Heating mixer with induction heating system
for mixing, heating, reacting, drying

- For applications in all industries in which the material has so far been heated via grain heater, double jacket or hot air

The unique mixing principle
... combined with induction heating

- Rotating mixing pan
  for material transport
- Variable-speed mixing tool, slow to fast
  mixing, kneading, granulating
- Stationary wall scraper
  efficient prevention of material build-up
  on the pan wall

The effect
Optimally controllable preparation/heating
effect by using contact heat transmission in the plastic
phase as well as in the mechanically generated fluid
bed for numerous applications

This mixing principle enables:
- Preparation without dead zones in the process chamber
- No shaft passages in contact with the product, thus little wear
- Only 1 mixing tool for sizes between 5 liters and 400 liters
- Processing of all, even extremely viscoplastic, consistencies

Inductive heating of the mixing pan enables:
- Direct generation of heat in the wall of the mixing pan – so no heat lost due to heat transfer between heating medium and pan wall
- Homogeneous, controllable temperature field in the area of the induction coils
- Good dynamic control behavior for optimum temperature control/
  reproducibility
- Fast heat transfer between intensively moved material and rotating pan wall by high temperature gradients and high surface-related power input
- Process control/product design via individually free preselectable
  temperature curves
- Minimization of space requirement by a heating unit integrated in
  the machine housing

Fields of application with a heating power between 5 kW and 250 kW:
- Mixing with melted binders (e.g. resins) instead of binder solutions, resulting in lower porosity e.g. in the refractory, carbon and graphite industry
- Heating of solid/solid mixes and solid/liquid mixes to temperatures between 30 °C and 250 °C
- Reaction of solid/solid mixes and solid/liquid mixes
- Contact drying of aqueous and non-aqueous material systems
  under atmospheric pressure
- Evaporation processes

Also in combination with the EVACTHERM® vacuum mixing technology:
- Contact drying of aqueous and non-aqueous material systems
  under vacuum (also with explosion protection)
- Phase separation of multiphase mixes with simultaneous drying under
  defined pressure/temperature
- For use as (chemical) reactor for exothermic/endothermic reactions
  with superimposed mixing, heating and cooling
- Usage as rotary evaporator

Top-name manufacturers around the world work with EIRICH mixing technology.
We would be glad to provide references on request. EIRICH is a reserach partner for universities.
Put us to the test. We would be glad to tell you more.

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