

DYNEO DD-1001F-BF Beer Forcing Test Refrigerated / Heating Circulating Bath

The JULABO Beer Forcing Test Bath in conjunction with a photometer determines the product life of beer before clouding. The simulated aging process is achieved through a programmable temperature profile, which is repeated, until the first clouding develops.

Product features

- Automatic cycles of temperature ramps simulate aging
- Pre-programmed temperature profiles for forcing test
- Program modification possible at any time
- Integrated meter for reproducible time sequence
- Large bath opening with insert for 20 bottles, 0.5 liters each (Racks for other bottle sizes on request)
- Removable Plexiglass® cover
- USB connection
- Removable ventilation grid
- Powerful and infinitely adjustable pressure pump
- Flow rate 27 l/min, pressure 0.7 bar
- Integrated programmer
- Integrated external Pt100 connection
- State-of-the-art control technology for quick and highly precise results
- Large color TFT display, multilingual interface
- Central rotary knob (controller) simplifies operation
- Powerful cooling machines
- Bath cover included with delivery
- Integrated drain makes emptying liquid easy and safe.



Technical data

Available voltage versions		Bath	
Order No.	9 021 709.D	Bath tank	Stainless steel
Available voltage versions:		Bath cover	integrated
9 021 709.04	230V/50-60Hz (UK Plug Type BS1363A)	Usable bath opening cm (W x L / D)	35 x 41 / 30
9 021 709.05	230V/50-60Hz (CH Plug Type SEV 1011)		
9 021 709.33	230V/50-60Hz (Schuko Plug - CEE 7/4 Plug Type F)		
9 021 709.33.chn	230V/50-60Hz (CN Plug)		
Cooling		Other	
Cooling of compressor	1-stage Air	Classification	Classification III (FL)
		Pump function	Pressure Pump
		Pump type	Immersion Pump
Electronics		Dimensions and volumes	
External pt100 sensor connection	integrated	Weight kg	73.7
Integrated programmer	8x60 steps	Barbed fittings inner diameter	8/12 mm
Temperature control	PID2	Dimensions cm (W x L x H)	45 x 64 x 95
Absolute temperature calibration	3 Point Calibration	Filling volume l	42 ... 56
Temperature display	3.5" TFT Display	Pump connections	M16x1 male
Temperature setting	Shaft Encoder		
Electronic Timer hr:min	00:00 ... 99:59		
Temperature values			

Setting the resolution of the temperature display °C	0.01
Working temperature range °C	-38 ... +100
Temperature stability °C	±0.01
Ambient temperature °C	+5 ... +40

Performance values

230V/50-60Hz (UK Plug Type BS1363A)

200V/50Hz							200V/60Hz						
Heating capacity kW							1.5						
Cooling capacity (Ethanol)							Cooling capacity (Ethanol)						
°C	20	10	0	-10	-20	-30	°C	20	10	0	-10	-20	-30
kW	1	0.95	0.85	0.6	0.32	0.12	kW	1	0.95	0.85	0.6	0.32	0.12
Viscosity max. cST							50						
Refrigerant							R449A						
Filling volume g							170						
Global Warming Potential for R449A							1397						
Carbon dioxide equivalent t							0.237						
Pump capacity flow rate l/min							8 ... 27						
Pump capacity flow pressure bar							0.1 ... 0.7						
Power							13 A						
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230V/50-60Hz (CH Plug Type SEV 1011)

200V/50Hz							200V/60Hz						
Heating capacity kW							1.8						
Cooling capacity (Ethanol)							Cooling capacity (Ethanol)						
°C	20	10	0	-10	-20	-30	°C	20	10	0	-10	-20	-30
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Refrigerant							R449A						

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Pump capacity flow pressure bar	0.1 ... 0.7
Power	10 A

230V/50Hz

Heating capacity kW	2
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°C	20	10	0	-10	-20	-30
kW	1	0.95	0.85	0.6	0.32	0.12

Viscosity max. cST	50
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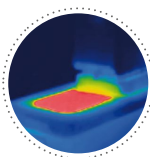
All Benefits



More bath.
Designed for more comfort. Thanks to the recessed cooling coil, the internal bath provides more space.



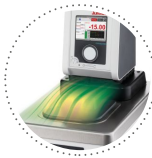
Space saving. Free up space.
Place your JULABO Circulator right next to an application, another unit, or wall. That saves space. This is made possible by eliminating vents and connections on the sides.



Solid.
Minimized energy loss through high-quality insulation.



Tidy.
The special drain tap for easy draining of bath fluids without tools.



Condensation protection.
Superb design solution. Integrated ventilation directs air over the bath lid and minimizes condensation.



100% Checked.
100% testing. 100% quality. Each JULABO Circulator undergoes thorough quality testing before leaving the factory.



Green technology.
Development consistently applied environmentally friendly materials and technologies.



JULABO. Quality.
Highest standards of quality for a long product life.



Quick start.
Individual JULABO consultation and comprehensive manuals at your disposal.



Satisfied customers.
11 subsidiaries and more than 100 partners worldwide guarantee fast and qualified JULABO support.



Services 24/7.
Around the clock availability. You can find suitable accessories, data sheets, manuals, case studies, and more at www.julabo.com.



Handle with ease.
Makes day-to-day work easy. Comfortably move your JULABO Circulator around by using the ergonomic handles (front and rear).



Highly precise
PID Temperature control with drift compensation and adjustable control parameters, temperature stability $\pm 0.01 \dots \pm 0.02$ °C



Wide range.
Refrigerated and heating circulator in various combinations, circulator in various sizes. Maximum flexibility through a large selection of accessories.



Turn. Push. Go.
Easy operation of all parameters using the central controller.



USB.
Remote control made easy using the integrated USB interface.



RS232.
Connection using the optional RS232 interface.



Process stability.
Early warning - visual and acoustic - of critical states increases process stability.



ATC3. Calibration.
'Absolute Temperature Calibration' for compensating a physically caused temperature difference, 3-point calibration.



Connection. Easy.
Inclined pump connections (M16x1) facilitate the connection of applications. Each unit includes 2 barbed fittings of 8/12 mm diameter each.



100 % Cooling capacity
'Active Cooling Control' for cooling available throughout the entire working temperature range, fast cool-down even at higher temperatures



Brilliance. In color.
Large color display with vivid luminance is easy to read, even from a large distance.



Information. Everything clear.
Information in plain text on a large color screen.



Multi-lingual.
Operation in multiple languages.



Programmer. Integrated.

The integrated internal programmer makes it possible to automatically run temperature time profiles.



Powerful. Adjustable.

Strong pressure pump, continuously adjustable.



Temperature. Under control.

External Pt100 sensor connection for precise measurement and control directly in the external application.



Fill level. Monitored.

Fill level indicator on the display for heat-transfer liquid.



Process. Under control.

Full regulation of the dynamics control, access to all important control parameters for individual process optimization.



Stable. Mobile.

Rubber feet keep JULABO Circulators standing firm. Larger and more powerful units also have integrated rollers for easy handling.



Analog I/O.

Analog interfaces for integration into process control systems (optional).