Product information

Dynamic micromixer - Mixing small volume flows · Mixer

Description

Mixing small volume flows

The dynamic micromixer for fast mixing sensitive reactions, antisolvent nucleation, and nanoparticle synthesis

Our dynamic micromixer is specifically designed for the active mixing of small volume flows. The innovative mixing technology allows the adjustment of mixing times from 300 ms to less than 5 ms, independent of volume flow rates. Its modular design with a variable number of inlets enables flexible process integration in a wide range of industrial applications, including in the cosmetics, chemicals and pharmaceuticals sectors.

Applications for active mixing

- Pharmaceutical and vaccine production
- Nanoparticle synthesis
- Cosmetics
- Mixing sensitive reactions
- Solvent / Antisolvent methods
- Lithiations including flash reactions
- Research and development

Technical data

- Specific power of up to 20 MW/m³
- Max. volume flow rate: depending on mixing task
- Adjustable mixer speed up to 12,000 rpm
- Pressure drop of less than 20 mbar at 10 ml/min and 1 mPas
- Mixing chamber volume: 7 µl

Advantages of the dynamic micromixer

- High mixing quality - Independent of flow rate
- Lower clogging risk – Significantly better than static mixers
- High-quality mixing – Even with fluids of different viscosities
- Sustainability - Can be rinsed and dismantled for cleaning and reuse
- Corrosion-resistant materials - Stainless steel, ceramics, fluor elastomers
- Modular design – Various mixing elements, 2 – 4 inlets optional
- Increased efficiency – Reduces material waste, enhances product quality
- Compact design – Easy process integration into existing systems

Patents and trademarks

Our products are protected by the following national and international patents: DE 10 2018 129 631.2 B3; EP 3 884 162; CN 113 302 399 B; DE 10 2018 129 633.9 B3; EP 3 884 160; CN 113 272 553 B; DE 10 2018 129 634.7 B3; EP 3 884 527; DE 10 2018 129 635.5 B3; EP 3 762 165; DE 10146 793.1; EP 1 354 135 B1; US 7,698,818 B2; DE 10 2011 051 486 B4; EP 2 726 740 B1; US 9,404,492 B2; CN 103 732 921B; EP 2 640 977 B1; US 10,012,220 B2; CN 103 348 141 B; HK 1 185 648 B.
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