



KERONE

(An Iso 9001-2008 Company)



Automobile Industry



Pharmaceutical Industry



Rubber & Plastic Industry



Chemical Industry



Food Industry



Oil & Gas Industry

• **Aerospace Industry**

• **Steel Industry**

• **Paper Industries**

Radio Frequency Heating Systems

About KERONE

KERONE is possessing experience of 40 years in engineering excellence.

KERONE is one of the most admired and valuable company for customer satisfaction.

KERONE is pioneer in application and implementation engineering.

KERONE is having immense expertise in manufacturing and implementing various types of heaters and dryers.

KERONE is possessing employee strength of more than 140 experts continuously putting efforts for happy industrial heating solutions.

KERONE has reported annual revenue of \$8 to \$10 Million , increasing year-on-year.



Our Vision and Mission



Vision

- Turn into world leader in providing specialized, top-notch quality and ecological industrial heating, cooling and drying solution across the globe.
- To attain global recognition as best of quality and environment friendly engineering solution company.

Mission

- To enhance the value of customer operation through our customer need centric engineering solution.
- We are committed to provide our customers, unique and best in class products in Industrial heating, drying and cooling segment, with strategic tie-up for the technical know-how with renowned leader in the industry specific segment.
- We are company that believes in strong ethics and timely commitment helps to build long term relationship.



Value Propositions

40 years of rich experience

Sound infrastructure

Adherence to standards

Timely delivery

Highly customized product

Cost effective solutions

Team of experts delivering quality

Great after sale support



KERONE

(An Iso 9001-2008 Company)

A CRISIL-NSIC RATED COMPANY
ISO-9001-2008 COMPANY
AFFILIATED TO THE UNIVERSITY OF NOTTINGHAM
MEMBER OF A.M.P.E.R.E.(EUROPE)



ASCB(E) Certification for Best practice



IRQAO Certified for quality



Member of A.M.P.E.R.E. (Europe).



ISO 9001-2008 Certified company



Recognized and Rated by CRISIL



CRISIL Verified

In Association with SVCH-Technologii,
Moscow (Russia)

Introduction of Radio Frequency Heating System

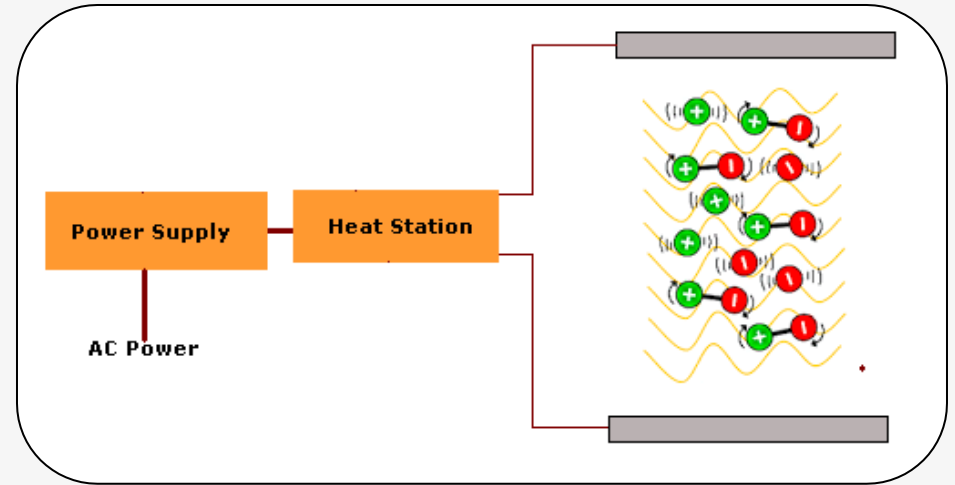
Radio Frequency (RF) heating Systems is a type of Electromagnetic radiating system.

Radio Frequency (RF) heating systems generates electromagnetic radiation of 30-300Mhz.

RF heating System heats materials and substances by igniting conductive molecules.

RF heating is similar to microwave heating at lower frequency.

RF heating is also known as Induction Heating and/or Dielectric Heating.



Radio Frequency Heating System Classification

Radio Frequency Heating Systems are classified as follows :

Batch Radio Frequency Heating System

Continuous Radio Frequency Heating System

Hybrid Radio Frequency + IR Heating System



Radio Frequency Heating System Vs Conventional Heating System

Radio Frequency Heating System

RF heating systems are fast, as heat is generated due to induction of electromagnetic waves in material.

Ions within the material gets ignited due to changing radio frequency.

Environmental friendly and green heating solution, no carbon emission.

100% energy utilization, as heating takes place within the material.

Better floor utilization index as it doesn't require chamber area.

No Temperature loss in surrounding, ambient workplace.

Conventional Heating System

Conventional heaters have slow heating rate, heat is transferred via means of air.

Instance heating does not take place, it requires warm-up of surrounding.

Produces carbon or toxic gases hence not much environmental friendly heating solutions.

100% energy utilization is not possible, as material is heated by surrounding hot air.

Poor floor utilization index as it requires bigger chamber area for material to rotate.

Surrounding air temperature rises with rise in heater temperature.

Radio Frequency Heating System Vs Infrared Heating System

Radio Frequency Heating System

RF heating system are part of Electromagnetic heating utilizes frequency of 30 to 300 Mhz .

Heats the objects from within the object.

Radio Frequency heating systems are known as Direct heaters.

RF heating systems does not require larges space hence offers better floor utilization index.

Depth of heat penetration is higher for the RF heaters.

Rate of heating depends on the moisture content within the material.

Infrared Heating System

IR heating system are also part of Electromagnetic heating but it utilize frequency of 20 to 214 Thz.

Heats the object from surface of object.

Infrared heating systems are known as Indirect heaters.

Compact system providing better floor utilization index.

Depth of heat penetration is lower in infrared heaters as it heats from surface.

Rate of heating depends on the surface characteristics of material.

Advantages Radio Frequency Heating System

Consistent heating throughout the material.

Increase in speed of heating as heat is generated internally..

High energy efficiency.

Improved quality of output material.

Compact in size hence better floor utilization.

Reduction in unwanted side reaction

Rapid turn ON/OFF control can be achieved.

Better and more rapid process control is achieved.

Selective heating i.e. heating selectively one reaction component.

Improve reproducibility.

High efficiency of heating.

Environmental heat loss is save, Reduce wastage of heat

RF Heating System in Pharmaceutical Industries

RF Heating System find wide applications in the growing and critical pharmaceutical and Chemical Industries, few of them are mentioned below:

Drug Extraction

Chemical Synthesis

Sterilization of bottles, injections and packing materials

Drying of Powders and pills

Drying of Gelatin

Drying of water-based Adhesives

Thawing

Chemical reaction or decomposition



RF Heating System in Plastic Industries

Plastic industries has various applications that require heating and RF heating systems provides many advantages:

Curing and Preheating of PVC sheet

Welding and Embossing of PVC and other plastices

Phenolic Resin PC Boards

Laminating Flexible PC Boards

Welding of PVC Interior

Plastic Thermoforming



RF Heating System Rubber and Wood Industries

RF heating system finds various application in Rubber and Wood Industries:

Pre-heating Rubber

Pre Heating Of Solid Rubber Tyres

Extrusion and Post Curing

Rubber Coating

Veneer Drying of plywood

Glue drying for Edge bonding

Lumber Drying



RF Heating System in Textile Industries

Textile is the oldest industry that requires heating or drying for various processes, RF heating systems help the textile industry to achieve better quality output at a lesser cost:

Drying Pantyhose

Drying Bulk Yarn

Drying Tow and Webs of Woven Material

Heat Setting Of Nylon Rope

Printing of Carpet Tiles

Heating of Wool Bales

Drying of Wool

RF Transfer Printing

Textile Bonding

Drying of Synthetic Fibers



RF Heating System in Food Industry

The Food and Packed Food industry has multiple application that require RF Heating are as follows:

Tempering of Frozen Products

Thawing

Blanching

Baking

Drying/Dehydrating

Pasteurization and Sterilization

Cooking and Roasting



RF heating System in Paper and Printing Industry

Paper and Printing industries are having various applications that requires RF heating systems:

Drying of Paper

Drying of Adhesives on Carton Board

Drying of Adhesives on Stationary Products

Drying of Glue for Blister Packs

Moisture Profiling of Paper

Drying Matchbox striking Edges

Drying of Water based printing inks

Paper Roll formation

Smudging Paper



RF Heating System for Some Miscellaneous Applications

RF Heating Systems find applications across various processes of Industry few are listed below:

Increasing the Fertility of Seeds

Drying Agricultural Products

Drying of Salt

Drying of Refractory Products

Accelerated Concrete Curing

Drying of Glass

Drying of Sand Cores

Phenolic Resin PC Boards

Laminating Flexible PC Boards

Cracking of Concrete



Trusted Partner of following consultants



Our Clients



Serving across Continents:



We are Exporting more than 50 Countries...

THANK YOU

Reach us at:

Unit-1 : B/10,Marudhar Industrial Estate,H.P. Gas
Godown Lane, Goddev Fatak road,
Bhayander(E), Mumbai-401105

Phone : +91-22-28150612/13/14

Unit-2 : Plot No. B-47, Addl. MIDC Anandnagar,
Ambernath (East), Dist. Thane- 421506

Phone : +91-251-2620542/43/44/45/46

E-Mail : info@kerone.com , sales@kerone.com,
unit2@kerone.com

Website : <http://kerone.com>, <http://kerone.net>,
<http://keroneindia.com>