

cooling & stirring needs

Electrothermal For all your heating,



# Mantles

# CMU, EM Series, Digi-Mantles

We have an extensive range of heating mantles, including CMU Electromantles with metal cases and EM Electromantles with polypropylene cases, some models offering optional stirring functionality, catering for various round bottom flask capacities and being able to accommodate funnels. Digi-Mantles offer accurate electronic control of both heating and stirring and their modular inter-changeable design ensures that the same base controller can accept different-sized heating mantles. Our Multi (Extraction) Mantles can heat between 3 and 6 round bottom flasks simultaneously, providing stirring too if desired. Although mainly used for extraction, they can be used as a space-saving apparatus for heating multiple flasks in any laboratory.

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# Electromantle Guide

The Electrothermal series of heating mantles has been specifically designed to provide a comprehensive answer to heating fluids in round bottom flasks in the modern laboratory.

# Polypropylene Case

Electromantle Series	EM	ΕΜΑ	EMV	EMX Spill-proof
Functions	Heating	Heating & Stirring	-	haped for 60° funnels, n & pear shaped flasks
Flask Size (ml)				
10 - 50			•	
50	•	•		
100	•	•		
100 - 250			•	
250	•	•		
500	•	•		
500 - 1000			•	•
1000	•	•		
2000	•	•		
2000 - 5000			•	•
3000	•			
5000	•			
Temperature range	Ambient 1	to 450°C for element		
Max. Stirring Rate	520rpm			
Certfications	CE approv	ved		

# Aluminium Case

Electromantle Series	CMU	CMUT Controlled or Uncontrolled	CMUA	CMUV Controlled or Uncontrolled	Digi-Mantles
Functions	Heating	Heating	Heating & Stirring	Heating (V-shaped for 60° funnels, round bottom & pear-shaped flasks)	Heating & Stirring
Flask Size (ml)					
50	•		•		
100	•		•		
250	•		•		•
250 - 1000		•			
500	•		•		•
1000	•		•		•
2000	•		•		
3000	•		•		
5000	•		•		
10000				•	
12000				•	
20000 - 22000				•	
Temperature range	Ambi	ient to 450°C for element		A	mbient to 450°C
Max. Stirring Rate	2000	rpm		20	00rpm
Certfications	CE ar	nd CSA approved; (for 115	5V only)		

Note: All units have 3 electrical choices, just add suffix X1 to the catalogue number for 115V, X6 for EU Plug 230V Controllers: For remote energy control use MC242, for remote temperature use MC810B



# Metal Electromantles

# **CMU** Series

The Electrothermal series of heating mantles has been specifically designed to provide a comprehensive answer to heating fluids in round bottom flasks in the modern laboratory.

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# CMU

# **Uncontrolled Mantles**

CMU Uncontrolled Electromantles are used in wet chemistry to heat liquids in round bottom flasks. The metal case is designed to remain "cool-to-the-touch" when in operation. Electrothermal heating mantles have a grounded stainless steel earth screen covering the element and are double fused for added safety. The CMU Electromantles are CE and CSA approved for 115V models.

#### **Technical Specification**

Material A Max Element Temperature 45

Aluminum powder-coated case 450°C

#### 50ml - 250ml Ordering Information

Shipping Weight, kg	, mm	0.75
Model	Capacity	Electrical Requirements
CMU0050/E	50ml	230V 50/60Hz, 75W
CMU0050/EX1	50ml	115V 50/60Hz, 75W
CMU0050/EX6*	50ml	230V 50/60Hz, 75W
CMU0100/E	100ml	230V 50/60Hz, 100W
CMU0100/EX1	100ml	115V 50/60Hz, 100W
CMU0100/EX6*	100ml	230V 50/60Hz, 100W
CMU0250/E	250ml	230V 50/60Hz, 200W
CMU0250/EX1	250ml	115V 50/60Hz, 200W
CMU0250/EX6*	250ml	230V 50/60Hz, 200W

#### 500ml - 1000ml Ordering Information

Dimensions (d x w x h), Shipping Weight, kg	mm	220 x 220 x 170 1.5	
Model	Capacity	Electrical Requirements	l
CMU0500/E	500ml	230V 50/60Hz, 280W	
CMU0500/EX1	500ml	115V 50/60Hz, 280W	
CMU0500/EX6*	500ml	230V 50/60Hz, 280W	
CMU1000/E	1000ml	230V 50/60Hz 380W	
CMU1000/EX1	1000ml	115V 50/60Hz, 380W	
CMU1000/EX6*	1000ml	230V 50/60Hz, 380W	

\*230V models with X6 suffix come with EU plug fitting

# **Key Features**

- Valuable for fume hood or remote working
- Must be used with a controller; the MC5 & MC242 Controllers are our recommended ones
- Round bottom flask capacity of between 50ml - 5000ml
- "Cool-to-the-touch" design
- Element temperature up to 450°C
- Indicator lamps for power and heater operation
- Replaceable insulated heater cartridge
- An easy to clean, powder coated aluminium outer casing
- Non-skid feet and support rod clamps (not including support rod)
- Added safety features such as a grounded earth screen and double fuses
- CSA approved for 115V models



CMU Uncontrolled Mantle





MC5 Controller

# Uncontrolled Mantles

# 2000ml - 5000ml Ordering Information

Dimensions (d x w x h), mm Shipping Weight, kg		320 x 320 x 220 2.75
Model	Capacity	Electrical Requirements
CMU2000/E	2000ml	230V 50/60Hz, 500W
CMU2000/EX1	2000ml	115V 50/60Hz, 500W
CMU2000/EX6*	2000ml	230V 50/60HZ, 500W
CMU3000/E	3000ml	230V 50/60Hz, 500W
CMU3000/EX1	3000ml	115V 50/60Hz, 500W
CMU3000/EX6*	3000ml	230V 50/60HZ, 500W
CMU5000/E	5000ml	230V 50/60Hz, 800W
CMU5000/EX1	5000ml	115V 50/60Hz, 800W
CMU5000/EX6*	5000ml	230V 50/60Hz, 800W

# MC5

CMU

# Controller

Uncontrolled CMU Electromantles are designed for use with the MC5 Controller. This may be valuable when remote working is preferred, for example when experiments are being conducted in fume hoods.

# Ordering Information

Model	Electrical Requirement
MC5	230V, 50/60Hz, 800W
MC5X1	115V, 50/60Hz, 460W
MC5X6*	230V, 50/60Hz, 800W

#### \*Comes with EU Plug fitting

Electrothermal Catalogue

# CMU

CMU0250/CE

CMU0250/CEX1

CMU0250/CEX6

# **Controlled Mantles**

Electrothermal's metal-cased CMU Electromantles are the culmination of years of experience and continuous design improvement. These well-established products are used throughout many industries for a huge variety of applications. Today, we can confidently guarantee to give you quality products whose reliability and safety continue to make them market leaders.

# 50ml - 250ml Ordering Information

Dimensions (d x w x h), mm Shipping Weight, kg		175 x 175 x 150 0.75
Model	Capacity	Electrical Requirements
CMU0050/CE	50ml	230V 50/60Hz, 75W
CMU0050/CEX1	50ml	115V 50/60Hz, 75W
CMU0050/CEX6	50ml	230V 50/60Hz, 75W, EU Plug
CMU0100/CE	100ml	230V 50/60Hz, 100W
CMU0100/CEX1	100ml	115V 50/60Hz, 100W
CMU0100/CEX6	100ml	230V 50/60Hz, 100W, EU Plug

# **Key Features**

- Round bottom flask capacity of between 50ml - 5000ml
- "Cool-to-the-touch" design
- Element temperature up to 450°C
- Built-in energy regulator
- Indicator lamps for power and heater operation
- Replaceable insulated heater cartridge
- An easy to clean, powder coated aluminium outer casing
- Non-skid feet and support rod clamps (not including support rod)
- Added safety features such as a grounded earth screen and double fuses
- CSA approved for 115V models

#### CMU Controlled Mantles

# 230V 50/60Hz, 200W 115V 50/60Hz, 200W 230V 50/60Hz, 200W, EU Plug rmation 220 x 220 x 170 1.5 Electrical Requirements 230V 50/60Hz, 280W 115V 50/60Hz, 280W

# 500ml - 1000ml Ordering Information

250ml

250ml

250ml

Dimensions (d x w x h), mm Shipping Weight, kg		220 x 220 x 170 1.5
Model	Capacity	Electrical Requirements
CMU0500/CE	500ml	230V 50/60Hz, 280W
CMU0500/CEX1	500ml	115V 50/60Hz, 280W
CMU0500/CEX6	500ml	230V 50/60Hz, 280W, EU Plug
CMU1000/CE	1000ml	230V 50/60Hz 380W
CMU1000/CEX1	1000ml	115V 50/60Hz, 380W
CMU1000/CEX6	1000ml	230V 50/60Hz, 380W, EU Plug

# 2000ml - 5000ml Ordering Information

	Dimensions (d x w x h), Shipping Weight, kg	mm	320 x 320 x 220 2.75
	Model	Capacity	Electrical Requirements
	CMU2000/CE	2000ml	230V 50/60Hz, 500W
	CMU2000/CEX1	2000ml	115V 50/60Hz, 500W
	CMU2000/CEX6	2000ml	230V 50/60HZ, 500W, EU Plug
	CMU3000/CE	3000ml	230V 50/60Hz, 500W
	CMU3000/CEX1	3000ml	115V 50/60Hz, 500W
	CMU3000/CEX6	3000ml	230V 50/60HZ, 500W, EU Plug
	CMU5000/CE	5000ml	230V 50/60Hz, 800W
	CMU5000/CEX1	5000ml	115V 50/60Hz, 800W
	CMU5000/CEX6	5000ml	230V 50/60Hz, 800W, EU Plug

**Electrothermal Catalogue** 

# **Key Features**

- Multiple volume round bottom flask capacity of between 250ml 1000ml
- "Cool-to-the-touch" design
- Element temperature up to 450°C
- Built-in energy regulator
- Indicator lamps for power and heater operation
- Replaceable insulated heater cartridge
- An easy to clean, powder coated aluminium outer casing
- Non-skid feet and support rod clamps (not including support rod)
- Added safety features such as a grounded earth screen and double fuses
- CSA approved for 115V models

# CMUT

Multiple volume Electromantle



Multiple volume Electromantle

The CMUT Electromantle is a muiltiple volume CMU Electromantle, able to accommodate round bottom flasks of between 250ml to 1000ml capacity. Its key features are otherwise the same as for the CMU Electromantle.

#### Robust and economical

You can rely on CMU Electromantles to be the heating workhorse within your laboratory: They are economical to run, robust and easy to use, and our wide range of products caters for most sizes, making them flexible enough to meet almost all of your laboratory's heating requirements. Larger capacity products have multiple heating elements to ensure a more even and accurate heat transfer and the CMUT Electromantle has 2 separate circuits for this.

# Ordering Information

Dimensions (d x w x h), mm Shipping Weight, kg		220 x 220 x 170 1.5
Model	Capacity	Electrical Requirements
CMUT1000/CE	250- 1000ml	230V 50/50Hz, 300W
CMUT1000/CEX1	250- 1000ml	115V 50/60Hz, 300W
CMUT1000/CEX6*	250- 1000ml	230V, 50/60Hz, 300W
*NOTE: Codes ending wit	th the suffix CEX6 c	ome with EU Plug fitting

# CMUA

# Stirring Electromantles

The CMUA Stirring Electromantle shares all the excellent features of the CMU Electromantle but with the added functionality of magnetic stirring. For convenience and safety, the electric circuitry for stirring is built into the base of the heater, enabling powerful stirring over a wide range of solution volumes and viscosities using a magnetic stir bar.

#### Magnetic Stirring

Stirring operation is simply achieved by placing the correct style and sized magnetic stir bar into the flask, selecting the minimum speed on the stirring dial control and then ramping up slowly to the required speed. The correct style and size of stir bar is determined according to the flask volume and the viscosity of its contents.

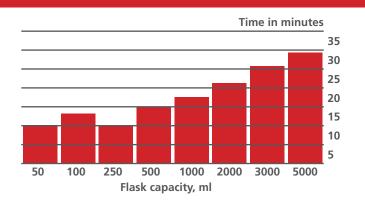
Stir speed is bi-directional and easily adjustable, and as an added feature, there is an auto-recapture switch fitted. Occasionally, the magnetic coupling to the stir bar may be interrupted and the stirring motion may be temporarily lost. Should there be a need to re-activate stirring, this can be quickly remedied by reducing the stir speed and then activating the auto-recapture switch; normal stirring can then be resumed at the desired speed.

#### Time required for boiling

The bar graph illustrates the time required for a half filled flask of water to reach boiling point in each of the flask capacities. For all the boiling tests the ambient temperature was 17°C.

Maximum element temp: Voltage: Wattage:

450°C 115V or 230V AC Nominal wattage of each flask capacity at rated voltage



#### Key Features

- Round bottom flask capacity of between 50ml- 5000ml
- Stirring speed up to 2000rpm
- Auto-recapture of magnetic stir bar; simple switch to re-activate stirring
- "Cool-to-the-touch" design
- Element temperature up to 450°C
- Built-in energy regulator
- Indicator lamps for power and heater operation
- Replaceable insulated heater & stirring cartridge
- An easy to clean, powder coated aluminium outer casing
- Non-skid feet and support rod clamps (not including support rod)
- Added safety features such as a grounded earth screen and double fuses
- CSA approved for 115V models

<u>CMUA</u>



# CMUA

# Stirring Electromantles

# 50ml - 250ml Ordering Information

Dimensions (d x w x h), mm Shipping Weight, kg		175 x 175 x 150 0.75	
Model	Capacity	Electrical Requirements	
CMUA0050/CE	50ml	230V 50/60Hz, 60W	
CMUA0050/CEX1	50ml	115V 50/60Hz, 60W	
CMUA0050/CEX6*	50ml	230V 50/60Hz, 60W	
CMUA0100/CE	100ml	230V 50/60Hz, 75W	
CMUA0100/CEX1	100ml	115V 50/60Hz, 75W	
CMUA0100/CEX6*	100ml	230V 50/60Hz, 75W	
CMUA0250/CE	250ml	230V 50/60Hz, 200W	
CMUA0250/CEX1	250ml	115V 50/60Hz, 200W	
CMUA0250/CEX6*	250ml	230V 50/60Hz, 200W	

# 500ml - 1000ml Ordering Information

Dimensions (d x w x h), mm Shipping Weight, kg

CMUA with Glassware

> 220 x 220 x 170 1.5

Model	Capacity	Electrical Requirements
CMUA0500/CE	500ml	230V 50/60Hz, 280W
CMUA0500/CEX1	500ml	115V 50/60Hz, 280W
CMUA0500/CEX6*	500ml	230V 50/60Hz, 280W
CMUA1000/CE	1000ml	230V 50/60Hz, 380W
CMUA1000/CEX1	1000ml	115V 50/60Hz, 380W
CMUA1000/CEX6*	1000ml	230V 50/60Hz, 380W

# 2000ml - 5000ml Ordering Information

Dimensions (d x w x h), mm Shipping Weight, kg		320 x 320 x 220 2.75
Model	Capacity	Electrical Requirements
CMUA2000/CE	2000ml	230V 50/60Hz, 500W
CMUA2000/CEX1	2000ml	115V 50/60Hz, 500W
CMUA2000/CEX6*	2000ml	230V 50/60Hz, 500W
CMUA3000/CE	3000ml	230V 50/60Hz, 500W
CMUA3000/CEX1	3000ml	115V 50/60Hz, 500W
CMUA3000/CEX6*	3000ml	230V 50/60Hz, 500W
CMUA5000/CE	5000ml	230V 50/60Hz, 800W
CMUA5000/CEX1	5000ml	115V 50/60Hz, 800W
CMUA5000/CEX6*	5000ml	230V 50/60Hz, 800W

\*NOTE: Codes ending with the suffix CEX6 come with EU Plug fitting

# CMUV

# Stirring Electromantles

The CMUV Electromantles deliver the benefits of the CMU Electromantle, but do so for very large 60° funnels, as well as pear-shaped and round bottom flasks. This is achieved through a "V-shaped" design for the heating mantle, with funnels being accommodated through a bottom opening in the Electromantle base.

# 10-12 Litre Controlled CMUV Ordering Information

Dimensions (d x w x h), mm Shipping Weight, kg		485 x 485 x 300 6
Model	Capacity	Electrical Requirements
CMUV10/CL	10L	230V 50/60Hz, 2000W
CMUV10/CLX1	10L	115V 50/60Hz, 2000W
CMUV10/CLX6*	10L	230V 50/60Hz, 2000W
CMUV12/CL	12L	230V 50/60Hz, 2000W
CMUV12/CLX1	12L	115V 50/60Hz, 2000W
CMUV12/CLX6*	12L	230V 50/60Hz, 2000W

# 20-22 Litre Controlled CMUV Ordering Information

Dimensions (d x w x h), mm Shipping Weight, kg		485 x 485 x 300 8.5
Model	Capacity	Electrical Requirements
CMUV22/CL	20 to 22L	230V 50/60Hz, 3000W
CMUV22/CLX1	20 to 22L	115V 50/60Hz, 3000W
CMUV22/CLX6*	20 to 22L	230V 50/60Hz, 3000W

# 10-12 Litre Uncontrolled CMUV Ordering Information

Dimensions (d x w x h), mm Shipping Weight, kg		485 x 485 x 300 6	
Model	Capacity	Electrical Requirements	
CMUV10/L	10L	230V 50/60Hz, 2000W	
CMUV10/LX1	10L	115V 50/60Hz, 2000W	
CMUV10/LX6*	10L	230V 50/60Hz, 2000W	
CMUV12/L	12L	230V 50/60Hz, 2000W	
CMUV12/LX1	12L	115V 50/60Hz, 2000W	
CMUV12/LX6*	12L	230V 50/60Hz, 2000W	

# 20-22 Litre Uncontrolled CMUV Ordering Information

Dimensions (d x w x h), mm Shipping Weight, kg		485 x 485 x 300 8.5
Model	Capacity	Electrical Requirements
CMUV22/L	20 to 22L	230V 50/60Hz, 3000W
CMUV22/LX1	20 to 22L	115V 50/60Hz, 3000W
CMUV22/LX6* *Add X6 suffix for 230	20 to 22L V with EU plug	230V 50/60Hz, 3000W

# **Key Features**

- Accepts 60° funnels
- Accommodates pear-shaped and round bottom flasks
- Large flask/funnel capacities of between 10 to 22 litres
- Complete control of heating is provided by 3 separate electrical circuits that enable independent top, middle and bottom heating of flasks, each controlled with its own dial switch
- Spill-proof protection against electric shocks via a stainless steel screen between the flask and the heating element
- Available with and without controls
- Controller available for uncontrolled model
- "Cool-to-the-touch" design
- Element temperature up to 450°C
- Indicator lamps for power and heater operation
- Replaceable insulated heater cartridge
- An easy to clean, powder coated aluminium outer casing
- Non-skid feet and 3 support rod clamps (not including support rod)
- Added safety features such as a grounded earth screen and double fuses
- CSA approved for 115V models







# **Digi-Mantles**

# Digital heating and stirring

Digi-Mantles enable a flask of 250ml, 500ml or 1000ml capacity to be heated and stirred through precise electronic control. They have a modular design which allows heating cartridges of different sizes to be interchanged using the same OMCA digital controller as a base, which makes the Digi-Mantles a very cost-effective and space-saving option.

Page 16 OMCA Digi-Mantles

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# OMCA Digi-Mantle

# Digital heating and stirring mantle

Digi-Mantles enable a flask of 250ml, 500ml or 1000ml capacity to be stirred and heated up to an element temperature of 450°C through precise electronic control, giving an accurate measure of temperature and stirring. The modular design allows heating cartridges of different sizes to be interchanged using the same OMCA digital controller as a base, which makes the Digi-Mantles a very cost-effective option.

#### Heater Cartridge

The heater cartridge ensures that the temperature is uniformly distributed across the flask. Even with the element temperature at 450°C, the outside of the heater cartridge remains "cool-to-the-touch" due to a continuous air flow through ventilation slots beneath and around the rim of the case.

The heating cartridge comes in 3 sizes for heating flasks of 250ml (OMCA0250), 500ml (OMCA0500) and 1000ml (OMCA1000) capacity.

# OMCA Controller

Used to control both temperature and stirring speed independently, the OMCA digital controller has a revolutionary CTC (Capacitance Touch Control) panel, which is both easy to read and use, and you can quickly set the required temperature and stir speed using the up/down arrows. The control panel has separate indicator lights for the power, heater and stirrer functions, along with a 2 x 16 digit display indicating the actual temperature from ambient to 450°C (max element temperature). Stirring speeds from 100 to 2000rpm are obtained by lightly touching the stirrer speed keys.

#### **Temperature** Control

Heating is controlled by a modern state of the art microprocessor, which displays the heat setting as a percentage of the total power. An optional PT100 temperature probe may be used to gauge the temperature of the flask contents more accurately; the temperature probe's heating is controlled via the temperature feedback circuit and the actual temperature is displayed. The temperature probe operates up to 250°C.

# **Key Features**

- Same OMCA controller accommodates different capacity heating cartridges, ie. interchangeable design
- Round bottom flask capacity of between 250ml - 1000ml
- "Cool-to-the-touch" design
- Greater stirring stability and speeds from 100 to 2000rpm
- Controller with display menus and touch pad interface
- Indicator lights for power, stirrer and heater operation
- Support rod clamps



# Digital heating and stirring mantle

#### **Improved Stirring**

The OMCA digital controller and motor arrangement has recently been upgraded to allow for accurate low speed stirring control and higher stirring speeds. Uniform stirring is provided via a motorised rotating magnet assembly positioned to provide maximum flux linkage to rotate the stirrer bars in each reaction vessel.

#### **Techincal Information**

Model	Digi-Mantle 250	Digi-Mantle 500	Digi-Mantle 1000
Catalogue number	OMCA0250*	OMCA0500*	OMCA1000*
Voltage	230V & 115V	230V & 115V	230V & 115V
Flask capacity	250ml	500ml	1000ml
Controlled block temperature	Ambient	Ambient	Ambient
Temperature range	Ambient to 450°C	Ambient to 450°C	Ambient to 450°C
Stir speed range, rpm	100 - 2000	100 - 2000	100 - 2000
Dimensions (d x w x h), mm	300 x 300 x 650	300 x 300 x 650	300 x 300 x 650
Shipping Weight, kg	3.1	3.1	3.1

# Ordering Information

Model	Description
OMCA*	Digi-Mantle digital controller for temperature and stirring
OMCA0250*	Digi-Mantle heating cartridge kit (250ml capacity)
OMCA0500*	Digi-Mantle heating cartridge kit (500ml capacity)
OMCA1000*	Digi-Mantle heating cartridge kit (1000ml capacity)
AZ140940	Temperature probe (thermocouple)
OM0250	Replacement 250ml Digi-Mantle heater cartridge
OM0500	Replacement 500ml Digi-Mantle heater cartridge
OM1000	Replacement 1000ml Digi-Mantle heater cartridge

\*Add suffixes: X1 for 115V; X6 for 230V with EU Plug

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# **EM Electromantles**

# EM, EMA, EMV and EMX Series

The original "Electromantles" revolutionised round bottom flask heating by incorporating a coiled flexible heating element, which ingeniously wraps the heater around the flask to optimise heat transfer. For maximum safety, the flask is held away from direct contact with the heating element via a grounded earth screen.

This design principle has stood the test of time and has been imitated the world over. With many years of experience, Electrothermal remains at the forefront of laboratory heating and its associated controlling technology.

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# **EM** Series

# Heating Electromantle

The EM Electromantle series features a durable, chemically resistant, polypropylene outer housing that minimises damage from spills. They allow maximum heat transfer with minimum risk for flask breakage.

#### Robust and economical

Designed with simplicity, flexibility and ease of use, the EM series Electromantle is designed to be the workhorse for your heating applications. All EMs have a built-in energy regulator with indicator lamps for power and heater operation. All mantles have support rod clamps as an integral feature and incorporate a grounded earth screen and double fuses for added safety. Larger capacity products have multiple heating elements, enabling a more even and directed transfer of heat.

#### 50ml - 250ml Ordering Information

Dimensions (d x w x h), mm260 x 175 x 127Shipping Weight, kg0.78

Model	Capacity	Electrical Requirements
EM0050/CE	50ml	230V 50/60Hz, 60W
EM0050/CEX1	50ml	115V 50/60Hz, 70W
EM0050/CEX6*	50ml	230V 50/60Hz, 60W
EM0100/CE	100ml	230V 50/60Hz, 60W
EM0100/CEX1	100ml	115V 50/60Hz, 70W
EM0100/CEX6*	100ml	230V 50/60Hz, 60W
EM0250/CE	250ml	230V 50/60Hz, 150W
EM0250/CEX1	250ml	115V 50/60Hz, 150W
EM0250/CEX6*	250ml	230V 50/60Hz, 150W

# 500ml - 1000ml Ordering Information

Dimensions (d x w x h),mm Shipping Weight, kg		,mm	310 x 238 x 145 1.25
	Model	Capacity	Electrical Requirements
	EM0500/CE	500ml	230V 50/60Hz, 200W
	EM0500/CEX1	500ml	115V 50/60Hz, 200W
	EM0500/CEX6*	500ml	230V 50/60Hz, 200W
	EM1000/CE	1000ml	230V 50/60Hz, 300W
	EM1000/CEX1	1000ml	115V 50/60Hz, 300W
	EM1000/CEX6*	1000ml	230V 50/60Hz, 300W

# **Key Features**

- Cool-to-the-touch design
- Max element temperature 450°C
- Built-in energy regulator
- Model EME5000/CE has 2 circuits for upper and lower level heating
- Replaceable insulated heater cartridge
- Indicator lamps for power and heater operation
- A chemically resistant polypropylene outer casing
- A grounded earth screen and double fuses for added safety
- Clamps for 1.3cm diameter support (but not including support rods)



# **EM** Series

# Heating Electromantle

# 2000ml - 5000ml Ordering Information

	Dimensions (d x w x h), mm Shipping Weight, kg		400 x 350 x 190 2.58	
	Model	Capacity	Electrical Requirements	
_	EM2000/CE	2000ml	230V 50/60Hz, 500W	
	EM2000/CEX1	2000ml	115V 50/60Hz, 500W	
	EM2000/CEX6*	2000ml	230V 50/60Hz, 500W	
	EM3000/CE	3000ml	230V 50/60Hz, 500W	
	EM3000/CEX1	3000ml	115V 50/60Hz, 500W	
	EM3000/CEX6*	3000ml	230V 50/60Hz, 500W	
EM Series	EM5000/CE	5000ml	230V 50/60Hz, 800W	
with glassware	EM5000/CEX1	5000ml	115V 50/60Hz, 800W	
	EM5000/CEX6*	5000ml	230V 50/60Hz, 800W	

\*Comes with EU Plug fitting



# **EMA** Series

# Heating and Stirring Electromantle

The EMA Electromantle shares all the standard features of the standard EM but has the added functionality of magnetic stirring. The solid state stirring circuitry is built into the base of the main housing and provides powerful stirring over a range of capacities and viscosities. The stir speed is easily adjusted and is bi-directional. The stir bar is seldom lost due to our "autorecapture" function.

#### Magnetic Stirring

The EMA stirring Electromantle has the added functionality of solution stirring which widens the range of applications. Stirring operation is simply achieved by placing the correct size bar into the flask, turning the stir control to the minimum speed and ramping up slowly. If the magnetic coupling to the stir bar is lost for any reason, the speed control should be reduced slightly and the auto-recapture switch can be activiated.

# 50ml - 250ml Ordering Information

Dimensions (d x w x h), mm Shipping Weight, kg		260 x 175 x 133 1.73
Model	Capacity	Electrical Requirements
EMA0050/CEB	50ml	230V 50/60Hz, 80W
EMA0050/CEBX1	50ml	115V 50/60Hz, 96W
EMA0050/CEBX6*	50ml	230V 50/60Hz, 80W
EMA0100/CEB	100ml	230V 50/60Hz, 80W
EMA0100/CEBX1	100ml	115V 50/60Hz, 96W
EMA0100/CEBX6*	100ml	230V 50/60Hz, 80W
EMA0250/CEB	250ml	230V 50/60Hz, 170W
EMA0250/CEBX1	250ml	115V 50/60Hz, 210W
EMA0250/CEBX6*	250ml	230V 50/60Hz, 170W

# 500ml - 1000ml Ordering Information

Dimensions (d x w x h), mm Shipping Weight, kg		mm	310 x 238 x 157 2.75
	Model	Capacity	Electrical Requirements
	EMA0500/CEB	500ml	230V 50/60Hz, 220W
	EMA0500/CEBX1	500ml	115V 50/60Hz, 270W
	EMA0500/CEBX6*	500ml	230V 50/60Hz, 220W
	EMA1000/CEB	1000ml	230V 50/60Hz, 320W
	EMA1000/CEBX1	1000ml	115V 50/60Hz, 400W
	EMA1000/CEBX6*	1000ml	230V 50/60Hz, 320W

#### 2000ml Ordering Information

Dimensions (d x w x h Shipping Weight, kg	), mm	400 x 350 x 197 5.68	
Model	Capacity	Electrical Requirements	
EMA2000/CEB	2000ml	230V 50/60Hz, 520W	
EMA2000/CEBX1	2000ml	115V 50/60Hz, 670W	
EMA2000/CEBX6*	2000ml	230V 50/60Hz, 520W	

**Electrothermal Catalogue** 

# **Key Features**

- Accepts flasks from 50ml to 2 litre capacity
- Bi-directional stirring speeds up to 520rpm
- Stir bar "auto-recapture" function
- 'Cool-to-the-touch' design
- Element temperature 450°C
- Built-in energy regulator
- Replaceable insulated heater cartridge
- A chemically resistant polypropylene outer casing
- A grounded earth screen and double fuses for added safety
- Clamps for 1.3cm diameter supports (not including support rods)



**EMA** Series

# **Key Features**

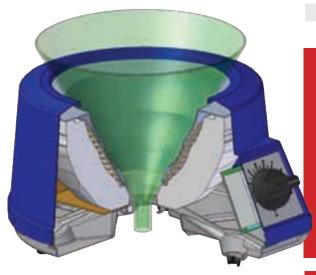
# **EMV** Series

#### Bottom opening accommodates round bottom & pear-shaped flasks and 60° funnels

- Capacity between 10ml to 5 litres
- Coiled heating element, suspended within a thermal insulating cartridge, provides maximum heat transfer and support
- Cool-to-the-touch design
- Max element temperature of 450°C
- Built-in energy regulator
- Replaceable insulated heater cartridge
- Indicator lamps for power and heater operation
- A chemically resistant polypropylene outer casing
- A grounded earth screen and double fuses for added safety
- Clamps for 1.3cm diameter supports (not including support rods)



**EMV** Series



# V-Shaped Electromantle

Spill-proof Mantles and V-Shaped Mantles may accommodate 60° funnels, pear-shaped or round-bottom flasks. They have been designed to accept a large range of flask and funnel sizes for added flexibility.

Stainless steel screen on all EMV models covers the heater element to protect you from shock hazards due to spills or flask breakage.

# 10ml - 50ml Ordering Information

Dimensions (d x w x h), mm Shipping Weight, kg		260 x 175 x 127 0.78	
Model	Capacity	Electrical Requirements	
EMV0050/CE	10 to 50ml	230V 50/60Hz, 60W	
EMV0050/CEX1	10 to 50ml	115V 50/60Hz, 70W	
EMV0050/CEX6*	10 to 50ml	230V 50/60Hz, 60W	
EMV0250/CE	100 to 250ml	230V 50/60Hz, 150W	
EMV0250/CEX1	100 to 250ml	115V 50/60Hz, 150W	
EMV0250/CEX6*	100 to 250ml	230V 50/60Hz, 150W	

#### 500ml - 1000ml Ordering Information

Dimensions (d x w x h Shipping Weight, kg	310 x 238 x 145 2.76	
Model	Capacity	Electrical Requirements
EMV1000/CE	500 to 1000ml	230V 50/60Hz, 300W
EMV1000/CEX1	500 to 1000ml	115V 50/60Hz, 300W
EMV1000/CEX6*	500 to 1000ml	230V 50/60Hz, 300W

# 2000ml - 5000ml Ordering InformationDimensions (d x w x h), mm<br/>Shipping Weight, kg400 x 350 x 190<br/>5.96ModelCapacityElectrical RequirementsEMV5000/CE2000 to 5000ml230V 50/60Hz, 800WEMV5000/CEX12000 to 5000ml115V 50/60Hz, 800W

2000 to 5000ml

#### \*Comes with EU Plug fitting

EMV5000/CEX6\*

230V 50/60Hz, 800W

# **EMX** Series

# Spill-proof Electromantle

Spill-proof Mantles and V-Shaped Mantles may accommodate 60° funnels, pear-shaped or round-bottom flasks. They have been designed to accept a large range of flask and funnel sizes for added flexibility.

A stainless steel liner on all EMX models provides extra electrical and mechanical protection against spills and ensures easy cleaning.

#### 500ml - 1000ml Ordering Information

Dimensions (d x w x Shipping Weight, kg	310 x 238 x 145 2.76	
Model Capacity		Electrical Requirements
EMX1000/SCE	500 to 1000ml	230V 50/60Hz, 245W
EMX1000/SCEX1	500 to 1000ml	115V 50/60Hz, 240W
EMX1000/SCEX6*	500 to 1000ml	230V 50/60Hz, 245W

#### 2000ml - 5000ml Ordering Information

Dimensions (d x w x Shipping Weight, kg	400 x 350 x 190 5.96	
Model	Capacity	Electrical Requirements
EMX5000/SCE	2000 to 5000ml	230V 50/60Hz, 600W
EMX5000/SCEX1	2000 to 5000ml	115V 50/60Hz, 600W
EMX5000/SCEX6*	2000 to 5000ml	230V 50/60Hz, 600W

\*Comes with EU Plug fitting

# **Key Features**

- Bottom opening accommodates round bottom & pear-shaped flasks and 60° funnels
- Capacity between 500ml to 5 litres
- Coiled heating element, suspended within a thermal insulating cartridge, provides maximum heat transfer and support
- Cool-to-the-touch design
- Max element temperature of 450°C
- Built-in energy regulator
- Replaceable insulated heater cartridge
- Indicator lamps for power and heater operation
- A chemically resistant polypropylene outer casing
- A grounded earth liner and double fuses for added safety
- Clamps for 1.3cm diameter supports (not including support rods)



**Electrothermal Catalogue** 



# Multi (Extraction) Mantles

EME 3. EMEA 3, EME 6 and EMEA 6 Series

The EME & EMEA Multi (Extraction) Mantles are designed to heat between 3 & 6 round bottom flasks simultaneously. They are often used for extraction, but may be used wherever heating of multiple flasks is required.

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EME 3 and EMEA 3 Multi (Extraction) Mantles EME 6 and EMEA 6 Multi (Extraction) Mantles

# EME3 and EMEA3 Series

# 3 Recess Multi-Mantles

The Multi-Mantle with three recesses has a built-in electronic controller and offers a choice of heater only (EME3) or heater/ stirrer (EMEA3) combination models. The vented case's unique air flow ensures that the case remains "cool-to-touch".

# For both heater only and heater/stirrer models

- Individual built-in solid state electronic controls enable easy regulation of the heater, while removing sparking associated with mechanical switching
- 3 x 12.7mm diameter support rods are included
- Round bottom flask capacity from 100ml to 1000ml at all 3 positions
- Top cover is polypropylene and external surfaces are powder coated giving good general chemical resistance
- Coiled heating element is suspended within a thermal insulating cartridge to provide maximum heat transfer and support.
- Earth (ground) screen encloses the heater for added safety
- Individual heater cartridges are replaceable
- Neon lamps indicate when power is on and supplied to heaters and supplied to stirrers

# Additionally for heater/stirrer EMEA3 models

- Heater/stirrer model allows the solution to be stirred and heated simultaneously
- Stirrer models provide a choice of stirring speeds of between 50 to 1000rpm
- One stirring control operates each set of three recesses

#### **Technical Specification**

Material

Polypropylene top on powder-coated aluminium 450°C

Max element temperature

EMEA3



**Electrothermal Catalogue** 

# Ordering Information

#### Heater models

Model	No. of Recesses	Flask Capacity	Electrical Requirements	Dimensions (d x w x h), mm	Shipping Weight
EME3 0100/CEB	3	3 x 100ml	230V 50/60Hz, 180W	260 x 630 x 90	6.2kg
EME3 0100/CEBX1	3	3 x 100ml	115V 50/60Hz, 210W	260 x 630 x 90	6.2kg
EME3 0100/CEBX6	3	3 x 100ml	230V 50/60Hz, 180W, EU Plug	260 x 630 x 90	6.2kg
EME3 0250/CEB	3	3 x 250ml	230V 50/60Hz, 450W	260 x 630 x 90	6.2kg
EME3 0250/CEBX1	3	3 x 250ml	115V 50/60Hz, 450W	260 x 630 x 90	6.2kg
EME3 0250/CEBX6	3	3 x 250ml	230V 50/60Hz, 450W, EU Plug	260 x 630 x 90	6.2kg
EME3 0500/CEB	3	3 x 500ml	230V 50/60Hz, 600W	260 x 630 x 90	7.4kg
EME3 0500/CEBX1	3	3 x 500ml	115V 50/60Hz, 600W	260 x 630 x 90	7.4kg
EME3 0500/CEBX6	3	3 x 500ml	230V 50/60Hz, 600W, EU Plug	260 x 630 x 90	7.4kg
EME3 1000/CEB	3	3 x 1000ml	230V 50/60Hz, 900W	260 x 630 x 90	7.4kg
EME3 1000/CEBX1	3	3 x 1000ml	115V 50/60Hz, 900W	260 x 630 x 90	7.4kg
EME3 1000/CEBX6	3	3 x 1000ml	230V 50/60Hz, 900W, EU Plug	260 x 630 x 90	7.4kg

# Ordering Information

#### Heater/Stirrer models

Model	No. of Recesses	Flask Capacity	Electrical Requirements	Dimensions (d x w x h), mm	Shipping Weight
EMEA3 0100/CE	3	3 x 100ml	230V 50/60Hz, 220W	260 x 630 x 90	6.2kg
EMEA3 0100/CEX1	3	3 x 100ml	115V 50/60Hz, 220W	260 x 630 x 90	6.2kg
EMEA3 0100/CEX6	3	3 x 100ml	230V 50/60Hz, 220W, EU Plug	260 x 630 x 90	6.2kg
EMEA3 0250/CE	3	3 x 250ml	230V 50/60Hz, 490W	260 x 630 x 90	6.2kg
EMEA3 0250/CEX1	3	3 x 250ml	115V 50/60Hz, 490W	260 x 630 x 90	6.2kg
EMEA3 0250/CEX6	3	3 x 250ml	230V 50/60Hz, 490W, EU Plug	260 x 630 x 90	6.2kg
EMEA3 0500/CE	3	3 x 500ml	230V 50/60Hz, 640W	260 x 630 x 90	7.4kg
EMEA3 0500/CEX1	3	3 x 500ml	115V 50/60Hz, 640W	260 x 630 x 90	7.4kg
EMEA3 0500/CEX6	3	3 x 500ml	230V 50/60Hz, 640W, EU Plug	260 x 630 x 90	7.4kg
EMEA3 1000/CE	3	3 x 1000ml	230V 50/60Hz, 940W	260 x 630 x 90	7.4kg
EMEA3 1000/CEX1	3	3 x 1000ml	115V 50/60Hz, 940W	260 x 630 x 90	7.4kg
EMEA3 1000/CEX6	3	3 x 1000ml	230V 50/60Hz, 940W, EU Plug	260 x 630 x 90	7.4kg

# EME6 and EMEA6 Series

# 6 Recess Multi-Mantles

The Multi-Mantle with 6 recesses has a built-in electronic controller and offers a choice of heater only (EME6) or heater/ stirrer (EMEA6) combination models.

The vented case's unique air flow ensures that the case remains "cool-to-touch".

# For both heater only & heater/stirrer models

- Individual built-in solid state electronic controls enable easy regulation of heater, while removing sparking associated with mechanical switching
- 3 x 12.7mm diameter support rods are included
- Round bottom flask capacity from 100ml to 1000ml at all 6 positions
- Top cover is polypropylene and external surfaces are powder coated giving good general chemical resisitance
- Coiled heating element is suspended within a thermal insulating cartridge to provide maximum heat transfer and support
- Earth (ground) screen encloses the heater for added safety
- Individual heater cartridges are replaceable
- Neon lights indicate when power is on and supplied to heaters and supplied to stirrers

#### Additionally for heater/stirrer EMEA6 models

- Heater/stirrer model allows the solution to be stirred and heated simultaneously
- Includes a choice of stirring speeds of between 50 to 1000rpm
- One stirring control operates each set of six recesses

#### **Technical Specification**

Material	Polypropylene top on
	powder-coated aluminium
Max element temperature	450°C

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EME6

# Ordering Information

#### Heater models

Model	No. of Recesses	Flask Capacity	Electrical Requirements	Dimensions (d x w x h), mm	Shipping Weight
EME6 0100/CEB	6	6 x 100ml	230V 50/60Hz, 420W	260 x 1200 x 90	10.1kg
EME6 0100/CEBX1	6	6 x 100ml	115V 50/60Hz, 360W	260 x 1200 x 90	10.1kg
EME6 0100/CEBX6	6	6 x 100ml	230V 50/60Hz, 420W, EU Plug	260 x 1200 x 90	10.1kg
EME6 0250/CEB	6	6 x 250ml	230V 50/60Hz, 900W	260 x 1200 x 90	10.1kg
EME6 0250/CEBX1	6	6 x 250ml	115V 50/60Hz, 900W	260 x 1200 x 90	10.1kg
EME6 0250/CEBX6	6	6 x 250ml	230V 50/60Hz, 900W, EU Plug	260 x 1200 x 90	10.1kg
EME6 0500/CEB	6	6 x 500ml	230V 50/60Hz, 1200W	260 x 1200 x 90	12.5kg
EME6 0500/CEBX1	6	6 x 500ml	115V 50/60Hz, 1200W	260 x 1200 x 90	12.5kg
EME6 0500/CEBX6	6	6 x 500ml	230V 50/60Hz, 1200W, EU Plug	260 x 1200 x 90	12.5kg
EME6 1000/CEB	6	6 x 1000ml	230V 50/60Hz, 1800W	260 x 1200 x 90	12.5kg
EME6 1000/CEBX1	6	6 x 1000ml	115V 50/60Hz, 1800W	260 x 1200 x 90	12.5kg
EME6 1000/CEBX6	6	6 x 1000ml	230V 50/60Hz, 1800W, EU Plug	260 x 1200 x 90	12.5kg

# Ordering Information

#### Heater/Stirrer models

Model	No. of Recesses	Flask Capacity	Electrical Requirements	Dimensions (d x w x h), mm	Shipping Weight
EMEA6 0100/CE	6	6 x 100ml	230V 50/60Hz, 500W	260 x 1200 x 90	10.1kg
EMEA6 0100/CEX1	6	6 x 100ml	115V 50/60Hz, 440W	260 x 1200 x 90	10.1kg
EMEA6 0100/CEX6	6	6 x 100ml	230V 50/60Hz, 500W, EU Plug	260 x 1200 x 90	10.1kg
EMEA6 0250/CE	6	6 x 250ml	230V 50/60Hz, 980W	260 x 1200 x 90	10.1kg
EMEA6 0250/CEX1	6	6 x 250ml	115V 50/60Hz, 9800W	260 x 1200 x 90	10.1kg
EMEA6 0250/CEX6	6	6 x 250ml	230V 50/60Hz, 980W, EU Plug	260 x 1200 x 90	10.1kg
EMEA6 0500/CE	6	6 x 500ml	230V 50/60Hz, 1280W	260 x 1200 x 90	12.5kg
EMEA6 0500/CEX1	6	6 x 500ml	115V 50/60Hz, 1280W	260 x 1200 x 90	12.5kg
EMEA6 0500/CEX6	6	6 x 500ml	230V 50/60Hz, 1280W, EU Plug	260 x 1200 x 90	12.5kg
EMEA6 1000/CE	6	6 x 1000ml	230V 50/60Hz, 1880W	260 x 1200 x 90	12.5kg
EMEA6 1000/CEX1	6	6 x 1000ml	115V 50/60Hz, 1880W	260 x 1200 x 90	12.5kg
EMEA6 1000/CEX6	6	6 x 1000ml	230V 50/60Hz, 1880W, EU Plug	260 x 1200 x 90	12.5kg