EKATO VARIOBLADE

Efficient blending and heat transfer over a wide viscosity range

Industries
- Chemicals
- Plastics and rubbers
- Resin emulsions
- Biochemicals

Applications
- Polymerization
- Multiphase reactors
- Hydrolysis / digestion
- Reactions with high heat transfer requirements

Benefits
- Short blend times
- High heat transfer capabilities
- Controlled local shear
- Significant power savings compared to grid-type impellers

General features
- Flexible, segmented design
- Efficient axial pumping by inclined outer blades
- Radial pumping at the bottom
- Controlled surface entrainment
Benefits

The VARIOBLADE is a flexible, modular impeller with an optimized split between axial and radial flow components by different shapes of the upper and lower impeller parts. Compared to standard frame- or grid-type impellers, blend times and heat transfer can be significantly improved. Gas entrainment and shear can easily be controlled, as the impeller can be customized to the corresponding application.

Mixing a tracer into a viscous shear-thinning CMC solution investigated with laser-induced fluorescence (P-LIF)

Blend times can be reduced up to 50% compared to conventional grid type impellers, especially in the mid- to high-viscous range and for shear-thinning media.