



HEATING MANTLES

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HOT PLATES

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*"The first requisite for success is the ability to apply your physical and mental energies to one problem incessantly without growing weary."
Thomas Edison*



Heating mantle for flasks "Fibroman-C"

DUAL HEATING POWER.

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	16 11	130	1.1
3003145	500	102	17 12	270	1.2
3031410	1000	132	21 12.5	410	1.4
3031420	2000	164	24 15	530	2
3031430	3000	190	27 18	620	2.2
3031440	4000	203	31 19	700	2.8
3031450	5000	222	31 19	840	3.2
3031460	6000	235	31 19	1000	3.4
3314100	10000	290	38 22	1400	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 223) and Regulators and controllers (pages 286 and 287).



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

NEW



FEATURES

External case made of AISI 304 stainless steel.
 Heating elements homogeneously distributed inside of the mineral wool woven and thermically 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	11 14 18	4	200	$\pm 0,5$ to 1	130	1,5
3031471	250	83 to 87	12 18 24	4	200	$\pm 0,5$ to 1	216	3
3031472	500	102 to 105	12 18 24	4	200	$\pm 0,5$ to 1	220	3.5
3031473	1000	132 to 139	13 21 27	4	200	$\pm 0,5$ to 1	530	4
3031474	2000	164 to 170	15 25 31	4	200	$\pm 0,5$ to 1	650	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. 70001161



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 223) and controller (pages 286 and 287).

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 223) and controller (pages 286 and 287).



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.).

Connection at the back for an electronic contact thermometer “Sensoterm” or digital electronic regulator “Electemp”.

See controller (pages 286 and 287).

Part No. **7000446**



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.

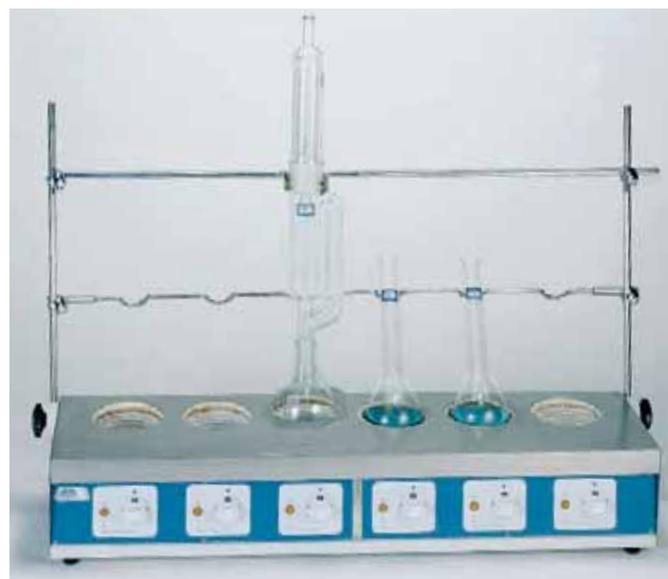
1042044 For: Bank Micro-Kjeldahl, 4 positions.

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

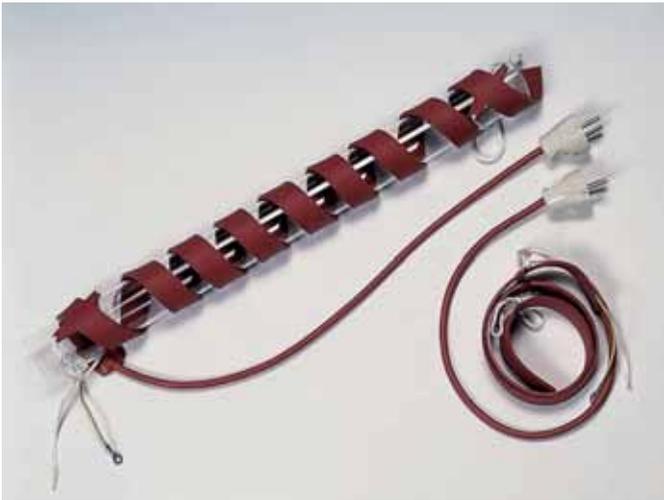


Clamp for holding condensers.
Part No. 7000403



Heating tapes

HEATING TAPE SURFACE TEMPERATURE UP TO 210 °C. CONFORMS TO VDE EN 60335-A.



FEATURES

Heating elements distributed homogeneously between flexible moulded sheets of silicon.

APPLICATIONS

Used for heating small areas such as heating ducts for distillation, valves and pipes etc.

MODELS

Part No.	Length m	Width mm	Power W
3003178	0.80	25	180
3031710	1	25	210
3031715	1.5	25	265



Flexible heating cord



FEATURES

For tape surface temperatures up to 180 °C. Thermally insulated using flexible silicon tube.

APPLICATIONS

For heating small areas such as heating ducts, distillation, valves and pipes etc.

MODELS

Part No.	Length m	Ø Cord mm	Power W
1000781	1.5	3	45
1000782	3	3	90
1000783	6	3	180
1000784	12	3	360



Large surface area heating mats

MAT SURFACE TEMPERATURES UP TO 210 °C. CONFORMS TO VDE STANDARD EN 60335-A.



FEATURES

The heating element is insulated and distributed homogeneously between two sheets of flexible moulded silicon.

Heating Power: 0.39 W cm².

Mat surface temperature up to 210 °C.

Held in place by hooked spring fittings.

APPLICATIONS

Suitable for heating drums up to 200 litres Ø 60 cm.

Total: 3 bands of 171 cm in length x 15 cm wide.

Power consumption 3000 W.

Part No. **4000200**

ACCESSORIES

See controller (pages 286 and 287).



HOTPLATES



Ceramic top hotplates “Ceramic-plac”

ADJUSTABLE HOT PLATE TEMPERATURE UP TO 400 °C.

SAFETY

CONFORMS TO THE EN 61010 STANDARD, OVER TEMPERATURE CUT-OUT FITTED.

Excellent resistance to chemicals. Unaffected by thermal shock



Model part no. 3000920

Model part no. 3000921

Model part no. 3000919

FEATURES AND ADVANTAGES

The “CERAMIC-PLAC” has the following features and advantages:

- Flat, smooth surface.
- Excellent resistance to chemical agents.
- High heating power within the heated area that permits extreme temperature within a short heat up time.
- Excellent thermal qualities and penetration of infrared radiation.
- Easy to clean.

FEATURES

- External case of AISI 304 stainless steel.
- Heating elements mounted on ceramic fibre thus making an insulated compact block.
- Temperature energy control from 6 % to 70 % of nominal power. (Model Part No. 3000919 and 3000920).
- Hydraulic thermostat temperature control up to 400 °C (Model Part No. 3000921).

MODELS

Part No.	Heating Zones	Heating area in cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg	Control system
3000919	1	18 Ø	10 28 33	1800	5.5	Energy controller
3000920	2	14 Ø + 14 x 14 ☒	10 27 47	2200	7.5	With individual energy controllers for each zone
3000921	1	30 x 30 ☒	10 49 49	3700	11	With hydraulic thermostat



Round Hotplates

HOTPLATE TEMPERATURE UP TO 400 °C. WITH 6 PLACE HEATING POWER CONTROLLER.

FEATURES

Cast steel plate with embedded heating elements throughout the plate surface.

Fast heating rate at maximum power setting.

Enamelled outer casing that is resistant to high temperatures and corrosive agents.

CONTROL PANEL

Controller 6 position power settings.



MODELS

Part No.	Plate Ø cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
1000718	12	8 20 20	1000	2.1
1000442	15	8 22 22	1600	3
1000443	19	8 26 26	2100	4.5



Hotplate - Circular "Selectemp"

ADJUSTABLE HOT PLATE TEMPERATURE FROM 45 °C TO 250 °C. STABILITY ± 2 °C.

FEATURES

Temperature control using a thermostat located in the center of the plate.

Non warping steel plate with embedded heating element throughout the plate's surface.

Enamelled outer casing, resistant to high temperatures and corrosive agents.

CONTROL PANEL

Hydraulic thermostat temperature control synchronised with an indicator lamp.

MODEL

Part No.	Plate Ø cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
1000444	15	8 22 22	1500	3



ACCESSORY

Circular sand, oil or water bath made of AISI 304 stainless steel, suitable for the "Selectemp" hotplate. Dimensions 200 mm dia x 115 mm high.

Comes complete with a lid with concentric reduction rings.

Part No. **7000008**



Hotplate double circular "Duplac"

FOR PLATE TEMPERATURES UP TO 400 °C.

FEATURES

Hot plate with non warping cast steel plate with embedded heating elements throughout the hot plate surface.

Independent plate temperature control is maintained by pulsed energy controllers.

The exterior is epoxy covered steel.

CONTROL PANEL

Two temperature energy controllers.

Two indicator lamps function when the heaters are on.

MODEL

Part No.	Plate Ø cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
4000634	19	15 47 24	1900	8.5





Hotplate-Rectangular "Combiplac"

PLATE TEMPERAURE ADJUSTABLE UP TO 400 °C.

FEATURES

Electronic energy temperature control.
The non warping steel hotplate has heating elements embedded throughout the hotplate surface maintaining the heat distribution. 
The main case is made of AISI 304 stainless steel.

CONTROL PANEL

Main power switch with "ON" indicator lamp.
Electronic energy control from 0 to 100 %.
An indicator lamp shows when the unit is hot.
Connector at the back for the external digital thermometer, "Sensoterm" or "Electemp".
See Regulators and Controllers (pages 286 and 287).

MODELS

Part No.	Width / Depth (plate) cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
3000156	20 40	12 22 55	2300	9
3000718	30 30	13 33 46	2800	13



ACCESSORIES

Sand bath adapters. Made entirely of AISI 310 stainless steel, removable for easy cleaning.

Part No.	Hotplate Part No.	Height/Width/Depth (Sand tray dims) cm
6000719	3000156	5.5 20 40
6000720	3000718	5.5 31 31



Hotplate-Circular "Combiplac"

PLATE TEMPERATURE ADJUSTABLE UP TO 400 °C.

FEATURES

Electronic energy controller and embedded heating element throughout the non warping steel hotplate surface. 
A retort bar can be located in a hole at the back of the unit.
The main case is made of AISI 304 stainless steel.

CONTROL PANEL

Main power switch with "ON" indicator lamp.
Temperature controlled by a 0 - 100 % energy controller.
A lamp indicates when the hot plate is "ON".
A Thermometer "Sensoterm" or "Electemp" that can be added and are listed as accessories.
See section Regulators and Controllers (pages 286 and 287).



MODELS

Part No.	Plate Ø cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
3002301	12	10 16 27	550	2
3002302	19	13 21 30	950	3

ACCESSORIES

Suitable for the 12 cm Ø hotplates only Part No.3002301:

Bath of AISI 304 stainless steel of 140 mm Ø x 75mm high, with concentric reduction ring lid, Suitable for water, oil or sand. Part No. **7002510**

Round bottom flask adapter made of aluminium and suitable for Kjeldahl flasks of 100 ml and 50 to 100 ml round bottom flasks. Part No. **1002290**

Round bottom flask adapter made of aluminium and suitable for Kjeldahl flasks of 300 to 500 ml and round bottom flasks of 250 ml. Part No. **1002280**

Support rod of 12mm Ø and 500 mm high, fits on to the main body of the hotplate. Suitable for the circular Combiplacs 3002301 and 3002302. Part No. **1000725**



Electronic contact thermometers with digital readout "Sensoterm".

With Pt100 sensor with stainless steel AISI 304 sheath.

Part No. **1001009**

Features. See Regulators and Controllers (pages 286 and 287).



Electronic temperature controller "Electemp"

Part No.	Height / Width / Depth (exterior) cm	Max power (at 230 V) W	Weight Kg
3000887	10.5 13.5 21	3100	1.250

Features. See Regulators and Controllers (pages 286 and 287).





Rectangular precision hotplate "Plactronic"

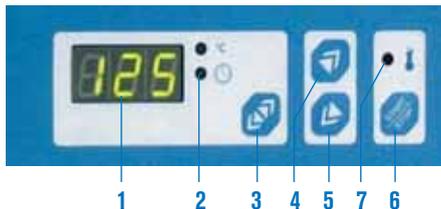
ADJUSTABLE TEMPERATURE FROM AMBIENT +5 UP TO 200 °C STABILITY ± 0.5 °C.
WITH ELECTRONIC DIGITAL TEMPERATURE AND TIME CONTROL DISPLAY.
SUITABLE FOR THERMAL TESTS (NOT SUITABLE FOR BOILING TESTS).
SURFACE PLATE COATED WITH P.T.F.E. FOR PROTECTION AGAINST CHEMICALS.

FEATURES

Digitalelectronic temperature and timer control. and Digital display (3 digits).
Display resolution: 1°C.
Temperature probe Pt 100.
DUR aluminium alloy hotplate's coated with P.T.F.E., with heating elements embedded in the plate surface.
Main case, heater element and protective grill, made of AISI 304 stainless steel.

SAFETY:
CONFORMS TO EN61010. OVER TEMPERATURE SAFETY CUTOUT FITTED.

Maximum precision



CONTROL PANEL

1. Digital display of temperature and time.
2. Indicator lamp to show the parameters (temperature or time).
3. Push button to select visualised parameter.
4. Push button to increase parameter value.
5. Push button to decrease parameter value.
6. Push button start and stop.
7. Indicator alarm if the plate is over temperature.



MODELS

Part No.	Width / Depth (plate) cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
6155100	24 24	13 25 42	700	7.5
6156100	20 40	13 22 57	800	8
6157100	25 60	13 27 77	1000	16.5



Rectangular hotplate "Placfin"

ADJUSTABLE HOT PLATE TEMPERATURE FROM AMBIENT +5 °C UP TO 130 °C. STABILITY ± 3 °C.
SUITABLE FOR THERMAL TESTS (BUT NOT BOILING).

FEATURES

Temperature control by a hydraulic thermostat.
Protected thermometer from 0 °C to 130 °C.
Hotplate surface protected by chemically treated aluminium, with heating elements distributed throughout the hotplate's surface.
Enamelled external case, resistant against corrosive chemicals.

CONTROL PANEL

Hydraulic thermostat control, synchronised with an indicator lamp when in operation.

MODEL

Part No.	Width / Depth (plate) cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
7000497	23 22	11 22 30	400	3.7



ACCESSORY

Slide support adapter made of AISI 304 stainless steel. Capacity: up to 18 slide of 76 x 255 mm (in a horizontal position).
Part No. **7000498**





Bank of circular hotplates "Uniplac"

ADJUSTABLE TEMPERATURE HOTPLATE UP TO 400 °C.
SUITABLE FOR KJELDAHL DIGESTION ASSAYS AND
SOXHLET EXTRACTION.

FEATURES

Independent hotplate control using pulsed energy regulators.
Cast steel hotplates with embedded heating elements distributed throughout the hotplate's surface. 
Adjustable height and angle stand bars for supporting condensers and other glassware etc.
External case made of AISI 304 stainless steel.

CONTROL PANEL

Independent temperature control for each position.
- Temperature control by pulsed energy regulators.
- Indicator lamps showing when the hotplate is on.

MODELS

Part No.	No. of places	Plate Ø cm	Height / Width / Depth (exterior) cm			Power W	Weight Kg
6002314	4	12	23	77	27	2200	15
6002316	6	12	23	105	27	3300	22



ACCESSORIES

Bath of AISI 304 stainless steel of 140 mm Ø x 75mm high, with concentric reduction ring lid, Suitable for water, oil or sand.
Part No. **7002510**



Round bottom flask adapter made of aluminium and suitable for Kjeldahl flasks of 30 to 250 ml and 50 to 250 ml round bottom flasks.
Part No. **1002290**



Round bottom flask adapter made of aluminium and suitable for Kjeldahl flasks of 500 a 800 ml and round bottom flasks of 250 to 750 ml.
Part No. **1002280**



ACCESSORIES FOR KJELDAHL DIGESTION

Kjeldahl support Bar for Kjeldahl flasks, made of AISI 304 stainless steel.
Part No. **6023141** 4 places
Part No. **6023161** 6 places



Clamp for Kjeldahl condenser tubes made of AISI 304 stainless steel.
Part No. **6000008**



Borosilicate glass fume tube.
Part No. **1000104** 4 place
Part No. **1000106** 6 place



EXTRACTION AND NEUTRALIZING SYSTEM FOR GASSES AND VAPOURS.

Prevents water wastage.



"Scrubber"

Recirculating pump.

Features (see page 246).

Models

Unit "Scrubber"

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

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

Water recirculating vacuum pump

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

ACCESSORIES SOXHLET EXTRACTION



Boss head for supporting clamps.
Part No. **1000069**



Clamp for flasks or condenser tubes.
Part No. **7000403**