RESOTECH®

PLOT NO. 1131 HARI ENCLAVE KIRARI SLEMAN NAGAR NEW DELHI-110086
2ND PLANT H-936 RIICO CHOPANKI INDUSTRIAL AREA ALWAR RAJSTHAN-301707

Professional Manufacturer of Test Equipment

MAKE-RESOTECH
MODEL NO. : RESOTECH-GALAXY2607

APPLICATION

- MICROBIAL CELL CULTURES
- ENTOMOLOGY STUDIES
- SOLUBILITY TESTS
- METABOLISM STUDIES
- STABILITY TESTS
- HEMATOLOGICAL STUDIES
- FOOD PROCESSING
- QUALITY CONTROL AND ANALYSIS
- MIXING OF REAGENTS AND VARIOUS OTHER LABORATORY APPLICATIONS

Shaking incubators are highly versatile equipment's that are designed for all kinds of laboratory shaking and incubator applications, including microbial cell cultures, entomology studies, solubility tests, metabolism studies, stability tests, hematological studies, food processing, qualitycontrol and analysis, mixing of reagents and various other laboratory applications.

The equipment features an advanced shaking mechanism, designed for minimum noise, vibration free shaking that provides precise control of the rotation speed for adequate agitation and mixing of the samples. These high quality incubator shakers are suitable for timed as well as continuous, heavy duty applications.

They come equipped with various platforms and variable flask and tube support for accommodating various types and sizes of vessels, including flasks, beakers, bottles and test tubes. These equipment's are commonly employed as culture incubator shakers and are used for incubation, fermentation and cross-breeding of bacteria for environmental studies and medical research. They use orbital agitation at variable speeds for maintaining adequate cell aeration for optimum cell cultures.

CONSTRUCTION DETAILS

- Our incubator shakers are double walled convection heated and cooled units. Outer body of our incubator shakers are constructed out of thick
- M.S sheet powder coated... The inner chamber is made of heavy gauge stainless steel sheet of SS-304 grade. The gap between the walls is filled high grade mineral glass wool, which ensures maximum thermal efficiency in our incubator shakers.
- The heaters are placed between the first and the second wall of the orbital shaker, which avoids the direct contact of heaters from the third (Stainless Steel inside chamber) walls. The heat to the inside chamber is given indirectly through forced air circulation, provided by the heavy-dutyblower placed between the walls of the incubator. This system helps to control the temperature with higher sensitivity (+/- 0.1^0 C or less).
- The unit is mounted on a sturdy M S steel frame and provided with castor wheels for easy movement inside the laboratory.

- Temperature Range: The temperature range inside the incubator shaker is 5 to 60^0 C
- Temperature Control: Temperature is controlled through, microprocessor based programmable electronic PID temperature controller cum indicator, which controls the temperature of the orbital shaker.
- Forced Air Circulation System: The uniformity of temperature is maintained throughout the chamber of the orbital shaker with an efficient air circulation

- Shaking Platform: The standard model of our shaker has a plat form size of 420mm x 420mm and it can withhold 16-20 flasks of 250ml,500ml,1000ml, 2000ml
  . However this can be modified to suit the individual customer's requirements.

- Shaking System: The efficient and diligent shaking system of our incubator shaker has an orbital shaking movement which is powered by a reliable motor of suitable power and wattage.
- Speed: The shaking speed of our standard model variable speed incubator shaker is between 20 RPM to 200 RPM. However we can customize the speeds as per the individual requirements of the user.
- Speed Control: The orbital shaking in our orbital shakers is controlled by an DC drive which in turn is controlled through microprocessor based digital speedcontroller cum RPM indicator with great accuracy.
- Heating: The heaters are placed between the first and the second wall of the orbital shaker, which avoids the direct contact of heaters from the third (Stainless Steel inside chamber) walls. The heat to the inside chamber is given indirectly through forced air circulation, provided by the heavy-duty blower placed between the walls of the incubator.
- Humidity (optional): Humidity generation provision can be incorporated as an optional feature if desiredby the customer. The humidity is generated by means of aerosol humidity generator with efficient humidity controller cum indicator.
- Front Panel: Front panel of our units comprises of on/off switches heating, cooling and mains indicator lamps, temperature controllers and voltmeters.
- Refrigeration system: An energy efficient cooling unit is

CONDENSING UNIT

(1) AIR-COOLED CONDENSOR

Air-cooled condenser is internally grooved finned copper tubes used for high heat transfer area, which not only reduce power consumption, but also bring down the condensation faster. This unit is designed. & verdigris & reduces the resistance, saves energy consumption and ensure good heat exchange.

(A.) COMPRESSOR:

HERMETIC COMPRESSOR Single stage Reciprocating Compressor. Give the High Efficiency compared to sealed compressors, Less Power Consumption , Accessible for repairing, low noise level, Less Vibrations, Wide Voltage Range, Designed for Extremely High Ambient ,Full warranty etc.

COOLING SYSTEM

The compressor is mounted perfectly to ensure recommended level of sound and vibration.

(B.) REFRIGERATION CONTROL

(A).LOW AND HIGH PRESSURE SWITCH

Which ensures the compressor and refrigeration system when low pressure will occurs it trip off the compressor. This is the only operator friendly switch can easily reset.

(B).HAND SHUT OFF VALVE

Is the only Condensing Unit, which is equipped with it. This valve is used for pump down the total gas in to the condenser & receiver in the faulty condition.

(C).LIQUID DRYER

Which is equipped in the liquid line for ministration of moisture in the liquid. It will collect all the moisture inside the refrigeration line as well as gas.

(E). SOLENOID VALVE

In most refrigeration applications, in order to automatically control the flow of fluids in asystem, it is necessary to be able to start or stop the flow in the refrigerant circuit. An electrically operated solenoid valve is usually used for this purpose. Its basic function is the same as a manually operated shutoff valve, but it can be positioned in remote locations, and may be conveniently controlled by simple electrical switches.

(F). OIL SEPARATOR OF STAINLESS STEEL 304

The oil separator intercepts the oil mixed with compressed gas and returns it into the crankcase of the compressor, thus assuring an efficient lubrication of its moving parts. Also, it improves the overall efficiency in the system.

(G). SUCTION ACCUMULATOR

Maximum Efficiency of the relief device (expansion valve) because it is supplied with sub cooled Liquid.

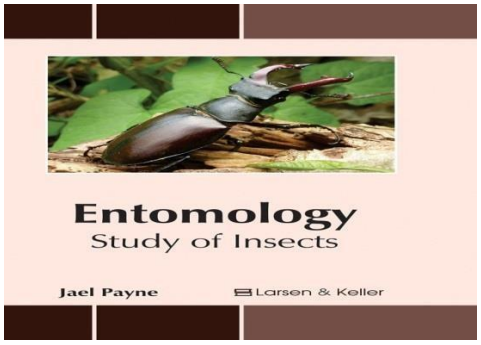
TECHNICAL SPECIFICATION

Temperature Accuracy	± °C	0.1
Temperature Uniformity	± °C	0.1
Readability/ Set ability	°C	0.1
Temperature range	°C	5°C to 60°C
Sensor thermocouple		PT 100
Controller		PID Controller
Display		LED
Speed range		20 to 200 rpm
Sensor thermocouple		PT 100
Automatic setting		Yes
Adjustable limits		Yes
Accessories		Yes
Automatic de-icing system		Yes
Timer (1-999 minutes or hours)		Yes
Real Time Program		Yes
Printer Report Program		Yes
Serial Data Port	RS232	yes
Inspection window in door		yes
Standard/ max		3
Dimensions	mm	Model Specific
Access Port 30 mm		optional
Inspection window in door withcover		optional
Castors, lockable		Yes
Nominal voltage	V	220, 230, 1~
Frequency	Hz	50/60
Features		1. Double walled door fitted with glass door window duly insulated fitted with magnetic tape for air tight closing for no temperature loss, provided with lock and key arrangement. 2. Triple eccentric drive system with brushless DC motor fitted with universal platform plate interchangeable clamps of assorted sizes for different capacity of flasks. 3. Illumination lamp fitted inside the chamber for easy visibility. 4. Door have double viewing window to observe the sample placed inside the chamber without disturbing the thermal condition. 5. High grade GLASSWOOL INSULATION between outer and inner

		chamber for minimal thermal losses. **6. Heating elements place in the path of moving air duly insulated from the body.** **7. All controls and circuitry housed at the top fitted with digital PID system for all parameters operated via touch keypad** **8. Solid state electronic relay with protective heat sin.**
Diameter		**Usable space of the system 400-500 X 400-500 X 4500-550mm**
Volume	**L**	**100**
Tray		**1 no. tray (fixed)**
Accommodate		**250ml X 9/500ml X4** **(platform size- 300X300mm)**
Digital display		**Set value (SV) and process value (PV)**

APPLICATION

- Microbial cell cultures
- entomology studies
- solubility tests
- metabolism studies
- stability tests
- hematological studies
- food processing
- quality control and analysis
- mixing of reagents and various other laboratory applications

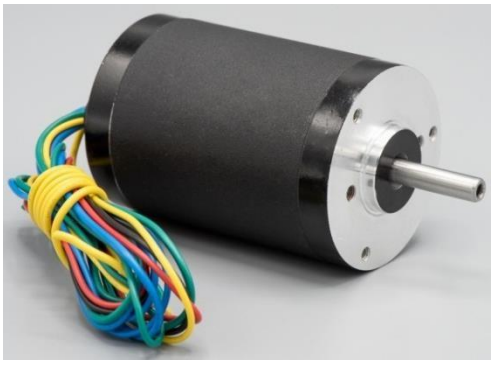


SPECIAL FEATURE

1. Advanced shaking mechanism for adequate agitation and aeration
2. Suitable for timed as well as continuous applications
3. Digital PID microprocessor based controllers for precise temperature control
4. Easy to read, digital LED/LCD display for actual and set parameters
5. An over-temperature protection feature with independent thermostat
6. Beltless Drum Mechanism for increased efficiency
7. Brushless DC motor for reduced noise and trouble-free, long-lasting operation
8. Can be timed or runs in continuous mode
9. Timer for setting operating time up to 99.9 hours
10. An interlock stops motion when the door is open
11. Shelf located at upper part of chamber, and Shaker at lower part of chamber
12. Variable Flask & Tube Support
13. Light Bank for illumination








SINGLE DECKER-
SHAKING PLATFORM

TWO SHAKING TIER / DOUBLE DECKER UNIT AS PER CUSTOMER REQUIRMENTS

- Top plate and body made of mild steel duly powder coated
- 25 mm orbital shaking action
- 30-500 RPM shaking speed range
- Shaker speed can be controlled through a continuously speed variable regulator knob
- Machine is fitted with heavy duty brushless induction motor having variable speed
- Platform is fitted with interchangeable lotus clamp to hold the flask. Clamps are made of fiber or are SS spring loaded clamps.
- 0-999 minutes timer / continuous operation

Digital displays for shaking speed and timer function

- Auto restart at preset RPM in case of power failure
- It works on 230V AC, 50 Hz

DOUBLE DECKER-SHAKING PLATFORM

OUR VALUED CUSTOMERS

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