



MS-ES



ES308, ES309



- Stirring mantles for round bottom flask
- Designed with stirring and heating at one body
- Control speed and temperature independently and separately
- Smooth start/stop function
- Max. temperature : 450°C
- Ceramic fiber with strong thermal resistance

Features

- ▶ Stirring mantle of the standard type with temperature and easy to use
- ▶ Consist of magnetic stirrer and heating mantle on one body, control temperature and stirring concurrently, control temperature and stirring independently
- ▶ Heating temperature is controlled by analog temperature controller and controlled effectively from low temperature to high temperature
- ▶ Maintain stirring speed accurately and uniformly by feedback control
- ▶ Smooth acceleration of stirring speed ensures no spillage.
- ▶ "Power On" and "Heater On" and "Stirrer On" indicating lamp
- ▶ Inner mantle part of the heating element consists of soft glass fiber, protected from damage of the flask and excellent contact between the heating element and flask and heating effectiveness is excellent
- ▶ Ceramic fiber with strong thermal-resistance has excellent thermal insulation and double housing design (ES301~ES307) maintains low temperature of the mantle surface for user's safety
- ▶ With thermal resistance and durability bearing at the inner temperature over 450°C, strong aluminum housing and powder coating with corrosion-proof

General Specifications

- ▶ Heating Element Temperature : Up to 450°C max.
- ▶ Temp. Controller : Analog temperature controller (Built-in K type sensor)
- ▶ Speed control : Feedback control
- ▶ Stirring display : Scale(rpm)
- ▶ Stirring speed : 100-1500 rpm
- ▶ Thermal insulation : Ceramic fiber
- ▶ Material
 - Mantle : Powder coated aluminum case,
 - Body : Polypropylene.
- ▶ Support Rod Clamp : For 12.7mm dia. Support rods (with 100ml~5000ml)
- ▶ Support Rod : Stainless steel Ø 12.7×400mm(Option)
- ▶ Power supply : 220V or 110V, 50/60HZ

Model	Capacity	Watts	Dimensions W × D × H(mm)	Internal (height : mm)	Weight (Kg)
ES 301	100ml	80	162×256×149	45	2.1
ES 302	250ml	150	162×256×162	60	2.2
ES 303	500ml	260	192×276×177	75	2.5
ES 304	1000ml	380	214×298×187	85	2.8
ES 305	2000ml	500	248×332×214	115	3.4
ES 306	3000ml	600	274×358×220	125	4.1
ES 307	5000ml	800	316×400×244	145	4.5
ES 308	10000ml	1300	390×470×300		
ES 309	20000ml	2000	460×540×340		



MS-DMSD

- Stirring mantles for round bottom flask
- Designed with stirring and heating at one body
- Accurate temperature control by PID auto-tuning function(Built-in timer)
- Control speed and temperature independently and separately
- Speed display : Digital
- Smooth start/stop function
- Max. temperature : 450°C
- Ceramic fiber with strong thermal resistance

Features

- ▶ Stirring mantle with built-in digital temperature controller
- ▶ Consist of magnetic stirrer and heating mantle on one body, control temperature and stirring concurrently, control temperature and stirring independently
- ▶ By use of the temperature controller with function of the built-in digital PID auto-tuning, control temperature accurately and confirm set temperature and actual temperature at the same time
- ▶ Temperature controller with function of the built-in timer(99hr59min)
- ▶ Maintain stirring speed accurately and uniformly by feedback control
- ▶ Smooth acceleration of stirring speed ensures no spillage.
- ▶ Inner mantle part of the heating element consists of soft glass fiber, protected from damage of the flask and excellent contact between the heating element and flask and heating effectiveness is excellent
- ▶ Ceramic fiber with strong thermal-resistance has excellent thermal insulation and double housing design (DMSD631~DMSD637) maintains low temperature of the mantle surface for user's safety
- ▶ With thermal resistance and durability bearing at the inner temperature over450°C, strong aluminum housing and powder coating with corrosion-proof
- ※ External temperature sensor(Option) for the control of the sample temperature and the precise experiment

General Specifications

- ▶ Heating Element Temperature : Up to 450°C max.
- ▶ Temp. Controller : Digital PID auto-tuning
- ▶ Timer : 99hr 59min
- ▶ Temp. Accuracy : $\pm 1^{\circ}\text{C}$ (on using external sensor)
- ▶ Sensor Probe : k Type
- ▶ Speed Display : Digital display
- ▶ Speed Control : Feedback control
- ▶ Stirring Speed : 100 ~ 1500 rpm
- ▶ Thermal Insulation : Ceramic fiber
- ▶ Material
 - └ Mantle : Powder coated aluminum case,
 - └ Body : Polypropylene.
- ▶ Support rod clamp : For 12.7mm dia. Support rods (with 100ml~5000ml)
- ▶ Support rod : Stainless steel $\varnothing 12.7 \times 400\text{mm}$ (Option)
- ▶ Power supply : 220V or 110V 50/60 Hz

Model	Capacity	Watts	Dimensions W × D × H(mm)	Internal (height : mm)	Weight (Kg)
DMSD 631	100ml	80	162×256×149	45	2.3
DMSD 632	250ml	150	162×256×162	60	2.4
DMSD 633	500ml	260	192×276×177	75	2.7
DMSD 634	1000ml	380	214×298×187	85	3
DMSD 635	2000ml	500	248×332×214	115	3.6
DMSD 636	3000ml	600	274×358×220	125	4.3
DMSD 637	5000ml	800	316×400×244	145	4.7
DMSD 638	10000ml	1300	390×470×300		
DMSD 639	20000ml	2000	460×540×340		

Note : DMSD638, DMSD639 ⇒ Order made



MS-EH



MS-E



- Heating mantles for the round bottom flask
- Max. temperature : 450°C

- Analog temperature controller
- Ceramic fiber with strong thermal resistance

Features

- ▶ Heating mantle of the standard type with built-in temperature controller and easy to use
- ▶ Heating temperature is controlled by analog temperature controller and controlled effectively from low temperature to high temperature.
- ▶ "Power On" and "Heater On" indicating lamp
- ▶ Inner mantle part of the heating element consists of soft glass fiber, protected from damage of the flask and excellent contact between the heating element and flask and heating effectiveness is excellent

- ▶ Ceramic fiber with strong thermal-resistance has excellent thermal insulation and double housing design (E05~E107) maintains low temperature of the mantle surface for user's safety
- ▶ With thermal resistance and durability bearing at the inner temperature over 450°C, strong aluminum housing and powder coating with corrosion-proof
- ▶ CE certified

General Specifications

- ▶ Heating Element Temperature : Up to 450°C max.
- ▶ Temp. Controller : Analog temperature controller (Built-in K type sensor)
- ▶ Thermal Insulation : Ceramic fiber effectiveness is excellent

- ▶ Material
 - └ Mantle : Powder coated aluminum case.
 - └ Body : Polypropylene.
- ▶ Support rod clamp : For 12.7mm dia. Support rod (with 100ml~5000ml)
- ▶ Support rod : stainless steel, Ø12.7 X 400mm(Option)
- ▶ Power supply : 220V or 110V, 50/60HZ

Model	Capacity	Watts	Dimensions W × D × H(mm)	Internal (height : mm)	Weight (Kg)
E 05	50ml	60	162×256×134	45	1.2
E 101	100ml	80	162×256×134	45	1.2
E 102	250ml	150	162×256×147	60	1.3
E 103	500ml	260	192×276×162	75	1.6
E 104	1000ml	380	214×298×172	85	1.9
E 105	2000ml	500	248×332×199	115	2.5
E 106	3000ml	600	274×358×205	125	3.2
E 107	5000ml	800	316×400×229	145	3.6
E 108	10000ml	1300	Ø395×H265		8
E 109	20000ml	2000	Ø460×H290		11.4
EH 108	10000ml	1300	Ø395×H265		7.6
EH 109	20000ml	2000	Ø460×H290		10.6

Note : ▶ EH model is bottom hole type ▶ E108, E109, EH108, EH109 ⇒ Order made



- Heating mantles for the round bottom flask
- Max. temperature : 450°C
- Accurate temperature control by PID auto-tuning function(built-in timer)
- Ceramic fiber with strong thermal resistance

Features

- ▶ Heating mantle of the standard type with built-in temperature controller and easy to use
- ▶ By use of the temperature controller with function of the built-in digital PID auto-tuning, control temperature accurately and confirm set temperature and actual temperature at the same time
- ▶ Temperature controller with function of the built-in timer(99hr59min)
- ▶ Inner mantle part of the heating element consists of soft glass fiber, protected from damage of the flask and excellent contact between the heating element and flask and heating effectiveness is excellent
- ▶ Ceramic fiber with strong thermal-resistance has excellent thermal insulation and double housing design (DM601~DM607) maintains low temperature of the mantle surface for user's safety
- ▶ With thermal resistance and durability bearing at the inner temperature over 450°C, strong aluminum housing and powder coating with corrosion-proof
- ※ External temperature sensor(Option) for the control of the sample temperature and the precise experiment

General Specifications

- ▶ Heating Element Temperature : Up to 450°C max.
- ▶ Temp. Controller : Digital PID auto-tuning
- ▶ Timer : 99hr59min
- ▶ Temp. Accuracy : $\pm 1^{\circ}\text{C}$ (on using external sensor)
- ▶ Sensor : K type
- ▶ Thermal Insulation : Ceramic fiber
- ▶ Material
 - Mantle : Powder coated aluminum case.
 - Body : Polypropylene.
- ▶ Support rod clamp : For 12.7mm dia. Support rod (with 100ml~5000ml)
- ▶ Support rod : Stainless steel, $\varnothing 12.7 \times 400\text{mm}$ (Option)
- ▶ Power supply : 220V or 110V, 50/60HZ

Model	Capacity	Watts	Dimensions W × D × H(mm)	Internal (height : mm)	Weight (Kg)
DM 601	100ml	80	162×256×149	45	1.5
DM 602	250ml	150	162×256×162	60	1.6
DM 603	500ml	260	192×276×177	75	1.9
DM 604	1000ml	380	214×298×187	85	2.2
DM 605	2000ml	500	248×332×214	115	2.8
DM 606	3000ml	600	274×358×220	125	3.5
DM 607	5000ml	800	316×400×244	145	3.9
DM 608	10000ml	1300	390×470×250		
DM 609	20000ml	2000	460×540×290		

Note : DM 608, DM 609 ⇒ Order made



EAM9202-06



EAM9202-03

- Ideal for the regulating experiment of extraction, back flowing, and distillation
- Independent and separate control function
- Max. temperature: 450°C
- Ceramic fiber with strong thermal resistance
- Stainless steel top cover with corrosion-proof

Features

- ▶ Space saving design of the extraction mantle
- ▶ Ideal for the experiment processes for repeated extraction, back flowing, distillation for the fields of foods, fiber, surroundings, petroleum, chemicals
- ▶ Independent and separate temperature control at each different condition
- ▶ Heating temperature is controlled by the electronic energy regulator
- ▶ "Power On" and "Heater On" indicating lamp
- ▶ Inner mantle part of the heating element consists of soft glass fiber, protected from damage of the flask and excellent

contact between the heating element and flask and heating effectiveness is excellent

- ▶ Ceramic fiber with strong thermal-resistance has excellent thermal insulation and double housing design maintains low temperature of the mantle surface for user's safety
- ▶ With thermal resistance and durability bearing at the inner temperature over 450°C, strong metal housing and powder coating with corrosion-proof

※ Glassware is not included.

General Specifications

- ▶ Heating Element Temperature : Up to 450°C max.
- ▶ Temp. Controller : Electronic energy regulator
- ▶ Temp. Display : Scale
- ▶ Thermal Insulation : Ceramic fiber
- ▶ Material : Powder coated metal case

- ▶ Top Surface : Stainless steel
- ▶ Support Rods : Ø 12.7mm dia.(standard)
- ▶ Indicator Lamps : Green—"Power on", Yellow—"Heater on"
- ▶ Power Supply : 220V or 110V 50/60 Hz

Model	Capacity	Watts	Number of positions	Dimensions W×D×H(mm)	Internal (height : mm)	Weight (Kg)
EAM 9201-03	100ml	80W×3	3	450×240×80	45	4.6
EAM 9202-03	250ml	150W×3	3	520×260×95	60	5.8
EAM 9203-03	500ml	260W×3	3	580×280×105	75	6.7
EAM 9204-03	1000ml	380W×3	3	670×310×115	85	7.9
EAM 9201-06	100ml	80W×6	6	950×240×80	45	9.2
EAM 9202-06	250ml	150W×6	6	1040×260×95	60	11.6
EAM 9203-06	500ml	260W×6	6	1150×280×105	75	13.5
EAM 9204-06	1000ml	380W×6	6	1340×310×115	85	15.8



EAMD9402-06



EAMD9402-03

- Independent and separate control function
- Accurate temperature control by PID auto-tuning function
- Max. temperature: 450°C
- Ceramic fiber with strong thermal resistance
- Stainless steel top cover with corrosion-proof

Features

- ▶ Extraction mantle with built-in PID controller
- ▶ Ideal for the experiment processes for repeated extraction, back flowing, distillation for the fields of foods, fiber, surroundings, petroleum, chemicals
- ▶ Independent and separate temperature control at each different condition
- ▶ By use of the temperature controller with function of the built-in digital PID auto-tuning, control temperature accurately and confirm set temperature and actual temperature at the same time
- ▶ Temperature controller with function of the built-in timer(99hr59min)
- ▶ Inner mantle part of the heating element consists of soft glass fiber, protected from damage of the flask and excellent contact between the heating element and flask and heating effectiveness is excellent
- ▶ Ceramic fiber with strong thermal-resistance has excellent thermal insulation and double housing design maintains low temperature of the mantle surface for user's safety
- ▶ With thermal resistance and durability bearing at the inner temperature over 450°C, strong metal housing and powder coating with corrosion-proof
- ※ External temperature sensor(Option) for the control of the sample temperature and the precise experiment
- ※ Glassware is not included

General Specifications

- ▶ Heating Element Temperature : Up to 450°C max.
- ▶ Temp. Controller : Digital PID auto-tuning
- ▶ Temp. Accuracy : $\pm 1^\circ\text{C}$ (on using external sensor)
- ▶ Timer : 99hr 59min
- ▶ Sensor Probe : k Type
- ▶ Thermal Insulation : Ceramic fiber
- ▶ Material : Powder coated metal case
- ▶ Top Surface : Stainless steel
- ▶ Support Rods : $\varnothing 12.7\text{mm}$ dia.(standard)
- ▶ Power Supply : 220V or 110V 50/60 Hz

Model	Capacity	Watts	Number of positions	Dimensions W × D × H(mm)	Internal (height : mm)	Weight (Kg)
EAMD 9401-03	100ml	80W × 3	3	470×260×140	45	5.8
EAMD 9402-03	250ml	150W × 3	3	520×280×160	60	7.2
EAMD 9403-03	500ml	260W × 3	3	580×300×175	75	8.5
EAMD 9404-03	1000ml	380W × 3	3	670×330×185	85	10.2
EAMD 9401-06	100ml	80W × 6	6	950×260×140	45	11.7
EAMD 9402-06	250ml	150W × 6	6	1040×280×160	60	14.5
EAMD 9403-06	500ml	260W × 6	6	1150×300×175	75	16.7
EAMD 9404-06	1000ml	380W × 6	6	1340×330×185	85	20