



OVEN HOUSE

AR Heating & Cooling
Solutions
ThermoMech®

1 QUALITY ASSURANCE

2 INNOVATION

3 SUSTAINABILITY



CATALOG

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**Our
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TM-1: HOT PLATE

SIZES:

In mm	In inches
250 x 300	(9"×11")
250 x 400	(9"×15")
300 x 455	(11"×18")
455 x 605	(18"×24")
605 x 605	(24"×24")
605 x 900	(24"×35")



SPECIFICATIONS:

MOC Body	Mild Steel Sheet Duly Powder Coated
Heating Elements	Placed Underneath Insulated
Temperature Controller	Energy Regulator
Temperature Range	Continues Heating Upto 350oc
Electric Supply	220/230V AC, 50/60Hz

PRODUCT DETAILS :

A hot plate is a laboratory device used to heat samples, solutions, and materials uniformly without the danger associated with the open flame at precise temperatures. Hot plates have a flat surface with heating sources. They are perfect for use in an oil or sand bath because they don't emit open flames.

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TM-2 : MUFFLE FURNACE



Inner Muffle Sizes

In mm	In inches
225×100×100	(9"×4"×4")
250×125×125	(10"×5"×5")
300×125×125	(12"×5"×5")
300×150×150	(12"×6"×6")
300×200×200	(12"×8"×8")
350×175×125	(14"×7"×5")
475×175×125	(19"×7"×5")
450×225×225	(18"×9"×9")

SPECIFICATIONS:

Max temperature	1400°C	1100°C
Continuous operating temp.	1300°C	1000°C
Heating element	Silicon carbide (SiC) rods	Kanthal wire
Thermo couple	R Type	K Type
Chamber MOC	Ceramic Zirconium board	Ceramic fiber board
Exterior MOC	Mild steel powder coated	Mild steel powder coated
Insulation	Ceramic fiber blanket	Ceramic fiber blanket
Temperature controller	PID controller with SCR power control	PID controller with SCR power control
Power supply	3 Phase 440 Volts 50Hz (with energy saving transformer assembly)	220 Volts 50Hz
Accessories	· One pair of furnace gloves · One crucible steel tong	

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TM-3 : DIGITAL WATER BATH

SPECIFICATIONS:

Capacity	5L
Temperature Range	Ambient+9 to 212°F Ambient+5 to 100
Stability @37°C	±0.2C
Uniformity @37°C	±0.3°C / ±0.54°F
Timer (hh:mm)	00:01 ~ 99:59
Interior Dimensions (WxHxD)	11.0×5.9×5.1(inch) 280×150×130 (mm)
Exterior Dimensions (WxHxD)	13.6×13.4×7.9 (inch) 345×340×200 (mm)
Net Weight	11 lb / 5kg
Electrical Plug Type	NEMA 5-15
Power Supply	120V (±10%) 50/60Hz
Power Consumption	500W
Temperature Resolution	0.1
Tracking Alarm	≤0.2°C / ≤3.6°F



SIZES:

In mm	In inches
30X25X20	12"X10"X8"
45x30x25	18"X12"X10"
45X35X30	18"X14"X12"

PRODUCT DETAILS :

A humidity testing chamber is a specially designed environmental chamber that is used to simulate different levels of humidity. By controlling the temperature and relative humidity inside the chamber, engineers can test products or materials for their performance in high-humidity conditions.

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TM-4 : HOT AIR OVEN

SPECIFICATIONS:

Temperature Range	5°C above ambient to 250°C maximum
Temperature Accuracy	+ / - 2°C
Temperature Uniformity	+ / - 1°C
Controls	PID Controller
Temp Display	LED Display
Sensor	PT-100
Heating Element	Nichrome wire / Kanthal A1
Safety device	Over temperature protection Electric leakage breaker Temperature safety as per DIN 12880 Class 3.1
Exterior Chamber	MS powder coated
Interior Chamber	304 stainless steel
Insulation	Mineral Wool
Doors	Solid doors w/ silicone rubber gasket & lock
Air Circulation	Forced air circulation
Power Supply	220 Volts



SIZES:

In mm	In inches
300 x 300 x 300	12" X 12" X 12"
350 x 350 x 350	14" X 14" X 14"
450 x 450 x 450	18" X 18" X 18"
450 x 450 x 600	18" X 18" X 24"

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TM-5 : BOD INCUBATOR

SPECIFICATIONS:



Ambient condition	0-50 °C
Operating/produced/achievable temperature range in BOD incubator	0 °C to +70 °C
Temperature sensitivity	+/- 0.1 °C
Temperature uniformity	+/- 0.5 °C
Temperature control using PID or equivalent control device	Programmable:- Profile with different ramp up, ramp down and soak features- Profile containing >= 8 feed points- Cycling feature for any number of times
Data acquisition port and cable for PC/laptop communication	Yes. To feed temperature cycles and record time vs. temperature data from BOD sensors
Independent overheat protection system	Installed with separate temperature sensor & buzzer alarm
Maximum heating rate	5 °C per minute
Minimum heating rate	2 °C per hour
Maximum cooling rate	5 °C per minute
Minimum cooling rate	2 °C per hour
Air circulation	Forced type, minimum 2 fans
Humidity control for chamber	Installed dehumidifier for <50% RH
Inner chamber volume	Minimum 2 cubic feet with 4 shelves
Inner chamber wall	Stainless steel, appropriately insulated
Lock and buzzer alarm for door	Yes
Calibration and operating manual	Yes
Supply voltage and frequency	~220 V and 50 Hz
CFC free refrigeration system	Yes

SIZES:

Inner dimension W X D X H in MM	Capacity In LTR
500 x 500 x 700 Cm.	175
550 x 550 x 900 Cm	285
600 x 600 x 900 Cm	340
700 x 700 x 950 Cm	450

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TM-6 : HUMIDITY CHAMBER

SPECIFICATIONS:

Temperature Range	20 °C to 60 °C
Humidity Range	40%RH to 95%RH
Accuracy	+0.2 °C & +2.0% RH
Uniformity	+2.0 °C & +3.0% RH
Test Suitable for	25 °C & 60% RH, 30 °C & 65% RH 40 °C & 75% RH, 30 °C & 75% RH
Specially designed chambers for Low Humidity conditions such as 25 °C 40% RH, 40 °C 25% RH, 30 °C 35% RH	
Control System	PLC or PID Based



SIZES:

In mm	In inches
300 x 300 x 300	12" X 12" X 12"
350 x 350 x 350	14" X 14" X 14"
450 x 450 x 450	18" X 18" X 18"
450 x 450 x 600	18" X 18" X 24"

PRODUCT DETAILS :

A humidity testing chamber is a specially designed environmental chamber that is used to simulate different levels of humidity. By controlling the temperature and relative humidity inside the chamber, engineers can test products or materials for their performance in high-humidity conditions.

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TM-7: ROLLING THIN-FILM OVEN

IS: 15799_2021

PRODUCT DETAILS :

Rolling Thin Film Oven (RTFO) Test measures the effect of heat and air on a moving film of hot mix asphalt binder, simulating short-term aging that occurs during production and paving operations. This is important for investigating and predicting early age HMA pavement behavior and distress.



SPECIFICATIONS:

Specimen Capacity	8 high temperature glass bottles
Temperature Range	0°C to 200°C \pm 0.5°C
Power Requirements	240 VAC, 50/60 Hz, single phase 10A
Air Requirements	A source of clean, dry air with 60-163psi
Time to Set Point	20 Minutes

SIZES:

In mm	In inches
750 x 750 x 900	30" X 30" X 35"

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TM-8 : DEEP FREEZER

PRODUCT DETAILS :



The perfect showcase for frozen foods and ice-creams. Built sturdy for heavy use and tropicalized for superior cooling even in high temperatures. Featuring low emissivity glass for enhanced visibility and insulation. Customize with optional special baskets and LED lights.

SPECIFICATIONS:

- Upright Vertical Deep Freezer
- Temperature range -10°C to -40°C
- Direct Cooling Type
- Microprocessor controlled system
- Capacity 260 – 265 Lit
- LED Display
- Minimum 7 drawers required
- CFC- free refrigerant
- Noise level less than 45 dB
- Alarms for systems malfunction over and under temperature & sensor error
- Equipment should CE Certified
- Warranty period to be mentioned
- AMC charges to be indicated

SIZES:

CUBIC FOOTAGE	DIMENSIONS (APPROXIMATE)
3 to 5 cubic feet	21–28" W x 32–34" H x 19–22" D
5 to 9 cubic feet	29–38" W x 32–34" H x 22–27" D
10 to 16 cubic feet	54–65" W x 33–36" H x 24–28" D
17+ cubic feet	72–84" W x 31–34" H x 27–32" D

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TM-9 : WATER CHILLER



PRODUCT DETAILS :

A water chiller is a device used to lower the temperature of water. Most chillers use refrigerant in a closed loop system to facilitate heat exchange from water where the refrigerant is then pumped to a location where the waste heat is transferred to the atmosphere.

SPECIFICATIONS:

Cooling Capacity	5000 W (5 kW)
Temperature Range	5°C to 25°C
Cooling Method	Refrigeration Cycle
Compressor Type	Hermetic Scroll
Refrigerant	R134a/R407C
Material	Stainless Steel (Grade 304/316)
Water Flow Rate	30 L/min
Water Tank Capacity	100 liters
Pump Type	Centrifugal Pump
Insulation	High-density Polyurethane Foam
Control System	Digital Temperature Controller
Temperature Accuracy	±1°C
Power Supply	220V/50Hz
Dimensions (L x W x H)	1200 x 800 x 1000 mm
Safety Features	Over-temperature Protection, Low Water Level Protection, Auto Shut-off
Accessories	Thermocouple, Drain Valve, Water Inlet/Outlet

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TM-10 : FUME HOOD

PRODUCT DETAILS :

A fume hood is a ventilated enclosure in which gases, vapors and fumes are captured and removed from the work area. An exhaust fan situated on the top of the laboratory building pulls air and airborne contaminants through connected ductwork and exhausts them to the atmosphere.

SPECIFICATIONS:

- Air Velocity: 0.3~0.8 m/s
- System Exhaust Volume: 1140 m³/h
- Max Opening: 750 mm
- Exterior Material: 1.0 mm cold-rolled steel with bacteria power coating
- Interior Material: Compact material board with good acid and alkali resistance function
- Work Table Material: Chemical resistant Phenolic resin
- LED Lamp: 40Wx1
- Front Window: Manual, 5 mm toughened glass; height adjustable
- Exhaust Duct: PVC, Standard length; 4.3 meters, ϕ 300 mm
- Blower: Built-in PP centrifugal blowers
- Standard Accessory: PP Water Sink, Total load of 2 waterproof socket: 500 W Base Cabinet, Water tap 4 meters PVC exhaust duct (ϕ 300mm), Pipe Strap - 2 pcs
- Work Surface Height: 900 mm
- Noise Level: \leq 68 dB
- Gross Weight: 365 kg
- Consumption: 500 W
- Power Supply: 223V \pm 10%, 60/50Hz; 110V \pm 10%, 60Hz



SIZES:

Size	Overall Width	Overall Depth
4 Feet	1200mm	900-1000mm
5 Feet	1500mm	900-1000mm
6 Feet	1800mm	900-1000mm
8 Feet	2400mm	900-1000mm

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TM-11 : PIZZA OVEN



PRODUCT DETAILS :

Ideal for pizzerias and restaurants, enabling the production of multiple pizzas with consistent quality and efficiency. These are versatile appliances that can significantly enhance your cooking capabilities, whether you're a home cook or running a busy restaurant.

SPECIFICATIONS:

- Power: 3200 watts
- Temperature Range: Up to 300°C
- Heating Elements: Ceramic infrared heating elements
- Capacity: Fits two 18-inch pizzas
- Preheat Time: Approximately 20 minutes to reach maximum temperature
- Controls: Independent top and bottom temperature controls for each deck
- Features: Dual deck design, built-in timers with audible alerts, stainless steel construction, removable crumb tray, interior light

SIZES:

Dimensions: 18" x 36" x 15" (LxWxH)

Dimensions: 28" x 28" x 21" (LxWxH)

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TM-12 : VACCUM OVEN

SPECIFICATIONS:

Chamber design	Round and Rectangular
Vacuum range	Up to -760 mmHg
Temperature range	Ambient+5°C to 200°C
Temperature sensor	PT100
Temperature controller	Digital PID controllerDisplay of SV & PV
Inner chamber	Hermetically welded stainless steel 304 sheet
External cabinet	Powder coated GI sheet
Door	Solid door with clamp & toughened glass window
Gasket	High temperature silicon gasket
Shelves	Removable SS shelves
Vacuum fittings	Vacuum valve / exhaust valves (Rubber hose)
Standard fittings	Mains on/off switchVacuum pump on/off switchElectric socket for vacuum pump
Power supply	220 Volts 50Hz



SIZES:

Dimensions (W x H x D)	Dimensions (W x H x D)
8 x 8 x 8 Inch	200 x 200 x 200 mm
12 x 12 x 12 Inch	300 x 300 x 300 mm
14 x 14 x 14 Inch	355 x 355 x 355 mm
18 x 18 x 18 Inch	455 x 455 x 455 mm
18 x 18 x 24 Inch	455 x 455 x 609 mm
24 x 24 x 24 Inch	609 x 609 x 609 mm

PRODUCT DETAILS :

A vacuum oven has two ports; Vacuum Port with needle valve to connect vacuum pump and another is Inert Gas Port with needle valve to connect with gas cylinder. A microprocessor PID controller is fitted in vacuum oven to control the temperature inside the chamber. Analog vacuum gauge displays vacuum level.

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TM-13 : SEMI AUTOMATIC FOOD DEHYDRATORS

SPECIFICATIONS:

Temperature Range	Minimum 20°C - Maximum 250°C
Heating Elements	Type: Electric resistive heating elements Power: 4500 watts
Airflow System	Type: Forced air circulation Fan Type: High-performance axial fans Airflow Rate: 250 cubic meters per hour
Control System	Controller: Digital PID temperature controller Display: LED or LCD screen showing set and actual temperatures Timer: Programmable timer with auto shut-off
Material	Stainless steel interior and exterior
Insulation	High-density fiberglass insulation
Power Requirements	Voltage: 220-240V AC, 50/60 Hz Current: 20 amps

PRODUCT DETAILS :

Plant Growth Chamber is a closed cabinet having provision of three side lights, humidity and temperature. It is widely used in in plant biology, soil science and agriculture research and growth of rice and Arabidopsis etc.



SIZES:

Overall Dimensions	Width: 36 inches Depth: 24 inches Height: 72 inches
Internal Dimensions	Width: 34 inches Depth: 22 inches Height: 68 inches

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TM-14 : PLANT GROWTH CHAMBER

SPECIFICATIONS:

Temperature Range	Minimum 4°C (39°F) - Maximum 45°C (113°F)
Humidity Control	Range: 10% to 95% RH (Relative Humidity) Humidity Uniformity: ±2% RH
Airflow System	Type: Forced air circulation Fan Type: High-performance axial fans Airflow Rate: Adjustable
Control System	Controller: Digital PID controller Display: Touchscreen LCD showing temperature, humidity, and light settings Timer: Programmable timer for temperature, humidity, and light cycles
CO2 Control	Range: 0 to 5000 ppm (parts per million)
Power Requirements	Voltage: 220-240V AC, 50/60 Hz Current: 20 amps



SIZES:

Dimensions: 36" x 28" x 72" (LxWxH)

Dimensions: 34" x 26" x 68" (LxWxH)

PRODUCT DETAILS :

Ideal for pizzerias and restaurants, enabling the production of multiple pizzas with consistent quality and efficiency. These are versatile appliances that can significantly enhance your cooking capabilities, whether you're a home cook or running a busy restaurant.

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TM-15: HOT & COLD CURING TANK

IS: 9013.1978



SPECIFICATIONS:

Specification	Hot Curing Tank (27°C)	Cold Curing Tank (27°C)
Capacity	100 liters	100 liters
Material	Stainless Steel (Grade 304/316)	Stainless Steel (Grade 304/316)
Temperature Range	Ambient to 27°C	Ambient to 27°C
Heating Element	Electric Heater (3 kW)	Not Applicable
Cooling Element	Not Applicable	Refrigeration Unit (3 kW)
Insulation	High-density Polyurethane Foam	High-density Polyurethane Foam
Control System	Digital Temperature Controller with PID	Digital Temperature Controller with PID
Temperature Accuracy	±0.5°C	±0.5°C
Power Supply	220V/50Hz	220V/50Hz
Dimensions (L x W x H)	1200 x 800 x 1000 mm	1200 x 800 x 1000 mm
Safety Features	Over-temperature Protection, Auto Shut-off	Over-temperature Protection, Auto Shut-off
Accessories	Thermocouple, Drain Valve, Lid	Thermocouple, Drain Valve, Lid

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TM-16: ACCELERATED CURING TANK

IS: 9013.1978



SPECIFICATIONS:

Specification	Accelerated Curing Tank (100°C)
Capacity	100 liters
Material	Stainless Steel (Grade 304/316)
Temperature Range	Ambient to 100°C
Heating Element	Electric Heater (5 kW)
Cooling Element	Not Applicable
Insulation	High-density Polyurethane Foam
Control System	Digital Temperature Controller with PID
Temperature Accuracy	±0.5°C
Power Supply	220V/50Hz
Dimensions (L x W x H)	1200 x 800 x 1000 mm
Safety Features	Over-temperature Protection, Auto Shut-off
Accessories	Thermocouple, Drain Valve, Lid
Circulation System	Built-in Water Circulation Pump
Water Level Control	Automatic Water Level Control
Data Logging	USB/SD Card Data Logging