

# SELECTION GUIDE

## *Heating Mantles*



**OUR SELF-SUPPORTED CLOTH-JACKETED HEATING MANTLE!**



**SPILL-PROOF AND V-SHAPED HEATING MANTLES!**



**ONE MANTLE—THREE SIZES!**



**MULTI-POSITION HEATERS!**

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# Heating Mantles

BASIC (EM)

Electrothermal

EM0500/CEX1



## HOTTEST SELLING COOL CASE HEATING MANTLE!

- — Durable polypropylene housing is chemically resistant
- — Replaceable heating element cartridge
- — Four mantle types are included in this series

## PRODUCT DESCRIPTION

- Vented case creates a unique air flow which allows housing to be safe to the touch when in use.
- Outer housing is constructed of chemical resistant and resilient polypropylene minimizing damage from spillage.
- Element temperature range from ambient to 450°C.
- The coiled heating element is suspended within a thermal insulating cartridge to provide maximum heat transfer and support.
- The flexible heating element ensures minimum risk of flask breakage.
- Heating cartridge can be quickly and simply replaced.
- Five liter mantles have two heating elements (upper and lower); the upper element can be switched on/off.

## STANDARD EM

- Available in eight flask capacities from 50 ml to 5 liters.
- "Heater On" light indicates when power is being supplied to the heater.
- All mantles are double fused for added safety.
- Support rod holder accepts .5" (12.7 mm) diameter support rods.

## GROUNDING (EARTHED) EM

- This series has all the same features as the Basic EM mantles but also incorporates a grounding screen for additional operator safety.
- CE approved.

48 Hour or Sooner  
Express Shipping  
Guaranteed!\*



\*see inside front cover for details

Basic and grounded EM mantles are supplied without controllers and require external temperature controls to prevent damage to the mantle. (Recommended MC242 models.) See controllers section.

Model MC242X1



## CONTROLLED EM

- This series has all the same features as the Basic EM mantles and has a built-in temperature control that regulates element temperatures from ambient to 450°C.
- A clear "Heater On" light indicates when power is being supplied to the heaters.
- Amber colored "Power On" light indicates when the power switch is turned on.

## CONTROLLED AND GROUNDED EM

- Includes all of the features of the Basic EM mantle with the added built-in temperature controller and grounding screen.
- Built-in temperature controller regulates temperatures from ambient to 450°C.
- A clear "Heater On" light indicates when power is being supplied to the heaters.
- Amber colored "Power On" light indicates when the power switch is turned on.
- The stainless steel grounding screen provides added protection against shock should spillage or flask breakage occur.
- CE approved.

# Heating Mantles

BASIC (EM)

Electrothermal

## ORDERING INFORMATION

Model #	Electrical (50/60 Hertz)		Capacity (ml)	Overall Dimensions Inches (cm)			Shipping Weight US List Lb. (kg) Price	
	Volts	Watts		W	H	D	Lb. (kg)	Price
<b>Basic EM</b>								
EM0050	230	60	50	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$207.00
EM0100	230	60	100	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$208.00
EM0250	230	150	250	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$214.00
EM0500	230	200	500	12.2 (31.0)	5.7 (14.5)	9.4 (23.8)	4.1 (1.87)	\$223.00
EM1000	230	300	1000	12.2 (31.0)	5.7 (14.5)	9.4 (23.8)	4.1 (1.87)	\$237.00
EM2000	230	500	2000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$245.00
EM3000	230	500	3000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$285.00
EM5000	230	300+500	5000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$333.00
EM0050X1	115	60	50	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$207.00
EM0100X1	115	60	100	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$208.00
EM0250X1	115	150	250	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$214.00
EM0500X1	115	200	500	12.2 (31.0)	5.7 (14.5)	9.4 (23.8)	4.1 (1.87)	\$223.00
EM1000X1	115	300	1000	12.2 (31.0)	5.7 (14.5)	9.4 (23.8)	4.1 (1.87)	\$237.00
EM2000X1	115	500	2000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$245.00
EM3000X1	115	500	3000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$285.00
EM5000X1	115	300+500	5000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$333.00

### Grounded EM

EM0050/E	230	60	50	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$228.00
EM0100/E	230	60	100	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$229.00
EM0250/E	230	150	250	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$234.00
EM0500/E	230	200	500	12.2 (31.0)	5.7 (14.5)	9.4 (23.8)	4.1 (1.87)	\$244.00
EM1000/E	230	300	1000	12.2 (31.0)	5.7 (14.5)	9.4 (23.8)	4.1 (1.87)	\$257.00
EM2000/E	230	500	2000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$266.00
EM3000/E	230	500	3000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$306.00
EM5000/E	230	300+500	5000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$354.00
EM0050/EX1	115	60	50	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$228.00
EM0100/EX1	115	60	100	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$229.00
EM0250/EX1	115	150	250	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$234.00
EM0500/EX1	115	200	500	12.2 (31.0)	5.7 (14.5)	9.4 (23.8)	4.1 (1.87)	\$244.00
EM1000/EX1	115	300	1000	12.2 (31.0)	5.7 (14.5)	9.4 (23.8)	4.1 (1.87)	\$257.00
EM2000/EX1	115	500	2000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$266.00
EM3000/EX1	115	500	3000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$306.00
EM5000/EX1	115	300+500	5000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$354.00

Model #	Electrical (50/60 Hertz)		Capacity (ml)	Overall Dimensions Inches (cm)			Shipping Weight US List Lb. (kg) Price	
	Volts	Watts		W	H	D	Lb. (kg)	Price
<b>Controlled EM</b>								
EM0050/C	230	60	50	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$257.00
EM0100/C	230	60	100	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$263.00
EM0250/C	230	150	250	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$279.00
EM0500/C	230	200	500	12.2 (31.0)	5.7 (14.5)	9.4 (23.8)	4.1 (1.87)	\$290.00
EM1000/C	230	300	1000	12.2 (31.0)	5.7 (14.5)	9.4 (23.8)	4.1 (1.87)	\$306.00
EM2000/C	230	500	2000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$415.00
EM3000/C	230	500	3000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$432.00
EM5000/C	230	300+500	5000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$465.00
EM0050/CX1	115	60	50	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$257.00
EM0100/CX1	115	60	100	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$263.00
EM0250/CX1	115	150	250	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$279.00
EM0500/CX1	115	200	500	12.2 (31.0)	5.7 (14.5)	9.4 (23.8)	4.1 (1.87)	\$290.00
EM1000/CX1	115	300	1000	12.2 (31.0)	5.7 (14.5)	9.4 (23.8)	4.1 (1.87)	\$306.00
EM2000/CX1	115	500	2000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$415.00
EM3000/CX1	115	500	3000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$432.00
EM5000/CX1	115	300+500	5000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$465.00

### Controlled and Grounded EM

EM0050/CE	230	60	50	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$257.00
EM0100/CE	230	60	100	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$279.00
EM0250/CE	230	150	250	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$295.00
EM0500/CE	230	200	500	12.2 (31.0)	5.7 (14.5)	9.4 (23.8)	4.1 (1.87)	\$317.00
EM1000/CE	230	300	1000	12.2 (31.0)	5.7 (14.5)	9.4 (23.8)	4.1 (1.87)	\$323.00
EM2000/CE	230	500	2000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$426.00
EM3000/CE	230	500	3000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$459.00
EM5000/CE	230	300+500	5000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$481.00
EM0050/CEX1	115	60	50	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$268.00
EM0100/CEX1	115	60	100	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$279.00
EM0250/CEX1	115	150	250	10.2 (25.4)	5 (12.7)	7 (17.5)	2.6 (1.18)	\$295.00
EM0500/CEX1	115	200	500	12.2 (31.0)	5.7 (14.5)	9.4 (23.8)	4.1 (1.87)	\$317.00
EM1000/CEX1	115	300	1000	12.2 (31.0)	5.7 (14.5)	9.4 (23.8)	4.1 (1.87)	\$323.00
EM2000/CEX1	115	500	2000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$426.00
EM3000/CEX1	115	500	3000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$459.00
EM5000/CEX1	115	300+500	5000	15.8 (40.0)	7.5 (19.0)	13.8 (35.0)	8.0 (3.68)	\$481.00

# Heating Mantles

S P I L L - P R O O F ( E M X ) A N D V - S H A P E D ( E M V )

## Electrothermal

EMV5000/CE



### SPILL-PROOF AND V-SHAPED HEATING MANTLE!

- — Durable polypropylene housing is chemically resistant
- — Built-in electronic controller regulates element temperature to 450°C
- — Accept a large range of flasks and funnels sizes

#### PRODUCT SPECIFICATIONS

Model #	Capacity (ml)	W	Overall Dimensions Inches (cm)		Shipping Weight Lb. (kg)
			H	D	
<b>V-shaped</b>					
EMV0050/CEX1	10, 25, 50 (pear), 50 (round)	10.2 (26)	7.1 (18)	5 (12.7)	3.25 (1.5)
EMV0250/CEX1	100, 150, 250	10.2 (26)	7.1 (18)	5 (12.7)	3.25 (1.5)
EMV1000/CEX1	500, 100	12.2 (31)	9.4 (23.8)	5.9 (15)	4 (1.9)
EMV5000/CEX1	2000, 3000, 5000	15.8 (40)	12.8 (32.5)	7.7 (19.5)	9 (4)
EMV0050/CE	10, 25, 50 (pear), 50 (round)	10.2 (26)	7.1 (18)	5 (12.7)	3.25 (1.5)
EMV0250/CE	100, 150, 250	10.2 (26)	7.1 (18)	5 (12.7)	3.25 (1.5)
EMV1000/CE	500, 1000	12.2 (31)	9.4 (23.8)	5.9 (15)	4 (1.9)
EMV5000/CE	2000, 3000, 5000	15.8 (40)	12.8 (32.5)	7.7 (19.5)	9 (4)
<b>Spill-proof</b>					
EMX1000/SCEX1	50 - 1000	12.2 (31)	9.4 (23.8)	5.9 (15)	4 (1.9)
EMX5000/SCEX1	500 - 5000	15.8 (40)	12.8 (32.5)	7.7 (19.5)	9.7 (4.4)
EMX1000/SCE	50 - 1000	12.2 (31)	9.4 (23.8)	5.9 (15)	4 (1.9)
EMX5000/SCE	500 - 5000	15.8 (40)	12.8 (32.5)	7.7 (19.5)	9.7 (4.4)

#### PRODUCT DESCRIPTION

- Unique patented air flow through ventilation slots beneath and around the rim of the case ensure a low, cool temperature.
- Built-in electronic controller regulates heating element up to 450°C.
- Coiled heating element is suspended within a thermal insulating cartridge to provide maximum heat transfer and support.
- Replaceable cartridge is used for the heating element.
- All units, except 50 ml models, are provided with an upper and lower heating element so each mantle can hold multiple size of flasks. Heating element can be turned off or on.
- For maximum operator protection, EMV and EMX models are grounded should spillage or flask breakage occur.

#### ORDERING INFORMATION



Model #	Electrical (50/60 Hertz)		Funnel Sizes (mm)	Bottom Outlet Dia. (mm)	Switched Upper Element	US List Price
	Volts	Watts				
<b>V-shaped</b>						
EMV0050/CEX1	115	72	50, 75, 100	18	No	\$312.00
EMV0250/CEX1	115	120 + 60	75, 100	18	Yes	\$355.00
EMV1000/CEX1	115	240 + 220	100, 150, 200	33	Yes	\$410.00
EMV5000/CEX1	115	600 + 360	200, 250, 300	68	Yes	\$645.00
EMV0050/CE	230	72	50, 75, 100	18	No	\$312.00
EMV0250/CE	230	120 + 60	75, 100	18	Yes	\$355.00
EMV1000/CE	230	240 + 220	100, 150, 200	33	Yes	\$410.00
EMV5000/CE	230	600 + 360	200, 250, 300	68	Yes	\$645.00
<b>Spill-proof</b>						
EMX1000/SCEX1	115	150 + 80	50, 75, 100, 150	24	Yes	\$579.00
EMX5000/SCEX1	115	400 + 200	100, 150, 250, 300	58	Yes	\$858.00
EMX1000/SCE	230	150 + 80	50, 75, 100, 150	24	Yes	\$579.00
EMX5000/SCE	230	400 + 200	100, 150, 250, 300	58	Yes	\$858.00

- EMX units are designed with a built-in stainless steel liner that gives electrical and mechanical protection against spillage and enables easy cleaning.
- The EMV and EMX heating mantles accept a wide range of flasks and funnel sizes for greater flexibility.
- The EMV and EMX mantles have a bottom run-off which enables 60° funnels of various diameters to be heated.
- EMV models are designed with a stainless steel screen covering the heated elements that protects the operator from shock hazards due to spills or flask breakage.
- Includes double fuses and two indicator lights to indicate "Power On" and "Heater On."
- All models include support rod holder.

# Heating Mantles

HEATING AND STIRRING (EMA)

**Electrothermal**

EMA0050/CE



## HEAT AND STIR COOL CASE HEATING MANTLE!

- — Durable polypropylene housing is chemically resistant
- — Built-in electronic controller
- — Designed for stirring and heating of liquid

## PRODUCT DESCRIPTION

- Combines the traditional Electrothermal heating element with easily controlled solid state stirring.
- Outer housing is constructed of chemical resistant and resilient polypropylene minimizing damage from spillage.
- Vented case creates a unique air flow which allows housing to be safe to the touch when in use.
- Grounding screen provides additional safety should spillage or flask breakage occur.
- Heating cartridge can be quickly and easily replaced in the event of failure.
- All mantles are double fused for added safety.
- Stirring is independently controlled with a variable speed control up to 520 rpm.
- Built-in temperature control maintains element temperature range up to 450°C.
- Includes an automatic capture feature to catch the stir-bar to start stirring if stirring is disrupted.
- Stirring can be single or bi-directional. Bi-directional stirring feature reverses direction every 20 seconds.
- Two indicator lights signal "Power On" and "Heater On."

## PRODUCT SPECIFICATIONS

CE

Model #	Capacity (ml)	Overall Dimensions Inches(cm)			Shipping Weight Lb. (kg)
		W	H	D	
EMA0050/CEBX1	50	7 (17.5)	5.9 (14.9)	10.2 (26)	5.1 (2.3)
EMA0100/CEBX1	100	7 (17.5)	5.9 (14.9)	10.2 (26)	5.1 (2.3)
EMA0250/CEBX1	250	7 (17.5)	5.9 (14.9)	10.2 (26)	5.1 (2.3)
EMA0500/CEBX1	500	9.4 (23.8)	5.9 (15.1)	12.2 (31)	7.4 (3.3)
EMA1000/CEBX1	1000	9.4 (23.8)	5.9 (15.1)	12.2 (31)	7.4 (3.3)
EMA2000/CEBX1	2000	13.8 (35)	7.8 (19.7)	15.7 (40)	14.9 (6.8)
EMA0050/CEB	50	7 (17.5)	5.9 (14.9)	10.2 (26)	5.1 (2.3)
EMA0100/CEB	100	7 (17.5)	5.9 (14.9)	10.2 (26)	5.1 (2.3)
EMA0250/CEB	250	7 (17.5)	5.9 (14.9)	10.2 (26)	5.1 (2.3)
EMA0500/CEB	500	9.4 (23.8)	5.9 (15.1)	12.2 (31)	7.4 (3.3)
EMA1000/CEB	1000	9.4 (23.8)	5.9 (15.1)	12.2 (31)	7.4 (3.3)
EMA2000/CEB	2000	13.8 (35)	7.8 (19.7)	15.7 (40)	14.9 (6.8)

## ORDERING INFORMATION

Model #	Volts	Electrical (50/60 Hertz) Watts	Amps	US List Price
EMA0050/CEBX1	115	76	1.25	\$880.00
EMA0100/CEBX1	115	76	1.25	\$901.00
EMA0250/CEBX1	115	190	2.5	\$934.00
EMA0500/CEBX1	115	250	2.5	\$967.00
EMA1000/CEBX1	115	380	6.3	\$994.00
EMA2000/CEBX1	115	575	6.3	\$1054.00
EMA0050/CEB	230	60	0.5	\$880.00
EMA0100/CEB	230	60	0.5	\$901.00
EMA0250/CEB	230	150	1.25	\$934.00
EMA0500/CEB	230	200	1.25	\$967.00
EMA1000/CEB	230	300	2.5	\$994.00
EMA2000/CEB	230	500	2.5	\$1054.00

48 Hour or Sooner  
Express Shipping  
Guaranteed!\*



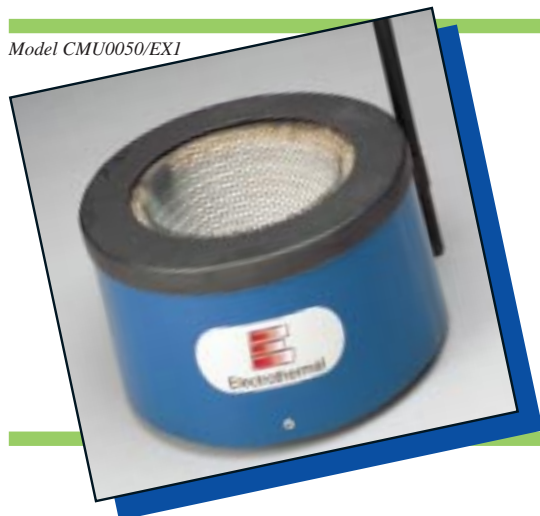
\*see inside front cover for details

# Heating Mantles

METAL CASE UNCONTROLLED (CMU)

**Electrothermal**

Model CMU0050/EX1



## NEWEST - COOLEST INEXPENSIVE METAL CASE HEATING MANTLES!

- — Aluminum housing is tough, chemical resistant, lightweight and easy to clean
- — Replaceable heating cartridges
- — Choice of five different types



## PRODUCT DESCRIPTION

- Element temperature range from ambient to 450°C for all mantles except the high temperature units.
- Flexibility of the coiled heating elements absorbs shock, minimizing the risk of flask breakage.
- Heating element is attached to a rigid thermal insulating cartridge to ensure maximum heat transfer and support.
- Heating elements and insulation form an easily replaceable heating cartridge.
- Unique air flow through ventilation slots beneath and around the rim and heating cartridge keeps the exterior "cool-to-the-touch."
- Stainless steel screen covering the heating element are grounded directly to the cable for added operator safety.
- All mantles are double fused for added safety.
- Self-supporting nonskid feet and support clamps add stability.
- Five different types of CMU mantle provide a full line of metal mantles.
- Controllers are sold separately, (MC242X1, MC242, MC810BX1, MC810B recommended).

## BASIC (CMU)

- Available in twelve sizes from 50 ml to 22 l.

## HIGH TEMPERATURE (CMU)

- Available in two sizes.
- Element temperature range from ambient to 650°C.

## RETORT BOTTOM (CMU)

- Available in eight sizes from 250 ml to 22 l.
- Stand and bench mountable.
- 250-100 ml units supplied with "L" shaped brackets; 2000-3000 ml units supplied with ring supports; 5000-22000 ml units supplied with retort stand.

## V-SHAPED CARTRIDGE (CMU)

- Available in four sizes from 50 ml to 5 l.
- Each mantle can accommodate several flask and funnel sizes.
- Hot filtrations can be conducted using support clamps.

## HEATING-STIRRING (CMU)

- Available in four sizes from 250 to 2000 ml.
- Stirring is independently controlled with a variable speed control up to 520 rpm.

Model MC810BX1



Model MC242X1



Mantles are supplied without controllers and require external temperature controls to prevent damage to the mantle. (Recommended models: MC242, MC242X1, MC810B and MC8100BX1.) See controllers section.

48 Hour or Sooner  
Express Shipping  
Guaranteed!\*



\*see inside front cover for details

# Heating Mantles

METAL CASE (CMU)

Electrothermal

## ORDERING INFORMATION

Model #	Capacity (ml)	Electrical Volts/Watts	Overall Dimensions Inches(cm)			Shipping Weight Lb. (kg)	US List Price
			W	H	D		
<b>Basic CMU</b>							
CMU0050/EX1	150	115 0.65	6.9 (7.5)	4.13 (10.5)	8.86 (22.5)	1.65 (.75)	\$140.00
CMU0050/E	150	230 0.65	6.9 (7.5)	4.13 (10.5)	8.86 (22.5)	1.65 (.75)	\$140.00
CMU0100/EX1	100	115 0.87	6.9 (7.5)	4.13 (10.5)	8.86 (22.5)	1.54 (.7)	\$141.00
CMU0100/E	100	230 0.87	6.9 (7.5)	4.13 (10.5)	8.86 (22.5)	1.54 (.7)	\$141.00
CMU0125/EX1	125	115 0.87	6.9 (7.5)	4.13 (10.5)	8.86 (22.5)	1.54 (.7)	\$141.00
CMU0125/E	125	230 0.87	6.9 (7.5)	4.13 (10.5)	8.86 (22.5)	1.54 (.7)	\$141.00
CMU0200/EX1	200	115 1.75	6.9 (7.5)	4.13 (10.5)	8.86 (22.5)	1.54 (.7)	\$142.00
CMU0200/E	200	230 1.75	6.9 (7.5)	4.13 (10.5)	8.86 (22.5)	1.54 (.7)	\$142.00
CMU0250/EX1	250	115 1.75	6.9 (7.5)	4.13 (10.5)	8.86 (22.5)	1.54 (.7)	\$142.00
CMU0250/E	250	230 1.75	6.9 (7.5)	4.13 (10.5)	8.86 (22.5)	1.54 (.7)	\$142.00
CMU0500/EX1	500	115 2.44	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$155.00
CMU0500/E	500	230 2.44	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$155.00
CMU1000/EX1	1000	115 3.3	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$169.00
CMU1000/E	1000	230 3.3	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$169.00
CMU2000/EX1	2000	115 4.35	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$178.00
CMU2000/E	2000	230 4.35	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$178.00
CMU3000/EX1	3000	115 4.35	12.5 (31.8)	6.3 (16)	14.6 (37)	6 (2.75)	\$218.00
CMU3000/E	3000	230 4.35	12.5 (31.8)	6.3 (16)	14.6 (37)	6 (2.75)	\$218.00
CMU5000/EX1	5000	115 6.96	12.5 (31.8)	6.3 (16)	14.6 (37)	6 (2.75)	\$266.00
CMU5000/E	5000	230 6.96	12.5 (31.8)	6.3 (16)	14.6 (37)	6 (2.75)	\$266.00
CMU12/LX1	12000	115 17.4	19 (48.5)	11 (28)	21 (53.5)	13 (6)	\$487.00
CMU12/L	12000	230 17.4	19 (48.5)	11 (28)	21 (53.5)	13 (6)	\$487.00
CMU22/LX1	22000	115 26	19 (48.5)	11 (28)	21 (53.5)	13 (6)	\$526.00
CMU22/L	22000	230 26	19 (48.5)	11 (28)	21 (53.5)	13 (6)	\$526.00

### High Temperature CMU

CMUH0500/EX1	500	115 4.09	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$219.00
CMUH0500/E	500	230 4.09	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$219.00
CMUH1000/EX1	1000	115 5.22	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$260.00
CMUH1000/E	1000	230 5.22	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$260.00

Model #	Capacity (ml)	Electrical Volts/Watts	Overall Dimensions Inches(cm)			Shipping Weight Lb. (kg)	US List Price
			W	H	D		
<b>Retort Bottom CMU</b>							
CMUR0250/EX1	250	115 1.75	6.9 (7.5)	4.13 (10.5)	8.86 (22.5)	1.65 (.75)	\$142.00
CMUR0250/E	250	230 1.75	6.9 (7.5)	4.13 (10.5)	8.86 (22.5)	1.65 (.75)	\$142.00
CMUR0500/EX1	500	115 2.44	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$158.00
CMUR0500/E	500	230 2.44	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$158.00
CMUR1000/EX1	1000	115 3.31	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$169.00
CMUR1000/E	1000	230 3.31	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$169.00
CMUR2000/EX1	2000	115 4.35	12.5 (31.8)	6.3 (16)	14.6 (37)	6 (2.75)	\$182.00
CMUR2000/E	2000	230 4.35	12.5 (31.8)	6.3 (16)	14.6 (37)	6 (2.75)	\$182.00
CMUR3000/EX1	3000	115 6.96	12.5 (31.8)	6.3 (16)	14.6 (37)	6 (2.75)	\$229.00
CMUR3000/E	3000	230 6.96	12.5 (31.8)	6.3 (16)	14.6 (37)	6 (2.75)	\$229.00
CMUR5000/EX1	5000	115 6.96	12.5 (31.8)	6.3 (16)	14.6 (37)	6 (2.75)	\$273.00
CMUR5000/E	5000	230 6.96	12.5 (31.8)	6.3 (16)	14.6 (37)	6 (2.75)	\$273.00
CMUR12/LX1	12000	115 17.4	19 (48.5)	11 (28)	21 (53.5)	13 (6)	\$496.00
CMUR12/L	12000	230 17.4	19 (48.5)	11 (28)	21 (53.5)	13 (6)	\$496.00
CMUR22/LX1	22000	115 26	19 (48.5)	11 (28)	21 (53.5)	13 (6)	\$522.00
CMUR22/L	22000	230 26	19 (48.5)	11 (28)	21 (53.5)	13 (6)	\$522.00

### Heater—Stirrer CMU

CMUA0250/EX1	250	115 1.75	6.9 (7.5)	4.13 (10.5)	8.86 (22.5)	1.65 (.75)	\$645.00
CMUA0250/E	250	230 1.75	6.9 (7.5)	4.13 (10.5)	8.86 (22.5)	1.65 (.75)	\$645.00
CMUA0500/EX1	500	115 2.44	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$661.00
CMUA0500/E	500	230 2.44	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$661.00
CMUA1000/EX1	1000	115 3.3	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$665.00
CMUA1000/E	1000	230 3.3	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$665.00
CMUA2000/EX1	2000	115 4.35	12.5 (31.8)	6.3 (16)	14.6 (37)	6 (2.75)	\$669.00
CMUA2000/E	2000	230 4.35	12.5 (31.8)	6.3 (16)	14.6 (37)	6 (2.75)	\$669.00

### V-shaped CMU

CMUV0050/EX1	Variable	115 .65	6.9 (7.5)	4.13 (10.5)	8.86 (22.5)	1.65 (.75)	\$204.00
CMUV0050/E	Variable	230 .65	6.9 (7.5)	4.13 (10.5)	8.86 (22.5)	1.65 (.75)	\$204.00
CMUV0250/EX1	Variable	115 1.75	6.9 (7.5)	4.13 (10.5)	8.86 (22.5)	1.65 (.75)	\$205.00
CMUV0250/E	Variable	230 1.75	6.9 (7.5)	4.13 (10.5)	8.86 (22.5)	1.65 (.75)	\$205.00
CMUV1000/EX1	Variable	115 3.3	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$232.00
CMUV1000/E	Variable	230 3.3	9 (23)	4.9 (12.5)	10.8 (27.5)	3.3 (1.5)	\$232.00
CMUV5000/EX1	Variable	115 4.35	12.5 (31.8)	6.3 (16)	14.6 (37)	6 (2.75)	\$325.00
CMUV5000/E	Variable	230 4.35	12.5 (31.8)	6.3 (16)	14.6 (37)	6 (2.75)	\$325.00

# Heating Mantles

METAL CASE (CM)

**Electrothermal**

Model CM0050/CEX1



## TOP OF THE LINE METAL CASE MANTLES!

- — Aluminum housing is PTFE coated and chemical resistant, tough, lightweight and easy to clean
- — Built-in controller regulated element temperature to 450°C
- — Replaceable heating cartridges



## ORDERING INFORMATION

Model #	Capacity ml (L)	Electrical (50/60 Hertz)		Overall Dimensions Inches (cm)		Shipping Weight Lb. (kg)	US List Price
		Volts	Watts W	H	D		
<b>Basic CM</b>							
CM0050/CEX1	50	115	609.25 (23.5)	4.53 (11.5)	13.6 (34.5)	2.64 (1.2)	\$268.00
CM0100/CEX1	100	115	609.25 (23.5)	4.53 (11.5)	13.6 (34.5)	2.64 (1.2)	\$279.00
CM0250/CEX1	250	115	1509.25 (23.5)	4.53 (11.5)	13.6 (34.5)	2.64 (1.2)	\$295.00
CM0500/CEX1	500	115	20011 (28)	5.5 (14)	5.4 (39)	4.4 (2.0)	\$317.00
CM1000/CEX1	1000	115	30011 (28)	5.5 (14)	15.4 (39)	4.4 (2.0)	\$323.00
CM2000/CEX1	2000	115	500 15 (38.5)	7.48 (19)	19.5 (49.5)	8.36 (3.8)	\$426.00
CM3000/CEX1	3000	115	50015 (38.5)	7.48 (19)	19.5 (49.5)	8.36 (3.8)	\$459.00
CM5000/CEX1	5000	115	30015 (38.5) + 500	7.48 (19)	19.5 (49.5)	8.36 (3.8)	\$481.00
CM0050/CE	50	230	609.25 (23.5)	4.53 (11.5)	13.6 (34.5)	2.64 (1.2)	\$268.00
CM0100/CE	100	230	609.25 (23.5)	4.53 (11.5)	13.6 (34.5)	2.64 (1.2)	\$279.00
CM0250/CE	250	230	1509.25 (23.5)	4.53(11.5)	13.6 (34.5)	2.64 (1.2)	\$295.00
CM0500/CE	500	230	20011 (28)	5.5 (14)	15.4 (39)	4.4 (2.0)	\$317.00
CM1000/CE	1000	230	30011 (28)	5.5 (14)	15.4 (39)	4.4 (2.0)	\$323.00
CM2000/CE	2000	230	500 15 (38.5)	7.48 (19)	19.5 (49.5)	8.36 (3.8)	\$426.00
CM3000/CE	3000	230	50015 (38.5)	7.48 (19)	19.5 (49.5)	8.36 (3.8)	\$459.00
CM5000/CE	5000	230	30015 (38.5) + 500	7.48 (19)	19.5 (49.5)	8.36 (3.8)	\$481.00
<b>V-Shaped CM</b>							
CMV12/CLX1 (6)	2-12	115	500 + 500	19.8 (50.5)	24.2 (61.5)	11.2 (28.5)	13.2 \$961.00
CMV12/C (6)	2-12	230	500 + 500	19.8 (50.5)	24.2 (61.5)	11.2 (28.5)	13.2 \$961.00
CMV22/CLX1 (8)	5-22	115	800 + 350	2.5 (63) + 350	29.1 (74)	15.7 (40)	17.6 \$1274.00
CMV22/C (8)	5-22	230	800 + 350	2.5 (63) + 350	29.1 (74)	15.7 (40)	17.6 \$1274.00

\*CMV Models are CE marked

## PRODUCT DESCRIPTION

- Unique air flow through ventilation slots beneath and around the rim and case keeps the exterior safe to touch.
- Flexible coiled heating element provides good heat transfer while absorbing shock minimizing risk of flask breakage.
- Heating element and insulation form an easily replaceable heating cartridge.
- A "Heater On" light indicates when power is being supplied to the heaters while a "Power On" light indicates when the power is on.
- All models are supplied with a support rod holder.

## BASIC CM

- Eight CM series mantles sizes available from 50 to 5000 ml.
- The stainless steel grounding screen provides added protection.

## V-SHAPED CMV

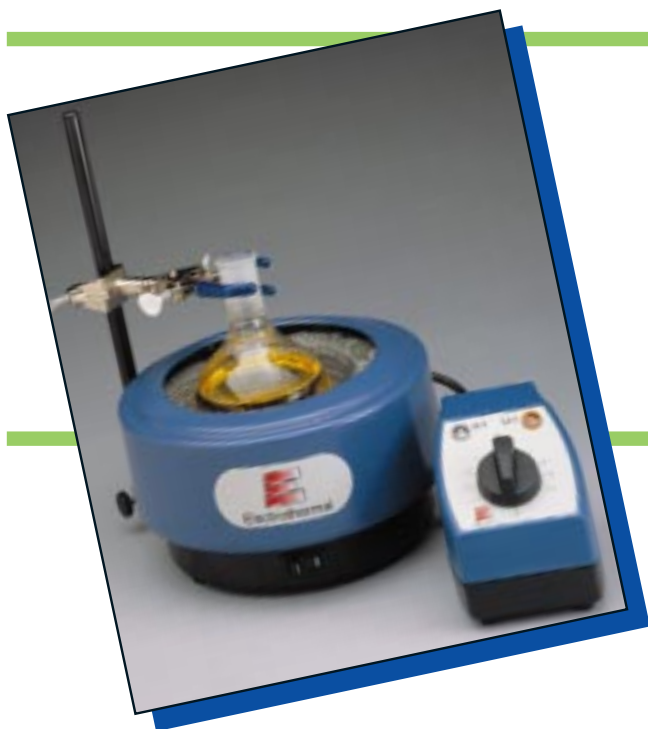
- The CMV are designed to provide versatile heating capabilities for a wide range of larger sized flasks and 60° funnel.
- The heating element is multi-circuit: when smaller vessels are being used the upper heating element can be switched off to avoid wastage and possible damage.
- A 3" diameter hole in the center of the base of the mantle enables a funnel to be heated allowing hot filtrations to occur.
- Funnel is grounded to the mantle, enabling metal vessels to be heated.
- For more rigorous applications where spillage is likely to occur, a stainless steel 60° funnel and an anodized aluminum tray which fits under the mantle are available as accessories.



# Heating Mantles

THREE FLASK SIZES IN ONE MANTLE (CMUT)

**Electrothermal**



## ONE MANTLE—THREE SIZES!

- — Aluminum case is chemically resistant and easy to clean
- — External control allows for fume hood use
- — Three-in-one design accommodates 250, 500 or 1000 ml round bottom flasks



## PRODUCT DESCRIPTION

- Unique patented air flow keeps the heater cartridge cool to the touch.
- Ceramic fiber thermal insulation permits faster heater up while reducing energy consumption.
- Safety ground screen over heating elements protects the operator from shock hazard due to spills or flask breakage.
- One mantle can accommodate 250, 500 or 1000 ml round bottom flask sizes.
- Element temperature range of ambient to 400°C.
- Dual circuit switch control the lower circuit only or the upper and lower circuit together.
- Solid state external power control provides precise manual control of the output range from 3 to 100%.
- Control panel (on the controller) contains two indicator lights: "Power On" and "Heater On."
- An integral ring-stand holder on all models accommodates support stand and clamp.

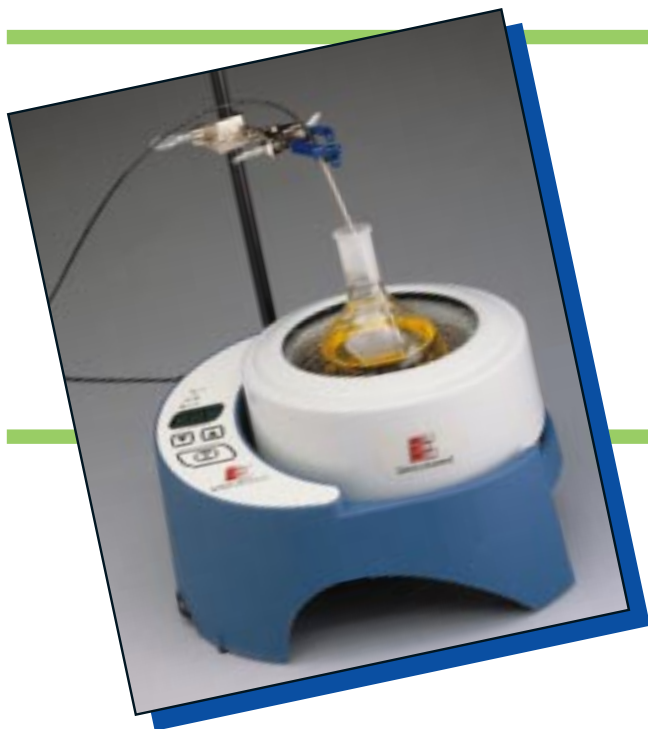
## ORDERING INFORMATION

Model #	Description	Voltage	US List Price
CMUT1000/CEX1	Mantle with Control	115	\$252.00
CMUT1000/CE	Mantle with Control	230	\$252.00
RECMUT/X1	Mantle only	115	\$105.00
RECMUT	Mantle only	230	\$105.00
MC242X1	Control only	115	\$90.00
MC242	Control only	230	\$90.00

# Heating Mantles

MODULAR MANTLE (OM)

Electrothermal



## OUR MODULAR HEATING MANTLE!

- — Constructed to heat fluids in round bottom flasks
- — Modular design accommodates three interchangeable cartridges
- — Probe accessory monitors fluid temperatures



## PRODUCT DESCRIPTION

- Constructed of ABS flame retardant thermoplastic, the main controller and stirrer module case are easy to clean. The heater cartridge case is spun aluminum with polyester paint coating.
- Unique patented air flow keeps the heater cartridge cool to the touch.
- Ceramic fiber thermal insulation permits faster heater up while reducing energy consumption.
- Available as heater only or heater/stirrer model.
- Base unit accommodates your choice of three interchangeable cartridges: 250, 500, or 1000 ml flask sizes.
- Reliable electronic control maintains the stability of the mantle.
- If maintaining a precise solution temperature is important, insert the accessory probe into the mantle to control sample solution temperature.
- Control panel contains three indicator lights: "Power On," "Stirrer On" and "Heater On."
- Element temperature range of ambient to 400°C.
- Three digit display toggles between set temperature and actual temperature  $\pm 1^\circ\text{C}$ .
- Simply touching the stirrer speed knob changes the display to reflect the actual rpm.
- High powered mechanical stirrer regulates stirring from 100-800 rpm.
- Integral ring-stand holder accommodates support stand and clamp.
- Easily adjust set temperature by depressing the up/down arrow keys.

## ORDERING INFORMATION

Model #	Description	Electrical (50/60 Hertz) Volts	Capacity (ml)	US List Price
<b>Choose Heater/Stirrer or Heater only Base Unit and then choose cartridge size</b>				
OMCA	Heater/Stirrer Base Unit	230		\$635.00
OMCAX1	Heater/Stirrer Base Unit	115		\$635.00
OMC	Heater only Base Unit	230		\$450.00
OMCX1	Heater only Base Unit	115		\$450.00
OM0250X1	Heater Cartridge	115	250	\$400.00
OM0250	Heater Cartridge	230	250	\$400.00
OM0500X1	Heater Cartridge	115	500	\$400.00
OM0500	Heater Cartridge	230	500	\$400.00
OM1000X1	Heater Cartridge	115	1000	\$400.00
OM1000	Heater Cartridge	230	1000	\$400.00
<b>Accessories</b>				
OMA	Stirrer option*	230		\$200.00
OMAX1	Stirrer option*	115		\$200.00
AZ140940	Temperature Probe			\$160.00

\* Stirrer option used to upgrade a heater only base unit to a heater/stirrer base unit.

# Heating Mantles

ECONOMICAL UNIMANTLE (UM)

**Electrothermal**

Model UM0050BX1



## INEXPENSIVE HARD CASE MANTLES!

- — Rigid chemical resistant case
- — Non-replaceable heating elements
- — Economical heating mantles

Mantles are supplied without controllers and require external temperature controls to prevent damage to the mantle. See controllers section.

Model MC242X1



## PRODUCT DESCRIPTION

- Maximum element temperature range of 450°C.
- Economical heating mantles are ideal for use in teaching and industrial laboratories.
- Dedicated size mantles available from 50 to 2000 ml.
- Supplied with a support rod clamp, non-slip feet and a 6.5 ft. (2 m) line cord.
- Non-replaceable heating element.

## OPERATION

- Flexible designed heating element ensures efficient heat transfer and fast boiling times.
- Requires external energy regulator. See Model MC242X1, MC242.

## SAFETY

- High efficiency ceramic fiber thermal insulation ensures heat is concentrated on the glassware and the outer case remains stable and cool to the touch.
- Finished in a rigid blue chemical resistant case that reduces damage from accidental spillage.

## ORDERING INFORMATION

Model #	Electrical		Capacity (ml)	Overall Dimensions Inches (cm)		Shipping Weight Lb. (kg)	US List Price
	Volts	Watts		H	D		
UM0050BX1	115	60	50	3 (7.6)	5 (12.6)	1.2 (.5)	\$88.00
UM0100BX1	115	60	100	3.3 (8.4)	5.6 (14.2)	1.3 (.56)	\$96.00
UM0250BX1	115	150	250	3.7 (9.4)	6.3 (16.1)	1.4 (.65)	\$110.00
UM0500BX1	115	200	500	4.4 (11.1)	7.1 (18)	2.3 (1.06)	\$121.00
UM1000BX1	115	300	1000	5.4 (13.8)	8.2 (20.8)	3 (1.3)	\$138.00
UM2000BX1	115	500	2000	6.7 (17.1)	10.3 (26.2)	4.7 (2.14)	\$149.00
UM0050B	230	60	50	3 (7.6)	5 (12.6)	1.2 (.5)	\$80.00
UM0100B	230	60	100	3.3 (8.4)	5.6 (14.2)	1.3 (.56)	\$88.00
UM0250B	230	150	250	3.7 (9.4)	6.3 (16.1)	1.4 (.65)	\$100.00
UM0500B	230	200	500	4.4 (11.1)	7.1 (18)	2.3 (1.06)	\$111.00
UM1000B	230	300	1000	5.4 (13.8)	8.2 (20.8)	3 (1.3)	\$126.00
UM2000B	230	500	2000	6.7 (17.1)	10.3 (26.2)	4.7 (2.14)	\$149.00

# Heating Mantles

FLEXIBLE (MG)

Electrothermal

Model MG7802X1



**SO FLEXIBLE IT CAN BE USED FOR ROUND AND FLAT BOTTOM FLASKS!**

- — Flexible mesh envelopes the contour of your vessel
- — Light weight construction
- — Ideal for flat or round bottom flasks

## PRODUCT DESCRIPTION

- The elastic nature of the heating element allows flat or round bottom flasks and flasks of wide tolerance to be used in the same mantle.
- Unique construction provides complete adherence to your flask and maximum heat transfer with the minimum of heat losses.
- By being “fully enclosed” the MG mantle retains the heat within the whole of the flask ensuring an economical maintenance of temperature.
- Eliminates the need for upper covers while still permitting observation of the contents.
- Lightweight construction.

## OPERATION

- Element temperature range up to 450°C.
- Ideal for suspended applications.

Model MC242X1



Mantles are supplied without controllers and require external temperature controls to prevent damage to the mantle. (Recommended MC242X1 and MC242.) See controllers section.

## ORDERING INFORMATION

Model #	Capacity (ml)	Volts	Electrical Watts	US List Price
MG 7802X1	100	115	60	\$175.00
MG 7803X1	250	115	150	\$186.00
MG 7804X1	500	115	200	\$203.00
MG 7805X1	1000	115	300	\$236.00
MG 7806X1	2000	115	500	\$284.00
MG 7807X1	3000	115	500	\$336.00
MG 7871X1	4000	115	800	\$392.00
MG 7808X1	5000	115	800	\$437.00
MG 7809X1	10000	115	1000	\$541.00
MG 7810X1	12000	115	1000	\$612.00
MG 7811X1	20000	115	1500	\$832.00
MG 7802	100	230	60	\$168.00
MG 7803	250	230	150	\$179.00
MG 7804	500	230	200	\$194.00
MG 7805	1000	230	300	\$245.00
MG 7806	2000	230	500	\$295.00
MG 7807	3000	230	500	\$350.00
MG 7871	4000	230	800	\$392.00
MG 7808	5000	230	800	\$420.00
MG 7809	10000	230	1000	\$541.00
MG 7810	12000	230	1000	\$612.00
MG 7811	20000	230	1500	\$832.00

Mantles are supplied without controllers and require external temperature controls to prevent damage to the mantle.

# Heating Mantles

SOFT-JACKETED (HM)

**Thermolyne**



## OUR SELF-SUPPORTED CLOTH JACKETED HEATING MANTLE!

- — Eight sizes from 50-5000 ml
- — Temperature range to 482°C (900°F)
- — Self supporting

## PRODUCT DESCRIPTION

- Fiberglass-insulated heating jackets specifically designed for heating round-bottomed flasks.
- Available in eight different sizes.
- Size and power capacity to meet any flask heating requirement from 50 ml to 5000 ml. round bottom flask size.
- Unique heating mantle design directs heat to flask contents while the exterior case remains cool enough to rest on the lab bench.

## OPERATION

- Heating elements are located close to the cavity surface for maximum heat transfer.
- Stirring action can be achieved by using Thermolyne Nuova™, Cimarec® and Mirak™ stirrers, Thermolyne Maxi Stirrers.
- Maximum operating temperature, 482°C (900°F).

Type CN45500 Temperature Controller.



Mantles are supplied without controllers and require external temperature controls to prevent damage to the mantle. See controllers section.

## ORDERING INFORMATION

Model #	Electrical (50/60 Hertz) Capacity			Overall Dimensions Inches (cm)			Shipping Weight Lb. (kg)	US List Price
	Volts	Watts	(ml)	W	H	D		
HM0050-VF1	120	52	50	4 (10.2)	2.5 (6.4)	4 (10.2)	0.5 (0.2)	\$110.00
HM0050-VF2	240	52	50	4 (10.2)	2.5 (6.4)	4 (10.2)	0.5 (0.2)	\$125.00
HM0100-VF1	120	70	100	4.6 (11.7)	3 (7.6)	4.6 (11.7)	0.5 (0.2)	\$119.00
HM0100-VF2	240	70	100	4.6 (11.7)	3 (7.6)	4.6 (11.7)	0.5 (0.2)	\$132.00
HM0250-VF1	120	143	250	5.9 (15)	3.5 (8.9)	5.9 (15)	0.8 (0.3)	\$132.00
HM0250-VF2	240	143	250	5.9 (15)	3.5 (8.9)	5.9 (15)	0.8 (0.3)	\$145.00
HM0500-VF1	120	210	500	6.7 (17)	3.8 (9.5)	6.7 (17)	1 (5)	\$147.00
HM0500-VF2	240	210	500	6.7 (17)	3.8 (9.5)	6.7 (17)	1 (5)	\$168.00
HM1000-VF1	120	377	1000	7.3 (18.5)	4 (10.2)	7.3 (18.5)	1.3 (0.6)	\$162.00
HM1000-VF2	240	377	1000	7.3 (18.5)	4 (10.2)	7.3 (18.5)	1.3 (0.6)	\$184.00
HM2000-VF1	120	520	2000	8.3 (21.1)	4.5 (11.4)	8.3 (21.1)	1.8 (0.8)	\$169.00
HM2000-VF2	240	520	2000	8.3 (21.1)	4.5 (11.4)	8.3 (21.1)	.8 (0.8)	\$193.00
HM3000-VF1	120	550	3000	9.64 (24.5)	6 (15.2)	9.64 (24.5)	2 (0.9)	\$226.00
HM3000-VF2	240	550	3000	9.64 (24.5)	6 (15.2)	9.64 (24.5)	2 (0.9)	\$275.00
HM5000-VF1	120	620	5000	10.7 (27.2)	6 (15.2)	10.7 (27.2)	.2 (0.9)	\$241.00
HM5000-VF2	240	620	5000	10.7 (27.2)	6 (15.2)	10.7 (27.2)	2 (0.9)	\$275.00

# Heating Mantles

SOFT-JACKETED (HM)

Electrothermal

Spherical Mantle  
Model HM0500-SS1



## COMPACT ECONOMICAL CLOTH-JACKETED MANTLES!

- — Three types of mantle
- — Temperature range to 482°C
- — Flexible and soft



## PRODUCT DESCRIPTION

### SPHERICAL HM

- Covers top and bottom of the flask for improved efficiency.
- Flexible mantle is constructed of fiberglass cloth exterior.
- The top and bottom can fasten together.
- Temperature range to 482°C.
- Holds single or multiple-neck flask.
- Six models available to fit from 250 to 5000 ml flasks.
- Fits into very small places.

### HEMISPHERICAL BOTTOM HM

- Covers bottom half of the flask so you can see the contents in the top of the flask.
- Flexible mantle is constructed of fiberglass cloth exterior.
- Temperature range to 482°C.
- Eleven models available from 50 to 12000 ml.
- Fits in very small spaces.
- Economically priced.

### HEMISPHERICAL TOP HM

- Flexible mantle is constructed of fiberglass cloth exterior.
- Opening holds single or multiple-neck flask
- Prevents vapor condensation on the interior of the flask.
- Temperature range to 482°C.

Hemispherical Mantle Bottom Model HM0250-HS1



Hemispherical Mantle Top Model HM 0250-TS1



# Heating Mantles

SOFT-JACKETED (HM)

Electrothermal

## ORDERING INFORMATION

Model #	Capacity (ml)	Electrical		Overall Dimensions Inches (cm)		Shipping Weight Lb. (kg)	US List Price
		Volts	Amps Watts	H	D		
<b>Hemispherical Bottoms HM</b>							
HM0050-HS1	50	120	0.50 60	2 (5.1)	4 (10.2)	0.4 (.16)	\$86.00
HM0100-HS1	100	120	0.67 80	2.25 (5.7)	4.5 (11.5)	0.4(.16)	\$93.00
HM0125-HS1	125	120	0.67 80	2.4 (6.1)	4.75 (12.1)	0.4 (.16)	\$98.00
HM0200-HS1	200	120	0.83 100	2.6 (6.5)	5.1 (13)	0.8 (0.3)	\$102.00
HM0250-HS1	250	120	1.50 180	2.7 (6.8)	5.4 (13.7)	0.8 (0.3)	\$108.00
HM0500-HS1	500	120	2.25 270	3.1 (7.7)	6.1 (15.6)	0.8 (0.3)	\$117.00
HM1000-HS1	1000	120	3.2 380	3.75 (9.5)	7.5 (19.1)	1 (0.4)	\$133.00
HM2000-HS1	2000	120	4.2 500	4.2 (10.6)	8.4 (21.3)	1.8 (0.8)	\$145.00
HM3000-HS1	3000	120	4.2 500	4.6 (11.8)	9.3 (23.5)	2 (0.9)	\$163.00
HM5000-HS1	5000	120	5.0 600	5.4 (13.8)	10.9 (27.6)	2 (0.9)	\$190.00
HM12000-HS1	12000	120	10.83 1300	6.8 (17.3)	13.6 (34.6)	3 (1.2)	\$395.00
HM0050-HS2	50	240	0.25 60	2 (5.1)	4 (10.2)	0.4 (.16)	\$86.00
HM0100-HS2	100	230	0.33 80	2.25 (5.7)	4.5 (11.5)	0.4(.16)	\$93.00
HM0125-HS2	125	230	0.33 80	2.4 (6.1)	4.75 (12.1)	0.4 (.16)	\$98.00
HM0200-HS2	200	230	0.42 100	2.6 (6.5)	5.1 (13)	0.8 (0.3)	\$102.00
HM0250-HS2	250	230	0.75 180	2.7 (6.8)	5.4 (13.7)	0.8 (0.3)	\$108.00
HM0500-HS2	500	230	1.13 270	3.1 (7.7)	6.1 (15.6)	0.8 (0.3)	\$117.00
HM1000-HS2	1000	230	1.58 380	3.75 (9.5)	7.5 (19.1)	1 (0.4)	\$133.00
HM2000-HS2	2000	230	2.08 500	4.2 (10.6)	8.4 (21.3)	1.8 (0.8)	\$145.00
HM3000-HS2	3000	230	2.08 500	4.6 (11.8)	9.3 (23.5)	2 (0.9)	\$163.00
HM5000-HS2	5000	230	5.42 1300	5.4 (13.8)	10.9 (27.6)	2 (0.9)	\$190.00
HM12000-HS2	12000	230	5.42 1300	6.8 (17.3)	13.6 (34.6)	3 (1.2)	\$395.00

Model #	Capacity (ml)	Electrical		Overall Dimensions Inches (cm)		Shipping Weight Lb. (kg)	US List Price
		Volts	Amps Watts	H	D		
<b>Hemispherical Tops HM</b>							
HM0250-TS1	250	120	1.17 140	2.7 (6.8)	5.4 (13.7)	0.8 (0.3)	\$125.00
HM0500-TS1	500	120	1.17 140	3.1 (7.7)	6.1 (15.6)	0.8 (0.3)	\$135.00
HM1000-TS1	1000	120	1.17 140	3.75 (9.5)	7.5 (19.1)	1 (0.4)	\$156.00
HM2000-TS1	2000	120	1.67 200	4.2 (10.6)	8.4 (21.3)	1.8 (0.8)	\$169.00
HM3000-TS1	3000	120	1.67 200	4.6 (11.8)	9.25 (23.5)	2 (0.9)	\$179.00
HM5000-TS1	5000	120	2.50 300	5.4 (13.8)	10.9 (27.6)	2 (0.9)	\$224.00
HM0250-TS2	250	230	0.58 140	2.7 (6.8)	5.4 (13.7)	0.8 (0.3)	\$125.00
HM0500-TS2	500	230	0.58 140	3.1 (7.7)	6.1 (15.6)	0.8 (0.3)	\$135.00
HM1000-TS2	1000	230	0.58 140	3.75 (9.5)	7.5 (19.1)	1 (0.4)	\$156.00
HM2000-TS2	2000	230	0.83 200	4.2 (10.6)	8.4 (21.3)	1.8 (0.8)	\$169.00
HM3000-TS2	3000	230	0.83 200	4.6 (11.8)	9.25 (23.5)	2 (0.9)	\$179.00
HM5000-TS2	5000	230	1.25 300	5.4 (13.8)	10.9 (27.6)	2 (0.9)	\$224.00
<b>Spherical HM</b>							
HM0500-SS1	500	120	3.42 410	3.1 (7.8)	12.25 (31.1)	1.6 (0.6)	\$200.00
HM1000-SS1	1000	120	4.33 520	3.75 (9.5)	15 (38.1)	2 (0.8)	\$349.00
HM2000-SS1	2000	120	5.83 700	4.2 (10.6)	16.75 (42.6)	3.6 (1.5)	\$380.00
HM0500-SS2	500	230	1.71 410	3.1 (7.8)	12.25 (31.1)	1.6 (0.6)	\$200.00
HM1000-SS2	1000	230	2.17 520	3.75 (9.5)	15 (38.1)	2 (0.8)	\$349.00
HM2000-SS2	2000	230	2.92 700	4.2 (10.6)	16.75 (42.6)	3.6 (1.5)	\$380.00

Model MC242X6



Mantles are supplied without controllers and require external temperature controls to prevent damage to the mantle. See controllers section.

Model CN45500



# Heating Mantles

## ELECTROMANTLE EXTRACTION HEATERS

### Electrothermal

EME3 0100/CE



#### MULTI-POSITION HEATERS!

- — Choice of three or six recesses
- — Built-in electronic controller
- — Choice of heater only or heater/stirrer combination
- — Vented case ensures case remains "cool to the touch"

### PRODUCT DESCRIPTION

- Individual built-in solid state electronic controls enable easy regulation of each heater, while removing sparking associated with mechanical switching.
- Units include three 0.5" (12.7mm) diameter support rods.
- External surfaces are PTFE-coated and resistant to most chemical solutions.
- The robust construction permits continuous operation of the units as required by routine extraction tests.
- EMEA models incorporate a stirring module that allows the solution to be stirred and heated at the same time.
- EMEA stirrer models include one stirring control for each set of three recesses.
- Element temperature range to 450°C.
- Stirrer models include a stirring speed range of 50 - 1000 rpm.
- The coiled heating element is suspended within a thermal insulating cartridge to provide maximum heat transfer and support while removing sparking associated with mechanical switching.
- Heater cartridge can readily be replaced when necessary.
- For additional operator protection a safety earth (ground) screen encloses the heaters.
- Unique air flow ensures unit is safe to the touch.
- Pilot lights indicate when power is on, supplied to heaters and supplied to stirrers.

### ORDERING INFORMATION

Model #	Capacity (ml)	No. of Recesses	Electrical (50/60 Hz)		Overall Dimensions Inches (cm)			Shipping Weight Lb. (kg)	US List Price
			Volts	Watts	W	H	D		
<b>Heater Only Models</b>									
EME3 0100/CEX1	100	3	115	180	25 (63)	3.5 (9)	10.25 (26)	13 (6)	\$1092.00
EME3 0100/CE	100	3	230	280	25 (63)	3.5 (9)	10.25 (26)	15.4 (7)	\$1092.00
EME3 0250/CEX1	250	3	115	450	25 (63)	3.5 (9)	10.25 (26)	13 (6)	\$1147.00
EME3 0250/CE	250	3	230	550	25 (63)	3.5 (9)	10.25 (26)	15.4 (7)	\$1147.00
EME3 0500/CEX1	500	3	115	600	29.5 (75)	4.3 (11)	11 (28)	16 (7.4)	\$1202.00
EME3 0500/CE	500	3	230	700	29.5 (75)	4.3 (11)	11 (28)	16 (7.4)	\$1202.00
EME3 1000/CEX1	1000	3	115	900	29.5 (75)	4.3 (11)	11 (28)	18.4 (8.4)	\$1311.00
EME3 1000/CE	1000	3	230	1000	29.5 (75)	4.3 (11)	11 (28)	18.4 (8.4)	\$1311.00
EME6 0100/CEX1	100	6	115	360	47.25 (120)	3.5 (9)	10.25 (26)	22 (10)	\$1857.00
EME6 0100/CE	100	6	230	460	47.25 (120)	3.5 (9)	10.25 (26)	12 (26.4)	\$1857.00
EME6 0250/CEX1	250	6	115	900	47.25 (120)	3.5 (9)	10.25 (26)	22 (10)	\$1879.00
EME6 0250/CE	250	6	230	1000	47.25 (120)	3.5 (9)	10.25 (26)	12 (26.4)	\$1879.00
EME6 0500/CEX1	500	6	115	1200	57 (144)	4.3 (11)	11 (28)	14 (31)	\$2048.00
EME6 0500/CE	500	6	230	1300	57 (144)	4.3 (11)	11 (28)	16 (35)	\$2048.00
EME6 1000/CEX1	1000	6	115	1800	57 (144)	4.3 (11)	11 (28)	14 (31)	\$2163.00
EME6 1000/CE	1000	6	230	1900	57 (144)	4.3 (11)	11 (28)	16 (35)	\$2163.00
<b>Heater/Stirrer Models</b>									
EMEA3 0100/CEX1	100	3	115	180	25 (63)	3.5 (9)	10.25 (26)	13 (6)	\$1365.00
EMEA3 0100/CE	100	3	230	280	25 (63)	3.5 (9)	10.25 (26)	15.4 (7)	\$1365.00
EMEA3 0250/CEX1	250	3	115	450	25 (63)	3.5 (9)	10.25 (26)	13 (6)	\$1475.00
EMEA3 0250/CE	250	3	230	550	25 (63)	3.5 (9)	10.25 (26)	15.4 (7)	\$1475.00
EMEA3 0500/CEX1	500	3	115	600	29.5 (75)	4.3 (11)	11 (28)	16 (7.4)	\$1584.00
EMEA3 0500/CE	500	3	230	700	29.5 (75)	4.3 (11)	11 (28)	18.4 (8.4)	\$1584.00
EMEA3 1000/CEX1	1000	3	115	900	29.5 (75)	4.3 (11)	11 (28)	16 (7.4)	\$1693.00
EMEA3 1000/CE	1000	3	230	1000	29.5 (75)	4.3 (11)	11 (28)	18.4 (8.4)	\$1693.00
EMEA6 0100/CEX1	100	6	115	360	47.25 (120)	3.5 (9)	10.25 (26)	22 (10)	\$2392.00
EMEA6 0100/CE	100	6	230	460	47.25 (120)	3.5 (9)	10.25 (26)	12 (26.4)	\$2392.00
EMEA6 0250/CEX1	250	6	115	900	47.25 (120)	3.5 (9)	10.25 (26)	22 (10)	\$2507.00
EMEA6 0250/CE	250	6	230	1000	47.25 (120)	3.5 (9)	10.25 (26)	12 (26.4)	\$2507.00
EMEA6 0500/CEX1	500	6	115	1200	57 (144)	4.3 (11)	11 (28)	14 (31)	\$2616.00
EMEA6 0500/CE	500	6	230	1300	57 (144)	4.3 (11)	11 (28)	16 (35)	\$2616.00
EMEA6 1000/CEX1	1000	6	115	1800	57 (144)	4.3 (11)	11 (28)	14 (31)	\$2738.00
EMEA6 1000/CE	1000	6	230	1900	57 (144)	4.3 (11)	11 (28)	16 (35)	\$2738.00



# Heating Mantles

## EXTRACTION HEATERS (EME SERIES)

**Electrothermal**

Model EME30500/EX1



### REMOTE CONTROLLED MULTI-POSITION HEATERS!

- — Choice of three or six recessions
- — Vented case ensures case remains cool to the touch
- — Remote controlled

### PRODUCT DESCRIPTION

- External surface are PTFE coated and resistant to most chemical solutions.
- External power control is necessary.
- Unit includes three 0.5" (12.7 mm) diameter support rods.
- Robust construction permits continuous operation of the unit as required by a routine extraction test.

### OPERATION

- Element temperature range up to 450°C.
- The coiled heating elements are suspended in a thermal insulating cartridge to provide maximum heat transfer and support.
- Heater cartridge can easily be replaced when necessary.

### SAFETY

- Unique air flow ensures unit is safe to the touch while in operation.
- For additional operator protection safety earth (ground) screen encloses the heaters.

### ORDERING INFORMATION FOR CONTROLLERS

Model #	Description	Electrical Volts	US List Price
MC237	Triple Place Percentage On/Off	230	\$360.00
MC237X1	Triple Place Percentage On/Off	115	\$360.00
MC238	Triple Place Proportional	230	\$600.00
MC238X1	Triple Place Proportional	115	\$600.00

### ORDERING INFORMATION FOR NON-CONTROLLED HEATERS

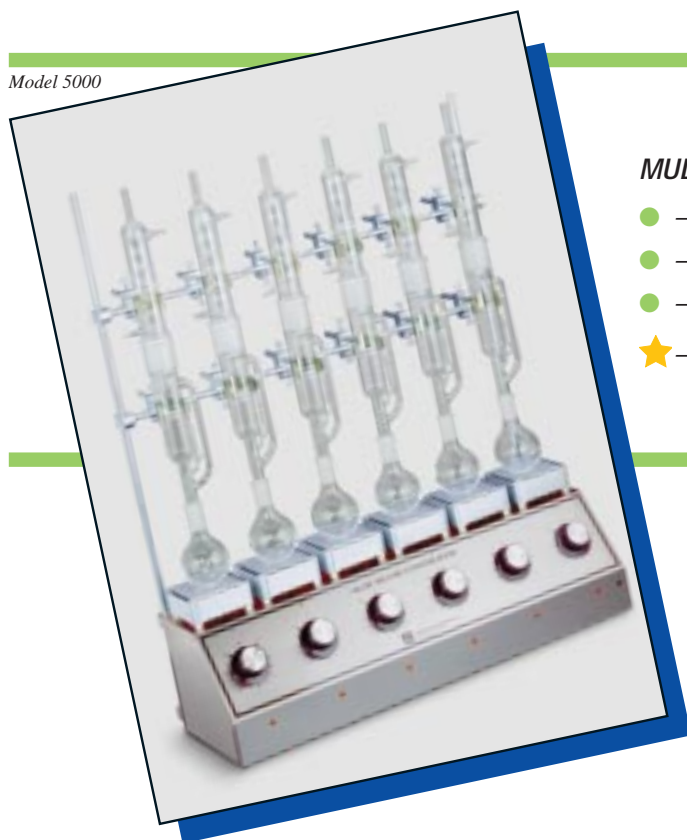
Model #	Capacity (ml)	Flask Bottom	No. of Recesses	Electrical 50/60Hz		Overall Dimensions Inches (cm)			Shipping Weight Lb. (kg)	US List Price
				Volts	Watts	W	H	D		
EME30500/E	500	Round	3	230	840	29.5 (75)	4.3 (11)	11 (28)	16 (7.4)	\$1202.00
EME30500/EX1	500	Round	3	115	840	29.5 (75)	4.3 (11)	11 (28)	16 (7.4)	\$1202.00
EME30500/FE	500	Flat	3	230	840	29.5 (75)	4.3 (11)	11 (28)	16 (7.4)	\$1202.00
EME30500/FEX1	500	Flat	3	115	840	29.5 (75)	4.3 (11)	11 (28)	16 (7.4)	\$1202.00
EME30650/E	650	Round	3	230	900	29.5 (75)	4.3 (11)	11 (28)	16 (7.4)	\$1214.00
EME30650/EX1	650	Round	3	115	900	29.5 (75)	4.3 (11)	11 (28)	16 (7.4)	\$1214.00
EME30800/E	800	Round	3	230	1140	29.5 (75)	4.3 (11)	11 (28)	18.4 (8.4)	\$1231.00
EME30800/EX1	800	Round	3	115	1140	29.5 (75)	4.3 (11)	11 (28)	18.4 (8.4)	\$1231.00
EME31000/E	1000	Round	3	230	1140	29.5 (75)	4.3 (11)	11 (28)	18.4 (8.4)	\$1244.00
EME31000/EX1	1000	Round	3	115	1140	29.5 (75)	4.3 (11)	11 (28)	18.4 (8.4)	\$1244.00
EME60125/E	125	Round	6	230	700	47.25 (12)	3.5 (9)	10.25 (26)	12 (26.4)	\$1415.00
EME60125/EX1	125	ROUND	6	115	700	47.25 (12)	3.5 (9)	10.25 (26)	12 (26.4)	\$1415.00
EME60125/FE	125	FLAT	6	230	700	47.25 (12)	3.5 (9)	10.25 (26)	12 (26.4)	\$1415.00
EME60125/FEX1	125	FLAT	6	115	700	47.25 (12)	3.5 (9)	10.25 (26)	12 (26.4)	\$1415.00
EME60300/E	300	ROUND	6	230	1100	47.25 (12)	3.5 (9)	10.25 (26)	12 (26.4)	\$1427.00
EME60300/EX1	300	ROUND	6	115	1100	47.25 (12)	3.5 (9)	10.25 (26)	12 (26.4)	\$1427.00
EME60300/FE	300	FLAT	6	230	1100	47.25 (12)	3.5 (9)	10.25 (26)	12 (26.4)	\$1427.00
EME60300/FEX1	300	FLAT	6	115	1100	47.25 (12)	3.5 (9)	10.25 (26)	12 (26.4)	\$1427.00

# Heating Mantles

MULTI-UNIT EXTRACTION HEATER

Lab-Line

Model 5000



## MULTI-POSITION SQUARE TOP EXTRACTION HEATER!

- — Temperature range from 40°C to 300°C
- — Six individual heat controls with pilot lights
- — Built-in temperature regulator
- ★ — 24 Month Warranty

## PRODUCT DESCRIPTION

- Six individual solid state heat controllers with pilot lights.
- Six 4.5" (11 cm) square cast aluminum hot plates, each with 300 watt heater.
- Inclined control panel mounted on stainless steel housing for ease of viewing.
- Four frame clamps, two 30" (76 cm) frame rods, two 36" (91 cm) frame rods, and twelve extraction clamps with clamp holders are included.
- A variety of optional clamps for attaching glassware to the support frame are available.
- Aluminum hot plates for rapid rise times.
- Separate indicator lights for power and heat.

## OPERATION

- Temperature range from 40°C to 300°C.
- Allows you to run different projects concurrently or to make simultaneous multiple runs of the same project.
- Ideal for extraction, distillation, and digestion.
- Can operate in temperatures from 15°C to 40°C.
- Glassware not included.

## PRODUCT SPECIFICATIONS

Model #	Overall Dimensions Inches (cm)			Shipping Weight Lb. (kg)
	W	H	D	
5000	30 (76)	9 (23)	11 (28)	40 (18)
5000-1	30 (76)	9 (23)	11 (28)	40 (18)

## ORDERING INFORMATION

Model #	Volts	Electrical (50/60 Hz)	Operating Temp Range °C (°F)	US List Price
		Watts		
5000	120	1800	40-300 (104 - 572)	\$2532.00
5000-1	240	1800	40-300 (104-572)	\$2600.00

# Heating Mantles

## ELECTRIC BUNSEN AND HEATING RODS

### Electrothermal

Model BA6101X1



### THE HIGHEST TEMPERATURE ELECTRIC BUNSEN BURNER!

- — Temperature range from 800 - 1000°C
- — Replaceable heating elements
- — Corrosion resistant metal housing

#### ORDERING INFORMATION

Model #	Description	Volts	US List Price
BA6101X1	Electrothermal "Bunsen"	115	\$355.00
BA6101	Electrothermal "Bunsen"	230	\$355.00

### PRODUCT DESCRIPTION

- Combines the advantages of the gas burner with the clean operation and control ease of electric heating.
- Heavy duty construction made of a corrosion resistant metal housing.
- Consumes only 400 watts of power.
- Temperature range: 800°C - 1000°C (1472°F - 1832 °F).
- Conical shaped heating element directs the radiant heat toward the top cavity.
- Heating elements are easy to replace.
- Since the radiation from the heater is directed upwards only, it can be used for such purposes as heating test tubes, crucibles, small flasks and beakers independent of their shape.
- MC242X1 can be used for controlling bunsen burner.
- Air circulation from the vented housing keeps the base cool enough to hold during operation.
- Top cowl deflects heat away from your hand.

Model BD6832



#### ORDERING INFORMATION

Model #	Volts	Watts	Overall Length Inches (cm)	Heating Length Inches (cm)	US List Price
BD 6932	230	400	11.8 (30.0)	6.3 (16.0)	\$203.00
BD 6933	230	500	13.8 (35.0)	7.9 (20.0)	\$241.00
BD 6901X1	115	300	9.84 (25.0)	6.3 (16.0)	\$181.00
BD 6902X1	115	400	11.8 (30.0)	7.1 (18.0)	\$203.00
BD 6903X1	115	500	13.8 (35.0)	7.9 (20.0)	\$241.00

*BD 6901, 2, 3 are not grounded. There is normally a tolerance of ± 1 mm on the 12 mm outside diameter.*

### PRODUCT DESCRIPTION

- The "Red Rod" is a true radiant heater. Infra-red radiation passes through quartz with very little absorption, so that a large proportion of heat is transferred to the liquid.
- The heating element is covered by a quartz sheath which is chemically resistant to most solutions with the exception of hydrofluoric acid, phosphoric acid and concentrated caustic alkalis.
- No installation is necessary, the heater simply rests against the side of the vessel.
- Heat the contents of multi-neck flasks allowing full visibility and minimizing the dangers of exothermic reaction due to the fast response of the heater to control equipment.
- Grounded protection is provided by a grounded probe for added safety.
- Requires external temperature control.

# Heating Mantles

SET-TEMP<sup>®</sup> DIGITAL TEMPERATURE CONTROLLER  
**Electrothermal**

Model 3111



## STATE OF THE ART TEMPERATURE CONTROLLER!

- — Ideal for heating tapes, cords and mantles
- — Easy to operate
- — Built-in safety feature

## PRODUCT DESCRIPTION

- Adjust the thermocouple readout with a few keystrokes to make it exactly match a reference thermometer or calibration bath.
- In instances where the thermocouple cannot be placed precisely where temperature sensing is needed, a temperature offset can be introduced to make the control's temperature readout more meaningful.
- If the control loop is broken, Set-Temp Digital automatically shuts off heater power to reduce the likelihood of thermal runaway.
- Non-volatile memory retains temperature settings during power interruptions. Fast acting fuse and surge suppressor protect solid-state power relay from inappropriate loads and voltage spikes.
- Unit has rear bracket for attaching to laboratory supports.
- Models are available for use with Type-K or Type-J thermocouples.

## OPERATION

- The up and down keys permit direct and accurate set point selection. The control panel simultaneously displays the thermocouple and set temperature to 0.1°C.
- Easy-to-follow instructions are printed directly on the front of the unit.
- A simple to start, automatic tuning process allows the control to "learn" about your application and automatically make adjustments to provide the best temperature control with minimum ripple and overshoot.
- All models have a temperature display accuracy of  $\pm 0.1\%$  of span  $\pm 1^\circ\text{C}$  and a temperature resolution of 0.1°C.
- Type-K thermocouples have a temperature range of -199.9 to 999.9°C. Type-J thermocouples: 0.0 to 815.0°C. (Selected probe will dictate actual temperature range within ranges specified.)

## ORDERING INFORMATION

Model	Electrical (50/60 Hertz)		W	Overall Dimensions Inches(cm)		Shipping Weight Lb. (kg)	US List Price
	Volts	Watts		H	D		
3111	120, Type K	7	5.5(14)	7.5(19)	3.2(8)	4.4(2)	\$900.00
3211	120, Type J	7	5.5(14)	7.5(19)	3.2(8)	4.4(2)	\$900.00

*Some heating devices contain electronic circuits which may make them incompatible with Set-Temp Digital. Since Set-Temp Digital delivers pulses of electrical power to the heater, it will not work with devices that require a steady power supply. Other heating devices are not intended to be operated at 115 Volts A/C and may also be incompatible.*

## ACCESSORIES

Model #	Description	US List Price
8203	Adapter for 10/18 Joints	\$37.00
8204	Adapter for 14/20 Joints	\$38.00
8205	Adapter for 19/22 Joints	\$43.00
8206	Adapter for 24/40 Joints	\$43.00
8303	Rigid S/S Probe Type-K T/C	\$110.00
8304	Rigid S/S Probe Type-J T/C	\$110.00
8306	Rigid S/S Probe Type-K T/C with Teflon <sup>®</sup> Coating	\$130.00
8307	Rigid S/S Probe Type-J T/C with Teflon <sup>®</sup> Coating	\$130.00
8003	Quartz Probe Type-K T/C, 12"	\$245.00
8004	Quartz Probe Type-J T/C, 12"	\$245.00
8005	Quartz Probe Type-K T/C, 18"	\$276.00
8007	Quartz Probe Type-J T/C, 24"	\$306.00
8403	Bendable S/S Probe Type-K	\$94.00
8404	Bendable S/S Probe Type-J	\$94.00
8503	Straight Extension Type-K	\$37.00
8504	Straight Extension Type-J	\$37.00
8505	Straight Extension Type-K	\$47.00

# Heating Mantles

SET-TEMP® LIMIT TEMPERATURE CONTROLLER

**Electrothermal**

Model 3411



## OUR BEST LIMIT TEMPERATURE CONTROLLER!

- — Ideal for heating mantles, tapes and cords
- — Built-in safety features
- — Compact size saves bench space

## PRODUCT DESCRIPTION

- Set-Temp® Limit prevents thermal runaway for a wide range of laboratory applications.
- Use Set-Temp Limit as a safety control with any heater up to 1800 watts. Use in conjunction with other controllers or simply as a limit control for a wide variety of electrically heated laboratory instruments such as heating mantles, hot plates, and ovens.
- Set dial, calibrated in °C and °F, to maximum acceptable temperature, and place thermocouple in controlled region.
- If temperature exceeds dial setting, control will switch off heater.
- Heater will not re-energize, even if the temperature drops below the set point, until the control is manually reset with the “reset” key.
- For additional safety, Set-Temp Limit automatically turns off the heater if the thermocouple disconnects or fails.
- Fast-acting fuse protects power relay from inappropriate loads.
- Unit accepts any Type-K thermocouple and has rear bracket for attaching to laboratory supports.
- Sensor Type-K thermocouple accepts any Type-K with miniature connector.
- Temperature range of 0-1250°C. Selected probe will dictate actual temperature range within range specified.

## ORDERING INFORMATION

Model #	Volts	W	Overall Dimensions Inches (cm)		Shipping Weight Lb. (kg)	US List Price
			H	D		
3411	100-120	5.5 (14)	7.5 (19)	3.2 (8)	4.4 (2)	\$611.00

## ACCESSORIES

Model #	Description	US List Price
8203	Adapter for 10/18 Joints	\$37.00
8204	Adapter for 14/20 Joints	\$38.00
8205	Adapter for 19/22 Joints	\$43.00
8206	Adapter for 24/40 Joints	\$43.00
8303	Rigid S/S Probe Type-K T/C	\$110.00
8304	Rigid S/S Probe Type-J T/C	\$110.00
8306	Rigid S/S Probe Type-K T/C with Teflon® Coating	\$130.00
8307	Rigid S/S Probe Type-J T/C with Teflon® Coating	\$130.00
8003	Quartz Probe Type-K T/C, 12"	\$245.00
8004	Quartz Probe Type-J T/C, 12"	\$245.00
8005	Quartz Probe Type-K T/C, 18"	\$276.00
8007	Quartz Probe Type-J T/C, 24"	\$306.00
8403	Bendable S/S Probe Type-K	\$94.00
8404	Bendable S/S Probe Type-J	\$94.00
8503	Straight Extension Type-K	\$37.00
8504	Straight Extension Type-J	\$37.00
8505	Straight Extension Type-K	\$47.00

# Heating Mantles

## CONTROLLERS

## Electrothermal

Model MC810BX1



### A CONTROLLER FOR ALL YOUR NEEDS!

- — Range of controllers for single, double and triple place
- — Both percentage off/on and proportional controllers



### ORDERING INFORMATION

Model #	Description	Volts	Watts	US List Price
MC810BX1	Digital Controller	115	3	\$899.00
MC810B	Digital Controller	230	3	\$899.00
MC228	Simmerstat Energy Regulator	230	3	\$126.00
MC228X1	Simmerstat Energy Regulator	115	3	\$126.00
MC227	Simmerstat Energy Regulator	230	3	\$126.00
MC227X1	Simmerstat Energy Regulator	115	3	\$126.00
MC239	Single Place Proportional	230	10	\$120.00
MC239X1	Single Place Proportional	115	10	\$120.00
MC240	Double Place Proportional	230	14	\$173.00
MC240X1	Double Place Proportional	115	14	\$173.00
MC242	Single Place Percentage On/Off	230	10	\$94.00
MC242X1	Single Place Percentage On/Off	115	12	\$94.00
AZ 6706	Temperature probe 400°C (stainless steel)			\$219.00
AZ 6705	Temperature probe 400°C (PTFE covered)			\$207.00
AZ 6741	Temperature probe 800°C			\$181.00

### PRODUCT DESCRIPTION

- The MC810B is supplied with PTFE covered platinum resistance thermometer for measurements to 270°C. Zinc die-cast outer case is suitable for use on the bench or can be mounted on a 0.5" (12.7 mm) support rod.
- The MC810B is programmed by the UP/DOWN controls. Three digit LED display enables 1°C resolution over a range of -10°C to 800°C to be set. In addition, a hysteresis range can be set to govern the range of temperature variation in the medium being controlled.
- Single, double placed controllers are also available as percentage off/on or as proportional controllers.

Model CN45500



### PRODUCT DESCRIPTION

- Practical, low cost temperature control for heating tapes, mats and mantles.
- Built-in cycle and "Power On" lights for quick operation.
- Control compensates for line voltage fluctuations and ambient temperature changes.
- Includes a three-wire cord and plug.

### PRODUCT SPECIFICATIONS

Type	W	Overall Dimensions Inches (cm)			Shipping Weight Lb. (kg)
		H	D		
CN45500	2.5 (6.4)	5.5 (14)	4.13 (10.5)	2.5 (1.1)	

### ORDERING INFORMATION

Model#	Electrical (50/60 Hertz) Volts	Max Load Current	US List Price
CN45515	115	15 Amps	\$136.00
CN45510	240	15 Amps	\$136.00
CN45510-26*	240	15 Amps	\$136.00

\* Supplied with European cord set.