Dear Sir,

With due regards we would like to introduce ourselves as a leading manufacturer of Scientific & Laboratory Instruments since last 47 Years. We represent latest & directives technologies & incorporate an up-to-date know how of modern techniques combined with our most efficient customer support & effective back up.

Our experience in this field has made our products better day by day. We have served the scientific community with our latest technology & technical know how. Our products are used & approved by many high esteemed institutions & companies. Our products are used in various field for R & D, Q. C., Microbiology dept & every where accuracy is required. Our motto is to satisfy the customers by giving them the right products with best quality. We follow the GMP regulations & guidelines. Our products are manufactured keeping in view safety of the users & laboratory.

We would like to register our name in your vendor list. We would like to forward our total technical support to you.

Thanking You,

Yours faithfully,
For Meta-lab Scientific Industries
Shantilal D Jain
(Proprietor)

MSI 5 - HOT AIR OVEN

Technical Specification

- Double walled construction.
- Inner made of Stainless Steel 304.
- Exterior made of Galvanized sheets powder coated.
- Gap between the two walls filled with glasswool insulation.
- Fully insulated door with brass lock hinges.
- Heating is by specially designed energy efficient Air heaters fitted at bottom.
- Supplied with GI shelves & Aluminum ventilator.
- Microprocessor based Auto Tune PID Temperature Controller.
- Simplex A class transition joint PT 100 sensor.
- Temperature Range   : 50°C to 250°C
- Temp Resolution   : 0.1°C
- Control Accuracy   : ± 2.0°C or better

Hot Air Oven (Fan)

Hot Air Oven

Chamber Size in cms	Volume	Exterior Dimension	Weight (kg)	Rating	No of shelves
30 x 30 x 30	27 ltr	44 x 44 x 70	30	650 W	2
35 x 35 x 35	45 ltr	49 x 49 x 75	35	750 W	2
45 x 45 x 45	90 ltr	54 x 54 x 80	50	1000 W	3
45 x 45 x 60	120 ltr	65 x 65 x 105	65	1250 W	4
60 x 60 x 60	216 ltr	80 x 80 x 105	80	1500 W	4
60 x 60 x 90	330 ltr	80 x 80 x 135	95	2000 W	5

Optional Accessories:

* Forced Air Circulating System with fan for temperature uniformity. (Recommended by us)
* Inbuilt timer
* Castor wheels for easy movability.
* Safety Thermostat. (Recommended by us)
* Single channel Data logger to Print records
* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 66 - HOT AIR OVEN (GMP Model)

Technical Specification

- Double walled construction.
- Completely made of Stainless Steel 304.
- Inner mirror finished & exterior matt finished.
- Gap between the two walls filled with glasswool insulation.
- Fully insulated door with silicon gasket brass lock hinges.
- Heating is by specially designed energy efficient Air heaters fitted at bottom.
- Supplied with SS rod shelves & Aluminum ventilator.
- Microprocessor based Auto Tune PID Temperature Controller.
- Simplex A class transition joint PT 100 sensor.
- Temperature deviation alarm.
- Safety thermostat.
- Forced Air Circulating System with fan for temperature uniformity
- Temperature Range   : 50°C to 250°C
- Temp Resolution   : 0.1°C
- Control Accuracy   : ± 2.0°C or better.

Chamber Size in cms	Volume	Exterior Dimension	Weight (kg)	Rating	No of shelves
35 x 35 x 35	45 ltr	49 x 49 x 75	40	750 W	2
45 x 45 x 45	90 ltr	54 x 54 x 80	60	1000 W	3
45 x 45 x 60	120 ltr	65 x 65 x 105	70	1250 W	4
60 x 60 x 60	216 ltr	80 x 80 x 105	90	1500 W	4
60 x 60 x 90	330 ltr	80 x 80 x 135	110	2000 W	5

Optional Accessories:

* Inbuilt timer
* Castor wheels for easy movability.
* Single channel Data logger to Print records
* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 53 - HOT AIR OVEN (Memmert Type)

Technical Specification

- Triple walled construction.
- Inner made of Stainless Steel 304.
- Exterior made of Galvanized sheets powder coated.
- Gap between the two walls filled with glasswool insulation.
- Fully insulated door with brass lock hinges.
- Heating is by specially designed energy efficient Air heaters.
- Heaters are fitted at two sides of oven.
- Supplied with GI shelves & Aluminum ventilator.
- Microprocessor based Auto Tune PID Temperature Controller.
- Simplex A class transition joint PT 100 sensor.
- Forced Air Circulating System with fan for temperature uniformity.
- Temperature Range   : 50°C to 250°C
- Temp Resolution   : 0.1°C
- Control Accuracy   : ± 2.0°C or better.

Chamber Size in cms	Volume	Exterior Dimension	Weight (kg)	Rating	No of shelves
45 x 45 x 45	90 ltr	75 x 75 x 100	80	1000 W	3
45 x 45 x 60	120 ltr	75 x 75 x 115	90	1250 W	4
60 x 60 x 60	216 ltr	90 x 90 x 115	100	1500 W	4
60 x 60 x 90	330 ltr	90 x 90 x 145	120	2000 W	5

Optional Accessories:

* Inbuilt timer
* Castor wheels for easy movability.
* Safety Thermostat. (Recommended by us)
* Single channel Data logger to Print records
* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 68 - HOT AIR OVEN (Memmert Type) 400.0^{0}

Technical Specification

- Triple walled construction.
- Inner made of Stainless Steel 304.
- Exterior made of Galvanized sheets powder coated.
- Gap between the walls filled with glasswool insulation.
- Fully insulated door with brass lock hinges & ceramic rope.
- Heating is by specially designed energy efficient inconnel Air heaters.
- Heaters are fitted on three sides (2 side + 1 bottom)
- Supplied with SS rod shelves & Aluminum ventilator.
- Microprocessor based Auto Tune PID Temperature Controller.
- Simplex A class transition joint Head type PT 100 sensor.
- Forced Air Circulating System with fan for temperature uniformity.
- Temperature Range   : 50°C to 400°C
- Temp Resolution   : 0.1°C
- Control Accuracy   : ± 2.0°C or better.

Chamber Size in cms	Volume	Exterior Dimension	Weight (kg)	Rating	No of shelves
45 x 45 x 45	90 ltr	85 x 85 x 110	70	2500 W	3
45 x 45 x 60	120 ltr	85 x 85 x 125	80	3000 W	4
60 x 60 x 60	216 ltr	100 x 100 x 125	100	3500 W	4
60 x 60 x 90	330 ltr	100 x 100 x 155	120	4000 W	5

Optional Accessories:

* Inbuilt timer
* Castor wheels for easy movability.
* Safety Controller (Recommended by us)
* Single channel Data logger to Print records
* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI-77 HOT AIR OVEN (Memmert Type) GMP Model

Technical Specification

- Triple walled construction.
- Fully made of Stainless Steel 304.
- Inner mirror finish & exterior matt finished.
- Gap between the two walls filled with glasswool insulation.
- Fully insulated door with Silicon gasket & brass lock hinges.
- Heating is by specially designed energy efficient Air heaters.
- Heaters are fitted at two sides of oven.
- Supplied with SS rod shelves & Aluminum ventilator.
- Microprocessor based Auto Tune PID temperature controller.
- Simplex A class transition joint PT 100 sensor.
- Temperature deviation alarm.
- Forced Air Circulating System with fan for temperature uniformity.
- Temperature Range   : 50°C to 250°C
- Temp Resolution   : 0.1°C
- Control Accuracy   : ± 2.0°C or better.

Chamber Size in cms	Volume	Exterior Dimension	Weight (kg)	Rating	No of shelves
45 x 45 x 45	90 ltr	75 x 75 x 100	60	1000 W	3
45 x 45 x 60	120 ltr	75 x 75 x 115	70	1250 W	4
60 x 60 x 60	216 ltr	90 x 90 x 115	90	1500 W	4
60 x 60 x 90	330 ltr	90 x 90 x 145	110	2000 W	5

Optional Accessories:

* Inbuilt timer
* Castor wheels for easy movability.
* Single channel Data logger to Print records
* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 6 - BACTERIOLOGICAL LAB INCUBATOR

Technical Specification

- Double walled construction.
- Inner made of Mild Steel/Stainless Steel 304.
- Exterior made of Galvanized sheets powder coated.
- Gap between the two walls filled with glasswool insulation.
- Inner acrylic door & exterior metal door with magnetic gasket & lock.
- Heating is by specially designed energy efficient Air heaters fitted at bottom.
- Supplied with GI shelves & Aluminum ventilator.
- Microprocessor based Auto Tune PID Temperature Controller.
- Simplex A class transition joint PT 100 sensor.
- Temperature Range   : 37°C to 60°C
- Temp Resolution   : 0.1°C
- Control Accuracy   : ± 0.5°C or better

Bacteriologocal Lab Incubator Digital (Fan)

Bacteriologocal Lab Incubator Digital

Chamber Size in cms	Volume	Exterior Dimension	Weight (kg)	Rating	No of shelves
30 x 30 x 30	27 ltr	44 x 44 x 70	30	150 W	2
35 x 35 x 35	45 ltr	49 x 49 x 75	35	150 W	2
45 x 45 x 45	90 ltr	54 x 54 x 80	50	150 W	3
45 x 45 x 60	120 ltr	65 x 65 x 105	65	250 W	4
60 x 60 x 60	216 ltr	80 x 80 x 105	80	400 W	4
60 x 60 x 90	330 ltr	80 x 80 x 135	95	500 W	5

* Forced Air Circulating System with fan for temperature uniformity.(Recommended by us)

* Inbuilt timer

* Castor wheels for easy movability.

* Safety Thermostat. (Recommended by us)

* Single channel Data logger to Print records

* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 80 - BACTERIOLOGICAL LAB INCUBATOR
(GMP Model) Memmert Type

Technical Specification

- Triple walled construction.

- Fully Stainless Steel 304.

- Inner Mirror finished & Exterior Matt finished.

- Gap between the two walls filled with glasswool insulation.

- Inner acrylic door & exterior metal door with magnetic gasket | & lock.

- Heating is by specially designed energy efficient Air heaters fitted at Two Side.

- Supplied with SS rod shelves & Aluminum ventilator.

- Microprocessor based Auto Tune PID controller.

- Simplex A class transition joint PT 100 sensor.

- Forced Air Circulating System with fan for temperature uniformity.

- Safety thermostat

- Temperature Range   : 37°C to 60°C

- Temp Resolution   : 0.1°C

- Control Accuracy   : ± 0.5°C or better

Chamber Size in cms	Volume	Exterior Dimension	Weight (kg)	Rating	No of shelves
45 x 45 x 45	90 ltr	75 x 75 x 100	60	300 W	3
45 x 45 x 60	120 ltr	75 x 75 x 115	70	500 W	4
60 x 60 x 60	216 ltr	90 x 90 x 115	90	500 W	4
60 x 60 x 90	330 ltr	90 x 90 x 145	110	500 W	5

Optional Accessories:

* Inbuilt timer

* Castor wheels for easy movability.

* Single channel Data logger to Print records

* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 67 - BACTERIOLOGICAL LAB INCUBATOR (GMP Model)

Technical Specification

- Double walled construction.
- Fully Stainless Steel 304.
- Inner Mirror finished & Exterior Matt finished.
- Gap between the two walls filled with glasswool insulation.
- Inner acrylic door & exterior metal door with magnetic gasket & lock.
- Heating is by specially designed energy efficient Air heaters fitted at bottom.
- Supplied with SS rod shelves & Aluminum ventilator.
- Microprocessor based Auto Tune PID Temperature Controller.
- Simplex A class transition joint PT 100 sensor.
- Safety thermostat.
- Forced Air Circulating System with fan for temperature uniformity.
- Temperature Range   : 37°C to 60°C
- Temp Resolution   : 0.1°C
- Control Accuracy   : ± 0.5°C or better

Chamber Size in cms	Volume	Exterior Dimension	Weight (kg)	Rating	No of shelves
35 x 35 x 35	45 ltr	49 x 49 x 75	35	150 W	2
45 x 45 x 45	90 ltr	54 x 54 x 80	50	150 W	3
45 x 45 x 60	120 ltr	65 x 65 x 105	60	250 W	4
60 x 60 x 60	216 ltr	80 x 80 x 105	90	400 W	4
60 x 60 x 90	330 ltr	80 x 80 x 135	110	500 W	5

Optional Accessories:

* Inbuilt timer
* Castor wheels for easy movability.
* Single channel Data logger to Print records
* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 54 - BACTERIOLOGICAL LAB INCUBATOR (Memmert Type)

Technical Specification

- Triple walled construction.
- Inner made of Stainless Steel 304.
- Exterior made of Galvanized sheets powder coated.
- Gap between the two walls filled with glasswool insulation.
- Inner acrylic door & exterior metal door with magnetic gasket & lock.
- Heating is by specially designed energy efficient Air heaters.
- Heaters are fitted on two sides of incubator.
- Supplied with GI shelves & Aluminum ventilator.
- Microprocessor based Auto Tune PID Temperature Controller.
- Simplex A class transition joint PT 100 sensor.
- Forced Air Circulating System with fan for temperature uniformity.
- Temperature Range   : 37°C to 60°C
- Temp Resolution   : 0.1°C
- Control Accuracy   : ± 0.5°C or better.

Chamber Size in cms	Volume	Exterior Dimension	Weight (kg)	Rating	No of shelves
45 x 45 x 45	90 ltr	75 x 75 x 100	60	150 W	3
45 x 45 x 60	120 ltr	75 x 75 x 115	80	250 W	4
60 x 60 x 60	216 ltr	90 x 90 x 115	90	400 W	4
60 x 60 x 90	330 ltr	90 x 90 x 145	110	500 W	5

Optional Accessories:

* Inbuilt timer
* Castor wheels for easy movability.
* Safety Thermostat. (Recommended by us)
* Single channel Data logger to Print records
* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 9 - B.O.D. INCUBATOR

Technical Specification

- Double walled construction.
- Inner made of Stainless Steel 304.
- Inner chamber mirror finished
- Exterior GI sheets powder coated
- Gap between the two walls filled with Puf insulation.
- Inner acrylic door & external metal door with magnetic gasket & lock.
- Cooling is by hermetically sealed compressor,
- CFC free refrigerant.
- Heating is by specially designed Air heaters.
- Forced Air circulating System with fan for better temperature uniformity
- Microprocessor based Auto Tune PID Temperature Controller.
- Led display for Set & Actual both.
- Simplex A class transition joint PT 100 sensor.
- Illumination by tube.
- Supplied with S.S. rod shelves.
- Temperature Range   : 5.0°C to 60°C
- Temp Resolution   : 0.1°C
- Control Accuracy   : ± 0.5°C or better.

Capacity	Chamber Size in CMS	Net Weight (kg)	Rating	No of shelves
3 CU Ft 90 ltr	45 x 40 x 50	65	1000 W	2 Nos
6 CU Ft 170 ltr	50 x 50 x 70	80	1250 W	3 Nos
12 CU Ft 330 ltr	60 x 60 x 90	110	1500 W	4 Nos

Optional Accessories:

* Illumination by fluorescent tube
* Cyclic Digital Timer for above
* Safety Temp. controller (Recommended by us)
* Single Channel Data logger with printer output.
* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 74 - BOD INCUBATOR (GMP Model)

Technical Specification

- Double walled construction
- fully made of Stainless Steel 304.
- Inner chamber mirror finished
- Exterior Matt finished
- Gap between the two walls filled with Puf insulation.
- Inner acrylic door & external metal door with magnetic gasket & lock.
- Cooling is by hermetically sealed compressor
- CFC free refrigerant.
- Heating is by specially designed Air heaters.
- Forced Air circulating System with fan for better temperature uniformity
- Microprocessor based Auto Tune PID Temperature Controller.
- Led display for Set & Actual both.
- Simplex A class transition joint PT 100 sensor.
- Illumination by tube.
- Supplied with S.S. rod shelves.
- Temperature Range   : 5.0°C to 60°C
- Temp Resolution   : 0.1°C
- Control Accuracy   : ± 0.5°C or better.

Capacity	Chamber Size in CMS	Net Weight (kg)	Rating	No of shelves
3 CU Ft 90 ltr	45 x 40 x 50	65	1000 W	2 Nos
6 CU Ft 170 ltr	50 x 50 x 70	80	1250 W	3 Nos
12 CU Ft 330 ltr	60 x 60 x 90	110	1500 W	4 Nos

Optional Accessories:

* Illumination by fluorescent tube
* Cyclic Digital Timer for above
* Safety Temp. controller (Recommended by us)
* Single Channel Data logger with printer output.
* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 88 - HUMIDITY CHAMBER

Technical Specification

- Double walled construction
- Inner made of Stainless Steel 304.
- Inner chamber mirror finished
- Exterior G.I. sheets powder coated
- Gap between the two walls filled with Puf insulation.
- Inner acrylic door & external metal door with magnetic gasket & lock.
- Cooling is by hermetically sealed compressor,
- CFC free refrigerant.
- Heating is by specially designed Air heaters.
- Forced Air circulating System with fan for better temperature uniformity
- Microprocessor based Auto Tune PID Temperature Controller.
- Led display for Set & Actual both.
- Simplex A class transition joint PT 100 as sensor.
- Illumination by tube.
- Supplied with S.S. rod shelves.
- Temperature Range : 5.0°C to 60.0°C
- Humidity Range : 95% RH
- Temperature Resolution : 0.1°C.
- Control Accuracy : ± 0.5°C

Capacity	Chamber Size in CMS	Net Weight (kg)	Rating	No of shelves
6 CU Ft 170 ltr	50 x 50 x 70	80 kg	1250 W	3 Nos
12 CU Ft 330 ltr	60 x 60 x 90	110 kg	1500 W	4 Nos

Optional Accessories:

* Illumination by fluorescent tube
* Cyclic Digital Timer for above
* Safety Temp. controller (Recommended by us)
* Single Channel Data logger with printer output.
* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 89 - HUMIDITY CHAMBER (GMP Model)

Technical Specification

- Double walled construction
- Fully made of Stainless Steel 304.
- Inner chamber mirror finished.
- Exterior Matte Finished.
- Gap between the two walls filled with Puf insulation.
- Inner acrylic door & external metal door with magnetic gasket & lock.
- Cooling is by hermetically sealed compressor,
- CFC free refrigerant.
- Heating is by specially designed Air heaters.
- Forced Air circulating System with fan for better temperature uniformity
- Microprocessor based Auto Tune PID Temperature Controller.
- Led display for Set & Actual both.
- Simplex A class transition joint PT 100 as sensor.
- Illumination by tube.
- Supplied with S.S. rod shelves.
- Temperature Range   : 5.0°C to 60.0°C
- Humidity Range   : 95% RH
- Temperature Resolution   : 0.1°C.
- Control Accuracy   : ± 0.5°C

Capacity	Chamber Size in CMS	Net Weight (kg)	Rating	No of shelves
6 CU Ft 170 ltr	50 x 50 x 70	80 kg	1250 W	3 Nos
12 CU Ft 330 ltr	60 x 60 x 90	110 kg	1500 W	4 Nos

Optional Accessories:

* Illumination by fluorescent tube
* Cyclic Digital Timer for above
* Safety Temp. controller (recommended by us)
* Single Channel Data logger with printer output.
* RS 485 for PC communication with 21 CFR part 11 compliance Software

Technical Specification

- Double walled construction
- Inner made of thick gauge stainless steel 304
- Exterior made of GI sheets powder coated.
- Cooling is by hermetically sealed compressor
- CFC free refrigerant.
- Heating is by specially designed heaters.
- Microprocessor based Auto Tune PID Temperature Controller.
- Simplex A class transition joint PT 100 sensor.
- Motor with Pump for better temperature uniformity
- External recirculation.
- Temperature Range: 0°C. to 40.0°C
- Temperature Resolution : 0.1°C
- Control Accuracy   : ± 0.5°C

Bath Capacity	Size (W x D x H) Cms	Rating
15 Ltr	25 x 20 x 20	1000 W
30 Ltr	30 x 25 x 25	1500 W

Optional Accessories:

* Electronic Digital Timer Range 0 to 999 minutes

* Single channel Data Logger with printing arrangement.

* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 90 - WATER BATH CHILLER

Technical Specification

- Table top model
- Double walled construction with small foot print
- Inner made of SS304
- Exterior GI sheets powder coated
- The gap between the two walls filled with Puff insulation
- Motor with stirrer is mounted on a base & fitted on the side of the bath
- Lid made of Stainless Steel.
- Specially designed tubular Water heaters.
- Cooling is by hermetically sealed compressors.
- Microprocessor based Auto Tune PID Temperature Controller.
- Simplex A class transition Joint PT100 sensor.
- Drain valve provided to empty the water bath
- Working Size   : 15 x 15 x 15cm
- Weight   : 30 kgs
- Temperature Range   : 0.0°C to 40.0°C
- Temperature Resolution : 0.1°C
- Control Accuracy   : 0.5°C
- Rating   : 1000W
- Power Supply   : 230V A.C.50 HZ SINGLE PHASE
- Ampere   : 4 amps

Bath Capacity	Size (W x D x H) Cms	Rating
4 Ltr	15 x 15 x 15	1000 W

Optional Accessories:

* Electronic Digital Timer Range 0 to 999 minutes

* Single channel Data Logger with printing arrangement.

* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 12 - VACUUM OVEN ROUND

Technical Specification

- Double walled construction.

- Inner chamber made of thick gauge Stainless Steel

- Exterior made of GI sheets powder coated.

- Heating elements made from best quality

- Nichrome wire wounded around the chamber & covered with ceramic blankets.

- Microprocessor based Auto Tune PID Temperature Controller.

- Simplex A class transition joint PT 100 sensor.

- Supplied with Alluminium tray, vacuum gauge, vacuum cock, toughened glass window in centre of the door to see through the chamber.

- Temperature Range : 50°C to 200°C

- Temp Resolution : 0.1°C

- Control Accuracy : ± 2.0°C or better.

- Maximum Vacuum : 760 mm/Hg

Chamber Size in CMS	Capacity	Net Weight (kg)	No of shelves	Rating
23 Dia x 30 Depth	12 ltr	30	2 Nos	500 W
30 Dia x 38 Depth	26 ltr	45	3 Nos	750 W
38 Dia x 45 Depth	51 ltr	60	3 Nos	1250 W

Optional Accessories:

* Inbuilt timer
* Digital display of Vacuum
* Safety temp. controller.
* Single channel Data logger to Print records
* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 72 - VACUUM OVEN ROUND (GMP Model)

Technical Specification

- Double walled construction.
- Fully made of stainless steel 304
- Inner chamber made of thick gauge Stainless Steel
- Exterior matt finished.
- Heating elements made from best quality
- Nichrome wire wounded around the chamber & covered with ceramic blankets.
- Microprocessor based Auto Tune PID Temperature Controller.
- Simplex A class transition joint PT 100 sensor.
- Supplied with Alluminium tray, vacuum gauge, vacuum cock, toughened glass window in centre of the door to see through the chamber.
- Temperature Range   : 50°C to 200°C
- Temp Resolution   : 0.1°C
- Control Accuracy   : ± 2.0°C or better.
  Maximum Vacuum   : 760 mm/Hg

Chamber Size in CMS	Capacity	Net Weight (kg)	No of shelves	Rating
23 Dia x 30 Depth	12 ltr	30	2 Nos	500 W
30 Dia x 38 Depth	26 ltr	45	3 Nos	750 W
38 Dia x 45 Depth	51 ltr	60	3 Nos	1250 W

Optional Accessories:

* Inbuilt timer
* Digital display of Vacuum
* Safety temp. controller
* Single channel Data logger to Print records
* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 70 - VACUUM OVEN RECTANGULAR

Technical Specification

- Double walled construction.

- Inner chamber made of thick gauge Stainless Steel 304

- Exterior made of GI Sheet powder coated

- Door is made of Aluminum powder coated with toughened glass in centre.

- Heating elements made from best quality Nichrome wire

- Heaters wounded around the chamber & covered with ceramic blankets.

- Microprocessor based Auto Tune PID Temperature Controller.

- Simplex A class transition Joint PT 100 sensor

- Supplied with Aluminium tray, vacuum gauge, vacuum cock,

- Temperature Range   : 50°C to 200°C

- Temp Resolution   : 0.1°C

- Control Accuracy   : ± 2.0°C

- Maximum Vacuum   : 760 mm/Hg

Chamber Size in CMS	Volume	Weight (kg)	Rating	No of shelves
30 x 30 x 30	27 ltr	50	750 W	2
35 x 35 x 35	45 ltr	55	1000 W	2
35 x 35 x 50	60 ltr	70	1200 W	3
45 x 45 x 45	90 ltr	90	1300 W	3
45 x 45 x 60	120 ltr	110	1500 W	4

Optional Accessories:

* Inbuilt timer

* Digital display of Vacuum

* Safety temp. controller

* Single channel Data logger to Print records

* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 71 - VACUUM OVEN RECTANGULAR (GMP Model)

Technical Specification

- Double walled construction.
- Fully made of Stainless Steel 304
- Inner chamber made of thick gauge Stainless Steel
- Exterior matt finished
- Door is made of Stainless steel with toughened glass in centre.
- Heating elements made from best quality Nichrome wire
- Heaters wounded around the chamber & covered with ceramic blanket.
- Microprocessor based Auto Tune PID Temperature Controller.
- Simplex A class transition Joint PT 100 sensor
- Supplied with Aluminium tray, vacuum gauge, vacuum cock
- Temperature Range   : 50°C to 200°C
- Temp Resolution   : 0.1°C
- Control Accuracy   : ± 2.0°C
- Maximum Vacuum   : 760 mm/Hg

Chamber Size in CMS	Volume	Weight (kg)	Rating	No of shelves
30 x 30 x 30	27 ltr	50	750 W	2
35 x 35 x 35	45 ltr	55	1000 W	2
35 x 35 x 50	60 ltr	70	1200 W	3
45 x 45 x 45	90 ltr	90	1300 W	3
45 x 45 x 60	120 ltr	110	1500 W	4

Optional Accessories:

* Inbuilt timer
* Digital display of Vacuum
* Safety temp. controller
* Single channel Data logger to Print records
* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 69 - HOT PLATE (GMP Model)

Technical Specification

- Fully made of stainless steel 304
- Heating elements made form best quality Nichrome wire.
- Temperature controlled by energy regulator & thermostat
- Max Temp : Up to 300°C

Plate size in CMS	Rating
20	1250 W
23	1500 W
30	2000 W
25 x 40	1500 W
30 x 45	2000 W
45 x 60	2500 W

Round

Ractangular

MSI 83 - DIGITAL HOT PLATE GMP MODEL

Technical Specification

- Fully made of stainless steel 304
- Heating elements made from best quality Nichrome wire.
- Microprocessor based Auto Tune PID Temperature Controller.
- Max Temp : Up to 300° C

Plate size in CMS	Rating
20	1250 W
23	1500 W
30	2000 W
25 x 40	1500 W
30 x 45	2000 W
45 x 60	2500 W

Round

Ractangular

MSI 8 - CONSTANT TEMPERATURE WATER BATH

Technical Specification

- Double walled construction.

- Fully made of Stainless Steel 304

- Inner mirror finished & exterior matt finished

- Gap between the two walls filled with glass wool insulation to avoid heat loss.

- Heating is by specially designed immersion type water heaters.

- Microprocessor based Auto Tune PID Temperature Controller.

- Simplex A class transition joint PT 100 sensor.

- Motor with Pump is mounted on a base & fitted on the side of the bath.

- Pump is provided for stirring & external recirculation.

- Lid & Heater cover made of Stainless Steel.

- Temperature Range   : 5.0°C Above Ambient to 95.0°C

- Temp Resolution   : 0.1°C

- Control Accuracy   : ± 0.5°C

Working size in CMS	Volume	Weight (kg)	Rating
30 x 25 x 20	15	20	2000 W
35 x 30 x 25	25	25	2500 W
45 x 35 x 30	45	30	3000 W

Optional Accessories:

* Electronic digital timer Range 0 to 999 minutes

* Single channel Data logger to Print records

* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 52 - CONSTANT TEMPERATURE OIL BATH

Technical Specification

- Double walled construction.

- Fully made of Stainless Steel 304

- Inner mirror finished & exterior matt finished

- Gap between the two walls filled with glass wool insulation to avoid heat loss.

- Heating is by specially designed immersion type oil heaters.

- Microprocessor based Auto Tune PID Digital Temperature Controller

- Simplex A class transition joint PT 100 as sensor.

- Motor with stirrer for stirring.

- Lid & Heater cover made of Stainless Steel.

- Temperature Range   : 50°C to 250°C

- Temp Resolution   : 0.1°C

- Control Accuracy   : ± 2.0°C

Working size in CMS	Volume	Weight (kg)	Rating
30 x 25 x 20	15	20	2000 W
35 x 30 x 25	25	25	2500 W
45 x 35 x 30	45	30	3000 W

Optional Accessories:

* Electronic digital timer Range 0 to 999 minutes :

* Pump with external recirculation

* Single channel Data logger to Print records

* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 11 - VISCOCITY BATH

Technical Specification

- Double walled construction.

- Inner mirror stainless steel 304

- Exterior made of GI Sheets

- The Gap between the two walls filled with glass wool insulation to avoid heat loss.

- Heating is by specially designed immersion type heaters.

- Microprocessor based Auto Tune PID Temperature Controller

- Simplex A class transition joint PT 100 sensor.

- Motor with stirrer for stirring.

- Toughened glass window on both sides.

- Lid & Heater cover made of Stainless Steel.

- Temperature Range   : 5.0°C Above ambient to 95.0°C

- Temp Resolution   : 0.1°C

- Control Accuracy   : ± 0.5°C

Working size in CMS	Volume	No of VM (kg)	Rating
25 x 20 x 30	15	4	2000 W
35 x 20 x 30	25	6	2500 W

Optional Accessories:

* Viscocity clamps at extra cost

* Electronic digital timer Range 0 to 999 minutes

* Pump with external recirculation

* Single channel Data logger to Print records

* RS 485 for PC communication with 21 CFR part 11 compliance Software

MSI 14 - SEROLOGICAL WATER BATH

Technical Specification

- Double walled construction.

- Fully made of Stainless Steel 304

- Inner mirror finished & exterior matt finished

- Gap between the two walls filled with glass wool insulation to avoid heat loss.

- Heating is by specially designed immersion type water heaters.

- Temperature controlled by thermostat.

- Perforated heater cover

- Temperature Range   : 37.0°C to 60.0°C

- Control Accuracy   : ± 2.0°C

Working Size in CMS	Volume	Exterior Dimension	Weight (kg)	Rating
32 x 17 x 15	8 ltr	33 x 18 x 23	7	750 W
35 x 32 x 15	16 ltr	36 x 33 x 23	10	1000 W
53 x 32 x 15	25 ltr	57 x 33 x 23	15	1500 W

MSI 14D - DIGITAL SEROLOGICAL WATER BATH

Technical Specification

- Double walled construction.

- Fully made of Stainless Steel 304

- Inner mirror finished & exterior matt finished

- Gap between the two walls filled with glass wool insulation to avoid heat loss.

- Heating is by specially designed immersion type water heaters.

- Microprocessor based Auto Tune PID Temperature Controller.

- Simplex A class transition joint PT 100 sensor.

- Perforated heater cover

- Temperature Range   : 37.0° C to 60.0° C

- Control Accuracy   : ± 0.5° C

- Temperature Resolution : 0.1° C

Working Size in CMS	Volume	Exterior Dimension	Weight (kg)	Rating
32 x 17 x 15	8 ltr	33 x 18 x 23	7	750 W
35 x 32 x 15	16 ltr	36 x 33 x 23	10	1000 W
53 x 32 x 15	25 ltr	57 x 33 x 23	15	1500 W

MSI 17B (D) - DIGITAL WATER BATH (Concentric Ring)

Technical Specification

- Double walled construction.

- Fully made of Stainless Steel 304

- Inner mirror finished & exterior matt finished

- Gap between the two walls filled with glass wool insulation to avoid heat loss.

- Heating is by specially designed immersion type water heaters.

- Microprocessor based Auto Tune PID Temperature Controller.

- Simplex A class transition joint PT 100 sensor.

- Lid is supplied with 6 holes of 7.5 cm dia.

- Supplied with concentric ring

- Temperature Range   : 40.0° C to 100.0° C

- Temp Resolution   : 0.1° C

- Control Accuracy   : ± 0.5° C

Working Size in CMS	Volume	Exterior Dimension	Weight (kg)	Rating
32 x 26 x 10	12	45 x 27 x 20	8	1000 W

MSI 17D (D) - DIGITAL WATER BATH (Concentric Ring)

Technical Specification

- Double walled construction.

- Fully made of Stainless Steel 304

- Inner mirror finished & exterior matt finished

- Gap between the two walls filled with glass wool insulation to avoid heat loss.

- Heating is by specially designed immersion type water heaters.

- Microprocessor based Auto Tune PID Temperature Controller

- Simplex A class transition joint PT 100 sensor.

- Lid is supplied with 12 holes of 7.5 cm dia.

- Supplied with concentric ring

- Temperature Range   : 40.0° C to 100.0° C

- Temp Resolution   : 0.1° C

- Control Accuracy   : ± 0.5° C

Working Size in CMS	Volume	Weight (kg)	Rating
53 x 32 x 10	16	12	2000 W

MSI 24D - DIGITAL WATER BATH ROUND

Technical Specification

- Double walled construction.

- Round in shape.

- Fully made of Stainless Steel 304.

- Inner Mirror finish & Exterior Matt finished.

- Gap between the two walls filled with glass wool insulation.

- Heating is by specially designed water heater.

- Microprocessor based Auto Tune PID Temperature Controller

- Simplex A class transition joint PT 100 as sensor.

- Heater cover made of perforated Stainless. Steel 304.

- Temperature Range   : 40.0° C to 100.0° C

- Control Accuracy   : ± 0.5° C

Flask Capacity	Working Size in CMS	Rating
1 ltr	18 x 13	1000 W
2 ltr	20 x 15	1000 W
3 ltr	23 x 18	1500 W
5 ltr	28 x 23	2000 W
10 ltr	33 x 28	2500 W
20 ltr	38 x 33	3000 W

MSI 25 D - DIGITAL OIL BATH ROUND

Technical Specification

- Double walled construction.
- Round in shape
- Fully made of Stainless Steel 304
- Inner argon welded mirror finish.
- Exterior matt finished.
- The gap between the two walls filled with glass wool insulation.
- Heating is by specially designed Oil heaters.
- Heater cover made of stainless Steel
- Microprocessor based Auto Tune PID Temperature Controller.
- Simplex A class transition joint PT 100 sensor.
- Temperature Range   : 50.0° C to 300.0° C
- Temperature Resolution : 0.1° C
- Control Accuracy   : ±1.0° C

Flask Capacity	Working Size in CMS	Rating
1 ltr	18 x 13	1000 W
2 ltr	20 x 15	1000 W
3 ltr	23 x 18	1500 W
5 ltr	28 x 23	2000 W
10 ltr	33 x 28	2500 W
20 ltr	38 x 33	3000 W

MSI 78 - WATER BATH / OIL BATH

Technical Specification

- Double walled construction.
- Round in shape
- Fully made of Stainless Steel 304
- Inner argon welded mirror finish.
- Exterior matt finished.
- The gap between the two walls filled with glass wool insulation.
- **Clear bottom**
- A uniquely designed Bath.
- Ensure no heater burn out to lack of water/oil.
- Heating is by specially designed heaters
- Externally fitted to avoid burn out to lack of water/oil.
- Microprocessor based Auto Tune PID Temperature Controller.
- Simplex A class transition joint PT 100 sensor.
- Floating overshoot alarm
- Temperature Range   : Ambient up to 300.0°C
- Temperature Resolution : 0.1°C
- Control Accuracy   : ± 2.0°C

Flask Capacity	Working Size in CMS	Rating
1 ltr	18 x 10	500 W
2 ltr	20 x 12	500 W
3 ltr	23 x 13	1000 W
5 ltr	28 x 15	1300 W
10 ltr	33 x 20	1500 W
20 ltr	38 x 33	1800 W

MSI 41 - LABORATORY AUTOCLAVE VERTICAL

Technical Specification

- Double walled construction.

- Fully made of Stainless. Steel 304.

- Lid is made of thick Gauge Stainless Steel is die pressed to domed shape.

- Lid ring is made of Stainless Steel thick Gauge.

- Inner chamber is made of Stainless Steel thick Gauge.

- Exterior body is made of S.S. mirror finished.

- Supporting flange is made of thick S.S. plate.

- Entire joint argon arc welded & grounded to smooth bur free finish.

- The Autoclave is supported on the S.S. legs.

- Autoclave supplied with two safety valves, pressure gauge, steam release valve & S.S. basket & drain valve at bottom.

- All autoclaves are provided with paddle lifting arrangement. The Autoclave is hydraulically tested for one & half times the operating pressure.

- Pressure Range : 15 & 18 PSI

Working Size in CMS	Volume	Rating
30 x 50	35	2500 W
35 x 55	55	3000 W
45 x 60	95	4000 W
55 x 75	180	6000 W

Optional Accessories:

*   Digital Temp Controller

*   Electronic Digital Timer (o-99mts)

*   Low water level cutt off device with suitable sensor for protection of heaters

*   Vacuum breaker valve

MSI 75 - LABORATORY AUTOCLAVE FULLY AUTOMATIC

Technical Specification

- Double walled construction.

- Top cover is die pressed to domed shape

- supporting flange is made of thick S.S. plate

- Entire joint argon arc welded & grounded to smooth bur free finish.

- The Autoclave is supported on the S.S. legs.

- It is supplied with two safety valves, Pressure gauge, steam release valve & S.S. basket & drain valve at bottom.

- The Autoclave is supplied Digital Temp Controller with inbuilt timer.

- Low water level cutt off device

- Auto purging system with solenoid valve.

- The Autoclave is hydraulically tested for one & half times the operating pressure.

- Temperature Range   : Up to 125.0°C

- Operating Temperature : 121°C to 123°C

- Operating Pressure   : 15 & 18 PSI

Working Size in CMS	Volume	Rating
30 x 50	35	2500 W
35 x 55	55	3000 W
45 x 60	95	4000 W
55 x 75	180	6000 W

Optional Accessories:

* 4 point scanner with data logger (1 control channel + 3 log channel)

* 4 point scanner with pressure channel data logger (1 control channel+ 2 log channel + 1 pressure channel) Datas to be printed set temperature, actual temperature, log temperature, date, time, F 0 Value

MSI 50A - MUFFLE FURNACE

Technical Specification

- Light weight ceramic fibre wool insulation.

- Made of GI sheets powder coated

- Heating elements made of Kanthal A1 wire.

- Heating elements are wounded around the Muffle.

- Heating elements are covered with ceramic blankets of 96 density.

- Microprocessor based Auto Tune PID Temperature Controller.

- CR AL thermocouple

- Temperature Range   : Up to 1200°C

- Operating Temperature   : Up to 1150°C

- Temperature Resolution : 1°C

- Control Accuracy   : ± 1% of FSD

Size (DxWxH)	Volume	Weight (kg)	Rating
23 x 10 x 10	2.5 ltr	45	1600 W
25 x 13 x 13	4 ltr	50	2000 W
30 x 15 x 15	7 ltr	60	3500 W
45 x 23 x 23	23 ltr	90	6000 W

Optional Accessories:

* Safety Controller (Recommended by us)

* Inbuilt timer

* Single channel Data logger

* RS 485 for PC communication with 21 CFR part 11 compliance Software

* Thermo couple

MSI 73 - MUFFLE FURNACE (GMP Model)

Technical Specification

- Light weight ceramic fibre wool insulation.
- Completely made of Stainless Steel 304.
- Body is made of thick gauge SS matt finished.
- Inner pot is made of Ceramic Muffle.
- Door insulation bricks HFK Maithan.
- Heating elements made of Kanthal A1 wire.
- Heating elements are wounded around the Muffle.
- Heating elements are covered with ceramic blankets of 96 density.
- Microprocessor based Auto Tune PID Temperature Controller.
- K type CR AL thermocouple
- Temperature Range   : Up to 1200°C
- Operating Temperature   : Up to 1150°C
- Temperature Resolution : 1°C
- Control Accuracy   : ± 1% of FSD

Size (DxWxH)	Volume	Weight (kg)	Rating
23 x 10 x 10	2.5 ltr	45	1600 W
25 x 13 x 13	4 ltr	50	2000 W
30 x 15 x 15	7 ltr	60	3500 W
45 x 23 x 23	23 ltr	90	6000 W

Optional Accessories:

* Safety Controller (Recommended by us)
* Inbuilt timer
* Single channel Data logger
* RS 485 for PC communication with 21 CFR part 11 compliance Software
* Thermo couple

A fairly handy instrument for taking quick reading for hardness of tablets.

It is made of brass turned parts

MSI 87 - S S PETRI DISH BOX

Size
11 cm x 25 cm

MSI 87A - S S PETRI DISH BOX WITH HANDLE

Size
11 cm x 25 cm

MSI 79 - ROTARY SHAKER

Technical Specification

- Variable speed P.M.D.C.Geared motor continuous duty.
- RPM 0 to 250 with S.S.tray lotus clamp type.
- Body made of GI sheets powder coated

Size & No of Flasks
9 Flasks of 250 ml
12 Flasks of 250 ml
16 Flasks of 250 ml
25 Flasks of 250 ml
36 Flasks of 250 ml
48 Flasks of 250 ml

Size & No of Flasks
9 Flasks of 500 ml
12 Flasks of 500 ml
16 Flasks of 500 ml
25 Flasks of 500 ml
36 Flasks of 500 ml
48 Flasks of 500 ml

Optional Accessories :

Electronic Digital Timer (0 to 999 Minutes)

Digital RPM Indicator

MSI 84 - C O D DIGESTER

Technical Specification

- Double walled constructed with insulation for minimum heat loses increases the efficiency of the system.

- Aluminium block with holes of 40 mm diameter x 80 mm depth is used to hold upto15 COD tubes.

- Aluminium block is heated to maintain temperature up to180°C

- Microprocessor based auto tune PID controllers for uniformity in all the samples.

- Selectable time up to 120 min with alarm is provided to set the digestion period.

- After digestion, analyses the sample with colorimetric or titrimetric method.

- Supplied with glass tubes, tube stand, air condenser and condenser stand.

- Temperature range   : Ambient up to 180°C

- Sensor   : Simplex PT100 sensor

- Holes Size   : 40mm dia x 80 mm dia

- Volume   : 20 ml each

No. of Tubes
6
10
15

Technical Specification

- The cabinet construction is of GI sheet powder coated.

- The cabinet accommodates two UV sources, Each 12" long rating 8 watts.

- The cabinet has short UV (UV - C or 254 mm), long UV (UV-A or 365 mm) sources and visible light.

- With filter glass/ without filter glass

MSI 86 - DRY BATH

Technical Specification

- The body is made of G.I. sheet powder coated and block is made of aluminium.

- Microprocessor based Auto Tune PID Temperature Controller.

- Simplex PT100 sensor.

- Temperature controller is dual display provided with timer and alarm function.

- Temperature Range : Ambient up to 100°C

- Accuracy   : ± 5°C

MSI 91 - ULTRASONIC CLEANER

Technical Specification

- Light weight ceramic fibre wool insulation.
- Table Top model provided with optional heaters and resettable electronic timers.
- They are all powered by SMPS based Mosfet/IGBT device electronic generators.
- All Our LS models can be used not only for Industrial cleaning but also for medical cleaning, homogenizing, Sonochemistry, degassing & cell destruction in laboratory process. Generator.
- Features: Fully SS 304 Material. Component and modular constriction Frequency 33,40KZ Automatic stabilization of present out put power Mosfet/IGBT Based out put.

Tank Capacity	Digital Timer	Tank Size
1.5 ltr	0-15 min	240 x 145 x 65
2.5 ltr	0-15 min	245 x 145 x 100
3.5 ltr	0-15 min	200 x 150 x 100
5 ltr	0-30 min	300 x 150 x 150
6.5 ltr	0-30 min	300 x 200 x 150
9 ltr	0-30 min	300 x 220 x 150
10 ltr	0-30 min	350 x 250 x 150
13 ltr	0-30 min	350 x 250 x 150
15 ltr	0-30 min	350 x 300 x 150
16 ltr	0-30 min	300 x 300 x 175
22 ltr	0-30 min	350 x 350 x 180
30 ltr	0-30 min	400 x 300 x 250
32 ltr	0-30 min	400 x 320 x 250
35 ltr	0-30 min	500 x 350 x 200
40 ltr	0-30 min	500 x 400 x 200
50 ltr	0-30 min	500 x 400 x 210
60 ltr	0-30 min	600 x 400 x 250

Optional Accessories :

* Digital Temperature Controller