Economy Constant Temperature Oil Bath

Large capacity

BOA200/310

Temperature control range	RT+10°C~200°C BOA200	RT+10°C~270°C BOA310	Bath capacity	37L

Large capacity 37L oil bath with temperature control of up to 200/270°C

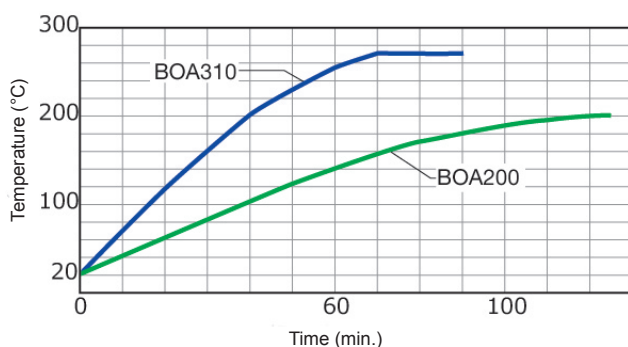
Temperature Rising Curve

■ **Operation and functions**
● High temperature distribution accuracy by adopting jet stirring
● Advanced supportive functions
Standard equipped with external alarm output, temperature output terminal (4~20mA, 1~5V adjustable) RS485 communication function, key lock function, calibration offset function

■ **Safety features**
● 3 overheating preventors (Heater cut off automatically when reaching setting temperature + 6°C, overheating preventor, Individual overheating preventor)
● Standard equipped with emergency stop switch. Forces cut off of the overcurrent circuit in case of emergency
● Float switch for empty boil prevention
● Float switch for oil overflow prevention
● Glass control panel protect from liquid dripping
● Large operation lamp lighting during operation for attention
● Self diagnostic function, overheat prevention device, over current leakage breaker, key lock function, power failure compensation function

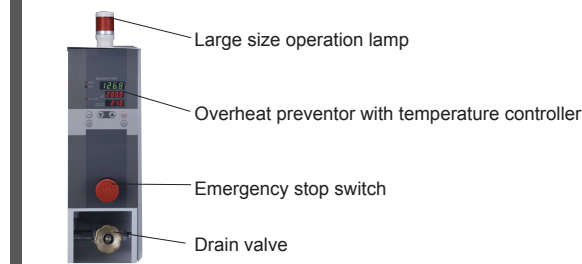Operate with exhaust device such as fume hood

Control Panel

- Large size operation lamp
- Overheat preventor with temperature controller
- Emergency stop switch
- Drain valve

Specifications

Model	BOA200	BOA310
Temp. control range	RT+10~200°C	RT+10~270°C
Temp. adjustment accuracy	±0.1°C	
Temp. distribution accuracy	±0.2°C	±0.3°C
Max. temp. reaching time	120 min.	70 min.
Temp. control	PID control	
Sensor	W sensor: Pt100Ω(Temp. adjuster) + K Thermocouple (Overheat prevention function)	
Operation function	Fixed Operation	
Stirring method	Water Jet Stirring	
Heater	SUS316 Pipe Heater 2kW	SUS316 Pipe Heater 4.5kW
Safety device	Electric leakage breaker for over current protection, Self diagnostic function,Temp. sensor error, Heater error, Automatic overheat prevention function, Overheat preventor, Independent overheat preventor (Fixed 230°C for BOA200, Fixed 300°C for BOA310), Float switch detector for overflow oil, Float switch detector, Emergency stop switch	
Other functions	Drain valve, Large operation lamp, External alarm output terminal, Temp. output terminal (1~5V, 4~20mA adjustable), RS485 communication function, Key lock function, Power failure Protection Function, Calibration Offset Function, External Communication Adapter (optional)	
Oil bath dimensions	W296 x D340 x H270mm	
Bath capacity	37L	
External dimensions	W531 x D520 x H578 (oil bath depth397) mm	
Power source	AC115V 18.5A / AC220V 10A	AC220V 21A
Weight	~37kg	
Accessories	Shelf 1pc., lid 1pc.	

■ **Recommended silicon oil**
Silicone oil is one of the heat transfer media. Please select silicone oil (heat resistant dimethyl silicone oil, viscosity 100mm^2/ s [cSt] or less)

Maker	Toshiba Silicon (or equivalent)	
Product name	TSF458-50	TSF458-100
Recommended temp.	200°C or less	200°C~270°C
Appearance	Pale yellow transparent	Pale yellow transparent
Specific gravity (25°C)	0.961	0.963
Viscosity (25°C)	50mm^2/s (cSt)	100mm^2/s (cSt)
Volatilizatioin (150°C, 24h)	0.3%	0.3%
Viscosity temperature coefficient	0.59	0.59
Flash point	325°C	342°C
Pour point	-50°C or less	-50°C or less
Viscosity increase rate (300°C, 168h)	40%	35%

Degradation rate (change in viscosity) of silicone oil is different at different temperatures.
When using TSF485-100 over 200°C, viscosity barely changes, 1000 hours at 250°C and 100 hours at 270°C. Please inquire with silicon oil maker when purchasing.