EKATO Lab Reactor ELA 5

For the Development of Gas-Liquid Processes

Our service
Support from EKATO mixing specialists:

• Start-up of the unit on site
• Assistance for operation
• Scale-up expertise
• Guarantees for key process parameters

Operating conditions

• Working volume 3 litres
• Gas feed up to 1.6 m³/h
• Temperatures: 25 to 250°C
• Pressure: 0 to 81 bar (abs)
• Viscosity: low viscous fluids

Process monitoring

• Gas feed
• Temperatures (vessel and jacket)
• Pressure
• Impeller rotation speed

EKATO Lab Impellers

Customized high performance impellers for optimized process results

Tailor made impellers (examples)

• EKATO COMBINED GASSING
  for high performance hydrogenations

• EKATO VISCOPROP
  multi-purpose impeller

• EKATO PARAVISC
  for efficient blending over a wide viscosity range
EKATO Lab Impellers

EKATO’s specialists can facilitate the design and planning of your process development trials for data analysis and scale-up to plant scale. EKATO has extensive process know-how for complex and challenging process conditions including 2- or 3-phase systems. You can benefit from this vast knowledge base and experience gained over many years of developing and implementing innovative mixing technologies. We can support you already in the lab size.

Trials in the lab scale will provide meaningful results if the impellers used correspond to those of the production plants. 3D printing of the impellers is the state-of-the-art response to these requirements:

- Accurate geometric similar to the full scale
- Flexible in size and material of construction
- Well understood hydrodynamic properties

Materials of construction (MOC)

All relevant materials are available

- Stainless steel
- Stainless steel and bronze
- Aluminum
- Titanium
- Polymers like polyamide, ABS, …
- ...

Our service

Support from EKATO mixing specialists:

- Supply of lab impellers tailor made for your laboratory facility
- Assistance for test plans
- Support in evaluation of results
- Scale-up expertise

Typical lab sizes

- For vessels up to ~ 10 l volume
- Impeller diameters up to ~ 150 mm or 6”

Features

- 3D printed
- Exact geometric similarity (lab to process scale)
- Variety of different impellers
- Many different materials available
- Short delivery time (dep. on MOC)