


EKATO VISCOPROP® EKATO VISCOPROP-F®

The advanced hydrofoil impeller
for high mixing efficiency

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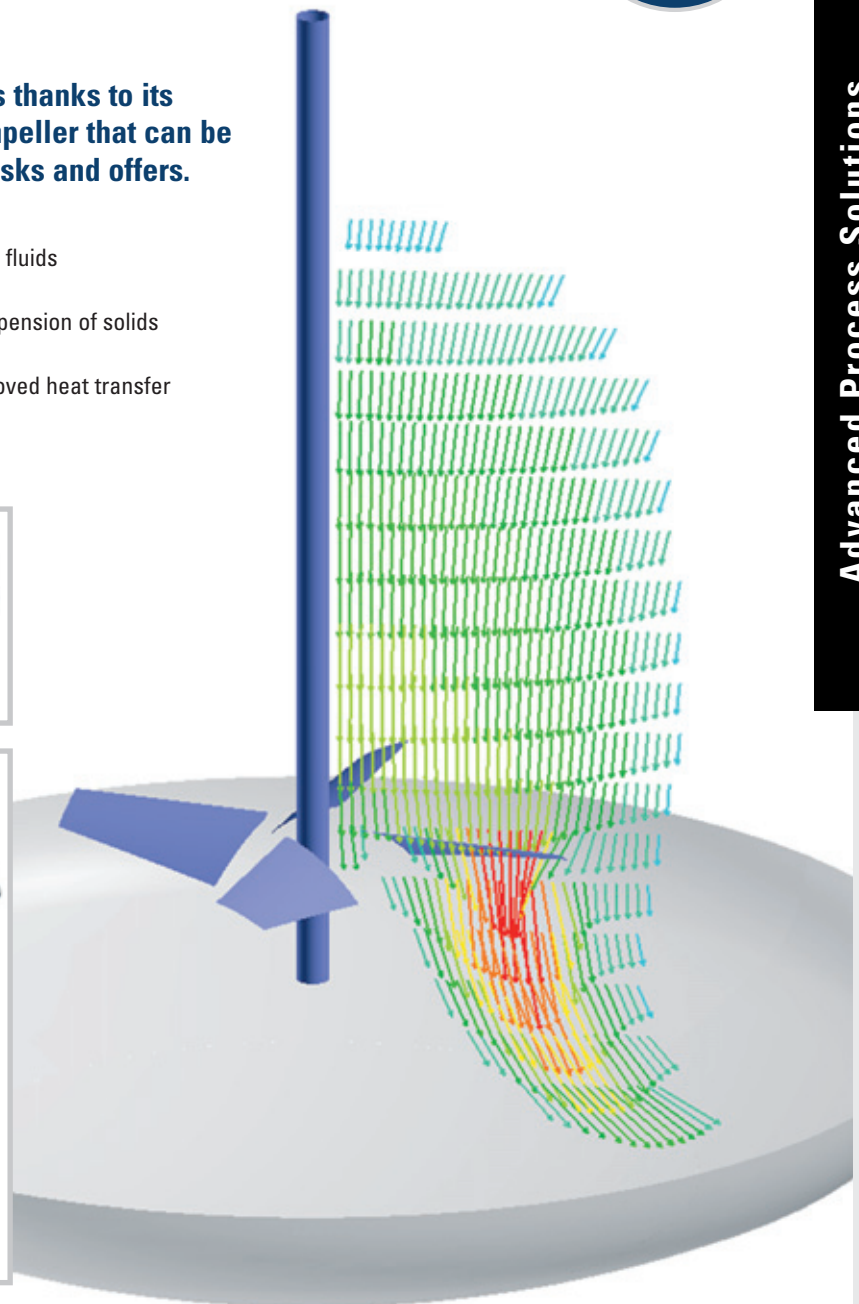


The multitalent EKATO VISCOPROP is thanks to its advanced hydrofoil technology an impeller that can be universally used for multi-purpose tasks and offers.

- High mixing efficiency for low and high viscosity fluids
- High fluid velocities at vessel bottom for the suspension of solids
- High axial fluid velocities at vessel wall for improved heat transfer



EKATO VISCOPROP 2- or 4-bladed



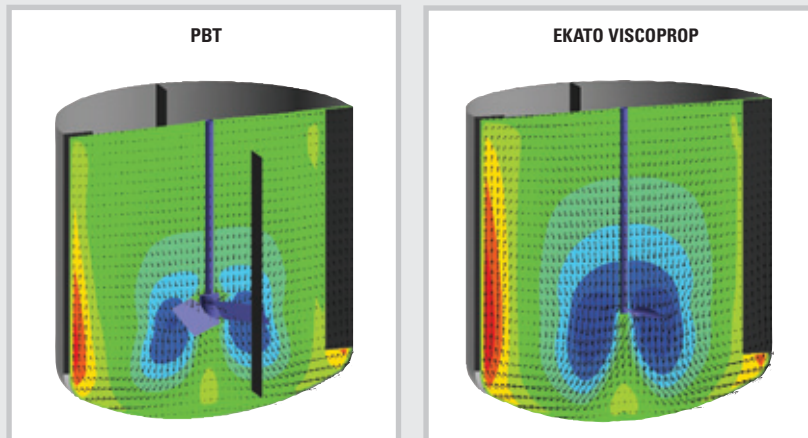
EKATO VISCOPROP® / EKATO VISCOPROP-F®

The outstanding features are:

- Impeller for small and large volume applications
- Impeller can be applied in single or multiple stage arrangement
- Impeller pitch adapted for low and high viscosity fluids
- Same mixing efficiency at reduced power input and torque
- Reduced operating and capital costs

Two examples show the advantages of the EKATO VISCOPROP impeller over the traditional pitch blade turbine (PBT)

		PBT	VISCOPROP
Volume	m ³	30	30
Speed	rpm	120	171
Vessel Diameter	mm	1800	1800
Motor Power	kW	15	7,5



Example 1

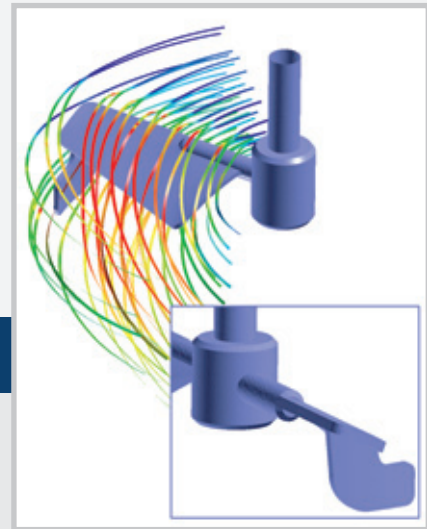
Soda ash pellets with 5 mm diameter are to be dissolved in a 30 m³ baffled vessel. Within one hour the fluid needs to be heated up from 30 to 80 °C.

- Required motor power is only 50%
- The torque to be transferred by the gearbox is reduced by 65%
- The shaft diameter can be stepped down from 80 to 60 mm
- The capital costs drop by 20%

Example 2

Additives are fed to a high viscosity polymer with a viscosity of 10,000 mPa s in a 30 m³ vessel without baffles. After 10 min. the liquid is homogeneous.

- The required motor power is only 50%
- The torque to be transferred by the gearbox is reduced by 28%
- The shaft diameter can be stepped down from 80 to 60 mm
- The capital costs drop by 20%



The EKATO VISCOPROP-F® is applied in cases with demanding process requirements:

The fin arranged at the outer blade supports flow deflection in axial direction, thus leading to a higher pumping efficiency. The fin dampens hydraulic loads acting in radial direction. Especially at high power inputs this enables smaller shaft diameters with lower investment costs possible.

By means of the color change method, the example below visualizes the blending process

- Pictures left and right are taken after an identical time period
- Left with single PBT
- Right with EKATO VISCOPROP (2-bladed)

