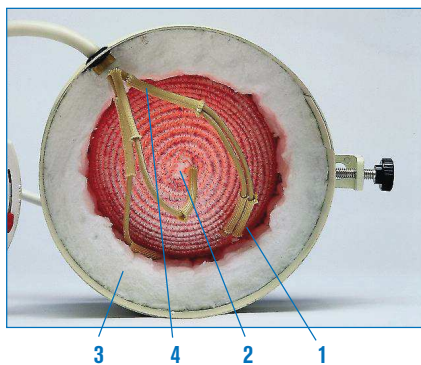




# HEATING MANTLES FOR FLASKS

## SAFETY:

FOLLOWING CE STANDARDS, IN THE CASE OF LIQUID SPILLS AN EARTH WIRE IS WOVEN INTO THE MANTLE TO PREVENT ELECTRIC SHOCKS.



## COMMON FEATURES

1. Hand woven mineral wool with flexible braiding, which adapts snugly around the flask, with drain hole, replaceable .
  2. The heating element is distributed homogeneously throughout the mantle. Connectors and cables are protected by mineral fibre tubes. Efficient low power consumption of 1 w/cm<sup>2</sup>. Maximum mantle temperature of 400 °C.
  3. Double walled fibre wool thermally insulated casing.
  4. Pure Nickel connection terminals protected by mineral fibre tubing that prevent the deterioration of the contact due to high temperature.
- Support for retort bar.

## APPLICATIONS

For digestion distillation, extraction, evaporation and boiling processes.



## MODELS SELECTION SUMMARY TABLE

Capacity ml	Ø flask mm	Fibroman C 2 positions	Fibroman D Woven	Fibroman O Funnel hole	Agiman Woven	Fibroman HT-W Electronic regulator	Micro for Kjeldahl banks banks	No. Places	For Kjeldahl/Soxhlet banks	No. Places
100	65	3003141	-	-	-	3031470	6014204	4	-	-
100	65	-	-	-	-	-	6014206	6	-	-
250	83	3003142	3004192	-	3000447	3031471	-	-	-	-
500	102	3003145	3004195	-	3000448	3031472	-	-	6003294	4
500	102	-	-	-	-	-	-	-	6003296	6
1000	132	3031410	3041910	3049110	3000449	3031473	-	-	-	-
2000	164	3031420	3041920	3049120	3000450	3031474	-	-	-	-
3000	190	3031430	-	-	-	-	-	-	-	-
5000	222	3031450	-	3049150	-	-	-	-	-	-
10000	290	3314100	-	3491100	-	-	-	-	-	-
20000	365	3314200	-	3491200	-	-	-	-	-	-



## Heating mantle for flasks "Fibroman-C"

DUAL HEATING POWER. TEMPERATURES UP TO 400 °C.

*With power heating switch selector*

### FEATURES

Two position isolated rocker switch heating control with power on indicator lamp.

### TECHNICAL DESCRIPTION

- DUR ALLOY aluminium exterior case with epoxy coating.
- Suspended mineral wool woven heating mantle.
- Heating element homogeneously distributed throughout the woven mantle.
- Thermally insulated case, mineral wool fibre insulation.
- Nickel connectors.
- Retort stand clamp at the back of the unit.
- To prevent breakage or spills a drain hole is provided at the bottom of the mantle.
- Safety earth connection.

### MODELS

Part No.	Flask capacity ml	Flask Ø approx. mm	Ø / Height (exterior) cm	Power W	Weight Kg
3003141	100	65	16 11	130	1
3003142	250	83	18 11	130	1,1
3003145	500	102	20 12	270	1,2
3031410	1000	132	22 13,5	410	1,4
3031420	2000	170	26 14	530	2
3031430	3000	190	29 18	620	2,2
3031450	5000	222	33 19	840	3,2
3314100	10000	290	38 22	2250	4,7
3314200*	20000	365	48 26	2300	11

\* The mantle part no. 3314200 supplied without the 2 position controller and switch. See Accessories on (page 30) and Regulators and controllers (pages 293 and 294).



### CROSS SECTION OF HEATED FLASKS

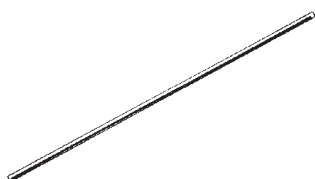


Position I  
50% power output.



Position II  
100% power output.

### ACCESSORY



Support bar Dur-Aluminium of  
12 Ø x 700 mm long.  
Part No. 6000270





## Heating mantles for flasks "Fibroman HT-W"

FOR ADJUSTABLE TEMPERATURES FROM AMBIENT +5 °C TO 400 °C.

STABILITY  $\pm 0,5$  TO 1 °C ACCORDING TO TEMPERATURE.

ELECTRONIC REGULATION OF TEMPERATURE WITH DOUBLE SCREEN TO SHOW THE PRESENT TEMPERATURE AND THE PROGRAMMED ONE.

*Maximun precision in temperature control and energy saving*

*Includes "TC" temperature sensor, conectable to case directly*



### FEATURES

External case made of AISI 304 stainless steel.  
Heating elements homogeneously distributed inside of the mineral wool woven and thermally insulated.  
Pure nickel connection terminals.  
Temperature control system by inner thermocouple.  
TC probe connector included in the equipment for the liquid temperature control inside the flask.  
Device to hold support bar.

### CONTROL PANEL

On / Off switch.  
Digital display indicating set and real temperature.  
Heating operating led.  
Push button ▲ increase temperature.  
Push button ▼ decrease temperature.  
Side: TC probe connector for the liquid real temperature.



*Device that allows to hold the rod has supported.*

### MODELS

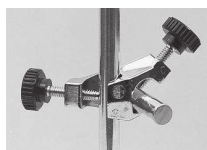
Part No.	Flask Capacity ml	Ø Flask mm	Height / Width / Depth (exterior) cm	Ø Sensor TC mm	Lenght mm	Stability °C	Power W	Weight Kg
3031470	100	65 to 67	13 22 26	4	170	$\pm 0,5$ to 1	130	1,5
3031471	250	83 to 87	13 26 29	4	170	$\pm 0,5$ to 1	216	3
3031472	500	102 to 105	13 26 29	4	170	$\pm 0,5$ to 1	220	3,5
3031473	1000	132 to 139	14 30 33	4	170	$\pm 0,5$ to 1	500	4
3031474	2000	164 to 170	16 31 34	4	200	$\pm 0,5$ to 1	760	5

Note: the heating mantles are supplied with TC probe connected to the case.

### ACCESSORIES



**Support bar** Dur-Aluminium,  
12 mm Ø x 700 mm long.  
Part No. **6000270**



**Double bosshead.**  
Part No. **1000069**



**Spring clamp** to hold thermometers.  
Part No. **7000025**



**Clamp** to support and hold condensers  
or other glassware.  
Part No. **7000161**





## Heating mantle for flasks “Fibroman-D”

### FEATURES

Soft mantle made with a double woven mineral wool. A mains switch and safety earth are also fitted. The mantle can be supported by a retort ring or tripod stand.

### MODELS

Part No.	Flask capacity ml	Ø / Height (exterior) cm	Power W	Weight Kg
3004192	250	15 6.5	130	0.8
3004195	500	17 7	270	0.9
3041910	1000	20 8.5	410	1
3041920	2000	24 11	530	1.5

See accessories (page 230) and controller (pages 293 and 294).

### ACCESSORIES

Retort Part No.	Tripod Ring Part No.	Mantle Part No.
7041921	7041922	3004192
7041951	7041952	3004195
7419101	7419102	3041910
7419201	7419202	3041920



## Heating mantle for flasks and funnels “Fibroman-O”

WITH TRIPOD SUPPORT STAND.

### APPLICATIONS

Suitable for round bottom flasks, decanting funnels and reaction flasks with a bottom drain.

### FEATURES

- Woven mineral fibre mantle.
- Epoxy coated exterior.
- On/Off switch.
- Safety earth.

### MODELS

Part No.	Flask capacity ml	Ø / Height (Exterior dims.) cm	Ø cm Bottom hole	Tripod Height cm	Power W	Weight Kg
3049110	1000	24 10.5	8	34	410	1.5
3049120	2000	28.5 12	8	36	530	2.5
3049150	5000	37.5 17.5	9	38	840	3.5
3491100	10000	43.5 20	9	43	1400	5
3491200	20000	48 25	12	36	2300	13

Due to its capacity the part no. 3491200, 20000 ml capacity is manufactured in a cylindrical case.  
See accessories (page 230) and controller (pages 293 and 294).



## Heating mantle for flasks

ADAPTABLE FOR THE “AGIMAN” STIRRER UNIT.

### MODELS

Part No.	Flask capacity ml	Ø / Height (Exterior dims.) cm	Power W	Weight Kg
3000447	250	15 6.5	130	0.8
3000448	500	17 7	270	0.9
3000449	1000	20 8.5	410	1
3000450	2000	24 11	530	1.5

### ACCESSORIES

**Mantle magnetic stirrer “Agiman”.** With interchangeable mantle adapters. Electronic control of stir speed (up to 1600 r.p.m.). Part No. **7000446** See page 26. With connection at the back for an electronic contact thermometer “Sensoterm” or digital electronic regulator “Electemp-TFT”.  
See controller (pages 293 and 294).



Stirring mantle with adapter device.



Stirring mantle, complete.



## Banks of heating mantles for digestion, Kjeldahl, Soxhlet extraction and round bottle flasks

CONTROLLABLE MANTLE TEMPERATURE UP TO 550 °C.

### FEATURES

Independent heating control for each position.  
2 height and angle adjustable bars to support condensers or other glassware for digestion or extraction.  
External case made of AISI 304 stainless steel.  
Safety earth strip fitted.

### CONTROL PANEL

Temperature control with a pulsed energy regulator. An indicator lamp shows when the mantle is on.

### MODELS

Part No.	For flasks	Flask volume ml	No. of places	Height / Width / Depth (exterior) cm	Power W	Weight Kg
6003294	Kjeldahl / Soxhlet	300-500	4	18 76 25	1500	12
6003296	Kjeldahl / Soxhlet	300-500	6	18 105 25	2200	16
6014204	Micro-Kjeldahl	100	4	16 59 21	510	9
6014206	Micro-Kjeldahl	100	6	16 81 21	900	12

Supplied with: 2 bars and 4 clamps for Kjeldahl/Soxhlet models.  
1 bar and 2 clamps for Micro-Kjeldahl models.

### ACCESSORIES (DIGESTION)



Fume extractor tube clips made of AISI 304 stainless steel.

Part No.

6000008 For bank of Macro-Kjeldahl.

6000009 For bank of Micro-Kjeldahl



Borosilicate glass fume extractor tubes.

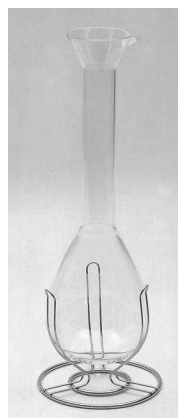
Part No.

1000104 For: Bank Macro-Kjeldahl, 4 positions.

1000106 For: Bank Macro-Kjeldahl, 6 positions.

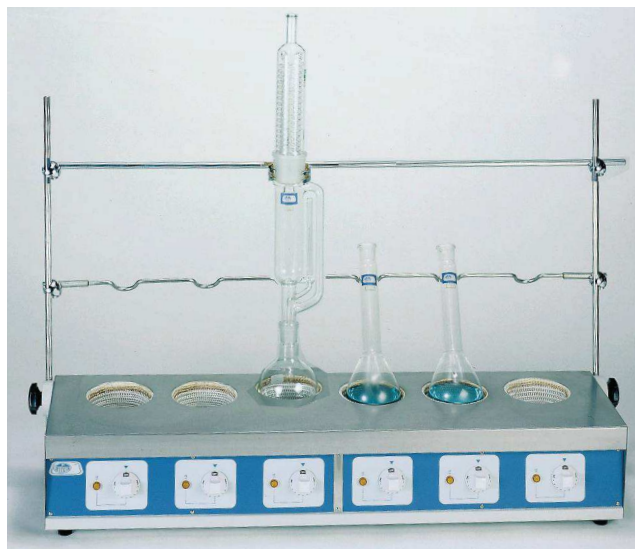
1042044 For: Bank Micro-Kjeldahl, 4 positions.

1042066 For: Bank Micro-Kjeldahl, 6 positions.



Kjeldahl flask support made of AISI304 stainless steel. Flasks 300-500 ml.

Part No. 1000002



### EXTRACTION AND NEUTRALIZATION OF GASSES.

Reduces water wastage.



"Scrubber"

Re-circulation pump

Designed to neutralize and absorb fumes generated in the Kjeldahl digestion process.

Composed of a "Scrubber unit" that blocks the passage and neutralizes the condensed acids, and a re-circulating water pump that produces sufficient vacuum to aspirate the vapours.

No mains water connection required. Prevents waste contamination.

Low noise level (<65dBA).

Re-circulating pump made from chemically resistant materials.

It is essential to put the "Scrubber" unit together with the neutralizer solution between the digestion block and the re-circulating pump.

### "Scrubber" unit

Part No.	Height / Width / Depth (exterior) cm	Weight Kg
4001611	32 31 16	2

It is supplied with 3 Kg. acid vapours neutralizer solution.

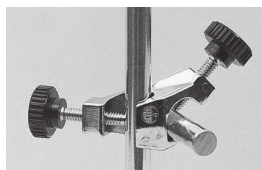
### Re-circulating water vacuum pump.

Part No.	Height / Width / Depth (exterior) cm	Vacuum level bar	Pump rate litre/minute	Weight Kg
4001612	44 39 28	0.98	10	10

### Spare part

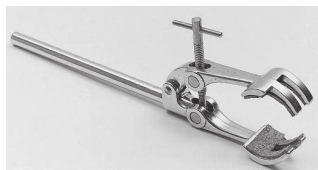
3 Kg. acid vapours neutralizer solution. Part No. 4001610

### ACCESSORIES EXTRACTION



Double nut boss head.

Part No. 1000069



Clamp for holding condensers.

Part No. 7000403