

## Usage

Besides laboratory-standard glasswares, the usage includes heating, warming, and insulation of special containers such as metal containers, pipes, and reactors.

## Special Features

- **Products installed temperature voltage controller.**  
→ SHMP Series Control Method : Proportional Voltage Control.  
※ Based on the user's need, before using, the temperature should be controlled by using a separate thermometer
- **As the heated part (heated object) is hand-woven using fiber glass,**
- **Fire is prevented by a built-in Thermal protector, which automatically shuts down the product in case the inside temperature exceeds an appropriate temperature.**  
→ The product resumes normal operation when the inside temperature returns to normal.
- **Thermal Insulation uses nontoxic asbestos-free ceramic wool(fiber glass).**  
→ There are two kinds of heated part shape like flask type and beaker type.



TECHNICAL DATA	
<b>Case Construction</b>	Steel, with chemically resistant powder coating
<b>Thermal Insulation</b>	Asbestos-free ceramic wool. (fiber glass)
<b>Heating Element</b>	Ni-chrome wire
<b>Mantle</b>	Woven glass fiber mat
<b>Heating Element Temperature</b>	Up to 450 °C, Maximum
<b>Supply Voltage &amp; Frequency</b>	AC 110 ~ 220V(or 220 ~ 230V), 50/60Hz

Model Capacity(ml)	SHMP-F (Flask Type) Catalog Number	SHMP-B (Beaker Type) Catalog Number	WATTAGE
100	SHMP-F10	SHMP-B10	85
200/250/300	SHMP-F20/25/30	SHMP-B20/25/30	150
500	SHMP-F50	SHMP-B50	230
1,000	SHMP-F100	SHMP-B100	330
2,000	SHMP-F200	SHMP-B200	470
3,000	SHMP-F300	SHMP-B300	570
5,000	SHMP-F500	SHMP-B500	850
10,000	SHMP-F1000	SHMP-B1000	1,400
20,000	SHMP-F2000	SHMP-B2000	1,800



## Combination(Extraction) Mantle

### Usage

- Experiments in the areas of food, environment, textile, chemistry and petroleum.
- This is used in various experiments involving extraction, distillation, circulation, reactors, etc.

### Special Features

- This combination type help you save time and this is also suitable for comparison and analysis tests, as it enables you to successfully make multiple tests simultaneously.
- As the heated part (heated object) is hand-woven using fiber glass.
- Fire is prevented by a built-in Thermal protector, which automatically shuts down the product in case the inside temperature exceeds an appropriate temperature.
- Thermal Insulation uses nontoxic asbestos-free ceramic wool(fiber glass).
- Because the durable body finish is painted with KARUMEL powder material, the surface resists peeling, scratching and staining.

TECHNICAL DATA	
<b>Case Construction</b>	→ Body : Steel, with chemically resistant powder coating → Cover : High-grade stainless steel
<b>Thermal Insulation</b>	Asbestos-free ceramic wool. (fiber glass)
<b>Heating Element</b>	Ni-chrome wire
<b>Mantle</b>	Woven glass fiber mat
<b>Heating Element Temperature</b>	Up to 450 °C, Maximum
<b>Supply Voltage &amp; Frequency</b>	AC 110 ~ 220V(or 220 ~ 230V), 50/60Hz

Model Capacity(ml)	SCMD		SCMS		WATTAGE
	SCMD-3H Catalog Number	SCMD-6H Catalog Number	SCMS-3H Catalog Number	SCMS-6H Catalog Number	
200/250/300	SCMD-F20/25/30-3H	SCMD-F20/25/30-6H	SCMS-F20/25/30-3H	SCMS-F20/25/30-6H	140 Watts x 3 or 6 Holes
500	SCMD-F50-3H	SCMD-F50-6H	SCMS-F50-3H	SCMS-F50-6H	220 Watts x 3 or 6 Holes
1,000	SCMD-F100-3H	SCMD-F100-6H	SCMS-F100-3H	SCMS-F100-6H	300 Watts x 3 or 6 Holes

Our ceaseless R&D and improvements may result in specification changes at any time. Different size, specification and color is always available in accordance with customer's request.

For details on these superior products or any other inquiries, please feel free to contact your local sales representative or you can contact us by e-mail at [contact@shinsaeng.com](mailto:contact@shinsaeng.com)



## Usage

- Besides laboratory-standard glasswares, the usage includes heating, warming, and insulation of special containers such as metal containers, pipes, and reactors.
- At a pilot plant, it can be installed with various shapes on various equipments, and it can also be used with a magnetic stirrer.(SHMC Series)

## Special Features

- This product is a general product that does not have a temperature voltage controller.
- It must be used with a separate temperature controller.

### SHMR Series

- Fire is prevented by a built-in Thermal protector, which automatically shuts down the product in case the inside temperature exceeds an appropriate temperature.
- Because the durable body finish is painted with KARUMEL powder material, the surface resists peeling, scratching and staining.

### SHMC Series

- The external case of products is made of Fiber Glass Cloth, so → they are light, → installation of products is very easy in every different environment.
- There are two kinds of heated part shape like flask type and beaker type.

TECHNICAL DATA	
Case Construction	Steel, with chemically resistant powder coating (SHMR Series) Fiber Glass Cloth. (SHMC Series)
Thermal Insulation	Asbestos-free ceramic wool. (fiber glass)
Heating Element	Ni-chrome wire
Mantle	Woven glass fiber mat
Heating Element Temperature	Up to 450 °C, Maximum
Supply Voltage & Frequency	AC 110 ~ 220V (or 220 ~ 230V), 50/60Hz

Capacity (mL)	Model	SHMC		WATTAGE
		SHMC-F (Flask Type) Catalog Number	SHMC-B (Beaker Type) Catalog Number	
100		SHMC-F10	SHMC-B10	85
200/250/300		SHMC-F20/25/30	SHMC-B20/25/30	150
500		SHMC-F50	SHMC-B50	230
1,000		SHMC-F100	SHMC-B100	330
2,000		SHMC-F200	SHMC-B200	470
3,000		SHMC-F300	SHMC-B300	570
5,000		SHMC-F500	SHMC-B500	850

## Temperature Controller

MODEL NO	CONTROL METHOD	CAPACITY	TEMPERATURE ACCURACY	SUPPLY VOLTAGE & FREQUENCY
STC-E	Proportional voltage control	500. 1000. 1500W	±3%	115V or 230V 50/60Hz
STC-I	Time-proportional bimetal temperature control	2,000 Wattage		
STC-P	Proportional voltage control 4~20 mA Proportional T.P.R	2,500 Wattage	within ±1%	115V or 230V (Multiple) 50/60Hz
STC-D	Thermo Couple : <sup>°</sup> K <sup>m</sup> (CA) Type Digital Display			
STC-DP	Digital P.I.D Thermo Couple : <sup>°</sup> K <sup>m</sup> (CA) Type Digital Display		within ±0.5%	

## Usage

Generally used with other tools to control temperature of SHMR/ SHMC Series, Heating Tapes, Heating Cords of Heating Mantle  
→ The sole use of a temperature controller is not allowed.

## Special Features

### STC-E

- The device that controls the temperature by supplying electricity to the built-in electronic voltage controller and outputting the needed voltage.

### STC-I

- The device for obtaining the required temperature by using a built-in input power supply control device. (bimetal switch : INF)

### STC-P

- The device that controls the temperature by supplying electricity to the built-in electronic voltage controller and outputting the needed voltage.

### STC-D

- Accurate temperature can be obtained, as a proportional control output(4~20mA) type temperature control method is used.

### STC-DP

- The excellent digital temperature controller type with the P.I.D.(Proportional Integral Differential) auto-tuning feature.

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Different size, specification and color is always available in accordance with customer's request.

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