Radio Frequency in heating system

Business have become very impatient; no longer ready to waste any time in their long running processes. The shorter the manufacturing process the better is the productivity concept adoption has became demand of time, same is now requirement of all the industries across the different verticals no one is ready to scarifies in terms of time hence the approach of heating and drying which used to take huge sum of time needed to search an approach that should fasten the process of heating and drying.

Radio Frequencies popularly known RF, Radio recurrence (RF) is a rate of wavering in the scope of around 3 khz to 300 Ghz, which relates to the frequency of radio waves, and the oscillating current which convey radio signs. Radio Frequency travels in the surface of conductor it never penetrates into it this attribute of radio frequency is known as Skin-effect, the skin effect quickly heats the surface of conductor this makes radio frequencies (RF) appropriate choice for heating and drying application where the time is one of the major constraints.

Radio Frequency (RF) heaters came as revolution to in process of heating and drying to reduce the time it used to take with the conventional systems. The demand of situation was good quality oriented manufacturer who can engineer and develop such heating and drying equipment that can fit into the specialized need of the market.

KERONE being innovation oriented company, engineers continuously working on designing and developing product that help clients for their varying need in process heating and drying. The increasing need of RF in process heating and drying also provoked to adopt the technology and develop as heating system that can contribute to speed-up total process of client.

KERONE manufactures the Radio frequency dryer, Batch dryer and Online Radio frequency dryer that offers multiple benefits

- ✓ Radio Frequency heats items straightforwardly and through the thickness of the item. This results in quicker drying.
- ✓ Radio Frequency heats from inner surface material and not much constraint with its conducting ability. This gives an even temperature angle all through the material for more predictable item quality
- ✓ The heating and drying rate is corresponding to the measure of water in the material. As the material dries, less Radio Frequency vitality is retained, the warming rate diminishes and most materials won't overheat.
- ✓ Distinctive materials heat at diverse rates so it is conceivable to high temperature one and only piece of a composite material or to dry a covering without warming the substrate. This enhances item quality by not heating touchy materials.
- ✓ Spontaneous ON/OFF control makes the RF Web Dryer to reduce the total time of process by quickly heating up and cooling down.

- ✓ Online Radio frequency dyers and batch dryers manufactured by KERONE is highly efficient as their energy consummation has propionate relation with output, loss of energy is negligible.
- ✓ Unlike Radio Frequency heater are more environmental friendly as being very clean process and no by-product in terms of the ignition for the heaters.
- ✓ Radio Frequency Heater/Dryers save operational cost by saving time, energy and increased controlled heating.

Feature of Radio Frequency (RF) Heaters:

- ✓ Designed to handle wide range of Products
- ✓ PLC control with fault identification
- ✓ Superior quality processed product at highest rate of production
- ✓ Flexible, accurate and effective at low rates of energy utilization
- ✓ Meets appropriate regulations all through the world
- ✓ Volumetric heating keeps the temperature low and uniform throughout the web to prevent overheating.
- ✓ Batch Type Front opening Radio Frequency (RF) Heater/ dryers
- ✓ Conveyerised continuous Radio Frequency (RF) heaters/dryers.
- ✓ Residual humidity restricted within +/- 1%

KERONE always tried to provide the solution to various application areas by its specialized Batch and Online (Conveyrised/Continuous) Radio Frequency (RF) Heaters includes:

- ✓ **Food Processing**: Baking and drying, Tempering and Pasteurizing, Sponge product processing, Sterilization of food product, Packed food for removing moisture contents.
- ✓ **Textile**: Bobbins and YARN processing, Dyed yarn processing for quick time and uniform color.
- ✓ **Preheating Plastics:** RF Heater and dyers find its application in preheating epoxy performs prior to molding semiconductor encapsulation.
- ✓ **Preheating of Rubber**: Radio Frequency (RF) heaters heats rubber prior to vulcanization and molding into weather stripping.
- ✓ **Drying Ceramics**: Radio Frequency heats and dries molds and castings for bathroom fixtures (soap dishes and paper holders). Ceramic fiberboard and shapes, Ceramic powders and filter cakes and Ceramic honeycomb extrusions and metalized coatings are dried.
- ✓ **Wood and Paper**: Drying of wood pulp or paper in the process.
- ✓ Fiberglass package drying