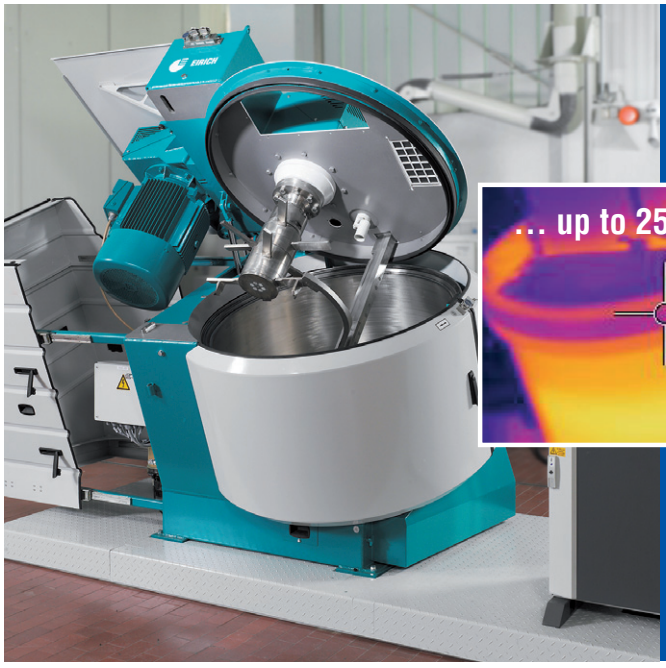
EIRICH

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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MIXING TECHNOLOGY

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