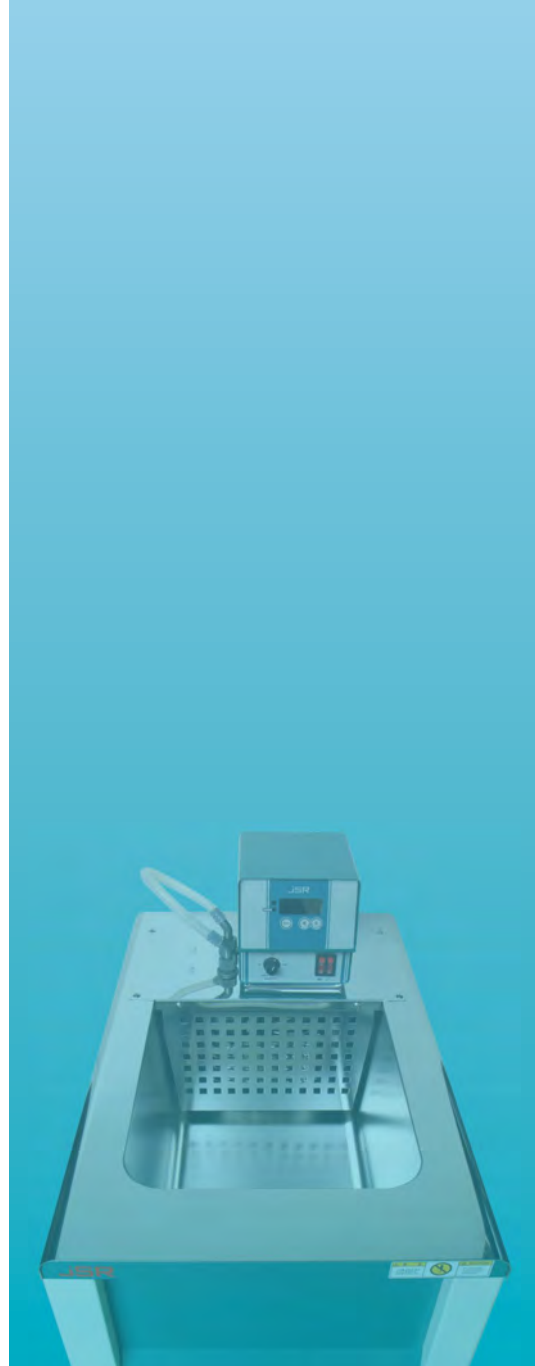


BATHS



JSR

[주] 제이에스리서치
JS Research Inc.

Laboratory

WATER BATH

JSWB-Series Heated Bath



- ▶ amb. +5 °C ~ 80 °C (99 °C)
- ▶ Constant Temperature
- ▶ Timer On / Off



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSWB-06T(L)	6 L	JSWB-TL	± 0.1 °C
JSWB-11T(L)	11 L	amb. + 5 °C ~ 80 °C	
JSWB-22T(L)	22 L	JSWB-T	
JSWB-30T(L)	30 L	amb. + 5 °C ~ 99 °C	

JSOB-Series Digital Oil Bath



- ▶ amb. +10 °C ~ 250 °C
- ▶ Constant Temperature
- ▶ Timer On / Off



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSOB-100T	11 L	amb. + 10 °C ~ 250 °C	± 1.0 °C
JSOB-200T	20 L		
JSOB-300T	33 L		

JSVB-Series Visco-Sight Bath



- ▶ amb. +5 °C ~ 99 °C
- ▶ Constant Temperature
- ▶ Timer On / Off
- ▶ Glass Window
- ▶ Internal Circulation



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSVB-30T	31 L	amb. + 5 °C ~ 99 °C	± 0.1 °C

JSEB-Series Extraction Bath



- ▶ amb. +5 °C ~ 99 °C
- ▶ Constant Temperature
- ▶ Timer On / Off
- ▶ 6 to 10 Multi-Extraction Ports



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSEB-60T	6 Ports	amb. +5 °C ~ 99 °C	± 0.5 °C
JSEB-62T	2 x 3 Ports		
JSEB-82T	2 x 4 Ports		
JSEB-102T	2 x 5 Ports		

JSIB-Series Circulation Bath



- ▶ amb. +5 °C ~ 99 °C
- ▶ Constant Temperature
- ▶ Timer On / Off
- ▶ Internal and external Circulation Pump
- ▶ Flow Rate : 8 L/min
- ▶ Pressure : 0.3 bar



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSIB-11T	11 L	amb. +5 °C ~ 99 °C	± 0.1 °C
JSIB-22T	22 L		
JSIB-50T	48 L		
JSIB-100T	100 L		

JSRC-C(L) Series Refrigerated Circulation Bath



- ▶ - 20 (- 40) °C ~ 120 °C
- ▶ Constant Temperature
- ▶ Timer On / Off
- ▶ Internal and external Circulation Pump
- ▶ Flow Rate : 10 L/min
- ▶ Pressure : 0.5 bar



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSRC-06C(L)	7 L	JSRC-C	± 0.1 °C
JSRC-13C(L)	11 L	-20 °C ~ 120 °C	
JSRC-22C(L)	20 L	JSRC-CL	
JSRC-30C(L)	30 L	-40 °C ~ 120 °C	

JSCT-Series JSCT-Series Ultra-Low Cold Trap Bath

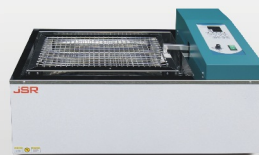


- ▶ Minimum Temperature
-25 °C ~ - 85 °C
- ▶ On/Off Temperature Control



MODEL	CAPACITY	MINIMUM TEMPERATURE
JSCT-25C	7.2 L	- 25 °C
JSCT-55ULT		- 55 °C
JSCT-85ULT		- 85 °C
JSTC-55ULT	2.8 L	- 55 °C
JSTC-85ULT		- 85 °C

JSSB-Series Shaking Water Bath



- ▶ amb. +5 °C ~ 99 °C
- ▶ Constant Temperature
- ▶ Timer On / Off
- ▶ Shaking Speed 20 ~ 120 rpm
- ▶ 25 mm stroke reciprocal motion



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSSB-30T	30 L	amb. +5 °C ~ 99 °C	± 0.2 °C
JSSB-50T	50 L		

Laboratory

WATER BATH

Controller

▶ JSC-0D [BASIC]



- ▶ $\pm 0.1\text{ }^{\circ}\text{C}$ Digital PID Controller with automatic START/STOP timer max. 99min 59sec / 99hr 59min / 99day 23hr
- ▶ Digital LED displays operating status such as TEMP and remaining TIME
- ▶ Temperature calibration
- ▶ Auto-tuning function
- ▶ Class A Pt-100 Ω sensor
- ▶ Audio Visual Alarms
- ▶ 정밀한 PID 컨트롤러는 온도를 $\pm 0.1\text{ }^{\circ}\text{C}$ 단위로 제어
- ▶ 예약 / 정지 타이머 내장
99분59초/99시간59분/99일23시간
- ▶ 온도 보정, 오토튜닝 기능 내장
- ▶ Class A Pt-100 Ω 온도센서
- ▶ 안전한 작동을 위한 다양한 시청각적 알람

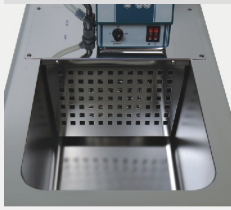
▶ JSC-7S Controller for Shaking Water Bath



- ▶ Integrated Digital PID Controller
- ▶ Temperature control with $\pm 0.1\text{ }^{\circ}\text{C}$
- ▶ Shaking speed control within $\pm 1\text{ rpm}$
- ▶ Automatic STOP timer
Max. 99min 59sec / 99hr 59min / 99day 23hr
- ▶ Dual digital LED displays
TEMP, RPM and remaining TIME
- ▶ Temperature calibration
- ▶ Shaking speed calibration
- ▶ Slow Start and Stop Control
- ▶ Auto-tuning function
- ▶ Class A Pt-100 Ω sensor
- ▶ 온도, 속도, 타이머 통합제어 PID 컨트롤러
- ▶ 온도제어 정밀도 : $\pm 0.1\text{ }^{\circ}\text{C}$
- ▶ 교반속도 제어 정밀도 : $\pm 1\text{ rpm}$
- ▶ 타이머 설정 최대 99분 59초/99시간 59분 /99일 23시간
- ▶ 현재온도, 교반속도, 잔여시간 디스플레이
- ▶ 온도 및 속도 보정 기능
- ▶ 작동 시 가속 및 감속 속도 제어
- ▶ 오토튜닝 기능 내장
- ▶ Class A Pt-100 온도센서

Performance & Convenience

Construction



- ▶ Durable epoxy powder coated metallic casing
- ▶ High quality stainless steel 304 bath
- ▶ 내구성이 뛰어난 에폭시 분체 도장과 스테인레스 스틸 304 배스

Seamless Bath



- ▶ Easy to clean Electro-Polished seamless SUS304 Bath with perforated stainless steel bottom plate
- ▶ 부식에 강한 전해 연마 처리된 Stainless Steel (SUS304) 배스는 코너에 이음새가 없어 세척과 유지보수가 간편

Lids



- ▶ Stainless steel flat cover to help reduce heat losses and evaporation
- ▶ 온도유지와 물의 증발을 방지하기 위한 커버

Circulation Pump



- ▶ Stainless Steel or magnetic driven pump for internal and external circulation of bath fluid
- ▶ Stainless Steel 또는 Magnetic Pump는 용액을 내부 또는 외부로 순환

Safety

DUAL OVER TEMP. CUT-OFF

- 1) Digital system cut-off heater and AUDIO VISUAL ALARM in case +2°C above set temperature
- 2) Analog system cut-off heater 10% above set temp.

MAX TEMP CUT-OFF heater and AUDIO VISUAL ALARM

- ▶ when if +1°C above maximum limit

SENSOR DISCONNECTION ALARM

LOW WATER LEVEL SENSOR (Specific models only)

OVER CURRENT CUT-OFF : Electrical Leakage Breaker or Fuse

이중과열방지장치

- 1) 설정온도 +2 °C 초과 시 히터 차단 및 시청각알람
- 2) 콘트롤러 오류로 지정 온도 10% 초과 시 히터차단

최고온도알람기능 : 작동 한계온도 +1°C 초과시 히터 차단

센서단락알람

저수위감지센서 (일부모델)

누전차단기 (퓨즈) : 전기누설 시 주전원 차단

Drain



- ▶ Drain for easy emptying of bath fluid [Depends model]
- ▶ 배수용 드레인 밸브 장착 [일부모델]

Maintenance



- ▶ Easy to maintain refrigeration system
- ▶ 편리한 유지보수

Digital WATER BATH

EXCELLENT
UNIFORMITY
Indirect Heating



Indirect Heating Digital Water Bath

JSWB-TL Series Digital Water Bath to provides constant temperature environment by heating water for biotechnology, chemistry, medical, environmental and general laboratory applications of temperature range from ambient +5 °C to 80 °C

Specifications

Heating	Indirect Ceramic Plate Heater
Temp. Range	ambient + 5 °C ~ 80 °C
Accuracy	± 0.1 °C at 37.0°C (JSWB-11TL)
Uniformity	± 0.5 °C at 37.0°C (JSWB-11TL)
Control	Microprocessor PID Control Auto START / STOP Timer
Sensor	Class A Pt-100 Ω Sensor
Safety	Over-Temperature Cut-Off Over Current Cut-Off
Material	Body : Epoxy Powder Coated Steel Bath : Electro-polished Seamless Stainless Steel 304
Electric	220 ± 10% VAC 50/60Hz 1-Phase

Plug config.



CEE 7/7 Schuko

or



BS 1363

Control Accuracy

- ± 0.1 °C Digital PID Controller with automatic START/STOP timer max. 99min 59sec / 99hr 59min / 99day 23hr
- Temperature calibration, auto-tuning function
- Class A Pt-100 Ω sensor
- 정밀한 PID 컨트롤러는 온도를 ± 0.1 °C 단위로 제어
- 예약 / 정지 타이머 내장 99분59초 / 99시간59분 / 99일23시간
- 온도보정, 오토튜닝 기능 내장
- Class A Pt-100 Ω 온도 센서



Heated amb. +5 °C ~ 80 °C



Timer On / Off



Constant Temperature
Controller

Performance

- ▶ Durable epoxy powder coated metallic casing
- ▶ Corrosion resistant Stainless Steel 304 bath
- ▶ Durable and rugged ceramic plate heating element mounted underneath the bath to allow excellent thermal uniformity of the bath and no calcification problem
- ▶ Maximum temperature up to 80 °C, accuracy $\pm 0.1^{\circ}\text{C}$
- ▶ 내구성이 뛰어난 에폭시 분체 도장 본체
- ▶ 내부식성이 뛰어난 Stainless Steel 304 재질의 배스
- ▶ 내구성이 뛰어난 세라믹 몰딩 히터가 배스의 외부에서 바닥 전체를 가열하여 $\pm 0.1^{\circ}\text{C}$ 의 탁월한 온도 균일도를 제공하여 정밀한 온도제어가 요구되는 바이오 분야에 적합
- ▶ 배스 외부에서 가열하는 설계로 히터 표면에 스케일이 발생하지 않음
- ▶ 최고 가열 온도 80 °C, $\pm 0.1^{\circ}\text{C}$ 의 탁월한 정밀도

Convenience

- ▶ Easy to clean Electro-Polished seamless SUS304 Bath
- ▶ Perforated stainless steel bottom plate
- ▶ Supplied with stainless steel flat cover to help reduce heat losses and evaporation
- ▶ 부식에 강한 전해 연마 처리된 Stainless Steel(SUS304) 배스는 코너에 이음새가 없어 세척과 유지보수가 간편
- ▶ Stainless Steel 304재질의 바닥 타공판
- ▶ 온도유지와 물의 증발을 방지하기 위한 평판형 뚜껑 포함

Safety

- ▶ DUAL OVER TEMP. CUT-OFF
- ▶ MAX TEMP CUT-OFF heater and AUDIO VISUAL ALARM
- ▶ SENSOR DISCONNECTION ALARM
- ▶ OVER CURRENT CUT-OFF FUSE
- ▶ 이중과열방지장치
- ▶ 최고온도알람기능 : 작동 한계온도+1°C 초과 시 히터 차단
- ▶ 센서단락알람
- ▶ 누전차단퓨즈 : 전기 누설 시 주전원 차단

Accessories

Art No.	Descriptions
	Stainless Steel Gabled Lid
PHL-W06	for JSWB-06TL
PHL-W11	for JSWB-11TL
PHL-W22	for JSWB-22TL
PHL-W30	for JSWB-30TL

Ordering Information

	JSWB-06TL	JSWB-11TL	JSWB-22TL	JSWB-30TL
Bath Volume (Capacity)	6 L	11 L	22 L	30 L
Dimensions Inner	300 x 155 x 150	300 x 240 x 150	500 x 300 x 150	500 x 300 x 190
W x D x H mm Usable	300 x 155 x 140	300 x 240 x 140	500 x 300 x 140	500 x 300 x 180
Outer	340 x 220 x 300	340 x 305 x 300	545 x 365 x 300	545 x 365 x 350
Temperature Range	ambient +5 °C - 80 °C			
Accuracy at 37.0°C	$\pm 0.1^{\circ}\text{C}$	$\pm 0.1^{\circ}\text{C}$	$\pm 0.1^{\circ}\text{C}$	$\pm 0.1^{\circ}\text{C}$
Uniformity at 37.0°C	$\pm 0.5^{\circ}\text{C}$	$\pm 0.5^{\circ}\text{C}$	$\pm 0.5^{\circ}\text{C}$	$\pm 0.5^{\circ}\text{C}$
Drain Valve	none			
Heater Capacity	620 W	1.1 kW	1.5 kW	2.0 kW
Power Rating	2.8 Amp	4.8 Amp	6.8 Amp	9.2 Amp
Power Plug	CEE 7/7 Schuko			