

## Radio Frequency Heating Benefits

The unique characteristics of Radio Frequency heating and drying offer many benefits over conventional heating and drying methods.

- **Faster Heating and Drying Times** — Radio Frequency heats products directly and through the thickness of the product. This results in faster drying.
- **More Uniform Heating and Drying** — Radio Frequency heats from within the material and does not rely on conduction. This provides an even temperature gradient throughout the material for more consistent product quality.
- **Self Limiting During Drying** — The heating rate is proportional to the amount of water in the material. As the material dries, less Radio Frequency energy is absorbed, the heating rate decreases and most materials will not overheat. This improves quality by avoiding overheated product.
- **Moisture Leveling and Profiling** — Since the heating rate is proportional to the amount of moisture, wet areas heat faster than dry areas within a product. This accelerated drying of wet areas continues until the moisture level is even throughout the product. This provides more consistent product quality.
- **Selective Heating** — Different materials heat at different rates so it is possible to heat only one part of a composite material or to dry a coating without heating the substrate. This improves product quality by not heating sensitive materials.
- **Instant Start and Stop** — Power and heating start and stop instantly, which is virtually no warm up or cool down time. This saves time.
- **Energy Efficiency** — Energy usage is proportional to the amount of production work being done. All energy goes into the work without losses to the environment. If the line is running at less than capacity, energy usage is lower. Only energy required is used. This can lower fuel costs.
- **Fewer Environment Issues** — There are no combustion and no combustion by-products with Radio Frequency. This saves on both the capital cost and the operating cost.



200 KW RF/Convection Dryer



200 KW RF Foam Dryer