

INCUBATORS



BACTERIOLOGICAL INCUBATOR (UET-101)

Double Walled, Inside S.S., Temp. few deg. above ambient to 70°C. Microprocessor Based PID controller, adjustable shelves, circulating fan motor, work on 220 V AC.

Sizes: (WxDxH) 355x355x355mm
455x455x455mm
605x605x605mm
605x605x910mm

(OPTIONAL) 21 CFR Compliance, customized and walk In type Size on Request

B.O.D INCUBATOR (UET-102)

Double walled inside S.S., Temp. 50 C To 600 C, Microprocessor based PID controller, adjustable shelves, circulating fan motor, Supply- 220/415 ACV, 50 Hz.

Sizes: (LxWxH) 4cu.ft. 455x410x610mm
6cu.ft. 505x415x830mm
10cu.ft. 570x550x875mm
12cu.ft. 650x580x900mm

(OPTIONAL) 21 CFR Compliance. customized and walk In type Size on Request



COOLING INCUBATOR (UET-103)

Double walled inside S.S. temp. 5°C - 50°C. Microprocessor based PID controller, adjustable shelves circulating fan motor, work on 220 V AC.

Size: (WXDXH) 455x410x610mm
505x415x830mm
570x550x875mm
650x580x900mm

(OPTIONAL) 21 CFR Compliance.

INCUBATOR SHAKER (UET-104)

Mild steel powder coated, variable speed 30-250 rpm, platform size: 380x380mm, clamps to hold flask 250ml/500ml. Temp. ambient to 600c. microprocessor based PID controller work on 220 V AC.



COOLING INCUBATOR SHAKER (UET-105)

Double walled inside S.S. Temp. 10°C - 60°C +/- 0.5°C microprocessor based PID controller, circulating fan motor work on 220 V AC.

Size: (WxDxH) 455x410x610mm
505x415x830mm
570x550x875mm
650x580x900mm

(OPTIONAL) 21 CFR Compliance.

DRY BATH INCUBATOR (UET-106)

Mild steel powder coated, anodized aluminium block holes for 1.5/2ml MCT tube, microprocessor based PID controller, temp. Few deg. Above ambient to 600c. Work on 220 V AC.



OVENS



HOT AIR OVEN (JET-201)

Double walled, inside S.S. Temp. 500C. To 2500C. Nano technology based ergonomic controller, adjustable shelves, circulating fan motor, work on 220 V AC.

Sizes: (WxDxH) 355x355x355mm
455x455x455mm
605x605x605mm
605x605x910mm

(OPTIONAL) 21 CFR Compliance.

INDUSTRIAL DRYING OVEN (JET-202)

Triple walled, inside S.S. temp. range up to 350OC. Nano technology based ergonomic controller, adjustable shelves, circulating fan motor, 220-230 Volts, 50 Hz Single Phase.

Sizes: (WxDxH) 605x605x605mm
605x605x910mm
910x910x910mm
1500x1000x1000mm. or Customization

(OPTIONAL) 21 CFR Compliance, Trolley.



VACUUM TRAY DRYER (JET-203)

Triple walled, inside S.S./M.S. temp. few deg. above ambient to 200°C. Nano technology based ergonomic controller, circulating fan motor, work on 230 V.

Sizes: (WxHxD) L-1.5 x D-2 x H-1.5 feet: 2 trays:
L-2 x D-2 x H-2 feet: 3 trays:
L-2 x D-2.5 x H-2.5 feet: 4 trays:
L-2 x D-2 x H-3 feet: 8 trays:

(OPTIONAL) 21 CFR Compliance.

VACUUM OVEN (JET-204)

Temperature range up to 200°C, Microprocessor based temperature controller, work on 230 V.

Sizes: (L x H x D) 200 x 200 x 300 mm
300 x 300 x 400 mm
350 x 350 x 500 mm
450 x 450 x 600 mm



TEST CHAMBERS

We customize test chambers for products testing, Environmental Parameter testing and simulation Test Studies for varied applications (Temperature Range -100°C to +200°C, Humidity 10%-95%, Pressure: 15-150 psi, Light: 200-1000 micro mols/cm²).



OZONE TEST CHAMBER (UET-301)

It is used to study the ozone proof functions of rubber and rubber products, as ozone is the main reason for cracks in rubber.

- ❖ Density control analyzer for 50-1000pphm.
- ❖ **Standard temperature:** 40° to 70° C / 10 to 70° C
- ❖ **Humidity Range:** less than 65% RH.
- ❖ (Optional) HMI+PLC based controller.

THERMAL SHOCK CHAMBER (UET-302)

It provides cycled temperature conditions from cold to hot or hot to cold in thermal shock, with the switching time not more than 10 seconds.

- ❖ **Sizes: (WxHxD) Internal size:** 80L: W500*400*400mm (can be customized)
External size: 80L: 1400*1850*1500mm (can be customized)
- ❖ **Temperature shock range:** High temperature +60°C~ +200°C Low temperature -40°C~ -10°C
- ❖ **Preheating temperature range:** 60°C~200°C
- ❖ **High temperature Chamber heating time:** RT to +200°C ≤30min
- ❖ **Pre cooling temperature range:** (-10)°C~ (-70)°C
- ❖ **Temperature fluctuation:** ±1.0°C
- ❖ **Temperature uniformity:** ±2.0°C
- ❖ (Optional) HMI+PLC based controller.



THERMAL CYCLIC CHAMBER (UET-303)

Internal Dimension WxHxD (mm) 500x400x400
External Dimension WxHxD (mm) 1550x1950x1550

❖ Temperature Range of Testing zone

- Type A: -40 °C~+150°C (200°C is Optional)
- Type B: -55°C ~+150°C (200°C is Optional)
- Type C: -65°C ~+150°C (200°C is Optional)

❖ Exposure Time of High/Low Temperature

Exposure Time of High Temperature: +60°C ~ +150°C (200°C is Optional) 30Mins
Exposure Time of Low Temperature : -10°C~Type A:-40°C / Type B -55°C / Type C -65°C 30Mins

❖ Temperature of Heat-Storing Slot / Heating Time: RT to 200°C about 45mins

❖ **Internal and External Material:** Material of the inner box is SS 304#, of the outer box is stainless steel or see cold-rolled steel with paint coated.

- ❖ (Optional) HMI+PLC based controller.



SALT SPRAY CHAMBER (UET-304)

Internal Dimension WxHxD (cm) 60x45x40 90x60x50 120x80x50 200x800x50 200x100x60
External Dimension WxHxD (cm) 107x58x103 138x80x115 170x95x121 170x95x121 265x100x135

❖ Temperature Range: Box temperature-RT~50°C, ±0.5°C

Air saturation barrel temperature-Brine tank temperature~50°C, ±50°C
Brine tank temperature-Brine tank temperature~50°C, ±0.5°C

- ❖ **Saturated air pressure (kg/m²):** 0.8~0.2
- ❖ **Mist volume (ml/80cm²/h):** 0.5~3.0
- ❖ **Humidity:** More than 90% (Through fog)
- ❖ (Optional) HMI+PLC based controller.





SEED GERMINATION CHAMBER (UET-305)

Designed for germination and development of seeds under different crucial environmental parameters like humidity, temperature and illumination with greater accuracy to provide more uniform and stronger seedlings

- ❖ **Construction:** External- Epoxy powder coated MS sheets
Internal- High grade SS 304 stainless steel
- ❖ **Temperature Range:** Single Chamber- 5°C to 60°C
Dual Chamber- Chamber 1: 5°C to 60°C Chamber 2: Ambient+5°C to 60°C
- ❖ **Temperature Sensitivity:** ±1°C
- ❖ **Humidity Range:** 20-85% RH (as per graph)
- ❖ **Humidity Sensitivity:** ±1%RH
- ❖ **Temperature Sensor:** PT-100
- ❖ **Inner Dimensions / Capacity (Each Chamber):** 518 W x 910 H x 548 D mm / 265 Liters
- ❖ **(Optional)** HMI+PLC based controller.

PHOTO STABILITY CHAMBER (UET-306)

Used for confirmatory studies as per ICH GUIDELINES (ICH Q1B) for direct comparison of drug substance under controlled environmental conditions.

- ❖ **Temperature Range:** 10°C to 60°C (adjustable)
- ❖ **Temperature Fluctuation:** ±0.5°C
- ❖ **Temperature Uniformity:** ±1°C
- ❖ **Humidity:** 40 to 95% RH (as per graph)
- ❖ **Humidity Accuracy:** ±5% RH
- ❖ **Material of Construction:** Inner: SS-304 & Outer: Mild Steel
- ❖ **Readability or Set Ability (%) :** 5%
- ❖ **Light intensity (Middle chamber) lux:** 1.2 million lux
- ❖ **Light intensity (UV) (min):** 200 Watt hour/square meter
- ❖ **Power Requirements:** 220/230V, 50/60Hz, 1 phase or 3 phase as requested
- ❖ **(Optional)** HMI+PLC based controller.



ENVIRONMENTAL TEST CHAMBER (UET-307)

- ❖ **Inner Size:** W×H×D(cm) 40×50×40/ 50×60×50/ 50×75×60/ 60×85×80/ 100×100×80
- ❖ **Outside Size:** W×H×D(cm) 93×155×95/ 100×148×106/ 117×166×91/ 140×176×101/ 170×186×111
- ❖ **Volume (V):** 80 L/ 150L/ 225L/ 408L/ 800L
- ❖ **Temp and Hum Range:** A: -20°C~150°C B: -40°C~150°C C: -60°C~150°C D: -70°C~150°C RH20%-98%
- ❖ **(Optional)** HMI+PLC based controller.

ALTITUDE TEST CHAMBER (UET-308)

- ❖ **Internal dimension (W*D*H):** 600*600*600mm
- ❖ **Internal material:** #304 stainless steel, mirror finished
- ❖ **External material:** Stainless steel with paint spray
- ❖ **Temperature range:** -40~+100°C
- ❖ **Temperature fluctuation:** ±0.5°C
- ❖ **Temperature uniformity:** ±2°C
- ❖ **(Optional)** HMI+PLC based controller.



RAIN TEST CHAMBER (UET-309)

- Temperature:** Room temperature
- Optional Temperature Range:** -20 to 100°C
- Temperature Fluctuation:** ±1°C
- Temperature Sensor:** PT-100
- Power Requirements:** 220/230V, 50/60Hz
- ❖ **(Optional)** HMI+PLC based controller.

AUTOCLAVE

Vertical Autoclave (Economy Model) - Double Walled Cylindrical (UET-401)

Double walled, outer, inside chamber, lid S.S. Radial locking, microprocessor based PID temperature controller pressure control switch, pressure gauge, safety valve, low water cut off, vacuum breaker, digital temperature controller, timer, drain valve, silicone gasket, work on 220 V AC.

❖ Sizes: (Dia x Depth)	250x450mm	400x600mm
	300x500mm	450x600mm
	350x550mm	550x750mm

❖ (Optional) 21 CFR Compliance.



Vertical Autoclave - Triple Walled (UET-402)

Triple walled, outer, middle, inside chamber, lid S.S. Radial locking, microprocessor based PID temperature controller pressure control switch, pressure gauge, safety valve, low water cut off, vacuum breaker, timer, drain valve, Foot paddle lifting device work on 220 V AC.

❖ Inner Size (Dia x Depth)	250 x 450mm	400 x 600mm
	300 x 500mm	450 x 600mm
	350 x 550mm	550 x 750mm

❖ (Optional) 21 CFR Compliance.

Horizontal Autoclave (Dry Sterilization Model) Cylindrical (UET-403)

Hi-tech radial lock locking mechanism, microprocessor based PID temperature controller pressure control switch, pressure gauge, safety valve, low water cut off, vacuum breaker, timer, drain valve, Foot paddle lifting device work on 220 V AC.

❖ Inner Size (Dia x Depth)	400x600mm
	400x1100mm
	500x900mm
	500x1200mm

❖ (Optional) 21 CFR Compliance.



Horizontal Rectangular Autoclave (UET-404)

Hi-tech radial lock locking mechanism, microprocessor based PID temperature controller pressure control switch, pressure gauge, safety valve, CUT Hammer contractor for long trouble free usage, low water cut off, vacuum breaker, timer, drain valve, Operatable on 3 Phase, 440 Volts A.C.

❖ Inner Size (Dia x Depth)	450 x 450 x 900mm,
	600 x 600 x 900mm,
	450 x 600 x 900mm,
	600 x 600 x 1200mm

❖ (Optional) 21 CFR Compliance.

FUME HOOD

FUME HOOD (UET-501)

Fume hoods are designed to function as an enclosed ventilated workspace- can provide a substantial degree of protection to user. It is designed so as to throw-out all toxic harmful vapour, acidic/alkaline fumes, chemical vapors, removal of odour from the hood working area.

MOC: GI Powder Coated / Stainless Steel / Polypropylene

Type: Floor Standing Model / Table Top Model

Working Area WxDxH : 600x600x900mm, 600x600x1200mm, 600x600x1800mm

Bottom Arrangements: Cabinets, With Cupboard With One Horizontal Partition and Shutters, Locking Arrangements.

Baffles: Aerodynamic Shape Fully Made Of 3mm FRP.

Work Top: Black Granite 18mm.

Sash Shutter: Single, Vertical Sliding, Balanced With Counter Weight.

Blower Type: Centrifugal Blower

Powered By: 1 HP 1440 RPM Single Phase.

Exhaust Duct: PVC/FRP Duct Pipe

Electrical Arrangements: 2 Nos. 15/5 Amps 3 Pin Socket

Illumination: By 4 Feet Tube Light.

Sink & Tap: Sink With Outlet Nipple Single Way / Three Way Swan Neck Tap.



DUCTLESS FUME HOOD(UET-502)

Constructions: Mild Steel / Stainless Steel-304

Table: Stainless steel sheet of 304 grade/ fortified acid proof glazed tiles

Sink: Stainless steel sink with tap

Coating: Epoxy Coating

Air Flow: Unidirectional

Air Flow Velocity: 0.4m/sec

Air Flow Control: Three step air flow speed controller

Blower Assembly: Centrifugal lubricated bearing type ISI marked assembly

Illumination: Fluorescent light illumination greater than 800 lux on work table.

Noise Level: Noise level less than 60 dB

Nominal Voltage: 220- 230 Volts Single Phase

Working Size: 4' x 2' x 2' / 4' x 2.5' x 2.5' / 5' x 2.5' x 2.5'

WET BENCH FUME HOOD(UET-503)

Construction: All stress-relieved white polypropylene, 0.5" (13 mm) thick or all 304 stainless steel. Standard plumbing is PVC (specify 304 stainless steel or other desired material).

Exhaust: Ducted through a standard 10" (254 mm)-diameter flange positioned at the top rear of the cabinet (see airflow illustration). Specify other desired flange diameter or location.

Drain: 2" NPT female, located at bottom of sub-deck plenum.

Power: 120VAC, 60Hz or 220VAC, 50Hz, depending on component selection. Power outlets available for process equipment.

Illuminator: 800 lux

Controls: Instrument panel provides power switch, power indicating light, light switch, static pressure exhaust meter, and power fuse. Provisions are made for audible and visible pressure alarm, visible alarm silence, and for control of optional processing baths.

Noise Factor: 50 dBA

Filter Type: 99.99% efficient HEPA

Air Flow: Unidirectional

Air Flow Control: Three Step Air Flow Speed Controller

Blower Assembly: Centrifugal lubricated bearing type ISI marked assembly

Nominal Voltage: 220- 230 volts, 50Hz single phase



TABLE TOP FUME HOOD(UET-504)

Constructions: Mild Steel / Stainless Steel-304

Table: Stainless steel sheet table of ss-304 grade/ fortified acid proof glazed tiles

Coating: Epoxy coating/ FRP lined

Air flow: Unidirectional

Blower assembly: Centrifugal lubricated bearing type ISI marked assembly

Illumination: Fluorescent light illumination greater than 800 lux on work table.

Noise level: less than 60 db

Power requirements: 500 watts -750 watts(model specific)

Nominal voltage: 220- 230 volts, 50Hz single phase

Frequency: 50

Working Size: 4' x 2' x 2' / 5' x 2' x 2' / 6' x 2' x 2' / 7' x 3' x 3' / 8' x 3' x 3'



POLYPROPYLENE FUME HOOD(UET-505)

Exterior and interior construction: Structural polypropylene

Exhaust: 500 cFM-1250cFM

Static Exhaust: 20mm-38mm

Exhaust Duct: 102*610 mm

Down Flow Velocity 105 LFPM: 60 LFPM (0.30 m/s)

Inflow Velocity: 105 LFPM (0.53 m/s)

Power Requirements: 230V, 50 Hz

Working Size: 4' x 2' x 2' / 5' x 2' x 2' / 6' x 2' x 2' / 7' x 3' x 3' / 8' x 3' x 3'



FUME HOOD SCRUBBER(UET-506)

Constructions: Thick PCRC, pre coated corrosion resistant GI sheet

Table: Stainless steel sheet table of 304 grade/ fortified acid proof glazed tiles

Sink: Stainless steel sink with tap

Coating: Epoxy coating/ FRP lined

Air flow: Unidirectional

Air flow control: Three step air flow speed controller

Blower assembly: Centrifugal lubricated bearing type ISI marked assembly

Illumination: Fluorescent light illumination greater than 800 lux on work table.

Noise level: Noise level less than 60 db

Nominal voltage: 220- 230 volts, 50Hz single phase

Working Size: 4' x 2' x 2' / 4' x 2.5' x 2.5' / 5' x 2.5' x 2.5' / 6' x 2.5' x 2.5' / 6' x 3' x 3'



CLEAN ROOM EQUIPMENT

BIOLOGICAL SAFETY CABINET (CLASS-1) (UET-601)

Constructions: Stainless-Steel / PCRC Powder Coated Sheet, table of SS-304 grade

Cleanliness (Class): ISO class 3

Face velocity: 90±20 ft/min

Pre Filter: Washable pre-filter unit

HEPA Filters: Glass pleated non-woven fabric filter having 99.99% efficiency 0.3 micron particle size.

Air Flow: Unidirectional.

Air Flow Control: Three Step air flow speed controller

Blower Assembly: Centrifugal lubricated bearing type ISI marked assembly

Illumination: >800 lux

Noise level: <54 db

Differential pressure indicating precision: 1%

Add on features: Gas/air/vacuum line cock

Power Requirements: 500 watts - 750 watts (Model specific)

Nominal voltage: 220-230 Volts

Working Size: 2'x2'x2' / 3'x2'x2' / 4'x2'x2' / 6'x2'x2'



BIO SAFETY CABINET (CLASS-2) (UET-602)

Cabinet Construction: PCRC / Stainless Steel-304

Cleanliness Class: ISO class 3

Illumination Level: ≥800 Lux

Noise Pressure (dB) (A): <65 db

Filter: HEPA

Airflow Velocity (inflow): 75 fpm

Air Supply Filter: Washable

Differential Pressure Indicating Range: 15-30 mmWg

Differential Pressure Indicating Precision: ± 1%

Working Size: 2'x2'x2' / 3'x2'x2' / 4'x2'x2' / 6'x2'x2'

Size of HEPA Filter: 2'x2'x6" / 3'x2'x6" / 2'x1.5'x3" / 1.5'x2'x6"

BIOLOGICAL SAFETY CABINET (CLASS-3) (UET-603)

Made of stainless steel, no circulation takes places inside workspace and the blower will exhaust all the 100% of the filtered air, surrounds the work zone having negative pressure while a microprocessor controls cabinet functions. A lcd panel to display the monitoring of the cabinet air flow and a blower run meter is there to track operating life. Pre filter washable and HEPA filters made of mini pleated non-woven fabric. The filters deliver an efficiency rating which is better than 99.99% at DOP (cold) and 99.97% at DOP (hot), can hold particles of greater than 0.3 micron, fitted balanced motor and blower, work on 220-230v ac, 50 Hz

Internal Size (WxHxD): 600x600x600mm, 900x600x600mm, 1200x600x600mm, 1800x600x600mm

Outer Wall, Inner Wall: Stainless Steel

Side Walls: Acrylic Sheets

Exhaust: 100%

Exhaust Filter & Down Flow Filter: Filter With Efficiency 99.99% at 0.3 Micron

Ultra Violet Tube Light: Germicidal

Static Pressure Measurement: Magnetic Gauge



AIR SHOWER (UET-604)

Constructions: MS Sheet / Stainless Steel (SS 304), anodized aluminum doors with clear acrylic windows
Operation Time (Adjustable): 0-9,990 seconds
Pre Filter: Washable pre-filter unit (Non-Woven Synthetic Polyester)
HEPA Filters: Glass pleated non-woven fabric filter having 99.99% efficiency 0.3 micron particle size.
Air Flow: Multi Directional
Face Velocity: 18-20 m/sec \pm 2
Air Flow Control: Solid State Control Unit
Illumination: Fluorescent light illumination greater than 800 lux on work table
Blower Assembly: Centrifugal lubricated bearing type
Noise Level: Noise level less than 60 db
Add On Features: Sequential feature operation by door mat magnetic switch.
Nominal Voltage: 415 Volts, 50 Hz Three Phase



LAMINAR AIR FLOW (UET-605)

Cabinet construction: SS-304 / PCRC Sheet
Frequency: 50Hz
Nominal voltage: 220-230 volts
Air flow: Unidirectional
Air flow velocity: 90 \pm 20 fpm
Noise pressure(dB) (A): <54dB
Pre filter unit: Washable pre filter unit
Illumination: Fluorescent light illumination greater than 800 lux
Power Requirements: 500-750 watts
Internal work space (mm): 2'x2'x2' / 3'x2'x2' / 4'x2'x2' / 6'x2'x2' / 8'x2'x2'
Working Size: 2'x2'x2' / 3'x2'x2' / 4'x2'x2' / 6'x2'x2' / 8'x2'x2'

TABLE TOP HORIZONTAL LAMINAR AIR FLOW (UET-606)

Cabinet construction: Mild steel / SS-304
Frequency: 50
Nominal voltage: 220-230 volts
Air flow: Unidirectional
Noise pressure(dB) (A): <54dB
Pre filter unit: Washable pre filter unit
Illumination: Fluorescent light illumination greater than 800 lux
Power Requirements: 500-750 watts
Internal work space (mm): 3' x 2' x 2'
Working Size: 2'x2'x2' / 3'x2'x2' / 4'x2'x2' / 6'x2'x2' / 8'x2'x2'

