

**WiseBath®
& WiseCircu®**

Baths

Powered by **Wisd** Fuzzy Control System

- General Purpose Water Baths
- Circulation Water Baths
- Extraction Water Baths
- Multi-Chamber Water Baths
- High Temperature Oil Baths
- High Temperature Bath Circulators
- Refrigerated Bath Circulators
- Cold Trap Baths
- Shaking Water Baths
- Viscosity Water Baths

► General Purpose Water Bath



WB-11

- Digital Fuzzy Controller Implementing Maximum Temperature Accuracy.
- Stainless Steel Bath for Superior Durability & High Thermal Efficiency.

► Refrigerated Bath Circulators



WCR-P8

WCR-P12

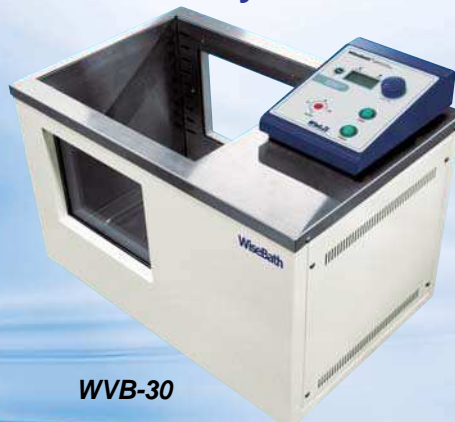
► High Temperature Bath Circulators



WCH-8

WCH-12

► Viscosity Water Bath



WVB-30

“witeg” WiseBath®WB Digital Precise Water Bath, 6-/11-/22- Lit.
 with Digital Fuzzy Control System & Stainless Steel Flat Lid, Back Light LCD, up to 100 °C, ±0,1 °C

- Digital Fuzzy Controller Implementing Maximum Temp. Accuracy
- Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function
- CE Certified

Application & Features

- * Ideal for Biotechnology, Clinical, Environmental, Medical, Petroleum, Food Industry, Pharmaceutical and Industrial Applications.
- * Digital Fuzzy Controller Implementing Maximum Temperature Accuracy.
- * User's Self-Compensation Function to Control Difference Between Real Temperature and Indicated Temperature. (±10,0 °C)
- * Stainless Steel Bath for Superior Durability & High Thermal Efficiency.
- * Stainless Steel Lid prevents Evaporation and keeps Constant Temperature.
- * Over Temperature & Over Current Protection, Sensor Error Detection.
- * Digital Timer Function(99 hr 59 min) : 'Delay Time' and 'Operation Time' can be Controlled.
- * Storage Function for the Set Values of Temperature and Timer.
- * Alarm Function : Error Status and Timer-end.
- * Locking Mode Supported for Experimental Safety. (Input to Jog-Shuttle can be Disabled)
- * Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function.
- * CE Certified.



Digital Precise Water Bath (WB-11)

Patented Control System
 (No. 10-0554098)

1 or 2 Mode Buttons + Jog Shuttle Switch
 Realize “Easy to Use”

Specification

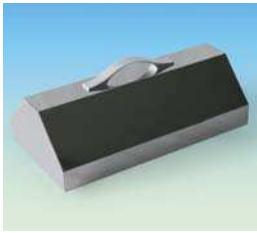
Model		WB - 6	WB - 11	WB - 22
Dimension (w × d × h)	Bath (mm)	300 × 155 × 150	302 × 240 × 150	500 × 295 × 150
	External (mm)	325 × 180 × 260	325 × 265 × 260	535 × 330 × 260
Heater		800 W	1 kW	2 kW
Capacity		6 Lit.	11 Lit.	22 Lit.
Temp.	Range	Ambient + 5 °C ~ 100 °C		
	Accuracy	± 0,1 °C		
	Uniformity	± 1,0 °C		
	Sensor	PT100		
Controller		Digital Fuzzy Controller with Jog - Shuttle Switch (Turn + Push)		
Display		Digital LCD Display with Back-Light Function		
Timer		99hr 59min (Delay & Continuous Function Included)		
Safety Device		Over Temp. and Over Current Protector, Sensor Error Detector		
Material	Internal	Stainless Steel (# 304)		
	External	Powder Coated Steel		
Lid		Stainless Steel Flat Lid (included), Dome Lid (optional)		
Drain		None	Included	
Others		CE Certified Storage Function (Temp. & Timer) Locking Mode (Jog-Shuttle Input Disabled) User Self - Compensation Function Alarm (Error Status and Timer - end)		
Packing Dimension (w × d × h) (mm)		350 × 210 × 310	350 × 300 × 310	570 × 360 × 310
Gross Weight		8 kg	10 kg	14 kg
Power Consumption		800 W	1 kW	2 kW
Power plug type		Hybrid E+F		
Power Supply*		AC 230 V, 50 / 60 Hz		

* Other Specifications are available upon Customer's Request.

<Continued from... "witeg" **WiseBath®WB** Digital Precise Water Bath>



Flat Lid (Included)



Dome Lid (Optional)



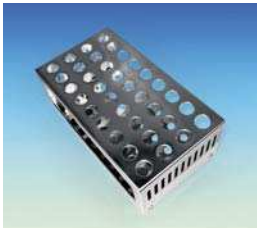
Lid with Concentric Ring Cover Sets for 6Lit. (BFC106)



Lid with Concentric Ring Cover Sets for 11Lit. (BFC111)



Lid with Concentric Ring Cover Sets for 22Lit. (BFC122)



Test Tube Rack

Ordering Information

- DH.WB000106* Water Bath, **WB-6**, 6 Lit.
 DH.WB000111* , **WB-11**, 11 Lit.
 DH.WB000122* , **WB-22**, 22 Lit.
 *1 x Stainless Steel Flat Lid Included

Spare Accessories

- DH.WB010106 Flat lid, Stainless Steel, **BF106**, for 6 Lit., w 325 x d 176 mm
 DH.WB010111 , **BF111**, for 11 Lit., w 325 x d 265 mm
 DH.WB010122 , **BF122**, for 22 Lit., w 530 x d 325 mm

Optional Accessories

- DH.WB010206 Dome Lid, Stainless Steel, **BD206**, for 6 Lit., w 324 x d 176 x h 100 mm
 DH.WB010211 Dome Lid, Stainless Steel, **BD211**, for 11 Lit., w 324 x d 263 x h 100 mm
 DH.WB010222 Dome Lid, Stainless Steel, **BD222**, for 22 Lit., w 533 x d 328 x h 100 mm
 DH.WB020106 Rack, Test tube, 36ea of ϕ 17 mm Hole, **BTH106**, for 6 Lit., SUS, w 220 x d 125 x h 78,5 mm
 DH.WB020206 Rack, Test tube, 15ea of ϕ 32 mm Hole, **BTH206**, for 6 Lit., SUS, w 220 x d 125 x h 78,5 mm
 DH.WB020111 Rack, Test tube, 63ea of ϕ 17 mm Hole, **BTH111**, for 11/22 Lit., SUS, w 220 x d 205 x h 78,5 mm
 DH.WB020211 Rack, Test tube, 25ea of ϕ 32 mm Hole, **BTH211**, for 11/22 Lit., SUS, w 220 x d 205 x h 78,5 mm
 DH.WB030106 Lid with Concentric Ring Cover Sets 2ea, Stainless Steel, **BFC106**, for 6 Lit., 330 x 182 x 20 mm
 DH.WB030111 Lid with Concentric Ring Cover Sets 2ea, Stainless Steel, **BFC111**, for 11 Lit., 329 x 269 x 20 mm
 DH.WB030122 Lid with Concentric Ring Cover Sets 6ea, Stainless Steel, **BFC122**, for 22 Lit., 539 x 334 x 20 mm

Validation (IQ, OQ & PQ) Service

- DH.WB040106 Validation Service(IQ, OQ & PQ), **BV106**, for **WB-6**.
 DH.WB040111 , **BV111**, for **WB-11**.
 DH.WB040122 , **BV122**, for **WB-22**.

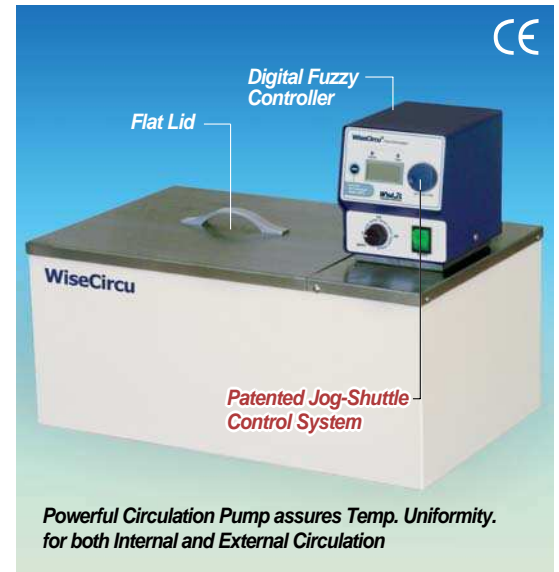
※ You will find matching tubes in our general catalogue at following pages : 224–227.

“witeg” WiseCircu® WCB Digital Precise Circulation Water Bath, 6-/11-/22- Lit.
 with Digital Fuzzy Control System & Stainless Steel Flat Lid, Back Light LCD, up to 100 °C, ±0,1 °C, 5 Lit./min

- Innovative Easy-to-Use Digital Fuzzy Controller
- Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function
- CE Certified

Application & Features

- * Ideal for Biotechnology, Clinical, Environmental, Medical, Petroleum, Food Industry, Pharmaceutical and Industrial Applications.
- * Innovative Easy-to-Use Digital Fuzzy Controller.
- * Digital Timer Function : ‘Delay Time’ and ‘Operation Time’ can be Contolled.
- * Warning and Automatic Stop Function in case of Liquid Shortage.
- * User’s Self-Compensation Function to Control Difference between Real Temp. and Indicated Temp. (± 10,0 °C)
- * Powerful Circulation Pump Assures Temp. Uniformity. : Internal and External Circulation.
- * Stainless Steel Bath (# 304) for Superior Durability & High Thermal Efficiency.
- * Stainless Steel Lid Prevents Evaporation and keeps Constant Temperature.
- * Connection with Evaporators and Viscosimeters is applicable.
- * Over Temperature & Over Current Protection, Sensor Error & Low Level Detection.
- * Storage function for the Set Values of Temperature and Time.
- * Alarm function : Error Status and Timer-end.
- * Locking Mode Supported for Experimental Safety. (Input to Jog-Shuttle can be Disabled)
- * Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function.
- * CE Certified.



Powerful Circulation Pump assures Temp. Uniformity. for both Internal and External Circulation

Digital Precise Circulation Water Bath (WCB-22)

Specification

Model		WCB - 6	WCB - 11	WCB - 22
Dimension (w × d × h)	Bath (mm)	300 × 155 × 150	302 × 240 × 150	500 × 295 × 150
	External (mm)	330 × 185 × 385	335 × 275 × 385	540 × 335 × 410
Heater		800 W	1 kW	2 kW
Capacity		6 Lit.	11 Lit.	22 Lit.
Temp.	Range	Ambient + 5 °C ~ 100 °C		
	Accuracy	± 0,1 °C		
	Uniformity	± 0,2 °C		
	Sensor	PT100		
Pump		5 Lit. / min (Internal / External)		
Controller		Digital Fuzzy Controller with Jog - Shuttle Switch (Turn + Push)		
Display		Digital LCD Display with Back-Light Function		
Timer		99hr 59min (Delay & Continuous function included)		
Safety Device		Over Temp. and Over Current Protector, Sensor Error and Low Level Detector		
Material	Internal	Stainless Steel (# 304)		
	External	Powder Coated Steel		
Lid		Stainless Steel Flat Lid included		
Drain		None	Included	
Nozzle		i.d. 7 mm o.d. 11 mm (i.d. 9 mm o.d. 12 mm silicon tube connected for inner circulation)		
Others		CE Certified Storage Function (Temp. & Timer) Locking Mode (Jog - Shuttle Input disabled) User Self - compensation function Alarm (Error Status and Timer - end)		
Packing Dimension (w × d × h) (mm)		350 × 210 × 410	360 × 300 × 420	580 × 380 × 470
Gross Weight		11 kg	13 kg	18 kg
Power Consumption		800 W	1 kW	2 kW
Power plug type		Hybrid E+F		
Power Supply*		AC 230 V, 50 / 60 Hz		

* Other Specifications are available upon Customer’s Request.

Patented Control System
(No. 10-0554098)

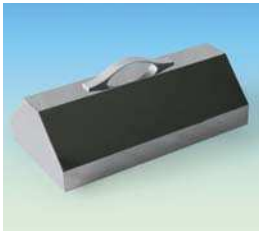
1 or 2 Mode Buttons + Jog Shuttle Switch
Realize “Easy to Use”

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<Continued from... "witeg" **WiseCircu®WCB** Digital Precise Circulation Water Bath>



Efficient Use of Bath
with Level-Sensor



Dome Lid (Optional)

Ordering Information

- DH.WCB00106*** Circulation Water Bath, **WCB-6** , 6 Lit.
DH.WCB00111* , **WCB-11**, 11 Lit.
DH.WCB00122* , **WCB-22**, 22 Lit.
 *1 x Stainless Flat Steel Lid Included

Spare Accessories

- DH.WCB10106** Flat Lid, Stainless Steel, **CBF106**, for 6 Lit., w 134 x d 180 mm
DH.WCB10111 , **CBF111**, for 11 Lit., w 186 x d 273 mm
DH.WCB10122 , **CBF122**, for 22 Lit., w 391 x d 333 mm

Optional Accessories

- DH.WCB20106** Dome Lid, Stainless Steel, **CBD106**, for 6 Lit.,
 w 132 x d 182 x h 121 mm
DH.WCB20111 Dome Lid, Stainless Steel, **CBD111**, for 11 Lit.,
 w 184 x d 274 x h 121 mm
DH.WCB20122 Dome Lid, Stainless Steel, **CBD122**, for 22 Lit.,
 w 389 x d 334 x h 121 mm

Validation (IQ, OQ & PQ) Service

- DH.WCB30106** Validation Service(IQ, OQ & PQ), **CBV106**, for **WCB-6**
DH.WCB30111 , **CBV111**, for **WCB-11**
DH.WCB30122 , **CBV122**, for **WCB-12**

“witeg” WiseCircu® WCB-H Digital Precise Immersion Circulator Head, 11-/22- Lit.
 Digital Fuzzy Control System, Back Light LCD, up to 100 °C, 5 Lit./min

- Innovative Easy-to-Use Digital Fuzzy Controller
- Warning and Automatic Stop Function in case of Liquid Shortage
- Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function
- CE Certified

Application & Features

- * Innovative Easy-to-Use Digital Fuzzy Controller.
- * Digital Timer Function : 'Delay Time' and 'Operation Time' can be Controlled.
- * Warning and Automatic Stop Function in case of Liquid Shortage.
- * User's Self-Compensation Function to Control Difference between Real Temp. and Indicated Temp. (± 10,0 °C)
- * Over Temperature & Over Current Protection, Sensor Error & Low Level Detection.
- * Storage Function for the Set Values of Temperature and Timer.
- * Alarm Function : Error Status and Timer-end.
- * Locking Mode Supported for Experimental Safety. (Input to Jog-Shuttle can be Disabled)
- * Patented Jog-Shuttle Control System and Digital LCD Display with Back -Light Function.
- * CE Certified.

Specification

Model		WCB - 11H	WCB - 22H
Dimension (w×d×h) (mm)		130 × 165 × 320	
Heater		1 kW	2 kW
Capacity		11 Lit.	22 Lit.
Temp.	Range	Ambient + 5 °C ~ 100 °C	
	Sensor	PT 100	
Pump		5 Lit. / min	
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn + Push)	
Display		Digital LCD Display with Back -Light Function	
Timer		99 hr 59 min (Delay & Continuous Function included)	
Safety Device		Over Temp. and Over Current Protector, Sensor Error and Low Level Detector	
Others		CE Certified PL (Product Liability) Insurance Storage Function (Temp. & Timer) Locking Mode (Jog-Shuttle Input disabled) User Self - Compensation Function Alarm (Error Status and Timer - end)	
Packing Dimension (w×d×h) (mm)		400 × 280 × 200	
Gross Weight		8 kg	10 kg
Power Consumption		1 kW	2 kW
Power plug type		Hybrid E+F	
Power Supply*		AC 230 V, 50 / 60 Hz	

* Other Specifications are available upon Customer's Request.

Ordering Information

DH.WCB10011 Immersion Circulator Head, WCB-11H
 DH.WCB10022 , WCB-22H



Digital Precise Immersion Circulator Head (WCB-11H)



Digital Precise Immersion Circulator Head

Patented Control System
 (No. 10-0554098)

1 or 2 Mode Buttons + Jog Shuttle Switch
 Realize “Easy to Use”

“witeg” **WiseBath®WEB** Multi-purpose Extraction Water Bath, 4- /6- /8- Places with Digital Fuzzy Control System, Back Light LCD, and Holding Frame, up to 100 °C, ± 0,2 °C



**Multi-purpose Extraction Water Bath (WEB-4)
With Holding Frame**

- Concentric Ring Cover Sets make Effective Steaming Work
- Ideal for Gentle Extraction, Soxhlet Extraction and Determination of COD
- Digital Fuzzy Controller Implementing Maximum Temp. Accuracy
- Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function
- CE Certified

Application & Features

- * Ideal for Gentle Extraction, Soxhlet Extraction and Determination of COD.
- * Concentric Ring Cover Sets make Effective Steaming Work.
- * 4, 6, 8 Extraction Places are available.
- * Digital Fuzzy Controller Implementing Maximum Temp. Accuracy.
- * User's Self-compensation Function to Control Difference between Real Temperature and Indicated Temperature. (±10,0 °C)
- * High Quality Stainless Steel Bath and Holding Frame for Superior Durability.
- * Over Temperature & Over Current Protection, Sensor Error Detection and Leakage Breaking.
- * Digital Timer Function(99 hr 59 min) : 'Delay Time' and 'Operation Time' can be Controlled.
- * Storage Function for the Set Values of Temperature and Timer.
- * Alarm Function : Error Status and Timer-end.
- * Locking Mode Supported for Experimental Safety. (Input to Jog-Shuttle can be Disabled)
- * Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function.
- * CE Certified.

Patented Control System (No. 10-0554098)

**1 or 2 Mode Buttons + Jog Shuttle Switch
Realize “Easy to Use”**

Specification

Model		WEB - 4	WEB - 6	WEB - 8
No. of Extraction Holes		4 Places	6 Places	8 (4×2) Places
Top Opening Dia. (mm)		φ 110	φ 110	φ 110
Dimension (w × d × h)	Bath (mm)	610 × 160 × 160	910 × 140 × 160	610 × 290 × 160
	External (mm)	720 × 245 × 275	975 × 245 × 275	720 × 375 × 275
Heater		1,4 kW	1,8 kW	1,4 kW × 2
Temp.	Range	Ambient +5 °C to 100 °C		
	Accuracy	±0,2 °C		
	Uniformity	±1,0 °C		
	Sensor	PT100		
Material	Internal	Stainless Steel (#304)		
	External	Powder Coated Steel		
	Stand	Stainless Steel Frame		
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn+Push)		
Display		Digital LCD Display with Back-Light Function		
Timer		99hr 59min (Delay & Continuous function included)		
Lid		Concentric Ring Cover included		
Drain		Available		
Safety Device		Over Temp. and Over Current Protector, Sensor Error Detector, Leakage Breaker		
Others		CE-Certified Storage Function (Temp. & Timer) Locking Mode (Jog-Shuttle Input disabled) User Self-Compensation Function Alarm (Error Status and Timer - end)		
Packing Dimension (w × d × h) (mm)		710 × 310 × 300	1.030 × 320 × 370	880 × 420 × 300
Gross Weight		18 kg	25 kg	34 kg
Power Consumption		1,4 kW	1,8 kW	2,8 kW
Power plug type		Hybrid E+F		
Power Supply*		AC 230 V, 50 / 60 Hz		

* Other Specifications are available upon Customer's Request.

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<Continued from... "witeg" **WiseBath®WEB** Multi-purpose Extraction Water Bath>

Ordering Information

- DH.WEB01004* Extraction Water Bath, **WEB-4**, 4 × Places, 4 × Open-Top, ϕ 110 mm
 - DH.WEB01006* , **WEB-6**, 6 × Places, 6 × Open-Top, ϕ 110 mm
 - DH.WEB01008* , **WEB-8**, 8(4 × 2) × Places, 8 × Open-Top, ϕ 110 mm
- *Concentric Ring Cover Sets and Holding Frame Included

Spare Accessories

- DH.WEB11000 Concentric Ring Cover Sets, Stainless Steel, **EBC100**, for all **WEB** models
- DH.WEB21004 Holding Frame Set, **EBF100**, for **WEB-4**,
2 ea × 1 m Pole & 2 ea × 700 mm Pole
- DH.WEB21006 Holding Frame Set, **EBF200**, for **WEB-6**
2 ea × 1 m Pole & 2 ea × 1.020 mm Pole
- DH.WEB21008 Holding Frame Set, **EBF300**, for **WEB-8**
4 ea × 1 m Pole & 4 ea × 740 mm Pole

Validation (IQ, OQ & PQ) Service

- DH.WEB30004 Validation Service(IQ, OQ & PQ), **EBV004**, for **WEB-4**
- DH.WEB30006 , **EBV006**, for **WEB-6**
- DH.WEB30008 , **EBV008**, for **WEB-8**



“witeg” WiseBath® WMB Digital Multi-Chamber Water Bath, 3 × 6 Lit. / 3 × 1 l Lit.
with 3 Chambers & 3 × Stainless Steel Flat Lid, Independent Digital Fuzzy Control System, up to 100 °C, ± 0,1 °C



Digital Multi-Chamber Water Bath (WMB-306)

Patented Control System
(No. 10-0554098)

1 or 2 Mode Buttons + Jog Shuttle Switch
Realize “Easy to Use”

- Individual Control of each Chamber - Temperature and Time
- Digital Fuzzy Controller Implementing Maximum Temp. Accuracy
- Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function
- CE Certified

Application & Features

- * Ideal for Biotechnology, Clinical, Environmental, Medical, Petroleum, Pharmaceutical and Industrial Applications.
- * Temp. and Time in each Chamber are Controlled independently.
- * Digital Fuzzy Controller Implementing Maximum Temp. Accuracy.
- * User's Self-Compensation Function to Control Difference between Real Temperature and Indicated Temperature.
- * Stainless Steel Bath for Superior Durability & High Thermal Efficiency.
- * Stainless Steel Lid Prevents Evaporation and keeps Constant Temperature.
- * Over Temperature & Over Current Protection, Sensor Error Detection and Leakage Breaking.
- * Storage Function for the Set Values of Temperature and Timer.
- * Alarm Function : Error Status and Timer-end.
- * Locking Mode Supported for Experimental Safety. (Input to Jog-Shuttle can be Disabled)
- * Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function.
- * CE Certified.

Specification

Model		WMB-306	WMB-311
Dimension (w × d × h)	Bath (mm)	(300 × 155 × 150) × 3 Baths	(300 × 240 × 150) × 3 Baths
	External (mm)	655 × 450 × 360	840 × 450 × 360
Capacity		6 Lit × 3 Baths	11 Lit. × 3 Baths
Heater		800 W × 3 Baths	1 kW × 3 Baths
Temp.	Range	Ambient +5 °C to 100 °C	
	Accuracy	± 0,1 °C	
	Uniformity	± 1,0 °C	
	Sensor	PT100	
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn+Push)	
Display		Digital LCD Display with Back-Light Function	
Timer		99hr 59min (Delay & Continuous Function Included)	
Safety Device		Over Temp. and Over Current Protector, Sensor Error Detector, Leakage Breaker	
Material	Internal	Stainless Steel (# 304)	
	External	Powder Coated Steel	
Lid		Stainless Steel Flat Lid included	
Drain		Available	
Others		CE-Certified Storage Function (Temp. & Timer) Locking Mode (Jog-Shuttle Input disabled) User Self-compensation function Alarm (Error Status and Timer-end)	
Packing Dimension (w × d × h) (mm)		880 × 470 × 380	
Gross Weight		32 kg	36 kg
Power Consumption		2,4 kW	3 kW
Power plug type		Hybrid E+F	
Power Supply*		AC 230 V, 50 / 60 Hz	

* Other Specifications are available upon Customer's Request.

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Ordering Information

DH.WMB01306* Multi-Chamber Water Bath, **WMB-306**, 3 × 6 Lit. Baths
 DH.WMB01311* , **WMB-311**, 3 × 11 Lit. Baths
 *3 × Stainless Steel Flat Lid Included

Spare Accessories

DH.WB010106 Flat Lid, Stainless Steel, **BF106**, for 6 Lit.,
 w 176 × d 325 mm

DH.WB010111 Flat Lid, Stainless Steel, **BF111**, for 11 Lit.,
 w 265 × d 325 mm

Optional Accessories

DH.WB010206 Dome Lid, Stainless Steel, **BD206**, for 6 Lit.,
 w 176 × d 324 × h 100 mm

DH.WB010211 Dome Lid, Stainless Steel, **BD211**, for 11 Lit.,
 w 263 × d 324 × h 100 mm

DH.WB020106 Rack, Test tube, 36 ea of ϕ 17 mm Hole, **BTH106**,
 for 6 Lit., SUS, w 220 × d 125 × h 78,5 mm

DH.WB020206 Rack, Test tube, 15 ea of ϕ 32 mm Hole, **BTH206**,
 for 6 Lit., SUS, w 220 × d 125 × h 78,5 mm

DH.WB020111 Rack, Test tube, 63 ea of ϕ 17 mm Hole, **BTH111**,
 for 11 Lit., SUS, w 220 × d 205 × h 78,5 mm

DH.WB020211 Rack, Test tube, 25 ea of ϕ 32 mm Hole, **BTH211**,
 for 11 Lit., SUS, w 220 × d 205 × h 78,5 mm

DH.WB030106 Lid with Concentric Ring Cover Sets 2ea,
 Stainless Steel, **BFC106**, for 6 Lit., 330 × 182 × 20 mm

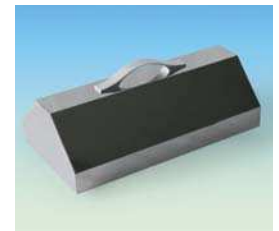
DH.WB030111 Lid with Concentric Ring Cover Sets 2ea,
 Stainless Steel, **BFC111**, for 11 Lit., 329 × 269 × 20 mm

Validation (IQ, OQ & PQ) Service

DH.WMB40106 Validation Service(IQ, OQ & PQ), **MBV106**, for **WMB-306**
 DH.WMB40111 , **MBV111**, for **WMB-311**



Flat Lid (Included)



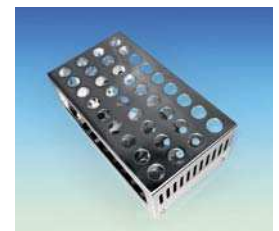
Dome Lid (Optional)



Lid with Concentric Ring
 Cover Sets for 6Lit. (BFC106)



Lid with Concentric Ring
 Cover Sets for 11Lit. (BFC111)



Test Tube Rack

※ You will find matching tubes in our general catalogue at following pages : 224–227.

“witeg” WiseBath® WHB Digital High Temperature Oil Bath, 6- / 11- / 22- Lit.
 Digital Fuzzy Control System, Stainless Steel Flat Lid, Back Light LCD, up to 250 °C, ± 1,5 °C



Digital High Temperature Oil Bath (WHB-11)

Patented Control System
 (No. 10-0554098)

1 or 2 Mode Buttons + Jog Shuttle Switch
 Realize “Easy to Use”

- Corrosion Resistant Stainless Steel Bath of 1,2 mm Thickness and Ceramic Fiber Insulator of 50 mm Thickness are used for High Temperature
- Digital Fuzzy Controller Implementing Maximum Temp. Accuracy
- Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function
- CE Certified

Application & Features

- * Digital Fuzzy Controller Implementing Maximum Temperature Accuracy.
- * Digital Timer Function(99 hr 59 min) : ‘Delay Time’ and ‘Operation Time’ can be controlled.
- * User’s Self-Compensation Function to Control Difference between Real Temperature and Indicated Temperature.
- * Corrosion Resistant Stainless Steel Bath and of 1,2 mm Thickness and Ceramic Fiber Insulator of 50 mm Thickness are used for High Temperature.
- * Over Temperature and Over Current Protection, Sensor Error Detection.
- * Storage Function for the Set Values of Temperature and Timer.
- * Alarm Function : Error Status and Timer-end.
- * Locking Mode Supported for Experimental Safety. (Input to Jog-Shuttle can be Disabled)
- * Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function.
- * CE Certified.

Specification

Model		WHB-6	WHB-11	WHB-22
Dimension (w × d × h)	Bath (mm)	270 × 180 × 150	300 × 250 × 150	400 × 300 × 180
	External (mm)	425 × 305 × 340	425 × 375 × 340	525 × 425 × 370
Capacity		6 Lit.	11 Lit.	22 Lit.
Heater		2 kW	2,5 kW	3 kW
Temp.	Range	Ambient + 5 °C to 250 °C		
	Accuracy	± 1,5 °C		
	Uniformity	± 3,0 °C		
	Sensor	PT 100		
Material	Internal	Stainless Steel (# 304)		
	External	Powder Coated Steel		
	Insulation	Ceramic Fiber 50 mm Thickness		
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn+Push)		
Display		Digital LCD Display with Back-Light Function		
Timer		99hr 59min (Delay & Continuous Function Included)		
Lid		Stainless Steel Flat Lid Included		
Drain Valve		Available		
Safety Device		Over Temp. “Cut-Off”		
Others		CE-Certified Storage Function (Temp. & Timer) Locking Mode (Jog-Shuttle Input disabled) User Self-compensation function Alarm (Error Status and Timer-end)		
Packing Dimension (w × d × h) (mm)		470 × 400 × 500	600 × 490 × 500	
Gross Weight		23 kg	25 kg	39 kg
Power Consumption		2 kW	2,5 kW	3 kW
Power plug type		Hybrid E+F		
Power Supply*		AC 230 V, 50 / 60 Hz		

* Other Specifications are available upon Customer’s Request.

<Continued on Next page>

<Continued from... "witeg" **WiseBath®WHB** Digital High Temperature Oil Bath>

Ordering Information

- DH.WHB00106* High Temp. Oil Bath, **WHB-6** , 6 Lit.
 DH.WHB00111* , **WHB-11**, 11 Lit.
 DH.WHB00122* , **WHB-22**, 22 Lit.
 *1 x Stainless Steel Flat Lid Included

Spare Accessories

- DH.WHB10106 Flat Lid, Stainless Steel, **HBF106**, for 6 Lit., w 306 x d 216 mm
 DH.WHB10111 , **HBF111**, for 11 Lit., w 336 x d 286 mm
 DH.WHB10122 , **HBF122**, for 22 Lit., w 436 x d 336 mm

Optional Accessories

- DH.WHB20106 Dome Lid, Stainless Steel, **HBD106**, for 6 Lit.
 w 306 x d 216 x h 100 mm
 DH.WHB20111 Dome Lid, Stainless Steel, **HBD111**, for 11 Lit.
 w 336 x d 286 x h 100 mm
 DH.WHB20122 Dome Lid, Stainless Steel, **HBD122**, for 22 Lit.
 w 436 x d 336 x h 100 mm
 DH.WB020106 Rack, Test tube, 36ea of ϕ 17 mm Hole, **BTH106**,
 for 6 Lit., SUS, w 220 x d 125 x h 78,5 mm
 DH.WB020206 Rack, Test tube, 15ea of ϕ 32 mm Hole, **BTH206**,
 for 6 Lit., SUS, w 220 x d 125 x h 78,5 mm
 DH.WB020111 Rack, Test tube, 63ea of ϕ 17 mm Hole, **BTH111**,
 for 11 / 22 Lit., SUS, w 220 x d 205 x h 78,5 mm
 DH.WB020211 Rack, Test tube, 25ea of ϕ 32mm Hole, **BTH211**,
 for 11 / 22 Lit., SUS, w 220 x d 205 x h 78,5 mm
 DH.WHB030122 Lid with Concentric Ring Cover Sets 4ea,
 Stainless Steel, **HBFC122**, for 22 Lit., 539 x 334 x 20 mm

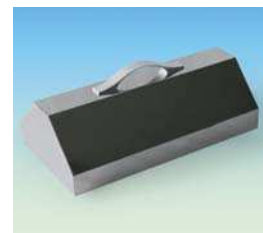
Validation (IQ, OQ & PQ) Service

- DH.WHB40106 Validation Service(IQ, OQ & PQ), **HBV106**, for **WHB-6**
 DH.WHB40111 , **HBV111**, for **WHB-11**
 DH.WHB40122 , **HBV122**, for **WHB-22**

※ You will find matching tubes in our general catalogue at following pages : 224–227.



Flat Lid (Included)



Dome Lid (Optional)



Lid with Concentric Ring Cover Sets for 22Lit. (HBFC122)



Test Tube Rack

“witeg” WiseCircu® WCH High Temperature Bath Circulator, 8- /12- /22- /30- Lit.
 Digital Fuzzy Control, Powerful Circulation Pump, Back Light LCD, up to 250 °C, ±0,1 °C



High Temperature Bath Circulators

Patented Control System
 (No. 10-0554098)

1 or 2 Mode Buttons + Jog Shuttle Switch
 Realize “Easy to Use”

- Innovative Easy-to-Use Digital Fuzzy Controller
- Powerful Circulation Pump ensures Temp. Uniformity : Internal and External Circulation
- Patented Jog-Shuttle Control System
- CE Certified

Application & Features

- * Innovative Easy-to-Use Digital Fuzzy Controller.
- * Digital Timer Function : ‘Delay Time’ and ‘Operation Time’ can be controlled.
- * Stainless Steel Bath and Lid for Superior Durability and High Thermal Efficiency.
- * Powerful Circulation Pump Assures Temp. Uniformity. : Internal and External Circulation.
- * User’s Self-Compensation Function to Control Difference between Real Temp. and Indicated Temp.
- * Over Temperature-/Over Current-/Low Level-Protection, Sensor Error.
- * Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function.
- * CE Certified.

Specification

Model		WCH-8	WCH-12	WCH-22	WCH-30
Dimension (w × d × h)	Bath (mm)	180 × 320 × 155	250 × 320 × 155	340 × 440 × 155	340 × 440 × 200
	External (mm)	440 × 300 × 450	440 × 370 × 450	560 × 460 × 450	560 × 460 × 495
Heater		0,8 kW	1,0 kW	2,0 kW	2,0 kW
Capacity		8 Lit	12 Lit.	22 Lit	30 Lit.
Temp.	Range	Ambient + 5 °C ~ 250 °C			
	Accuracy	±0,1 °C			
	Uniformity	±0,2 °C			
	Sensor	PT100			
Material	Internal	Stainless Steel (# 304)			
	External	Powder Coated Steel			
	Insulation	Ceramic Fiber 50mm Thickness			
Pump		15 Lit. / min (Internal / External)			
Controller		Digital Fuzzy Controller with Jog- Shuttle Switch (Turn+Push)			
Display		Digital LCD Display with Back-Light Function			
Timer		99 hr 59 min (Delay & Continuous Function)			
Safety Device		Over Temp. and Over Current Protector, Sensor Error Detector			
Lid		Stainless Steel Flat Lid included			
Nozzle		i.d. 6 mm × o.d. 10 mm (i.d. 7 mm o.d. 11 mm Silicon tube Connected for inner Circulation)			
Drain Valve		Included			
Others		CE-Certified Storage Function (Temp. & Timer) Locking Mode (Jog- Shuttle Input Disabled) User Self- compensation Function Alarm (Error Status and Timer - end)			
Packing Dimension (w × d × h) (mm)		470 × 400 × 500	470 × 400 × 500	600 × 490 × 500	600 × 490 × 500
Gross Weight		19 kg	21 kg	23 kg	37 kg
Power Consumption		800 W	1 kW	2 kW	2 kW
Power plug type		Hybrid E+F			
Power Supply*		AC 230 V, 50 / 60 Hz			

* Other Specifications are available upon Customer’s Request.

<Continued on Next page>

<Continued from... "witeg" WiseCircu®WCH High Temperature Bath Circulator >

Ordering Information

Ambient +5 °C ~250 °C Circulators

- DH.WCH00108* High Temp. Circulator, **WCH-8** , 8 Lit.
 DH.WCH00112* , **WCH-12**, 12 Lit.
 DH.WCH00122* , **WCH-22**, 22 Lit.
 DH.WCH00130* , **WCH-30**, 30 Lit.

*1 × Stainless Steel Flat Lid Included

Spare Accessories

- DH.WCH10108 Flat Lid, Stainless Steel, **CHBF108**, for 8 Lit., w 288 × d 158 mm
 DH.WCH10112 , **CHBF112**, for 12 Lit., w 358 × d 158 mm
 DH.WCH10122 , **CHBF122**, for 22 Lit., w 448 × d 278 mm
 DH.WCH10130 , **CHBF130**, for 30 Lit., w 448 × d 278 mm

Optional Accessories

- DH.WCH20108 Dome Lid, Stainless Steel, **CHBD108**, for 8 Lit.,
 w 288 × d 158 × h 121 mm
 DH.WCH20112 Dome Lid, Stainless Steel, **CHBD112**, for 12 Lit.,
 w 358 × d 158 × h 121 mm
 DH.WCH20122 Dome Lid, Stainless Steel, **CHBD122**, for 22 Lit.,
 w 448 × d 278 × h 121 mm
 DH.WCH20130 Dome Lid, Stainless Steel, **CHBD130**, for 30 Lit.,
 w 448 × d 278 × h 121 mm

Validation (IQ, OQ & PQ) Service

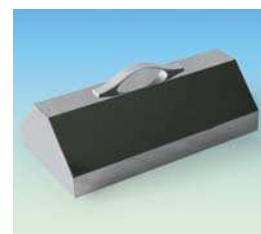
- DH.WCH30108 Validation Service(IQ, OQ & PQ), **CHBV108**, for 8 Lit.
 DH.WCH30112 , **CHBV112**, for 12 Lit.
 DH.WCH30122 , **CHBV122**, for 22 Lit.
 DH.WCH30130 , **CHBV130**, for 30 Lit.



Innovative Digital Fuzzy Controller



Efficient Use of Bath with Level Sensor



Dome Lid (Optional)

“witeg” **WiseCircu**® **WCR** Digital Precise Refrigerated Bath Circulator

Digital Fuzzy Control, Back Light LCD, CFC-free Refrigeration, 6- /8- /12- /22- /30- Lit., - 20 °C~100 °C, ±0,1 °C



CFC-free (404A) Refrigeration System

Digital Precision Refrigerated Bath Circulators
(WCR-P6 & WCR-P12)

Patented Control System (No. 10-0554098)

1 or 2 Mode Buttons + Jog Shuttle Switch
Realize “Easy to Use”



Innovative Digital Fuzzy Controller



Efficient Use of Bath with Level Sensor

- Innovative Easy-to-Use Digital Fuzzy Controller
- RS232C Interface for Remote Monitoring and Controlling with PC
- CFC-free (404A) Refrigeration System
- Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function
- CE Certified

Application & Features

- * Ideal for Direct Immersion of Samples or External Circulating System in the field of Biotechnology and Laboratories.
- * Innovative Easy-to-Use Digital Fuzzy Controller.
- * RS232C Interface for Remote Monitoring and Controlling with PC.
- * Digital Timer Function : 'Delay Time' and 'Operation Time' can be Controlled.
- * Stainless Steel Bath (#304) for Superior Durability & High Thermal Efficiency.
- * Powerful Circulation Pump ensures Temp. Uniformity : Internal and External Circulation.
- * Connection with Evaporator or Viscometer is applicable.
- * User' s Self-compensation Function to Control Difference between Real Temperature and Indicated Temperature. (±10,0 °C)
- * Warning and Auto-Stop Function in case of Liquid Shortage.
- * Auto-controlled Refrigeration System for Compressor Protection and Power Saving.
- * Over Temperature & Over Current Protection, Sensor Error & Low Level Detection, Leakage Breaking.
- * CFC-free (404A) Refrigeration System.
- * Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function.
- * CE Certified.

Specification

Model		WCR - P6	WCR - P8	WCR - P12	WCR - P22	WCR - P30
Dimension (w×d×h)	Effective Space (mm)	180×83×150	180×143×150	250×150×150	350×250×150	350×250×230
	Bath (mm)	180×250×150	180×310×150	250×320×150	350×420×150	350×420×250
	External (mm)	262×468×630	262×468×630	372×460×750	455×545×770	455×545×845
Capacity		6 Lit.	8 Lit.	12 Lit.	22 Lit.	30 Lit.
Heater		800 W	1 kW	1,5 kW	2 kW	2,2 kW
Cooling Capacity	10 °C	1,5 kW	1,5 kW	1,5 kW	2,8 kW	3,3 kW
	0 °C	1,2 kW	1,2 kW	1,2 kW	2,1 kW	2,6 kW
	- 20 °C	490 W	490 W	490 W	910 W	1,2 kW
Refrigerator		245 W	245 W	245 W	552 W	643 W
Temp.	Range	- 20 °C ~ 100 °C				
	Accuracy	±0,1 °C				
	Uniformity	±0,2 °C at - 10 °C				
	Sensor	PT100				
Controller		Digital Fuzzy Controller with Jog - Shuttle Switch (Turn+Push)				
Display		Digital LCD Display with Back-Light Function				
Timer		99hr 59min (Delay & Continuous Function Included)				
Material	Internal	Stainless Steel (#304)				
	External	Powder Coated Steel				
	Insulation	Polystyrene (20 mm)				
Pump		15 Lit. / min (Internal / External)				
Compressor Control		Intelligent Control of Refrigerator for preventing Overload of Compressor				
Refrigerant		CFC - Free(404A) Refrigeration System				
Safety Device		Over Temp. and Over Current Protector, Sensor Error and Low Level Detector, Leakage Breaker				
Drain		Included				
Lid		Stainless Steel Flat Lid included				
Nozzle		i.d. 10 mm × o.d. 12 mm (i.d. 10 mm o.d.18 mm Silicon tube Connected for inner Circulation)				
Others		CE Certified, Storage Function (Temp. & Timer) Locking Mode (Jog - Shuttle Input Disabled) User Self - Compensation Function Alarm (Error Status and Timer - end)				
Packing Dimension (w×d×h) (mm)		530×370×700	600×500×950	620×580×960	640×600×1.040	
Gross Weight		50 kg	54 kg	65 kg	76 kg	83 kg
Power Consumption		1,4 kW	1,6 kW	2,1 kW	3,4 kW	3,8 kW
Power plug type		Hybrid E+F				3~ 16A CEE
Power Supply*		AC 230 V, 50 / 60 Hz				3-, AC 230V, 50/60Hz

* Other Specifications are available upon Customer's Request.

<Continued on Next page>

<Continued from... "witeg" WiseCircu® WCR Digital Precise Refrigerated Bath Circulator >

Ordering Information

- 20 °C ~ +100 °C Circulators

- DH.WCR00206* Refrigerated Circulator, - 20 °C, WCR-P6, 6 Lit.
- DH.WCR00208* , WCR-P8, 8 Lit.
- DH.WCR00212* , WCR-P12, 12 Lit.
- DH.WCR00222* , WCR-P22, 22 Lit.
- DH.WCR00230* , WCR-P30, 30 Lit.

*1 x Stainless Steel Flat Lid Included

Spare Accessories

- DH.WCR10206 Flat Lid, Stainless Steel, CRBF106, for 6 Lit., w 245 x d 98 mm
- DH.WCR10208 , CRBF108, for 8 Lit., w 245 x d 158 mm
- DH.WCR10212 , CRBF112, for 12 Lit., w 316 x d 165 mm
- DH.WCR10222 , CRBF122, for 22 Lit. / 30Lit., w 416 x d 265 mm

Optional Accessories

- DH.WCR20206 Dome Lid, Stainless Steel, CRBD106, for 6 Lit., w 245 x d 98 x h 121 mm
- DH.WCR20208 Dome Lid, Stainless Steel, CRBD108, for 8 Lit., w 245 x d 158 x h 121 mm
- DH.WCR20212 Dome Lid, Stainless Steel, CRBD112, for 12 Lit., w 316 x d 165 x h 121 mm
- DH.WCR20222 Dome Lid, Stainless Steel, CRBD122, for 22 Lit. / 30Lit., w 416 x d 265 x h 121 mm

Validation (IQ, OQ & PQ) Service

- DH.WCR30206 Validation Service(IQ, OQ & PQ), CRBV106, for WCR-P6
- DH.WCR30208 , CRBV108, for WCR-P8
- DH.WCR30212 , CRBV112, for WCR-P12
- DH.WCR30222 , CRBV122, for WCR-P22
- DH.WCR30230 , CRBV130, for WCR-P30



Dome Lid (Optional)



Flat Lid (Included)

WiseRemote® Remote Control Software - standard delivery

Connection of Wisdom Temperature Devices with Interface RS232C to a PC Export Recorded Data (Excel Spreadsheet)



Main Screen



RS232C Cable & Software

“witeg” **WiseCircu**® **WCL** Ultra Low-Temperature Refrigerated Bath Circulator

Digital Fuzzy Control, Back Light LCD, CFC-free Refrigeration System, 6- /8- /12- /22- /30- Lit., - 40 °C~100 °C, ±0,1 °C



CFC-free (404A) Refrigeration System

Ultra Low-Temperature Bath Circulators
(WCL-P12 & WCL-P30)

- Innovative Easy-to-Use Digital Fuzzy Controller
- CFC-free (404A) Refrigeration System.
- Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function
- CE Certified

Application & Features

- * Ideal for Direct Immersion of Samples or External Circulating System in the Field of Biotechnology and Laboratories.
- * Innovative Easy-to-Use Digital Fuzzy Controller.
- * RS232C Interface for Remote Monitoring and Controlling with PC.
- * Digital Timer Function : 'Delay Time' and 'Operation Time' can be controlled.
- * Stainless Steel Bath(#304) for Superior Durability & High Thermal Efficiency.
- * Stainless Steel Lid Prevents Evaporation and keeps Constant Temperature.
- * Powerful Circulation Pump ensures Temp. Uniformity. : Internal and External Circulation.
- * Connection with Evaporator or Viscometer is applicable.
- * User's Self-compensation Function to Control Difference between Real Temperature and Indicated Temperature. (±10,0 °C)
- * Warning and Auto-Stop function in case of Liquid Shortage.
- * Auto-controlled Refrigeration System for Compressor Protection and Power Saving.
- * Over Temperature & Over Current Protection, Sensor Error & Low Level Detection, Leakage Breaking.
- * CFC-free (404A) Refrigeration System.
- * Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function.
- * CE Certified.

Specification

Model		WCL-P6	WCL-P8	WCL-P12	WCL-P22	WCL-P30
Dimension (w×d×h)	Effective Space (mm)	180×83×150	180×143×150	250×150×150	350×250×150	350×250×230
	Bath (mm)	180×250×150	180×310×150	250×320×150	350×420×150	350×420×250
	External (mm)	372×468×750	372×468×750	372×460×750	455×545×770	455×545×845
Capacity		6 Lit.	8 Lit.	12 Lit.	22 Lit.	30 Lit.
Heater		800 W	1 kW	1,5 kW	2 kW	2,2 kW
Cooling Capacity	- 10°C	1,2 kW	1,2 kW	1,2 kW	1,5 kW	3,3 kW
	- 20°C	770 W	770 W	770 W	930 W	2,6 kW
	- 40°C	150 W	150 W	150 W	180 W	1,2 kW
Refrigerator		276 W	276 W	368 W	552 W	643 W
Temp.	Range	- 40 °C ~ 100 °C				
	Accuracy	±0,1 °C				
	Uniformity	±0,2 °C at - 20 °C				
	Sensor	PT100				
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn+Push)				
Display		Digital LCD Display with Back-Light Function				
Timer		99hr 59min (Delay & Continuous Function Included)				
Material	Internal	Stainless Steel (#304)				
	External	Powder Coated Steel				
	Insulation	Polystyrene (40 mm)				
Pump		15 Lit. / min (Internal / External)				
Compressor Control		Intelligent Control of Refrigerator for preventing Overload of Compressor				
Refrigerant		CFC-Free(404A) Refrigeration System				
Safety Device		Over Temp. and Over Current Protector, Sensor Error and Low Level Detector, Leakage Breaker				
Drain		Included				
Lid		Stainless Steel Flat Lid included				
Nozzle		i.d.10 mm × o.d.12 mm(i.d. 10 mm o.d.18 mm Silicon tube Connected for inner Circulation)				
Others		CE Certified, Storage Function (Temp. & Timer) Locking Mode (Jog-Shuttle Input Disabled) User Self-compensation Function Alarm (Error Status and Timer-end)				
Packing Dimension (w×d×h) (mm)		530×370×700	600×500×950	620×580×960	640×600×1,040	
Gross Weight		58 kg	62 kg	66 kg	73 kg	80 kg
Power Consumption		1,5 kW	1,7 kW	2,4 kW	3,4 kW	3,8 kW
Power plug type		Hybrid E+F				
Power Supply*		AC 230 V, 50 / 60 Hz				

* Other Specifications are available upon Customer's Request.

Patented Control System (No. 10-0554098)

1 or 2 Mode Buttons + Jog Shuttle Switch
Realize “Easy to Use”



Innovative Digital Fuzzy Controller



Efficient Use of Bath with Level Sensor

<Continued on Next page>

<Continued from... "witeg" WiseCircu® WCL Ultra Low-Temperature Refrigerated Bath Circulator>

Ordering Information

-40 °C ~+100 °C Circulators

- DH.WCL00206* Refrigerated Circulator, -40 °C, **WCL-P6** , 6 Lit.
- DH.WCL00208* , **WCL-P8** , 8 Lit.
- DH.WCL00212* , **WCL-P12**, 12 Lit.
- DH.WCL00222* , **WCL-P22**, 22 Lit.
- DH.WCL00230* , **WCL-P30**, 30 Lit.

*1 x Stainless Steel Flat Lid Included

Spare Accessories

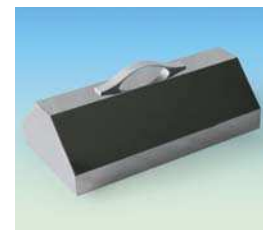
- DH.WCR10206 Flat Lid, Stainless Steel, **CRBF106**, for 6 Lit., w 245 x d 98 mm
- DH.WCR10208 , **CRBF108**, for 8 Lit., w 245 x d 158 mm
- DH.WCR10212 , **CRBF112**, for 12 Lit., w 316 x d 165 mm
- DH.WCR10222 , **CRBF122**, for 22 Lit. / 30 Lit., w 416 x d 265 mm

Optional Accessories

- DH.WCR20206 Dome Lid, Stainless Steel, **CRBD106**, for 6 Lit., w 245 x d 98 x h 121 mm
- DH.WCR20208 Dome Lid, Stainless Steel, **CRBD108**, for 8 Lit., w 245 x d 158 x h 121 mm
- DH.WCR20212 Dome Lid, Stainless Steel, **CRBD112**, for 12 Lit., w 316 x d 165 x h 121 mm
- DH.WCR20222 Dome Lid, Stainless Steel, **CRBD122**, for 22 Lit. / 30 Lit., w 416 x d 265 x h 121 mm

Validation (IQ, OQ & PQ) Service

- DH.WCL30206 Validation Service(IQ, OQ & PQ), **CLBV106**, for **WCL-P6**
- DH.WCL30208 , **CLBV108**, for **WCL-P8**
- DH.WCL30212 , **CLBV112**, for **WCL-P12**
- DH.WCL30222 , **CLBV122**, for **WCL-P22**
- DH.WCL30230 , **CLBV130**, for **WCL-P30**



Dome Lid (Optional)



Flat Lid (Included)

WiseRemote® Remote Control Software - standard delivery

Connection of **Wisdom** Temperature Devices with Interface RS232C to a PC Export Recorded Data (Excel Spreadsheet)



Main Screen



RS232C Cable & Software

“witeg” **WiseCircu® WCT** Digital Precision Cold Trap Bath, $-40\text{ }^{\circ}\text{C}$ / $-80\text{ }^{\circ}\text{C}$
with Glass-Trap, Digital PID Control System, CFC-free Refrigeration System, 10 Lit.



Digital Precision Cold Trap Bath (WCT-40)

Patented Control System
(No. 10-0554098)

1 or 2 Mode Buttons + Jog Shuttle Switch
Realize “Easy to Use”



Glass Cold Trap
(CTG1000)

- Ideal for Exceptional Cooling System.
- Digital PID Controller.
- CFC-free (404A) Refrigeration System.
- **Patented Jog-Shuttle Control System** and Digital LCD Display with Back-Light Function
- CE Certified

Application & Features

- * Ideal for Exceptional Cooling System like Collecting Evaporation Vapor or Hazardous Vapor from Vacuum Line.
- * Digital PID Controller.
- * Durable Stainless Steel Bath and Powder Coated Steel.
- * Over Current Protection, Sensor Error Detection, Leakage Breaking.
- * CFC-free (404A) Refrigeration System.
- * **Patented Jog-Shuttle Control System** and Digital LCD Display with Back-Light Function.
- * CE Certified.

Specification

Model		WCT-40	WCT-80
Dimension (w × d × h)	Bath (mm)	220 × 220 × 210	
	External (mm)	377 × 453 × 705	
Capacity		10 Lit.	
Type		Glass Trap	
Temp. Range		Down to $-40\text{ }^{\circ}\text{C}$	Down to $-80\text{ }^{\circ}\text{C}$
Controller		PID Controller	
Material	Internal	Stainless Steel	
	External	Powder Coated Steel, 1,2 t, Doublepaint & Baked	
	Insulation	Polyurethane Foam (20 mm)	
Refrigerator		368 W	736 W
Refrigerant		404A	
Drain Valve		Available	
Safety Device		Over Current Protector, Sensor Error Detector, Leakage Breaker	
Others		CE-Certified	
Packing Dimension (w × d × h) (mm)		560 × 500 × 1.010	680 × 640 × 1.130
Gross Weight		67 kg	90 kg
Power Consumption		900 W	1,8 kW
Power plug type		Hybrid E+F	
Power Supply*		AC 230 V, 50 / 60 Hz	

* Other Specifications are available upon Customer's Request.

Ordering Information

DH.WCT00140 Cold Trap Bath, **WCT-40**, 10 Lit., $-40\text{ }^{\circ}\text{C}$, with Glass Cold Trap
DH.WCT00180 , **WCT-80**, 10 Lit., $-80\text{ }^{\circ}\text{C}$, with Glass Cold Trap

Spare Accessories

DH.WCT11000 Cold Trap, **CTG1000**,
2 ea of DURAN® Borosilicate Glass α 3,3 Safety-Pressure
Resistant 1,5 bar at $250\text{ }^{\circ}\text{C}$, for **WCT**, ϕ 106 × h 249 mm
*Other specifications are available upon costumers request

Validation (IQ, OQ & PQ) Service

DH.WCT20140 Validation Service(IQ, OQ & PQ), **CTBV106**, for **WCT-40**
DH.WCT20180 , **CTBV108**, for **WCT-80**

※ **Recommendation : Combination of the Cold Trap Bath(WCT) with the Vacuum Oven(WOV) and Vacuum Pump (Refer to page 114~116)**

“witeg” WiseBath® WSB Digital Precise Shaking Water Bath, 18- /30- /45- Lit.
 Digital Fuzzy Control, Spring Rack, Reciprocating Motion, 20 ~ 250 rpm, to 100 °C, ± 0,1 °C, up to 2 Lit Flask

- Electronically Controlled Shaking Mechanism Provides Quiet Reciprocating Motion and Precise Speed Control.
- Patented Shaking Mechanism : Minimum Noise and Vibration
- Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function
- CE Certified

Application & Features

- * Stainless Steel Bath for Superior Durability & High Thermal Efficiency.
- * Innovative Easy-to-Use Digital Fuzzy Controller.
- * Digital Timer Function : 'Delay Time' and 'Operation Time' can be Controlled.
- * Electronically Controlled Shaking Mechanism Provides Quiet Reciprocating Motion and Precise Speed Control.
- * Universal Stainless Steel Spring Rack Included : for various kind of Flasks and Tubes (up to 2 ℓ)
- * User' s Self-Compensation Function to Control Difference between Real Temperature and Indicated Temperature. (± 10,0 °C)
- * Over Temperature & Over Current Protection, Sensor Error Detection.
- * Patented Shaking Mechanism : Minimum Noise and Vibration.
- * Patented Jog-Shuttle Control System and Digital LCD Display with Back-Light Function.
- * CE Certified.



Digital Precise Shaking Water Bath (WSB-18)

Specification

Model		WSB-18	WSB-30	WSB-45
Dimension (w × d × h)	Bath (mm)	300 × 300 × 200	500 × 300 × 200	600 × 380 × 200
	External (mm)	563 × 353 × 340	763 × 353 × 340	863 × 433 × 340
Capacity		18 Lit.	30 Lit.	45 Lit.
Heater		1,4 kW	1,8 kW	2,4 kW
Max. Shaking Capacity (Erlenmeyer Flask)		250 ml × 4 ea	250 ml × 8 ea	250 ml × 15 ea
Temp.	Range	Ambient +5 °C to 100 °C		
	Accuracy	± 0,1 °C		
	Uniformity	± 0,5 °C		
	Sensor	PT100		
Controller		Digital Fuzzy Controller with Jog - Shuttle Switch (Turn+Push)		
Shaking	Speed	20 to 250 Stroke / min		
	Stroke	20 mm as Factory Default When you place your order, 10, 15 and 30mm, you can choose one.		
Display		Digital LCD Display with Back - Light Function		
Timer		99 hr 59 min (Delay & Continuous Function Included)		
Material	Internal	Stainless Steel (# 304)		
	External	Powder Coated Steel		
Rack		Stainless Steel Spring Rack : Universal-type		
Drain		Included		
Safety Device		Over Temp. and Over Current Protector, Sensor Error Detector		
Others		CE-Certified Storage Function (Temp. & Timer) Locking Mode (Jog - Shuttle Input Disabled) User Self - Compensation Function Alarm (Error Status and Timer - end)		
Packing Dimension (w × d × h) (mm)		620 × 420 × 450	820 × 420 × 450	920 × 500 × 450
Gross Weight		24 kg	26 kg	32 kg
Power Consumption		1,4 kW	1,8 kW	2,4 kW
Power plug type		Hybrid E+F		
Power Supply*		AC 230 V, 50 / 60 Hz		

* Other Specifications are available upon Customer's Request.

Patented Control System
(No. 10-0554098)

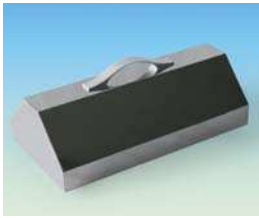
1 or 2 Mode Buttons + Jog Shuttle Switch
Realize “Easy to Use”

<Continued on Next page>

<Continued from... "witeg" **WiseBath®WSB** Digital Precise Shaking Water Bath >



Spring Rack
(Standard Delivery)



Dome Lid (Optional)

Ordering Information

DH.WSB01018* Shaking Water Bath, **WSB-18**, 20~250 rpm, 100 °C, 18 Lit.
DH.WSB01030* , **WSB-30**, 20~250 rpm, 100 °C, 30 Lit.
DH.WSB01045* , **WSB-45**, 20~250 rpm, 100 °C, 45 Lit.
 *1 × Stainless steel Spring Rack Included

Spare Accessories

DH.WSB51018 Universal Spring Rack, **SBR018**, for 18 Lit., w 245 × d 270 × h 110 mm
DH.WSB51030 , **SBR030**, for 30 Lit., w 445 × d 270 × h 110 mm
DH.WSB51045 , **SBR045**, for 45 Lit., w 545 × d 350 × h 110 mm

Optional Accessories

DH.WSB02018 Dome Lid, Stainless Steel, **SBD018**, for 18 Lit.
 w 363 × d 353 × h 69 mm
DH.WSB02030 Dome Lid, Stainless Steel, **SBD030**, for 30 Lit.
 w 563 × d 353 × h 69 mm
DH.WSB02045 Dome Lid, Stainless Steel, **SBD045**, for 45 Lit.
 w 663 × d 433 × h 69 mm

Validation (IQ, OQ & PQ) Service

DH.WSB31018 Validation Service(IQ, OQ & PQ), **SBV018**, for 18 Lit.
DH.WSB31030 , **SBV030**, for 30 Lit.
DH.WSB31045 , **SBV045**, for 45 Lit.

※ You will find matching flasks in our general catalogue at following pages : 34, 294, 295, 298, 299, 308.

“witeg” WiseBath® WVB Digital Precise Viscosity Bath, 30- & 52-Lit.
 with Transparent Window, Stainless Steel Lid for Viscometer Holder, Digital Fuzzy Control System, up to 100 °C, ± 0.1 °C

- Used for Precise Measurement with Capillary Viscometers
- Innovative Easy-to-Use Digital Fuzzy Controller
- Powerful Circulation Pump ensures Highest Uniformity of Temperature
- **Patented Jog-Shuttle Control System** and Digital LCD Display with Back-Light Function.
- CE Certified

Application & Features

- * Powerful Circulation Pump (30 Lit. / min) ensures Highest Uniformity of Temperature in the Bath.
- * Used for Precise Measurement with Capillary Viscometers.
- * Stainless Steel(#304) made inner bath.
- * Innovative Easy-to-Use Digital Fuzzy Controller.
- * Stainless Steel Lid Contains Five Holes for Insertion of Viscometer Holders.
- * Digital Timer Function : ‘Delay Time’ and ‘Operation Time’ can be Controlled.
- * User’s Self-compensation Function to Control Difference between Real Temperature and Indicated Temperature.
- * Over Temperature & Over Current Protection, Sensor Error Detection.
- * Storage Function for the Set Values of Temperature and Time.
- * Alarm Function : Error Status and Timer-end.
- * Locking Mode Supported for Experimental Safety. (Input to Jog-Shuttle can be Disabled)
- * **Patented Jog-Shuttle Control System** and Digital LCD Display with Back-Light Function.
- * CE Certified.



Digital Precise Viscosity Bath (WVB-30)

Specification

Model		WVB-30	WVB-52
Dimension (w×d×h)	Bath (mm)	350 × 300 × 300	500 × 300 × 350
	External (mm)	585 × 375 × 420	730 × 380 × 470
Capacity		30 Lit	52 Lit.
Heater		2 kW	3 kW
Temp.	Range	Ambient +5 °C to 100 °C	
	Accuracy	±0,1 °C	
	Uniformity	±0,2 °C	
	Sensor	PT100	
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn+Push)	
Display		Digital LCD Display with Back-Light Function	
Pump		Magnetic Drive, Max. Flow 30 Lit. / min	
Material	Internal	Stainless Steel (# 304)	
	External	Powder Coated Steel	
	Window	Vacuum Sealed and Tempered Safety Pair Glasses	
Timer		99 hr 59 min (Delay & Continuous Function Included)	
Safety Device		Over Temp. and Over Current Protector, Sensor Error Detector	
Drain		Included	
Viewing Window Size(mm)		230 × 180	
Others		CE-Certified Storage Function (Temp. & Timer) Locking Mode (Jog-Shuttle Input Disabled) User Self - Compensation Function Alarm (Error Status and Timer - end)	
Packing Dimension (w×d×h) (mm)		640 × 450 × 500	800 × 450 × 550
Gross Weight		24 kg	28 kg
Power Consumption		2 kW	3 kW
Power plug type		Hybrid E+F	
Power Supply*		AC 230 V, 50 / 60 Hz	

* Other Specifications are available upon Customer’s Request.

Patented Control System
(No. 10-0554098)

1 or 2 Mode Buttons + Jog Shuttle Switch
Realize “Easy to Use”

<Continued on Next page>

<Continued from... "witeg" **WiseBath®WVB** Digital Precise Viscosity Bath >



**Stainless Steel Lid has 5 Holes
for Insertion of Viscometer Holders
(WVB-30, 30Lit.)**



Viscometer Holder

Ordering Information

- DH.WVB01030** Viscosity Bath, **WVB-30**, 30 Lit.
DH.WVB01052 , **WVB-52**, 52 Lit.
 *1 × Stainless Steel Lid for Viscometer Holder Included

Spare Accessories

- DH.WVB11030** Flat Lid, for Viscometer Holder, Stainless Steel, **VBF030**,
 for 30 Lit., w 380 × d 330, ϕ 50 mm 5 Holes
DH.WVB11052 Flat Lid, for Viscometer Holder, Stainless Steel, **VBF052**,
 for 52 Lit., w 530 × d 330, ϕ 50 mm 9 Holes

Optional Accessory

- DH.WVB02010** Viscometer Holder, **WVB02010**

Validation (IQ, OQ & PQ) Service

- DH.WVB31030** Validation Service(IQ, OQ & PQ), **VBV030**, for **WVB-30**
DH.WVB31052 , **VBV052**, for **WVB-52**

“witeg” WiseSpin® CF-10 High-Performance Microcentrifuge Set, 12 × 0,2 / 0,5 / 1,5 / 2,0 ml Tubes
 Compact, Unbelievably Quiet, Safety System, Easy-to-Use Fixed-Angle Rotor Included, Max. 13.500 rpm, 12.250 × g

- Unbelievably Quiet Operation - Brushless DC motor
- High Performance - Digital Feedback Speed Control, Max. 13.500 rpm, 12.225 × g
- Useful Exclusive Spin Down Button
- 0,2 ml (0,5 ml) PCR Tube Adapter (12 ea), Angle Rotor CFAR1512 (1,5 / 2,0 ml × 12 Tubes)
- Patented Jog-Shuttle Control System and Digital LCD with Back-Light Function
- CE Certified

Application & Features

- * Unbelievably Quiet Operation - Brushless DC motor.
- * Unnecessary Rotor Lid for Running and Reduced Noise. (≤ 57dB at Max. RPM)
- * High Performance - Digital Feedback Speed Control, Max. 13.500 rpm, 12.225 × g.
- * Realize Extremely Compact Design, with Exceptionally Small Footprint.
- * Acceleration and Braking Times Lower than 15 sec. (for Max. Speed)
- * Digital Timer Function with Continuous Running Mode. (99 min 59 sec)
- * Storage Function for the Set Values : RPM & Time.
- * Locking Mode Supported for Experimental Safety. (Input to Jog-Shuttle can be disabled)
- * Safety System for Motor Error.
- * Electric Door Lock Function Safety.
- * Safety Electronic Lid Lock System : Opening the Lid is impossible during Operation.
- * Simple Operation for Repetitive use of ‘Spin Down’ Function.
- * Angle Rotor CFAR1512. (1,5 / 2,0 ml × 12 Tubes)
- * Using Adapters Accommodates 0,2 ml or 0,5 ml PCR Tubes.
- * Patented Jog-Shuttle Control System and Digital LCD with Back-Light Function.
- * CE Certified.

Specification

Model	CF-10
Operating RPM	1.000–13.500 RPM
Max. RCF	12.225 × g
Max. Capacity	1,5 ml (2,0 ml) × 12 Tubes
Control	Digital Feedback Control with Jog Shuttle Switch (Turn+Push)
Display	Digital Back-Light LCD
Timer	99 min. 59 sec. (Continuous Mode Available)
Cooling Device	Air Cooling
Drive System	Brushless DC motor, Direct drive
Acceleration Time	≤ 15 sec (at Max. speed)
Braking Time	≤ 15 sec (at Max. speed)
Safety System	Motor Error Detector, Auto Stop when Opening Door Electronic Safety Lid Lock System
Noise Level	≤ 57 dB
Dimension (w × d × h) (mm)	170 × 226 × 183
Weight	2,3 kg
Others	CE Certified
Packing Dimension (w × d × h) (mm)	290 × 240 × 220
Gross Weight	5 kg
Power Consumption	90 W
Power plug type	Hybrid E+F
Power Supply*	AC 230 V, 50 / 60 Hz

* Other Specifications are available upon Customer's Request.

Ordering Information

- DH.WCF00010* Microcentrifuge, **CF-10 Set**, Max.13.500 rpm, including Rotor **CFAR1512**, 230V
- DH.WCF00011* Microcentrifuge, **CF-10 Set**, Max.13.500 rpm, including Rotor **CFAR1512**, 110V
 *12 ea × 0,2 ml Tube Adapters and 12 ea × 0,5 ml Tube Adapters are included
- Spare Accessory**
- DH.WCF00100 Fixed Angle Rotor, **CFAR1512**, 12 × 1,5 / 2,0 ml Tubes
- DH.WCF00200 0,2 ml Tube Adapter-sets, 12 ea Adapter / 1 set, **CFTA1** for **CF-10**
- DH.WCF00300 0,5 ml Tube Adapter-sets, 12 ea Adapter / 1 set, **CFTA2** for **CF-10**

※ You will find matching tubes in our general catalogue on page : 372.



High Performance Microcentrifuge (CF-10)
 with 12 × 1,5 / 2,0ml Tubes Fixed-Angle Rotor (CFAR1512)



- Fixed-Angle Rotor CFAR1512
- Unnecessary Rotor Lid for Running
- 12 × 1,5 / 2,0ml Tubes

High - Performance
Extremely Compact
Unbelievably Quiet Operation
 High-Performance Microcentrifuge