

Batch dispersing

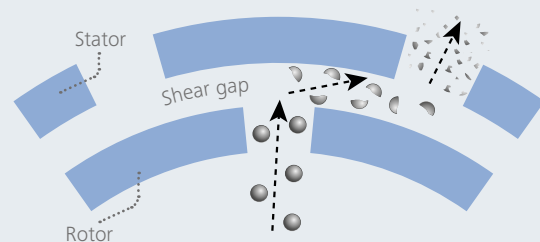
/// Rotor-stator technology for maximum performance

IKA is the world leader in the design and production of high-performance mixers and process plants. IKA produces a complete line of mixers for laboratories and industrial production. Our high-performance mixers and dispersers feature our proven rotor-stator designs that are used in thousands of chemical, food, pharmaceutical and cosmetic companies.

These machines are designed to meet the highest requirements and offer maximum flexibility in use on site.

Rotor-Stator System

/// The best in dispersing technology



ULTRA-TURRAX UTE

/// High-shear batch mixer for bottom installation

By being installed from below, the ULTRA-TURRAX UTE delivers optimal dispersion even at relatively low vessel levels (small quantities). The robust design without a shaft tube and with a long shaft is also suitable for crushing larger lumps or polymer blocks and is easy to clean. The machine is available in versions for working in a vacuum up to pressures of 16 bar at temperatures up to 160 °C.

Example applications

- > Emulsions
- > Suspensions
- > Solutions
- > Printing dyes
- > Polymer solutions (VI improvers)
- > Eye drops
- > Crushing larger lumps or blocks



Sizes UTE	Batch size* [l]	Circumferential speed** [m/s]	Motor power [kW]
UTE 60	20- 70	23	1.85
UTE 115	80- 400	15	2.5
UTE 150	150- 750	21	5.5
UTE 220	250 - 1,200	15	11
UTE 280	500 - 2,500	20	22
UTE 300	800 - 4,000	21	30
UTE 350	2,000 - 8,000	26	55
UTE 400	5,000 - 15,000	27	132
UTE 450	10,000 - 25,000	30	160
UTE 600	15,000 - 35,000	29	250

Advantages

- > Prevents aeration
- > Capable of operating under pressures of up to 16 bar
- > CIP and SIP capable
- > Limited surfaces in contact with product (no shaft tube)
- > Machine can run at very low liquid levels
- > Easy to clean
- > No bearings in area in contact with product
- > Very robust design

* Depending on the product viscosity. Regular range 1 – 5,000 mPas.

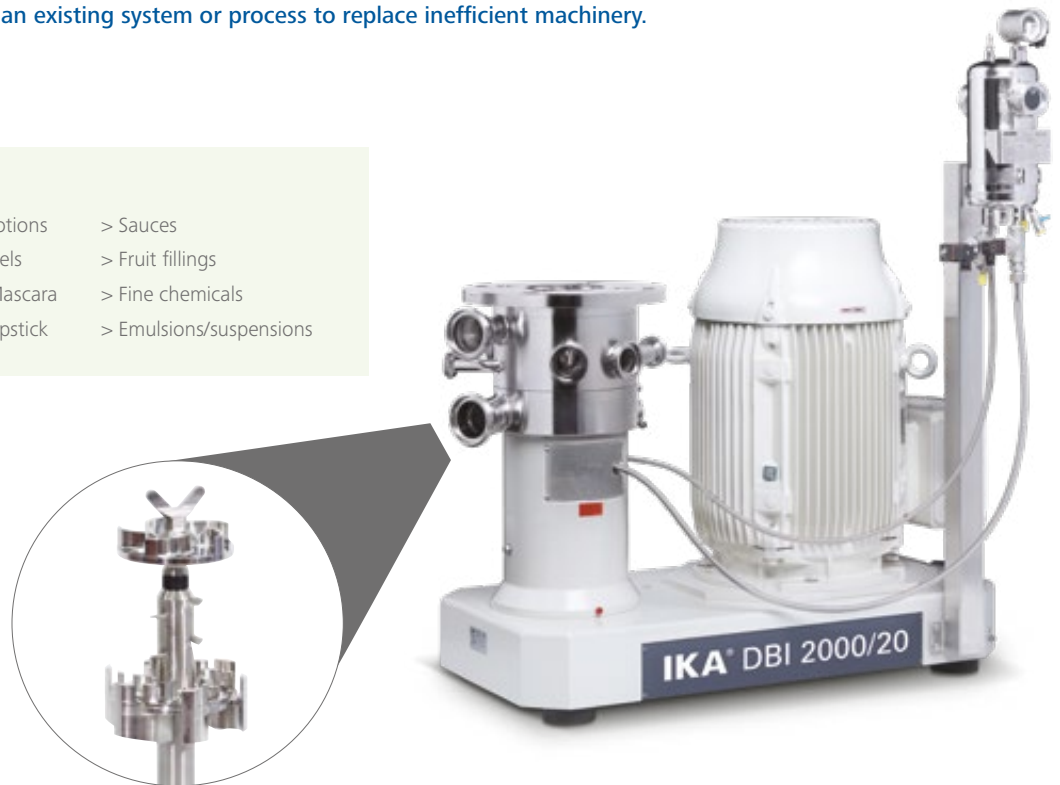
Inline Disperser | DBI 2000

/// High performance mixing & dispersing machine

The high-shear mixing and dispersing machine DBI 2000 is designed for batch operation with a recirculating loop. It is directly flange-connected to the vessel bottom outlet with a large cross section and pumps the product back into the mixing vessel. Due to its wide inlet and the double stage design, it is suitable for processing materials with low and high viscosity. The DBI 2000 provides suction, pumping, dispersing and is self-cleaning in accordance with CIP conditions. This unique device combines high flow rates, uniform particle size reduction and effective homogenization. Solid and liquid additives are fed directly into the dispersion chamber, which prevents lump formation and promotes rapid processing. The DBI 2000 can also be integrated into an existing system or process to replace inefficient machinery.

Example applications

- > Sunscreen
- > Ointments
- > Mayonnaise, dressings
- > Creams
- > Lotions
- > Gels
- > Mascara
- > Lipstick
- > Sauces
- > Fruit fillings
- > Fine chemicals
- > Emulsions/suspensions



Sizes DBI	Motor power [kW]	Max. total flow rate dispersing/pumping [l/h]	Max. viscosity of final product [mPas]
DBI 2000/03 (magic LAB)	0.9	max. 1,500	10,000
DBI 2000/04 (Process Pilot)	4	2,000/6,000	100,000
DBI 2000/05	7.5	5,000/15,000	100,000
DBI 2000/10	22	20,000/40,000	100,000
DBI 2000/20	45	45,000/80,000	100,000

Advantages

- > Free selection: pumping only or additional high shear dispersing
- > Direct feeding of solid and liquid additives
- > Effective dispersing with interchangeable tools
- > No additional pumps required for circulation, CIP or discharge
- > The innovative design ensures shorter processing times and optimum dispersing quality