

Circulating Fluid Temperature Controller

# Eldro-Chiller

Double Inverter Type

Temperature stability  $\pm 0.1$  °C

- ❖ Circulating fluids types: Fluorinated fluids / Ethylene glycol aqueous solutions / Clean water, Deionized water
- ❖ Temperature range setting: -20 to 90°C / 10 to 60°C / -80 to 200°
- ❖ Temperature stability:  $\pm 0.1$  °C

Eldro-Chiller



Series PWZH



# Series PWZH

## Double inverter Type

### Cooling capacity

Symbol	Cooling capacity	Temperature range setting
F1	10 kW	-20 to 90°C
F2	10 kW	-20 to 90°C
F3	9 kW	10 to 60°C
F4	8 kW	-80 to 200°C

3-phase 200 V AC (50 Hz)  
3-phase 200 to 230 V AC (60 Hz)



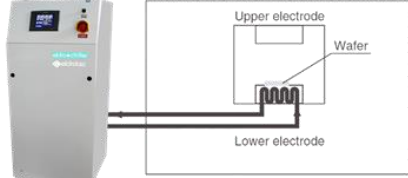
### Specification

Model		PWZH010-F1	PWZH010-F2	PWZH010-F3	PWAZ010-F4	
Cooling method		Water-cooled refrigerator type				
Control system		PID control				
Ambient temperature/humidity		Temperature: 10 to 35°C, Humidity: 30 to 70%RH				
Circulating fluid system	Circulating fluid	Fluorinert GALDEN	Ethylene glycol aqueous solution: 60%	Clean water, Pure water	Silicone Oil / Thermal Transfer Oil	
	Temperature range setting	[°C]	-20 to 90		10 to 60	-80 to 200
	Cooling capacity	[kW]	10 (at 20°C)	10 (at 20°C)	9 (at 20°C)	1 / 2 (at -80°C) / (at - 50°C)
	Heating capacity	[kW]	5 (at 20°C)	4.5 (at 20°C)	2.5 (at 20°C)	3 3 kW Heater
	Temperature stability	[°C]	0.1			
	Pump capacity	[MPa]	Max. 0.72 (at 20 L/min)	Max. 0.40 (at 20 L/min)	Max. 0.38 (at 20 L/min)	Max. 0.12 (at 110 L/min)
	Rated flow	[L/min]	20			110
	Flow range	[L/min]	(With flow control function by inverter)			
	Main tank capacity	[L]	Approx. 15			Approx. 90
	Sub-tank capacity	[L]	Approx. 16			filled as needed
	Port size		Rc 3/4			
Wetted parts material		Stainless steel, EPDM, Copper brazing (Heat exchanger), PPS, Silicon, Fluororesin				
Cooling water	Temperature range	[°C]	10 to 30		10 to 25	10 to 25
	Pressure range	[MPa]	0.3 to 0.7			0.1 to 0.5
	Required flow rate (50/60 Hz)	[L/min]	15/15			from 25
Port size		Rc 1/2				
	Wetted parts material		Stainless steel, EPDM, Copper brazing (Heat exchanger), PPS, Silicon, Brass			
Electrical system	Power supply		3-phase 200 VAC 50 Hz, 3-phase 200 to 208 VAC 60 Hz Allowable voltage fluctuation ±10%			
	Breaker capacity	[A]	30			70
	Rated current	[A]	26	25	25	60
Weight	[kg]	165			From 150	

## Application Examples

### Semiconductor

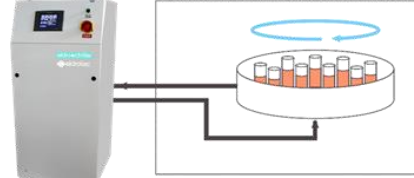
Example: Temperature control of a chamber electrode



- Etching equipment
- Spattering equipment
- Cleaning equipment
- Coating equipment
- Dicing equipment
- Tester, etc.

### Medical

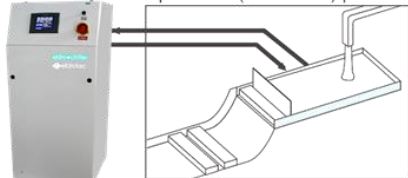
Example: Blood preservation



- X-ray instrument
- MRI
- Blood preservation equipment

### Food

Example: Tofu (Bean curd) production

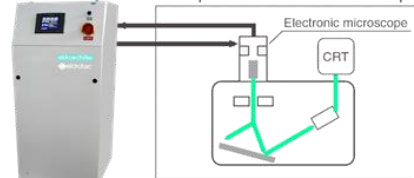


- Bottle-cleaning machine
- Tofu (Bean curd) production equipment
- Noodle-making machine, etc.

Water temperature control for forming tofu by mixing the boiled soybean milk and bittern

### Diagnosis

Example: Electronic microscope

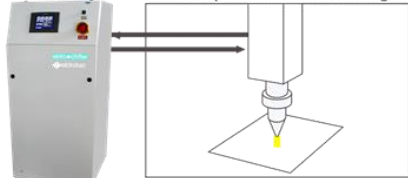


- Electron microscope
- X-ray diagnosis instrument
- Gas chromatography
- Sugar level diagnosis, etc.

Prevents the distortion caused by the heat generated by the electronic gun in an electronic microscope.

### Machine tool

Example: Laser machining

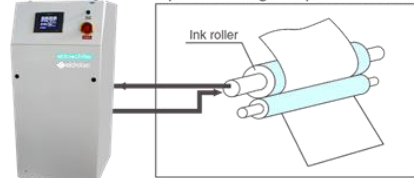


- Wire cutting
- Grinder
- Spot welding, etc.
- Plasma welding
- Laser machining

Temperature-controlling the laser generating tube enables the laser wavelength to be optimised, improving the accuracy of the machined cross sectional area.

### Printing

Example: Printing temperature control

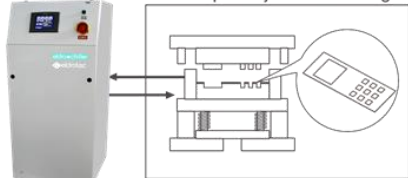


- Offset printing machine
- Automatic developing machine
- UV equipment, etc.

Temperature-controlling the ink roller enables to control the evaporation amount and viscosity of the ink and optimise the tint of colors.

### Molding

Example: Injection molding



- Plastic molding
- Rubber molding
- Wire cable coating machine
- Injection molding, etc.

Temperature-controlling the mold results in improved product quality.



ISO-9001:2015  
ISO-13485:2016  
Comply to AS-9100  
Comply to MIL-STD



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