



Catalogue

ELECTRICAL HEATING TECHNOLOGY

Providing Heating Solutions Since 1985

www.jaykayheaters.in

india
MADE IN INDIA



Electrical Heating Equipments



JAY KAY

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About Us



JAY - KAY ENTERPRISES INDIA is a leading provider of electrical heating elements and comprehensive thermal system analysis services. With our expertise and commitment to excellence, we have become a trusted name in the industry.

We specialize in the design, production, and supply of high-quality heating elements for various applications. Our extensive range of products includes hotrunner heaters, cartridge heaters, and thermocouples, which are designed to meet the diverse needs of our customers.

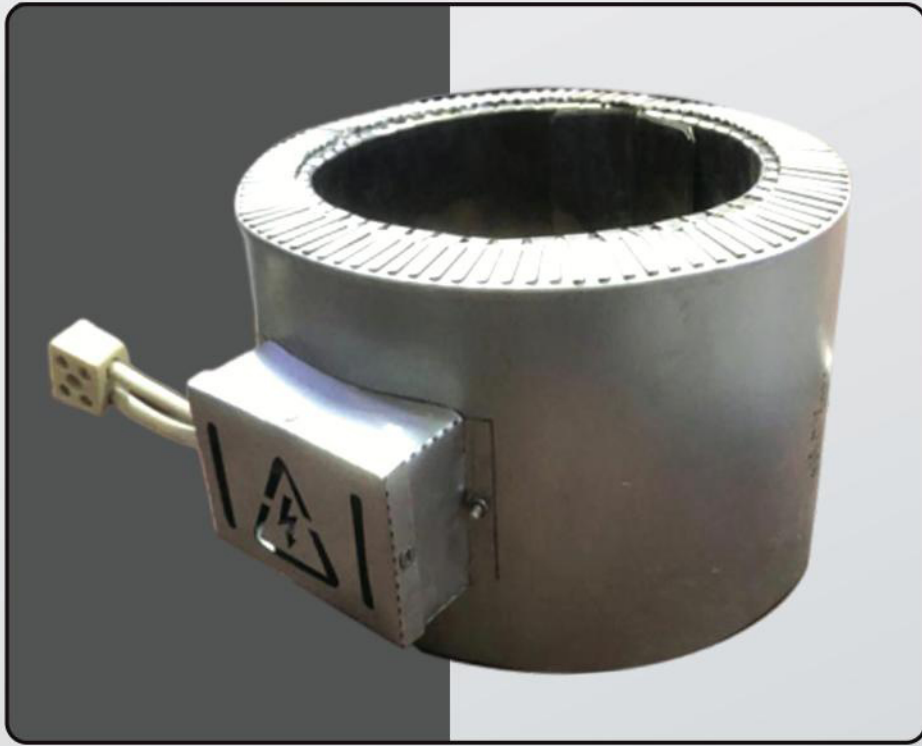
Jay-Kay ENTERPRISES founded in 1985 by its proprietor **Mr. Jagdish Kumar**, who is by profession electrical engineer. Under his mentor and guidance the company has embarked its presence industrial heating technology.

At JAY - KAY ENTERPRISES INDIA, we understand the importance of delivering reliable and efficient heating solutions. Our team of skilled professionals works closely with clients to provide customized designs that optimize performance and ensure optimal temperature control in industrial and commercial settings.

In addition to our heating element expertise, we offer comprehensive thermal system analysis services. We utilize advanced techniques and equipment to analyze the components of the entire thermal system, helping our clients identify areas for improvement and optimize their heating processes.

As a market leader, we take pride in our commitment to innovation and continuous improvement. We invest in research and development to introduce new technologies and enhance the performance of our products. Our dedication to staying at the forefront of the industry allows us to provide cutting-edge solutions that meet the evolving needs of our customers.

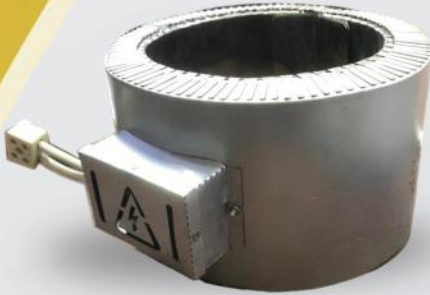
Customer satisfaction is our top priority at **JAY-KAY ENTERPRISES INDIA**. We strive to build long-term relationships based on trust, integrity, and exceptional service. Our team is always ready to assist you with product selection, technical support, and any inquiries you may have.



Band
HEATERS

POWER SAVER HEATERS

Energy Conservation is achieved by using thick Ceramic fiber insulating blanket on surface. Power consumption is reduced upto 20% because of low thermal conductivity of the ceramic fibre insulation. The external surface temperature of the insulation band heaters are approximately 80C while running the inside surface temperature at 600C.



Features :- Increases Productivity



Uniform Heat



Up to 20% of Power Savings



Cooler Environment

CERAMIC BAND HEATER

Ceramic Band Heaters are versatile & widely used throughout the industry. Especially to heat the cylinders (barrels) on all types of plastic(s) processing machinery. It provides Higher watt densities provide higher operating temperatures. Maximum sheath temperature up to 800C and Maximum watt density = 50 watts/square inches



Features :- Nichrome Heating Element



ALSTAR Aluminium Coated Steel



Spot Welded Terminals

Mica Band HEATER

Mica Band is the ultimate combination of high temperature performance and customization. Mica Bands can operate at temperatures up to 500° F rivaling mineral insulated bands in temperature performance while offering a wider variety of shapes, sizes and other configurations.



Features :- High Temperature Capabilities



Easy Customization



Cost Effective




Two-Piece Or Hinged Construction



FINNED BAND HEATER

Copper and Aluminium is used for fins since these material are really good conductors of heat, which helps in quick response to temperature changes and helps in applications where precise temperature control is required.

Features : - Specially designed internal air distribution channels 



Precise
Temperature
Control



Efficient
Cooling



BLOWER ASSEMBLY

Available in customized designs according to the customers need. Both available I Mild steel(powder coated) and Stainless steel.



INFRARED BAND HEATERS

one of the best heating solutions for plastic machines which has better structure and higher heating efficiency than the traditional band heater such as ceramic or mica band heaters. Infrared energy saving band heater is called nano infrared heating band, far infrared energy heating band, nano band heater etc.

Advantages of Nano Far Infrared Quartz Band Heater :-



1/3 Faster
Than The
Traditional
Heater



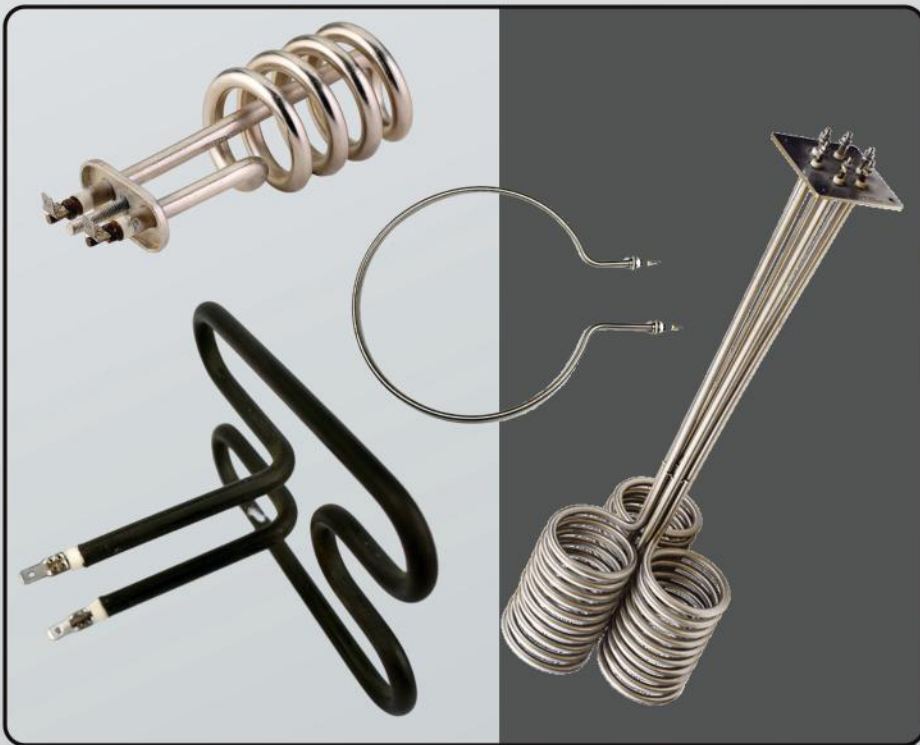
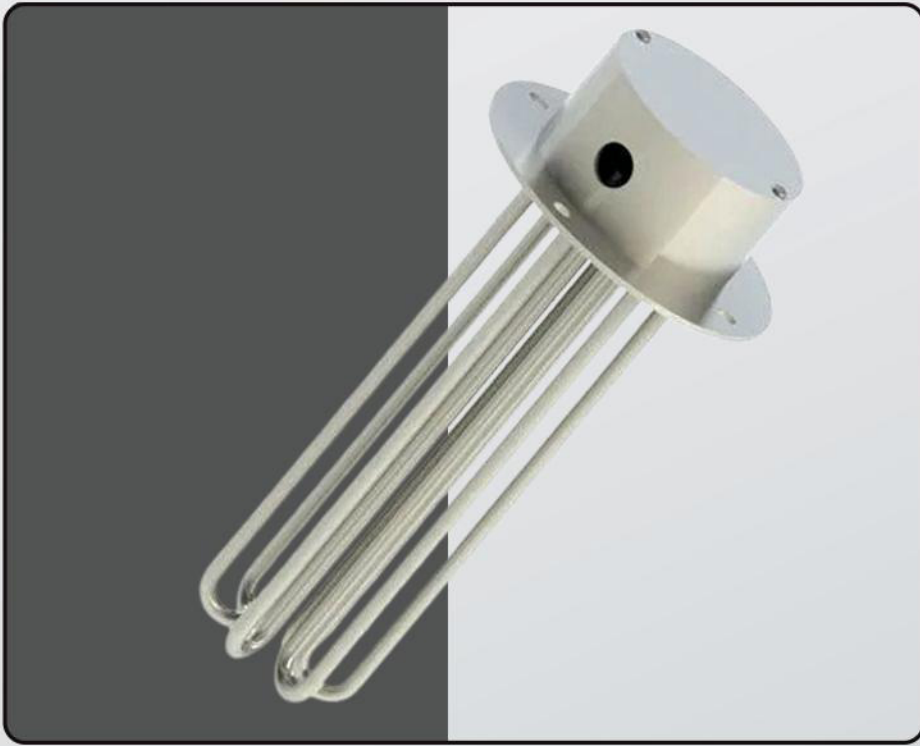
99% Thermal
Conversion
Efficiency



20,000
Hours Life



Thermal
Insulation



TUBULAR
HEATERS



FINNED TUBULAR HEATER

FINNED TUBULAR HEATER It is ideal for transferring heat to air or other gases. Finned tubular heaters are manufactured in a very wide range of dimension and power ratings. They can be shaped into any pattern, depending on the application.



WATER AND OIL IMMERSION HEATER

Efficient, compact heating units designed to provide bulk heat flow system processing fluids or for liquid accumulators. Normal and certified hazardous area constructions very widely used to heat water, oil, gases or for heat transfers.



MANIFOLD HEATERS (FOR MOULDS)

Tubular Heaters are custom-formed in a wide variety of shapes to correspond to your requirements. Incoloy®, stainless steel or steel sheath materials are available, as well as a large selection of termination styles. Magnesium oxide (MgO) insulation ensures superior heat transfer, and the resistance wire is precision-wound for long heater life



COIL HEATERS

Coil heaters are an advance concept of thermal engineering and are also known as high performance tubular heaters or cable heaters. Coil heaters offers high heating profile and high performance in compact spaces up to temperatures as high as 750°C. Available in Various cross sections and sizes, coil heaters are not only straight and coil form but can be formed into almost in any geometrical shape. Coil heaters can be closely wound to provide concentrated heat or can be stretched to fulfil distributed wattage needs



CARTRIDGE HEATERS

cartridge heaters are among the most versatile and widely used cartridge heaters throughout the industry. They are valuable for alleviating problems created by high watt densities, high wattage, excessive vibration, poor fit, or where short heater life is a constant problem.

CARTRIDGE
HEATERS



OVEN,
CONVEYORS
AND ROASTER



TRAY DRYERS

Air tray dryers are the most commonly used drying system after sun drying. Our dryers are specially designed to have better efficiency than any other dryer, available in the market. Trays containing wet products are stored inside the chamber compartments and hot air is introduced through small pores which ultimately dries the wet products within no time..

Features : - Mineral wool insulation



Air Filter
At Inlet



Dynamically
Balanced
Axial Flow
Type Blower



Gasket I.e
Woolen Felt
/Asbestos
Rope/Silicon
Rope



Capacity
25KG to
800KG

BATCH OVENS



High performance is derived from its high airflow rate and standard top return duct. These combine to produce an oven with exceptional uniformity and high energy transfer rates saving the customer valuable time and money. The HD6B oven line comes with Horizontal-Vertical Airflow standard, but can also be configured in the shelf cart friendly Full Horizontal Airflow Configuration. These ovens are well suited to handle most industrial heat processes requiring a 750f maximum operating temperature.

Applications include annealing, curing, powder coating, composites curing, dehydrating, hydrogen de-embrittlement, drying, heat setting, heat shrinking, pre-heating, stress-relieving, testing, and many more

Features : - Mineral wool insulation



Air Filter
At Inlet



Dynamically
Balanced
Axial Flow
Type Blower



Gasket I.e
Woolen Felt
/Asbestos
Rope/Silicon
Rope



Capacity
25KG to
800KG



LABORATORY OVENS

With a maximum temperature of 350/550F, the laboratory ovens are great for applications like curing, baking, testing, drying, some heat treating, pre-heating, and sterilizing. Like all our industrial ovens, the laboratory low temperature cabinet ovens are built to go above and beyond the industry standard for industrial ovens and furnaces.

Features :-



Air Filter
At Inlet



Dynamically
Balanced
Axial Flow
Type Blower



Gasket I.e
Woolen Felt
/Asbestos
Rope/Silicon
Rope



SHRINK TUNNEL

Shrink wrapping machine suitable for gift's confectionery, bottle, cosmetics etc. It's a high speed of sealing machine and high equipment sealing. The complete process is visible & is furnish with L- sealer shaped. The automatic process of shrinkable pouch complete with web- sealer. We are provide very high quality of heat-sealing machine and branded shrink machine. It's very easy used.

Features :- Mineral wool insulation



Mesh
Conveyor



Easy
Learning



Fast
Warmup
Timer



Modifiable
Settings



Durable
Construction

ROASTER

The Nut Roaster is an electric heated batch oven specialized for all kind of nuts, which was manufactured with the same philosophy as the tray dryer, only capable of a larger production. by installing more than one unit as one person can handle more than one at the same time. It is easy to handle, flexible as it is on wheels and offers quick and easy installation in any space. The guided air flow combined with the adjustable roasting temperature and speed of the stirrer, offers even roast even to the most delicate products without marking them and without drying them out, losing their flavor and weight.

Features :-



Uniform
Roasting



Heavy Duty
Motor With
VFD Drive



Shock Proof
Structure



Food
Grade Rigid
Structure



Perforated
Drum



VIBRATORY SCREEN

The machine is designed to maintain steady vibrations, which is achieved by single vibratory motors installed on bottom. And with the added benefit of a clamping system, you can easily clean the residues and mesh that are left behind in the machine. These machines can adapt to your specific requirements and provide you with the performance that you desire, making them your ideal screening equipment. They are ideal for industries that need to deal with raw materials that are dry, wet, abrasive, and sticky. It can provide optimum output with precise and accurate gradations.

WORKING PRINCIPLE: Powder Vibration Sieve Plastic Granules Screening Machine Vibrating Screen is mainly composed of a screen box, screen mesh, two vibration motors, springs and supporting base. It adopts double exciters to drive. When the two exciters rotate synchronously and in reverse direction, the vibration force generated by their eccentric blocks cancels each other out in the direction parallel to the motor axis and stacks into one combined force in the direction perpendicular to the motor axis.

Screen Mesh: The screen can be woven wire mesh, perforated screen and bar type screen. The main materials can be SS304, SS316..

Features :-



Enhances
Product
Quality



Optimum
Output



Lower
Maintenance











Vfd control
drive for
variable speed



VIBRATORY
SCREEN

INDUSTRIAL INDUCTION HEATING

Our newly launched induction heating equipment's range :

Gas 		Induction 
Cooking Efficiency 	Cooking over gas allows only 40-55% of the heat to reach the food being cooked	Food cooked with induction will receive 90% of the heat generated
Kitchen Temperature 	Raises the kitchen temperature	Keeps the kitchen cooler
Cooking Accidents 	Raises the kitchen temperature	Decreases the risk of burns and accidental fires, as there is no open flame
Cost Effective 	Expensive operating costs	Huge saving on the cost of energy, faster ROI
Conventional Electric 	Induction Cooking 	
Allows only 65-70% of the heat to reach the food being cooked	Food cooked with induction will receive 90% of the heat generated	
Takes longer to heat	Evenly heated cookware or surface	
Electric coils and elements heat insufficiently	Energy efficient in converting electric power to heat generated	
Does not give direct control over the heat level when temperature adjustments are made	Gives direct control over the heat level when temperature adjustments are made	

INDUCTION ADVANTAGES :



Flame Free
Kitchen & No
Toxic Gasses



Cool
Surrounding &
User Friendly



60%* Cheaper
than L.P.G



Instant Control
on Temperature



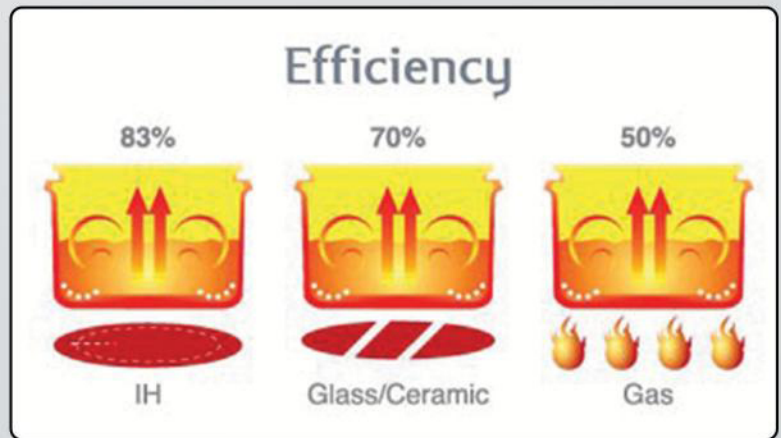
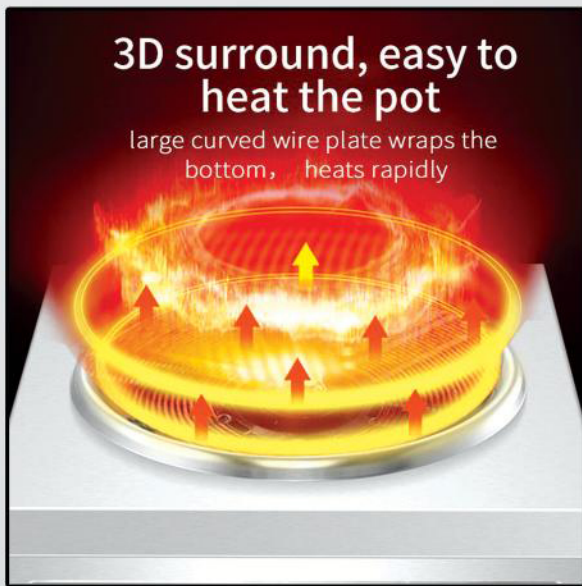
Highly Efficient
& Eco Friendly



Efficiency 90%



It's suitable
for all types
of heating



HMI (Human Machine Interface) WITH OUR LATEST IN-BUILT SOFTWARE APP

Human-machine interface (HMI) software provides an intuitive graphic user interface with input/output controls to help monitor and operate Induction industrial equipment. Our latest designed HMI software can be installed on HMI hardware or regular PCs, mobile devices, and wearables.

Features :-



Show Realtime
Heating
Operations



Energy
Consumption



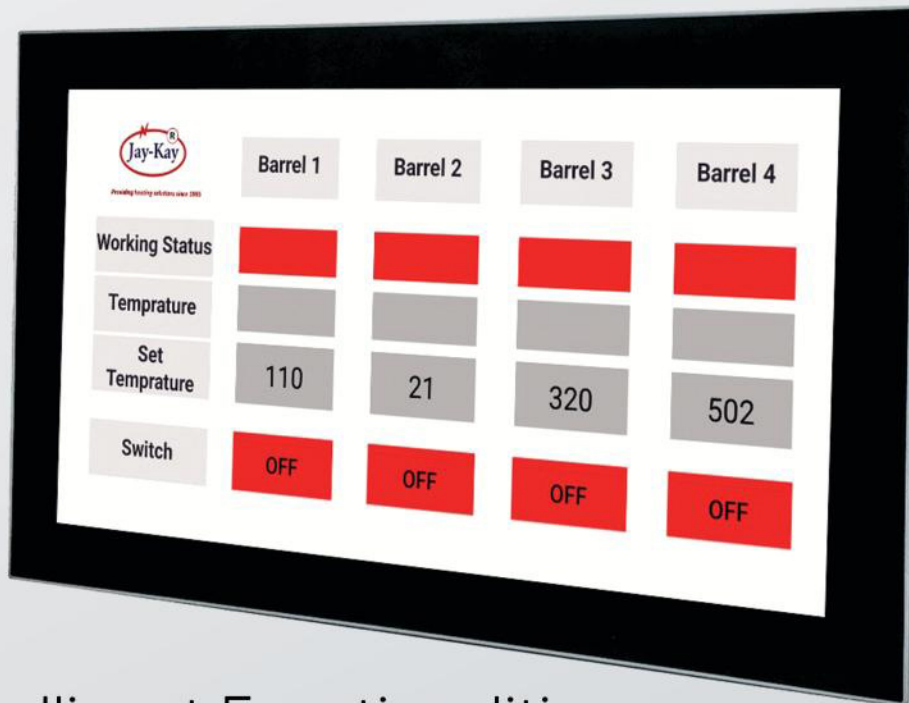
Machine
Heating Load



Heating Can
Be Operated
Through Our
Designed App

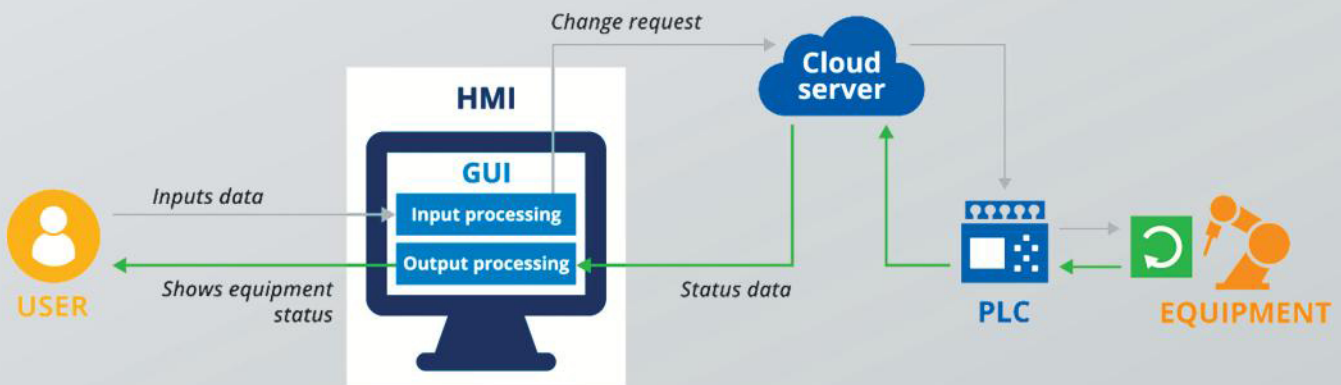


App Available
On Play Store &
App Store For
IOS Users



More Intelligent Functionalities

Open up new possibilities with new features



INDUCTION BAND HEATER

Induction heating barrel offers greater energy savings, reliability, and faster response. Spectacular energy savings, superior reliability and much faster response than conventional heater bands are some of the advantages offered by a newly developed induction heating system. The heating system uses electromagnetic induction – an old and well-known principle used to heat large industrial furnaces, special machines for injection moulding molten metal, thermoset molds, and some Japanese hot-runner nozzles. However, it is a relatively new concept for heating barrels of plastics extrusion and injection molding machines.

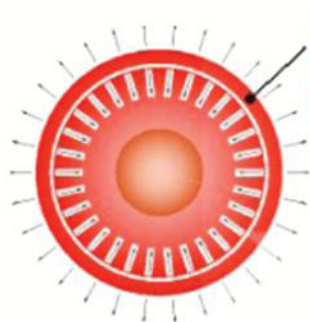
Energy Efficiency 40%-85%

BAND HEATER MODELS :

Model	Diameter (mm)	Voltage (V)	Power (W)	Key Technical Indexes
JKB-01	170	220	2000	1.Voltage: 220V-380V
JKB-02	230	220	2000	2.Power: 2-50KW
JKB-03	240	220	10000	3.Width of induction coils: 80-2000mm
JKB-04	260	380	10000	4.Current: 5A-75A
JKB-05	300	380	15000	5.Diameter of induction coils:≥80mm
JKB-06	350	380	20000	6.MTBF(mean-time between failures:≥10000 hours
				7.Work frequency: 10KHz-25KHz

Electromagnetic Heating Compared with Traditional Heating

X Traditional Heating

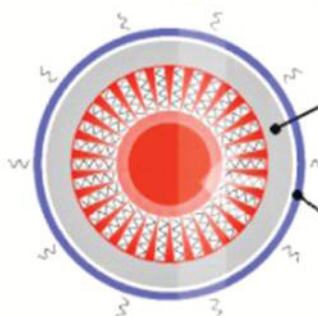


Heating Coil

X A lot of heat exhausted in the air!

X The working environment temperature is hot!

✓ Electromagnetic High Frequency Induction Heating



Insulation Protection Wool

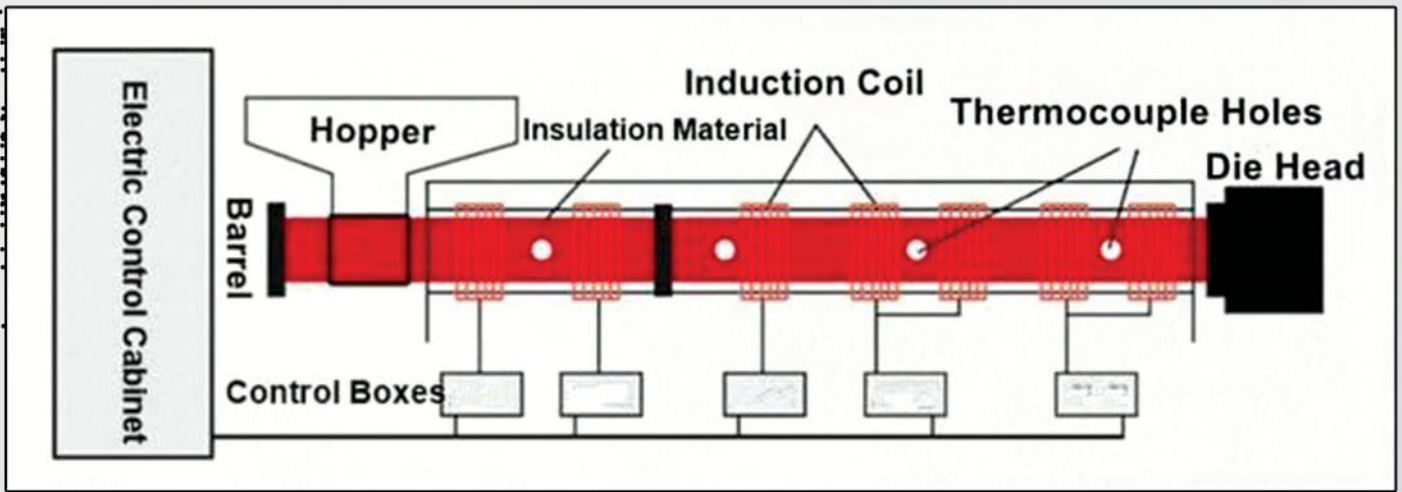
✓ Keep the heat inside, no heat exhaustion!

Induction Heating Coil

✓ Induction heating make heat more efficiently!

Induction Heater VS. Traditional Heaters

Advantages and Comparison		
Technical Data	Induction Heater VS. Traditional Heater	
Heating Principles	Electromagnetic Induction	Resistance wire heating
Heated Part	Induction coil itself is not heated but the barrel generates heat so the heat loss to environment is kept minimum.	Induction coil itself is not heated but the barrel generates heat so the heat loss to environment is kept minimum.
Surface Temperature & Safety	Max.60°C on heater surface, safe to touch by hands.	Above 200°C on surface and dangerous to touch
Heating Rate	High Efficiency: shorten 1/3 to 2/3 warming-up time	Low Efficiency Long time pre-heating
Energy Saving	Save 30-80% Power Consumption	No Saving
Temperature Control	High precision	Low Precision
Using life	4-5 years	1-2 years
Working Environment	Cool down workshop temperature	Hot, especially for low latitude Area
Cost	Cost-effective 30-80% energy-saving rate It takes 6-10 months to recover the cost. The higher the power capacity is, the higher energy-saving rate you get.	Low



INDUSTRIAL HOT PLATE

Precise Power Control Configure 8-Levels Magnetic Power Knob Quickly Adjusts the HEATING Power
 Induction Heating Adopts Innovate Induction Heating | 95% Energy Utilization | Save 35% Energy Cost|
 Improve 30% Safety | heats 30% Faster

Ceramic Glass/Fiber Top :Adopts 4mm Thickness Ceramic Glass/fibre Heating Range | Resistance 700 \times &
 500KG | Easy to Clean | Evenly Transfer the Heat to the tank.

APPLICATIONS : chemical industry, food industry, plastic industry.

FEATURES :



Flame Free
 Kitchen & No
 Toxic Gasses



Cool
 Surrounding
 & User
 Friendly



Efficiency
 90%



SPECIFICATION

Capacity	Diemention (mm)	Power	Voltage	Frequency	Pot	Power Cable
50L	600x600x650+100	10KW	440	50/60Hz	750mm	4m ²
65L	800x800x600+100	20KW	440	50/60Hz	800mm	6m ²
30L	500x500x450+100	5KW	230	50/60Hz	500mm	4m ²

INDUCTION WOK

This industrial induction wok range can serve 120-300 people with an 80L frying capacity. It is used in fast-food restaurants, chain restaurants, and hotels. It is equipped with a thickened wok, 8-gear power knobs, and an Intelligent display to achieve all-round heating. Available in different sizes and capacity.

FEATURES :



Soft Start
Technology



IPX4
Protection
Level



High Speed
Faster Cooking



Panel Thickness
Between
1.0cm to 2cm



Up to 50%
Saving On Fuel
And No Costly
Maintenance



Germany
"Infineon" IGBT



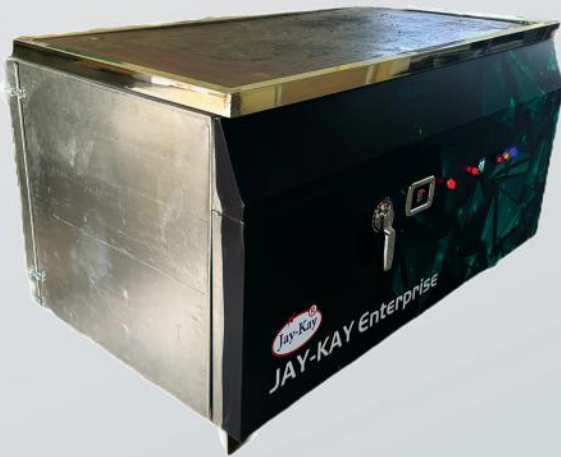
Ultra-Low Noise
Design
(Below 45db)



SPECIFICATION

Capacity	Diemention (mm)	Power	Voltage	Frequency	Pot	Power Cable
10L	550x800x550+100	5KW	230	50/60Hz	Ø450	4m ²
22L	700x800x700+100	12KW	440	50/60Hz	Ø600	6m ²
30L	850x800x850+100	20KW	440	50/60Hz	Ø800	10m ²
45L	1100x1100x800+100	30KW	440	50/60Hz	Ø900	10m ²
60L	1200x1200x800+100	40KW	440	50/60Hz	Ø1000	16m ²
90L	1300x1300x800+100	60KW	440	50/60Hz	Ø1100	16m ²

INDUCTION TAWA



The Hot Tawa is designed to heat all over the tawa within a short period of time. High Quality food grade materials are used in the manufacturing of a Commercial Induction Dosa Tawa. Our tawa incurs low operating costs and it enables the user to cook the dosa at a reduced operational time. Different levels of heating adjustments are featured in the kitchen equipment for easy handling

Advantages



Accurate Temperature Control



40%* Cheaper than LPG, Electric Resistant Coil



No Toxic gases



Cool & Flame free Kitchen Solution



90%* Efficiency

Size of Tawa	24" x 24", 24" x 48", 48" x 98"
Power	5kw to 40kw
Voltage	220V / 415V, 50Hz
Min Temp	45°C
Max Temp	300°C



INDUCTION FLAT

Features :-



All Stainless Steel, Much Easier To Clean



Very Powerful, Highly-Efficient, 20-30% Faster



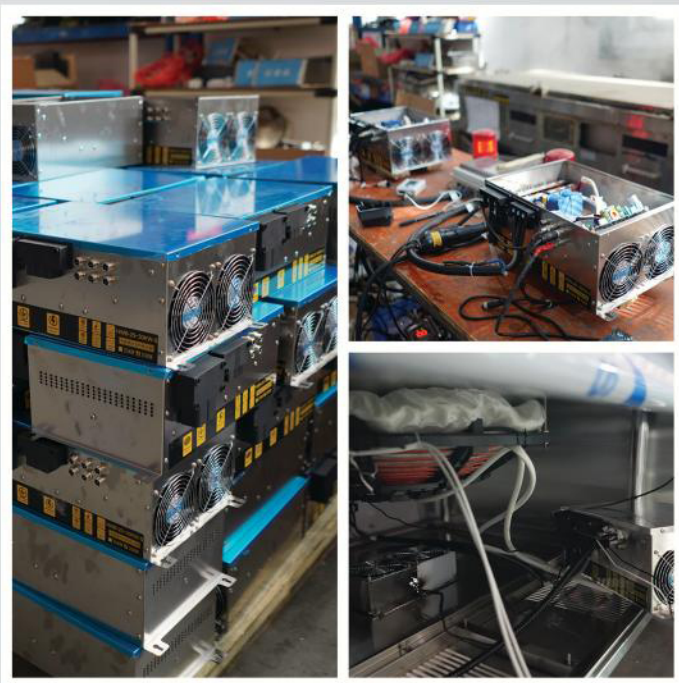
A+ Scratch-Resistant Crystal Glass Panel, Bear Over 100 Kgs



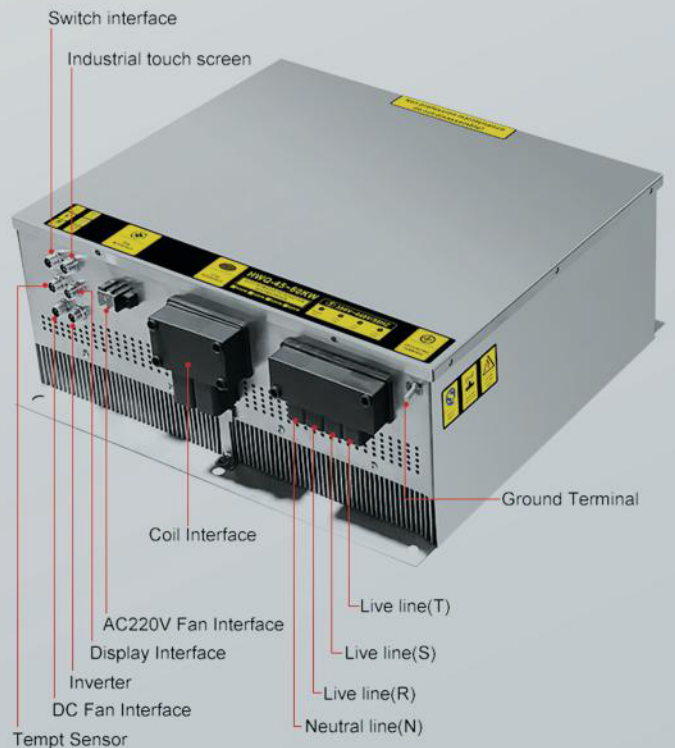
8 Power Stages, Precise Controlling

Available From 5KW to 20KW

INDUCTION POWER SUPPLY AND COIL



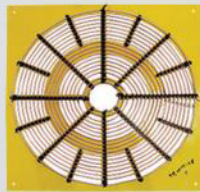
CONNECTION DIAGRAM



V5.0S

INDUCTION HEATING DRIVER

SPECIFICATION



Power

25kW/30kW

Voltage

AC380V 50-60Hz

Housing material

Stainless steel

Product Size

416.1*251*156.8mm

Heating Technology

Half bridge

Power Level

1~8 stages

Power	25KW/380V~	30KW/380V~
Stage-1	5000W	6000W
Stage-2	9000W	10000W
Stage-3	13000W	14000W
Stage-4	16000W	16000W
Stage-5	19000W	18000W
Stage-6	21000W	22000W
Stage-7	23000W	26000W
Stage-8	25000W	30000W

INDUCTION HEATING DRIVER

ADVANTAGE



Actual time PID software phaselock technique



Actual time IGBT saturation voltage inspection



Digital PI constant power technique



Pot throwing lock PPG technique



Industrial power supply



Layout distribution easily in small space



Automatically match lots of switches / display boxes



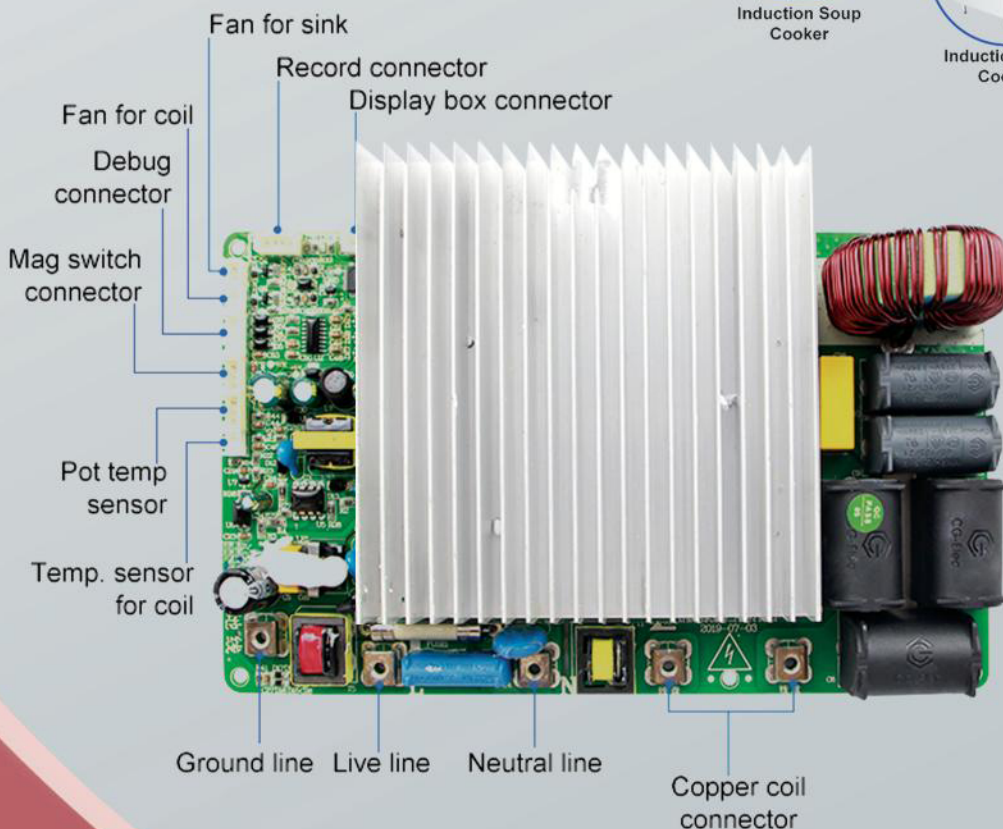
Easy to fix and install



Multiple professional safety protections



WIDELY USED IN COMMERCIAL INDUCTION KITCHEN EQUIPMENT



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