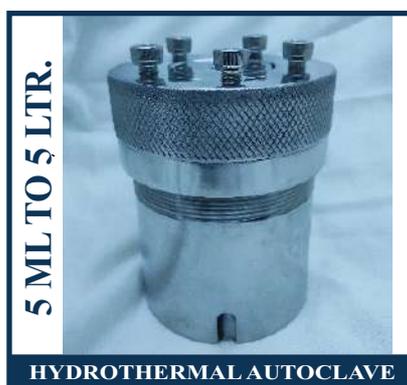


One Stop for Innovative Solution



Some of Our Clients



HIGH TEMP. MUFFLE FURNACE : (1800°C)

Model : HE-MF – 1800P / 1700P / 1600P
Maximum Temp. : 1800°C / 1700°C / 1600°C
Working Temp. : 1800°C / 1700°C / 1600°C
Temp. Accuracy : ±1°C
Heating Elements : Molybdenum Disilicide (MoSi2) heating elements,
 easily replaceable
Power Supply : 415 volts, 3 phase AC supply.

Model	Inner Size = (W x H x D)
HE-MF-2	100 x 100 x 225 mm
HE-MF-4	125 x 125 x 250 mm
HE-MF-7	150 x 150 x 300 mm
HE-MF-12	200 x 200 x 300 mm



PROGRAMMABLE MUFFLE FURNACE : (1400°C)

Model : HE-MF – 1400P
Maximum Temp. : 1400°C
Working Temp. : 1350°C
Temp. Accuracy : ±1°C
Heating Elements : Silicon Carbide, with end connection,
 easily replaceable
Power Supply : 220 volts, single phase AC supply.

Model	Inner Size = (W x H x D)
HE-MF-2	100 x 100 x 225 mm
HE-MF-4	125 x 125 x 250 mm
HE-MF-7	150 x 150 x 300 mm
HE-MF-12	200 x 200 x 300 mm
HE-MF-19	200 x 200 x 450 mm



MUFFLE FURNACE : (1150°C)

Model : HE-MF – 1150P
Maximum Temp. : 1150°C
Working Temp. : 1150°C
Temp. Accuracy : ±1°C
Heating Elements : Heating Element are made of KANTHAL
 "A-1" wire in coil form.
Power Supply : 220 volts, single phase AC supply.

Model	Inner Size = (W x H x D)
HE-MF-2	100 x 100 x 225 mm
HE-MF-4	125 x 125 x 250 mm
HE-MF-7	150 x 150 x 300 mm
HE-MF-12	200 x 200 x 300 mm
HE-MF-19	200 x 200 x 450 mm
HE-MF-28	300 x 300 x 300 mm
HE-MF-56	300 x 300 x 600 mm



①

★ OR ANY NON STANDARD SIZE AVAILABLE ★

★ Specifications and design subject to change without notice. ★

SPLIT TUBE FURNACE: THREE ZONE (1700°C/1400°C/1150°C)

Model : HE-STF3Z (1700P/1400P/1150P)
Maximum Temperature : (1700°C/1400°C/1150°C)
Working Temp. Range : (1600°C/1350°C/1150°C)
Temp. Accuracy : ±1°C
Heating Elements : Molybdenum Disilicide (MoSi2) / Silicon Carbide / Kanthal "A1" Wire.
Tube Size : Inner Dia. = 65 mm / Length (Hot Zone 1 / Hot Zone 2 Hot Zone 3) = (200 mm)
Power Supply : 220 Volts, single phase AC supply.
 415 Volts, Three phase AC supply.

Temperature = 1700°C

Temperature = 1400°C

Temperature = 1150°C



SPLIT TUBE FURNACE: TWO ZONE (1700°C/1400°C/1150°C)



Model : HE-STF2Z (1700P/1400P/1150P)
Maximum Temperature : (1700°C/1400°C/1150°C)
Working Temp. Range : (1600°C/1350°C/1150°C)
Temp. Accuracy : ±1°C
Heating Elements : Molybdenum Disilicide (MoSi2) / Silicon Carbide / Kanthal "A1" Wire.
Tube Size : Inner Dia. = 65 mm / Length (Hot Zone 1 / Hot Zone 2)
Power Supply : 220 Volts, single phase AC supply.
 415 Volts, Three phase AC supply.

Temperature = 1700°C

Temperature = 1400°C

Temperature = 1150°C

SPLIT TUBE FURNACE: SINGLE ZONE (1700°C/1400°C/1150°C)

Model : HE-STF (1700P/1400P/1150P)
Maximum Temperature : (1700°C/1400°C/1150°C)
Working Temp. Range : (1600°C/1350°C/1150°C)
Temp. Accuracy : ±1°C
Heating Elements : Molybdenum Disilicide (MoSi2) / Silicon Carbide / Kanthal "A1" Wire.
Tube Size : Inner Dia. = 65 mm / Hot Zone Length 300 mm
 Overall length = 700 mm
Power Supply : 220 Volts, single phase AC supply.
 415 Volts, Three phase AC supply.

Temperature = 1700°C

Temperature = 1400°C

Temperature = 1150°C



HORIZONTAL TUBE FURNACE: (1700°C/1400°C/1150°C)

Model	: HE-HTF (1700P/1400P/1150P)
Maximum Temperature	: (1700°C/1400°C/1150°C)
Working Temp. Range	: (1600°C/1350°C/1150°C)
Temp. Accuracy	: ±1°C
Heating Elements	: Molybdenum Disilicide (MoSi ₂) / Silicon Carbide / Kanthal "A1" Wire.
Tube Size	: Inner Dia. = 65 mm / Length (Hot Zone 1 / Hot Zone 2 Hot Zone 3) = (200 mm)
Power Supply	: 220 Volts, single phase AC supply. 415 Volts, Three phase AC supply.

Temperature = 1700°C

Temperature = 1400°C

Temperature = 1150°C



VERTICAL SPLIT TUBE FURNACE (1700°C/1400°C/1150°C)

Model	: HE-VSTF (1700P/1400P/1150P)
Maximum Temperature	: (1700°C/1400°C/1150°C)
Working Temp. Range	: (1600°C/1350°C/1150°C)
Temp. Accuracy	: ±1°C
Heating Elements	: Molybdenum Disilicide (MoSi ₂) / Silicon Carbide / Kanthal "A1" Wire.
Tube Size	: Inner Dia. = 65 mm / Hot Zone Length 300 mm Overall length = 700 mm
Power Supply	: 220 Volts, single phase AC supply. 415 Volts, Three phase AC supply.

Temperature = 1700°C

Temperature = 1400°C

Temperature = 1150°C



CYLINDRICAL TUBE FURNACE (1150°C / 1400°C)

Model	: HE-CTF - 1150P / 1400P
Maximum Temperature	: 1150°C / 1400°C (as per selected model)
Working Temp. Range	: 1150°C / 1350°C
Temp. Accuracy	: ±1°C
Heating Elements	: Kanthal A1 Wire (1150°C model) Silicon Carbide (SiC) (1400°C model)
Tube Size	: Inner Dia. = 65 mm / Hot Zone Length 200 mm Overall length = 700 mm
Power Supply	: 220 V, Single Phase AC (1150°C model) 415 V, Three Phase AC (1400°C model)



Temperature = 1400°C

Temperature = 1150°C

VACUUM FURNACE

Model: HE-CVD (1700P / 1400P / 1150P)



Description:

The Vacuum Furnace is a precision-engineered system designed for high-temperature heat treatment in low-pressure or ultra-high vacuum conditions. It is ideal for : Annealing | Brazing | Sintering | Degassing | Metallurgical processing Ceramic and semiconductor applications | Nanomaterials and advanced materials research Widely used in R&D laboratories, aerospace, metallurgy, ceramic industry, and semiconductor manufacturing.

Technical Specifications:

A. Furnace Chamber

Heating Zone : Single / Dual / Multi-Zone (As required)
Chamber Material : High Vacuum Stainless Steel / Alloy Steel
Chamber Size : 300 × 300 × 300 mm
Insulation : Multi-layer high-temperature insulation
Heating Elements : MoSi₂ / SiC / Kanthal A1 / Graphite

C. Gas Flow & CVD System

Mass Flow Controllers (MFC): 2 channels (optional)
 Gas inlet system with SS316 fittings
 Optional gas mixing manifold
 Vacuum system compatibility:
 Rotary Pump
 Diffusion Pump (optional)
 Pressure gauge: Digital / Analog

E. Power Requirements

220V Single Phase OR
 415V Three Phase

B. Temperature Control

PID / Microprocessor-based controller
 Over-temperature alarm
 Ramp-soak programmable profiling (optional)

D. Construction

Double-walled steel body
 High-grade insulation
 Powder-coated exterior
 Air cooling / Water cooling (optional)

With Accessories

Quartz Tube / Alumina Tube 65 mm ID
 Mass Flow Controllers (MFC) 2 Channels
 Vacuum Pump Rotary,
 Analog Pirani Gauge

HYDROTHERMAL AUTOCLAVE



Description:

The Hydrothermal Autoclave Reactor is a precision-engineered device used to perform hydrothermal reactions under high pressure and elevated temperatures. It is widely used for synthesizing advanced materials, crystallization studies, nanomaterial preparation, and various chemical reaction processes in controlled laboratory environments. This reactor is primarily available in PTFE (Teflon) lined configurations, offering superior chemical resistance and thermal stability.

Outer Body :

- High-quality Stainless Steel (SS 304 / SS 316)
- Corrosion-resistant and pressure-retaining construction
- Polished finish for long-term durability

Design Features :

- Heavy-duty threaded sealing mechanism
- 100% leak-proof construction
- High-pressure and high-temperature compatible
- Compact, user-friendly design for easy assembly and cleaning

Technical Specifications :

- Maximum Temperature: 260°C (500°F)
- Working Temperature: 260°C (500°F)
- Operating Pressure: Up to 30 bar (application dependent)
- Temperature Stability: Excellent uniformity in sealed conditions
- Heating Requirement: Compatible with external heaters or laboratory Hot Air Oven (optional)

Inner Chamber :

- Premium PTFE/Teflon liner
- Chemically inert, non-reactive, and capable of withstanding high temperatures

Safety Features

- High-precision threaded sealing for secure operation
- Leak-proof body design
- High-temperature and high-pressure compatible materials
- PTFE liner provides excellent chemical resistance
- Reinforced stainless-steel jacket ensures safe operation during extreme conditions

"Hydrothermal Autoclave different sizes can be also made."

Model	HE-HA -10	HE-HA -25	HE-HA -50	HE-HA -100	HE-HA -200	HE-HA -250	HE-HA -500	HE-HA -1000
Size	10 ml	25 ml	50 ml	100 ml	200 ml	250 ml	500 ml	1000 ml

Warranty: 1 Years SS Parts & 1 Year PTFE

⚠ Never use Hydrothermal Autoclave in Muffle Furnace.

PROGRAMMABLE VACUUM OVEN :-

Technical Specifications :

Temperature Range: Ambient +10°C to 250°C

Temperature Accuracy: ±1°C

Uniformity: Highly stable distribution under vacuum

Controller: Microprocessor-based PID programmable controller

Sensor: RTD Pt100

Heating Elements: Low-watt density heaters

Chamber Material: Stainless Steel SS 304

Outer Body: Powder-coated MS / Optional SS

Door Assembly: Vacuum-sealed glass window + silicone gasket

Shelves: Removable stainless-steel shelves

Insulation: High-grade ceramic fiber

Vacuum Level: Normal atmospheric pressure: 760 mmHg

Optional up to 10⁻¹ mbar / 1 Pa

Power Supply: 220V AC Single Phase / 415V AC Three Phase

Safety Features: Over-temperature cutoff, vacuum protection

Optional: Vacuum pump, data logger, digital vacuum gauge, inert gas inlet



HOT AIR OVEN (PROGRAMMABLE)

Temperature Range : Ambient +5°C to 300°C

Temperature Accuracy : ±1°C or better

Temperature Sensor : RTD Pt100

Controller : PID Temperature Controller

Display : Dual Display for SV (Set Value) & PV (Process Value)

Construction : Double-walled

Inner Chamber : Stainless Steel 304

Exterior : Powder-coated GI sheet

Insulation : Ceramic Wool

Shelves : Chrome-plated wire mesh trays (removable)

Door : Insulated solid door with spring latch

Gasket : Silicone door gasket

Air Circulation : Motor-driven blower assembly

Safety : Over-temperature thermostat

Power Supply : 220 Volts / 50 Hz

S.No.	Model	Size of inside Chamber (Width x Ht. x Depth)	Tray
A.	HE-HAO-27	300x300x300mm (12"×12"×12")	2
B.	HE-HAO-43	350×350×350mm (14"×14"×14")	2
C.	HE-HAO-91	450×450×450mm (18"×18"×18")	2
D.	HE-HAO-122	450×600×450mm (18"×24"×18")	2
E.	HE-HAO-216	600×600×600mm (24"×24"×24")	2
F.	HE-HAO-243	600×900×450mm (24"×36"×18")	3
G.	HE-HAO-486	600×900×600mm (24"×36"×24")	3

CIRCULATING BATH CHILLER



MODEL	HE-RCBC
Make	HARRIER
Temperature Range	(-10°C to 40°C) Optional: (-20°C to 100°C / -30°C to 100°C)
Temperature Accuracy	± 1 °C
Temperature Fluctuation	0.05 °C
Display	LCD
Refrigeration	Air Cooled refrigeration through compressor
Refrigerant	R-134a
Pump circulation	Internal & External
Temperature sensor	Pt100
Pump flow rate	L /min
Power Requirements	220VAC/50Hz

Liquid to be used : 5°C and below Alcohol, 5°C ~85°C Pure Water, 85°C ~95°C - 15% Glycerin water solution

S. No.	Working Size (W x D x H)	Model
1.	170 x 310 x 200 mm	HE-RCBC-8
2.	225 x 350 x 200 mm	HE-RCBC-12
3.	250 x 250 x 250 mm	HE-RCBC-15
4.	500 x 250 x 250 mm	HE-RCBC-30

HYDRAULIC PRESS (HAND OPERATED)

Model : HE-HP - 10

A compact laboratory-grade hydraulic press capable of generating 10 Ton compression force. The unit is designed for pellet formation, powder compaction, and small-scale material testing applications. Comes with pressure gauge and manual lever operation. (Die set not included.)

Technical Specifications

Parameter	Specification
Model	HE-HP-10
Capacity	10 Ton
Operation Type	Hand Operated
Hydraulic System	Manual Lever Pump
Pressure Gauge	Analog, High-Accuracy
Body Construction	Heavy-duty MS structure
Base Plate	Hardened Steel

Optional Accessories

SS Die Set (10 mm / 13 mm / 20 mm / 25 mm) For pellet formation



PHOTO CATALYTIC REACTOR (TRIPLE JACKETED)

Model: HE - PCR

Description

A high-performance triple-jacketed photocatalytic reactor designed for laboratory-scale photocatalysis, photodegradation, and UV-assisted chemical reactions. Suitable for R&D labs, chemical engineering departments, environmental testing, and photochemical research.

Technical Specifications :

Design: Triple jacketed (Outer Jacket, Cooling Jacket & Quartz Immersion Well)

Outer Jacket: Borosilicate glass

Cooling Jacket: Water circulator compatible (with inlet/outlet ports)

Inner Immersion Jacket: Quartz immersion well

Capacity: Standard: 1000 ml

Available: 100 ml to 5000 ml

Ports: 3 ports: Catalyst insertion, sample draw, additional port for temperature sensor / other probes

Lamp Source (UV-VIS)

UV Lamp specially designed for photocatalytic applications



Available Wattages:

250 W | 450 W | 1000 W

User may select any one or multiple lamps

Price mentioned in quotation is for one lamp only



JAR ROLLER MILL

Model: HE - JRM

Roller Length: 300 to 600 mm

No. of Rollers: 2 / 3 / 4 (as required)

Jar Capacity: Supports jars from 100 ml to 5 Liters

Speed Range: Fixed / Variable (Specify RPM)

Drive System: Heavy-duty geared motor

Roller Material: Rubber-coated / Neoprene / PU

Frame Construction: MS heavy-duty fabricated structure

Maximum Load: 5 Kg

Operation Type: Continuous / Batch

Control Panel: ON/OFF switch, overload protection

Optional: Variable speed drive (VFD)

PROGRAMMABLE SPIN COATING UNIT :-

Model : HE-SC - 9999P

Working Chamber:

Polypropylene removable chamber, 6-inch diameter
Transparent photo-resist lid with interlock safety switch

Speed Range:

500 – 9999 RPM

Accuracy: $\pm 0.5\%$ of full speed

Microprocessor-based programmable speed control (time-based control)

Vacuum Chuck:

Teflon-made circular substrate holders

Diameters: 0.5", 1.0", 1.5", 2.0"

RPM options: 8000 / 9999

OPTIONAL VACUUM PUMP

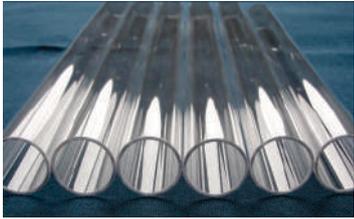
Vacuum Pump: Direct drive, double-stage rotary vacuum pump

Motor: 1/4 HP (likely 0.25 HP; please confirm if "14 HP" is a typo)

Maximum Vacuum: 730 mm Hg = 97.33 kPa = 30 torr



ACCESSORIES FOR VACUUM & TUBE FURNACE



QUARTZ TUBE



ALUMINA TUBE



ALUMINA LABWARE



AGATE MORTAR & PESTLE
(GRAY)



PELLET MAKING DIES



VACUUM FLANGE



ANALOG PIRANI
GAUGE



ROTA METER



VACUUM PUMP



VACUUM CONNECTIONS

