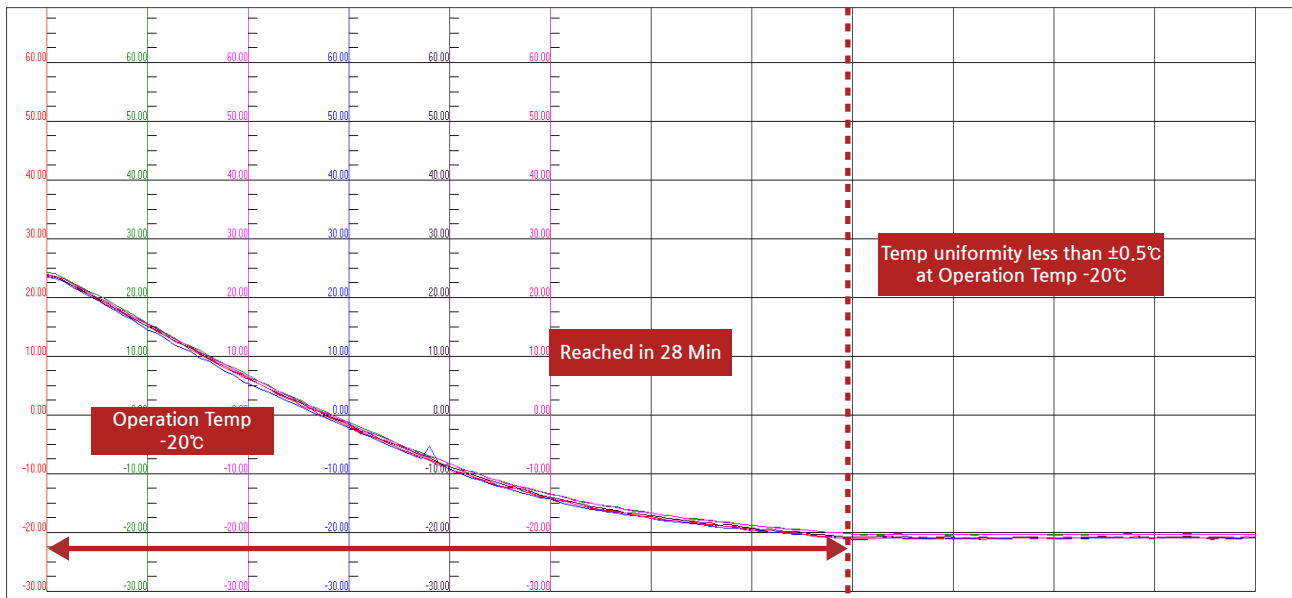
• **Safety Device**

-Automatic reset function incoming power cut  
-Buzzer on when set time arrived  
-Electric leakage circuit breaker  
-Over temperature protection

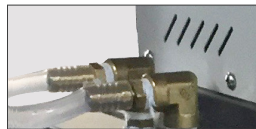
# Refrigerated Circulating Bath -Feature

A Refrigerated Circulating Bath is a version of the General Purpose Water Bath that comes with a cooling function. It is used in keeping materials cooled over a certain set period. This application can be actualized in cooking, scientific researches and other related industries.

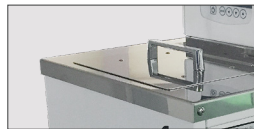
## Uniformity sheet



## Feature



External circulation port (IN and OUT)



Stainless steel



Silicone drain hose with metal cap



Safety devices



Digital PID controller



RS-485 or RS-232C interface



# Refrigerated Circulating Bath



Model	SH-WB-7CDR	SH-WB-13CDR	SH-WB-22CDR	SH-WB-48CDR
Temp Range	Ambient -40°C to 150°C (Low Limit -20°C) Ambient -64°F to 302°F			Ambient -40°C to 65°C (Low Limit -20°C) Ambient -64°F to 149°F
Temp Controller	Microprocessor membrane Digital PID Controller			
Time Range	00.00 to 99HR 59MIN (MIN SEC) Selectable Digital Counter			
Capa	6.8 L	13 L	22L	48L
Recirculating Pump (Max flow)	13 L / Min			20 L / Min
Heater Capa	1.5 KW	1.8 KW	2.2 KW	3.2 KW
Dimension Internal (WxDxH)	150x300x150mm 5.91x11.81x5.90"	250x350x150mm 9.84x13.78x5.90"	350x420x150(mm) 13.78x16.54x5.90"	600x400x200mm 23.62x15.67x17.91"
Dimension External (WxDxH)	340x417x605mm 13.38x16.41x23.82"	440x455x645mm 17.32x17.91x25.39"	540x520x700mm 21.26x20.47x27.55"	725x755x965mm 28.54x29.72x38"
Top Open (WxD)	150x120mm 5.91x4.72"	250x165mm 9.84x6.50"	350x235mm 13.78x9.25"	600x400mm 23.62x15.75"
Net weight	44 Kg	53 Kg	73 Kg	115 Kg
Material Internal	Stainless Steel			
Material External	Steel Plate With Powder Heating Coated			
Electrical Requirements 230V ,50Hz, 1Φ	6.5 A	7.8 A	9.6 A	13.9 A
Cat. No.	WB7CDR230-50	WB13CDR230-50	WB22CDR230-50	WB48CDR230-50
Electrical Requirements 230V ,60Hz, 1Φ	6.5 A	7.8 A	9.6 A	13.9 A
Cat. No.	WB7CDR230-60	WB13CDR230-60	WB22CDR230-60	WB48CDR230-60

#### • Accessory

-Bath Lid

#### • Option

-RS-485 interface  
-RS-232C interface  
-40°C Cool Down System

#### • Safety Device

-Automatic reset function incoming power cut  
-Buzzer on when set time arrived  
-Electric leakage circuit breaker  
-Over temperature protection  
-Refrigerator over load protection

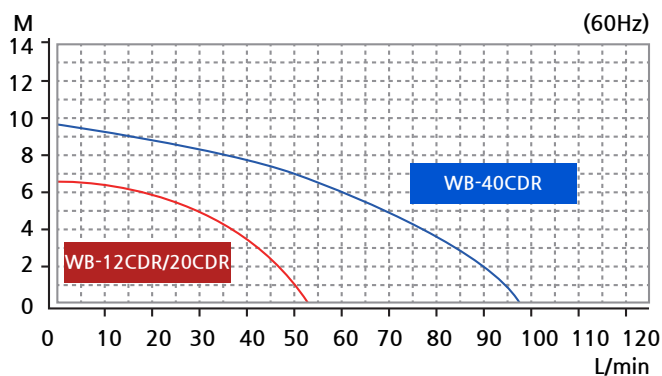
# Recirculating Chiller -Feature

This equipment is a device that connects to all equipment requiring evaporator and other condensing to supply cooling water. It has a powerful cooling power and circulating ability to achieve a perfect and fast condensing effect. A reservoir with easy structure for observation and cleaning has maximized the durability of the equipment and the user's ease of use.

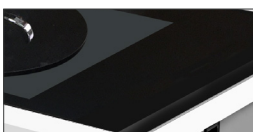
## Cooling capacity

Model		WB-12CDR			WB-20CDR					WB-40CDR				
110V / 60Hz														
Evaporating temperature		Cooling capacity			Evaporating temperature		Cooling capacity			Evaporating temperature		Cooling capacity		
°C	°F	Btu/h	Kal/h	W	°C	°F	Btu/h	Kal/h	W	°C	°F	Btu/h	Kal/h	W
-40	-40	1067	269	313	-40	-40	1770	446	519	X				
-35	-31	1486	375	436	-35	-31	2472	623	724					
-30	-22	1983	500	581	-30	-22	3279	826	961					
-25	-13	2564	646	751	-25	-13	4192	1056	1228					
-20	-4	3235	815	948	-20	-4	5210	1313	1527					
-15	5	4003	1009	1173	-15	5	6333	1596	1856					
-10	14	4874	1228	1428	-10	14	7563	1906	2216					
220V / 60Hz														
Evaporating temperature		Cooling capacity			Evaporating temperature		Cooling capacity			Evaporating temperature		Cooling capacity		
°C	°F	Btu/h	Kal/h	W	°C	°F	Btu/h	Kal/h	W	°C	°F	Btu/h	Kal/h	W
-40	-40	1199	302	351	-40	-40	1824	460	535	-40	-40	2910	734	852
-35	-31	1528	385	448	-35	-31	2467	622	723	-34	-30	5110	1288	1497
-30	-22	1961	494	575	-30	-22	3281	827	961	-32	-25	6380	1608	1869
-25	-13	2499	630	732	-25	-13	4276	1077	1253	-26	-15	9320	2350	2371
-20	-4	3140	791	920	-20	-4	5464	1377	1601	-21	-5	12800	3227	3751
-15	5	3886	979	1139	-15	5	6859	1728	2010	-15	5	16800	4263	4924
-10	14	4736	1193	1388	-10	14	8470	2135	2482	-12	10	19100	4816	5578

## Recirculating pump curve



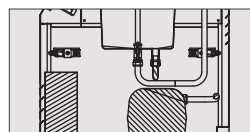
## Feature



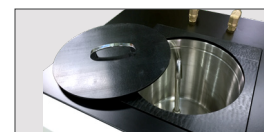
Equipment for supplying cooling water. & powerful cooling power



Digital controller

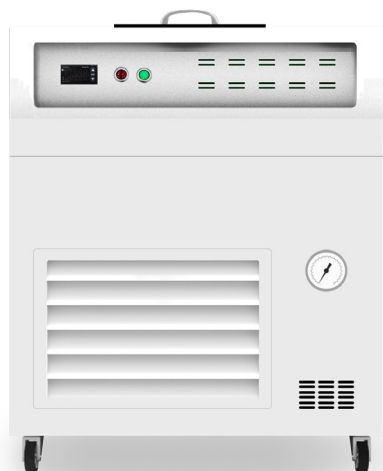


Effects of durability of equipment and user convenience



Easy structure for observation and cleaning

# Recirculating Chiller



Model		SH-WB-12CDR	SH-WB-20CDR	SH-WB-40CDR
Temp Range		Ambient -60°C to Ambient (Low limit -40°C) Ambient -28°F to Ambient		
Temp Controller		Microprocessor membrane digital controller		
Temp Accuracy & Stability		±2.0°C		
Cooling Capacity		please see the 182 page		
Reservoir Capa		12.5 L	20 L	40 L
Recirculating Pump	Max flow	50 L / Min		95 L / Min
	Max pressure	9.2 psi		14 psi
Dimension External (WxDxH)		610x655x755mm	650x715x905mm	830x755x995mm
		24.01x25.78x29.72"	25.59x28.14x35.62"	32.67x29.72x39.17"
Weight		80 Kg	100 Kg	140 Kg
Material reservoir		Stainless Steel		
Material External		Steel Plate With Powder Heating Coated		
Electrical Requirements 120V ,60Hz, 1φ		6.2 A	8.3 A	N/A
Cat. No.		WB12CDR120-60	WB20CDR120-60	N/A
Electrical Requirements 230V ,60Hz, 1φ		3.0 A	4.5 A	8.0 A
Cat. No.		WB12CDR230-60	WB20CDR230-60	WB40CDR230-60

#### • Accessory

Reservoir Lid

#### • Safety Device

Automatic reset function incoming power cut  
Electric leakage circuit breaker  
Refrigerator over load protection

## Water Bath with Gable Cover/ Concentric Ring Cover



<SYG-1210>



<SYG-1220>



<SY-1210>



<SY-1220>



<SYG-1230>



<SY-1230>

Model (Water Baths with Concentric Ring Cover)	SYG-1210	SYG-1220	SYG-1230
Model (Water Baths with Gable Cover)	SY-1210	SY-1220	SY-1230
Temp. Range	Ambient +5°C~99°C		
Temp Uniformity	±0.3°C		
Temp. Fluctuation	±0.3°C		
Temp. Resolution	0.1°C		
Number of pores of Water Bath Pot	2		6
Reservoir Dimension	49,72,94,114,140mm / 1.93,2.83,3.70,4.49,5.51"		
Reservoir Volume	6L	10L	20L
Dimension External (W×D×H)	400x225x370mm 15.75x8.86x14.57"	400x312x370mm 15.75x12.28x14.57"	400x572x370mm 15.75x22.52x14.57"
Dimension Internal (W×D×H)	270x130x140mm 10.63x5.12x5.51"	270x200x140mm 10.63x7.87x5.51"	270x450x140mm 10.63x17.72x5.51"
Maximum Power	600W	600W	1200W
Power Supply	220V, 60Hz		
Overheating Protection	Yes		
Low Water Level Protection	Yes		
Audible and Visual Alarm	Yes		
Drainage	No	Yes	Yes

### Accessories

<Observable Gable Cover>



<SY-1210>



<SY-1220>



<SY-1230>

Part Number	Applicable Product Type	Material	Viewable Area
SY-1210-01	SY-1210	Body: Stainless Steel, Window: Plaxi Glass	274x48mm / 10.79 x1.89"
SY-1220-01	SY-1220	Body: Stainless Steel, Window: Plaxi Glass	274x90mm / 10.79x3.54"
SY-1230-01	SY-1230	Body: Stainless Steel, Window: Plaxi Glass	474x120mm / 18.66x4.72"

# Mini Water Bath



<WB-02>

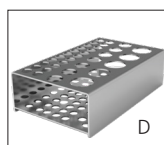
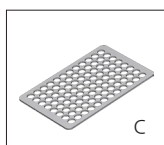
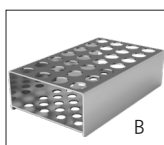
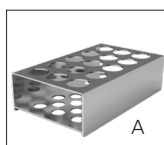
This mini Water Bath is a high-precision, intelligent temperature instrument which is widely used in colleges and universities, medical, chemical, pharmaceutical and other scientific research. Coupled with sophisticated micro-computer temperature control system, this instrument provides high precision and accurate temperature control. Automatic overheating device is also available to prevent dry burning and over heating.

- Designed with a small footprint
- Microprocessor-controlled
- Overheating alarm
- Various types of tube holders are available to meet the needs of every customer

Model	WB-02
Temp. Range	Ambient +5°C~95°C
Temp Uniformity	±0.3°C (@37°C)
Max.Capacity	240ml
Programming	N/A
Display	LED
Timer	N/A
Max.Power	90W
Ambient Temperature	5~40°C
Protection Level	IP21
Dimension External (W×D×H)	262x143x96mm / 10.31x5.63x3.78"
Power Supply	220V, 60Hz
Weight	1.2 kg

- Standard Accessory  
WBA14

## Accessories



Name	Part Number	Hold Size
Tube Holder A	WBA10	5ml(15xØ13.5mm / 0.59xØ0.53")
Tube Holder B	WBA11	1.5ml(28xØ11mm / 1.10xØ0.43")
Tube Holder C	WBA12	0.2ml(96xØ7.6mm / 3.78xØ0.30")
Tube Holder D	WBA13	5ml,1.5ml,0.2ml(5xØ13.5mm,7xØ11mm,22xØ7.6mm) (0.20xØ0.53",0.28xØ0.43",0.87xØ0.30")

Name	Part Number
Vapor Cover	WBA14

# Digital Dry Bath



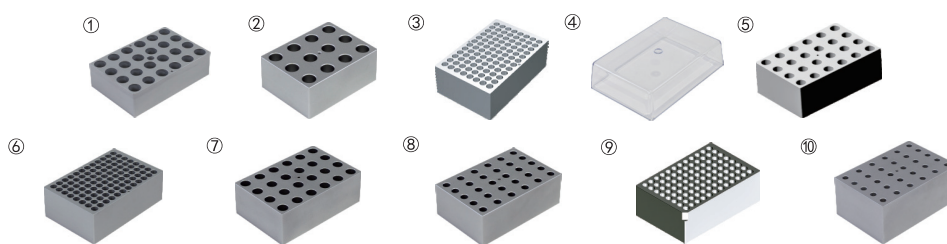
<DB-02>

- Microprocessor controlled with digital display
- High quality aluminum block and heating elements provide excellent temperature uniformity
- Safe operation with a reliable overheating alarm and automatic shut off
- Easy calibrated for accurate temperature control and display
- Programmable multi-section controls enable a variety of incubation experiments
- Quick and easy temperature adjustment; Overheating safety switch
- A variety of block type available to suit every customer's needs

Model	DB-02
Temp. Range	Ambient +5°C~120°C
Temp. Fluctuation	@50~100°C:≤±0.15°C, @100.1~120°C:≤±0.2°C
Heating up Time	Ambient temp 20°C to 120°C:≤15min
Temp. Uniformity	@40°C:≤±0.3°C
Temp. Accuracy	0.1°C
Display	LCD
Control	1
Timer	N/A
IP class	IP21
No. of block	1
Ambient	5°C~40°C
Relative Humidity	≤85%
Dimension External (W×D×H)	262X143X96mm / 10.31x5.63x3.78"
Power	100W
Power Supply	220V, 60Hz
Weight	1.2 kg

• Standard Accessory  
DBA05x1

## Accessories



Name	Picture	Sample Type	well Dia. / Well Depth.	Dimensions (LxWxH)
24x5ml Block	① DBA01	5ml Round Bottom Tubes	φ13.5mm / 30mm φ0.53" / 1.18"	117.8x77.8x31.5mm / 4.64x3.06x1.24"
12x1.5ml Half Block	② DBA02	1.5ml VWR Microtubes	φ11mm / 30mm φ0.43" / 1.18"	58.9x77.8x31.5mm / 2.32x3.06x1.24"
96x0.2ml Block	③ DBA04	0.2ml PCR or Microtubes	φ6.4mm / 19.5mm φ0.25" / 0.77"	117.8x77.8x40mm / 4.64x3.06x1.57"
Insulation Cover	④ DBA05	N/A	N/A	N/A
24x1.5ml Block	⑤ DBA06	1.5ml VWR Microtubes	φ11mm / 36mm φ0.43" / 1.42"	117.8x77.8x40mm / 4.64x3.06x1.57"
48x0.2ml Tubes or 6 PCR Strips Half Block	⑥ DBA07	0.2ml Tubes or 6 PCR Strips	φ6.1mm / 19.5mm φ0.24" / 0.77"	58.9x77.8x40mm / 2.32x3.06x1.57"
24x2.0ml Block	⑦ DBA08	2.0ml VWR / Eppendorf Microtubes	φ11mm / 36mm φ0.43" / 1.42"	117.8x77.8x40mm / 4.64x3.06x1.57"
30x0.5ml Block	⑧ DBA09	0.5ml PCR Tubes	φ7.9mm / 27.5mm φ0.31" / 1.08"	
96x0.1 / 0.2ml PCR Block	⑨ DBA12	0.1 / 0.2ml PCR	φ6.1mm / 12.5mm φ0.24" / 0.49"	117.8x77.8x50mm / 4.64x3.06x1.97"
30x6mm Round Tube Block	⑩ DBA23	Round Tube	φ6.5mm / 18mm φ0.26" / 0.71"	