

Mixing Technology

Hidden Potentials

From a Flask to a Production Reactor

A common task in the industrial environment is to transfer a new product or recipes as fast and save as possible from laboratory to production scale.

In simple cases we perform a direct scale-up to the production reactor. This is possible for processes like the mixing of low-viscosity, mixable liquids or their reactions. Our approach is based on basic experiments in the laboratory scale and empirical correlations.

Processes like the dissolving of solids, gas/liquid reactions, mixing high-viscosity liquids, or mixing-sensitive reactions the complexity depends on the particular situation. In these cases it is usually required to determine the limiting mass transfer steps. Our experience enables us to overcome this challenge by an adequate mixture.

The optimization of reaction conditions as well as the execution of significant experiments in the laboratory scale needs professional expertise. As a standard procedure, we use laboratory reactors with effective mixing, which are capable for scale-up. Besides classical stirred tank reactors other promising options are possible.

Project examples

- Dissolving of solids
- Optimization of gas/liquid reactions
- Generation of liquid/liquid emulsions
- Mixing of high-viscosity liquids
- Improving of mixing-sensitive reaction systems



Laboratory

New product /
New recipes
→
Fast and safe



Production

Interested? Contact us!

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Your Benefit

- Obtain highest product quality with maximized space-time yield
- Increased productivity by reduced batch-time
- Identification of determining factors of your process
- Optimization of your mixing- and reaction-processes

Our range of services

- Expert advice on mixing- and reaction-technology
- Design and performing of experiments to determine optimized mixing systems and process conditions
- Professional scale-up to production scale or dimensioning of production reactors