EIRICH

Kneading / Plasticizing in the EIRICH mixer

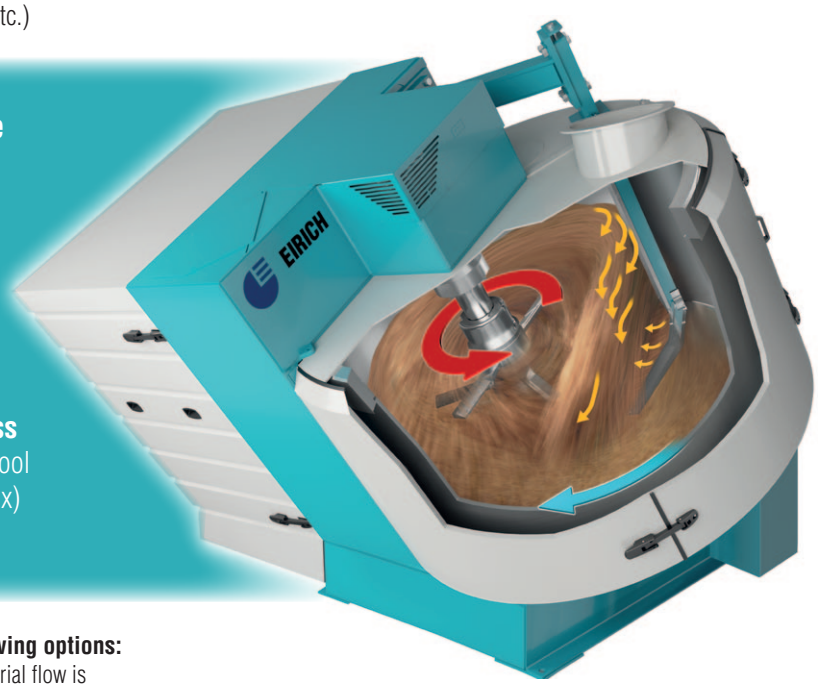
- **clay bodies** (for extruded tiles, split tiles, roof tiles, clay bricks, stoneware pipes, earthenware, etc.)
- **oxide and non-oxide ceramic materials** (for catalysts, carbon black filters, etc.)
- **refractory bodies** (for plastic bodies, taphole bodies, etc.)
- **carbon bodies** (for graphite electrodes, anodes, furnace linings, cathode blocks, carbon electrodes, electrical applications, etc.)
- **viscous or pasty products** (sealing compounds or crayon leads, etc.)

The unique working principle

Rotating mixing pan
for material transport

Variable-speed mixing tool, slow to fast
for mixing and kneading

Separation between material transport and the mixing process
This allows the speed of the mixing tool (and thus the power input into the mix) to be varied within wide limits.



This working principle offers the following options:

- Introduction of shearing forces; the material flow is guided downwards by means of the mixing tools
- Dry mixing, kneading and plasticizing in a single unit
- The tool can be run variably, slow to fast
- Optimal distribution of very small amounts (even in the ppm range)
- Quick and homogeneous admixing of liquid components, also in small amounts
- Optimal distribution of liquid (often leads to a reduction of the quantities to be added)
- Quick subsequent moisture corrections

Further advantages:

- No dead zones in the mixer; the material is fed toward the mixing tool, not vice versa
- Short processing times, high volume-specific throughputs
- No shaft passages in contact with the product, little wear
- Optimal disintegration of agglomerates and fibers
- Sizes from 1 up to 3000 liters with a single mixing tool
- Mix temperatures of up to 250 °C are possible
- Increase of plasticity of ceramic bodies by introduction of steam into the material
- Operation under explosion-protection conditions allows safe preparation of potentially explosive material systems

EIRICH customers tell from experience:

- Simple cleaning as there are no material cakings at the mixing pan wall
- Constantly uniform and reproducible mixes in high quality
- More homogeneous mixes lead to better finished products and less scrap
- Green scrap can be added without precrushing together with the raw materials
- Better product qualities compared to qualities obtained if e.g. kneaders are used*

* *Study of the Norwegian University of Science and Technology taking anode paste as an example, Sigma kneader versus Eirich mixer*

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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