



## High volume orbital shaker incubator

FAN AIR CIRCULATED, WITH OR WITHOUT REFRIGERATION

DIGITAL ELECTRONIC CONTROL OF SPEED, TEMPERATURE AND TIME. FOR LONG OPERATING PERIODS.



### SAFETY:

TRIPLE PROTECTION MOTOR DRIVE:

OVER TEMPERATURE, IRREGULAR MOVEMENTS, AUTOMATIC STOP WHEN THE DOOR IS OPENED, TEMPERATURE ALARM, THERMAL CUTOUT.



Hinged door models with or without refrigeration



Framework type models with or without refrigeration



### GENERAL FEATURES

Metallic external case epoxy-coated.

Current and set digital reading of temperature, time and speed parameters.

Acoustic alarm and illuminated indicator at the end of the cycle and also to indicate temperature and / or time programs errors.

Automatic switch off mechanism when the shaker door is opened.

Motor over load protection, with automatic switch off activation.

Induction drive motor, where the drive mechanism has an anti vibration system.

Refrigerated models have a hermetically sealed compressor unit with a ventilated condenser.

Internal case made of stainless steel AISI 316 with polished finish and glazed door for a handy visibility of the samples process.

Internal platform with multi-adapter positions for differing accessories, such as: conical flask adapters, microtitre plate holders and universal tray with adjustable tension springs for other non standard sized vessels.

### HINGED DOOR MODELS "100D" AND "200D"

Temperated glass hinged door.

The orbital rotation can be adjusted without disassembly from 50mm.



Orbital rotation adjustment

### MODELS FRAMEWORK TYPE "1102" AND "2102"

Made with two doors framework type and double glass windows which allow visibility of the material exposed in the inside

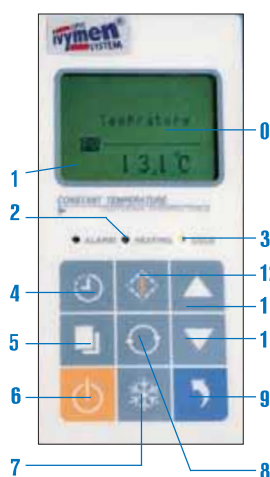
Two removable upper trays for high volume Erlenmeyer flasks accommodation in the lower tray.

Adjustable outlet hole for the air in the inside of the chamber.

With wheels for movements and adjustable support for a stabled fixing.

Accessories: See pag. 43

### CONTROL PANEL



0. LCD Display.
1. Heater "ON" indicator.
2. Alarm indicator.
3. Refrigeration compressor "ON" indicator.(only refrigerated models)
4. Time function push button.
5. Modify and confirm push button.
6. Start / Stop Push button.
7. Adjust temperature push button. (only refrigerated models)
8. Speed push button.
9. Rotation push button.
10. Reduce value push button.
11. Increase value push button.
12. Temperature push button.

Note: In models framework type, the control panel position is horizontal.



100D and 200D series.



1102 and 2102 series.



MODELS	100D	200D	1102	2102
Part No.	<b>5312090</b>	<b>5312091</b>	<b>5312094</b>	<b>5312095</b>
Rotation amplitude	Continuous adjustment from 0 to 50 mm orbital		26 mm	
Controllable speed range	from 30 to 600 r.p.m.	from 30 to 400 r.p.m.	from 30 to 300 r.p.m.	from 30 to 300 r.p.m.
Controllable speed in steps of	1 r.p.m.	1 r.p.m.	1 r.p.m.	1 r.p.m.
Refrigeration	No	Yes	No	Yes
Heating	Yes	Yes	Yes	Yes
Controllable temperature range	from ambient +5 °C to 60 °C	from 5 °C up to 60 °C	from ambient +5 °C to 60 °C	from 6 °C up to 60 °C
Controllable temperature in steps of	0.1 °C	0.1 °C	0.1 °C	0.1 °C
Chamber temperature uniformity	±1 °C	±1 °C	±1 °C	±1 °C
Timer	from 0 to 500 hours	from 0 to 500 hours	from 0 to 500 hours	from 0 to 500 hours
Usable platform dimensions	340 x 370 mm	370 x 400 mm	734 x 458 mm	734 x 458 mm
Platform number	1	1	2	2
Maximum conical flask capacity (see accessories)	6 x 1000 ml, or 9 x 500 ml, or 12 x 250 ml, or 16 x 100 ml, or 20 x 50ml	9 x 1000 ml, or 9 x 500 ml, or 16 x 250 ml, or 20 x 100 ml, or 25 x 50 ml	*4 x 5000 ml, or *8 x 3000 ml, or *8 x 2000ml, or 24 x 1000 ml, or 44 x 500 ml, or 56 x 250 ml, or 104 x 100 ml, or 104 x 50 ml	
Dimensions Height x Width x Depth	510 x 600 x 580 mm	555 x 685 x 730 mm	1440 x 950 x 700 mm	1440 x 950 x 700 mm
Weight	72 Kg	100 Kg	265 Kg	272 Kg
Power	540 W	700 W	930 W	1200 W

**\*Note: An upper tray divided into two removable pieces which allow high volume Erlenmeyer flasks accommodation, from 2000 to 5000 ml. in the lower tray or the Universal platform which is supplied as an accessory.**

### ACCESSORIES

#### Erlenmeyer and flask adapters.

Made from hardened sprung stainless steel.



- Part No. **5312105** Adapter for 50 ml
- Part No. **5312106** Adapter for 100 ml
- Part No. **5312107** Adapter for 250 ml
- Part No. **5312108** Adapter for 500 ml
- Part No. **5312109** Adapter for 1000 ml
- Part No. **5312110** Adapter for 2000 ml
- Part No. **5312111** Adapter for 3000 ml
- Part No. **5312112** Adapter for 5000 ml

#### Adapter for microtiter holder

From 85 x 130 mm., allows up to 3 plates in models 100D and 200D, and up to 6 plates in models 1102 and 2102.

Part No. **5312113**



Universal platform tray with elastic tension clips that hold in position any type of vessel, flasks, beakers, racks, etc.



For model **100D**  
Dimensions 310 x 280 x 75 mm  
Part No. **5312117**

For model **200D**  
Dimensions 370 x 300 x 75 mm  
Part No. **5312118**

For models **1102 and 2102**  
Dimensions 734 x 458 x 75 mm  
Part No. **5312120**