

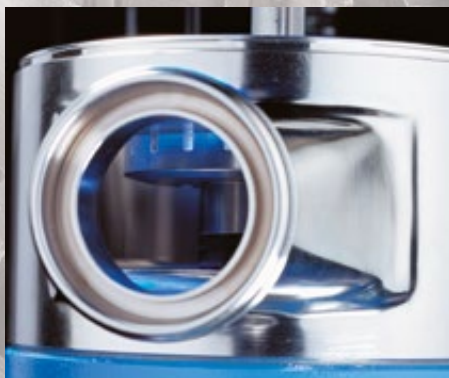
## Inline dispersing & solid-liquid mixing

/// The details make all the difference!

**A first-class belt drive together with a specific bearing provide an efficient and flexible drive system. A constant circumferential speed and the same design for all sizes guarantee maximum scalability for your processes. Cartridge mechanical seals provide high reliability and easy service.**

IKA only uses first-class materials for exceptional mechanical strength and corrosion resistance. We have worked closely with our customers and research institutions to optimize the generators for improved dispersing and efficiency. Our generators (rotor/stator) are also available in many materials other than stainless steel for abrasive and corrosive applications. Our standard inline dispersing machines are already designed with resistant surfaces and have an optimized design for exceptionally easy cleaning.

IKA mixers can be cleaned or steamed in place. The 2000 Series has so many advantages, there are too many to list here.



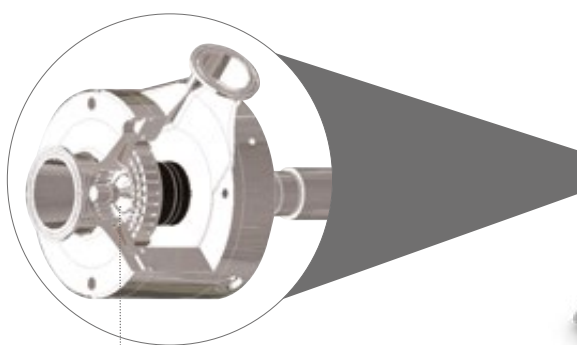
## ULTRA-TURRAX Inline | UTL 1000

/// Inexpensive inline disperser for homogenizing pre-mixes

The economic ULTRA TURRAX UTL 1000 machines are used for homogenizing and dispersing (emulsifying/suspending) pre-mixed liquid-liquid or liquid-solid substances. The machine has a pumping effect which conveys liquids with a viscosity of up to approx. 1,000 mPas. For higher viscosities, the use of a feeding pump is recommended. The dispersing tool is swappable and can be adapted to many different process requirements. The mixing chamber is mounted horizontally and the dispersing tool is directly coupled to the motor shaft.

### Example applications

- > Sauces
- > Fruit juices
- > Jams
- > Sugar solutions
- > Dyes
- > Binding agents
- > Molten resins
- > Lotions
- > Adhesives
- > Stabilizers
- > Emulsions
- > Suspensions
- > Deagglomeration



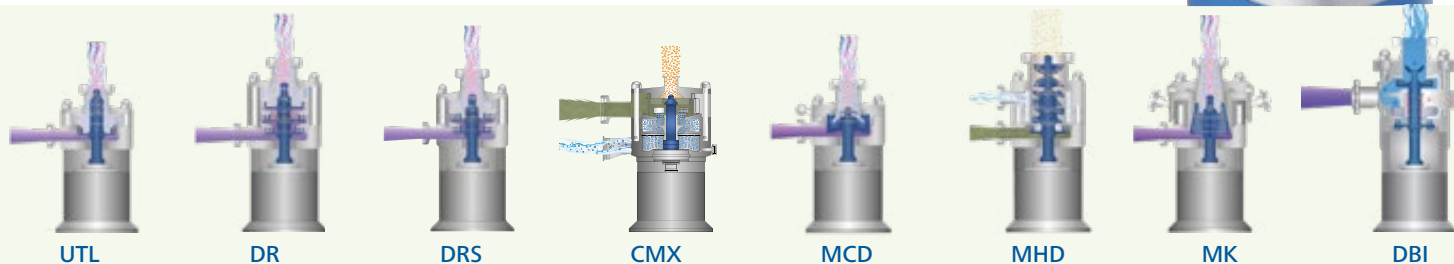
Sizes UTL 1000	Motor power [kW]	Flow rate max. [l/h]	Motor speed [rpm]
UTL 1000/10	7.5	5.500	3,000
UTL 1000/20	22	20.000	3,000
UTL 1000/30	37	40.000	1,500
UTL 1000/40	55	80.000	1,500
UTL 1000/50	110	125.000	1,500

## 2000 series – excellence is in the detail

/// Modular design for maximum flexibility

**The 2000 Series – with a modular design – a system with a great future!**

As diverse as the mixing technology and the requirements are in different industries, there are also many similarities. IKA realized this and in response developed a modular machine series. A basic drive unit can be fitted with a large number of different machine heads, providing a solution for almost every mixing application. Our engineers, in cooperation with our customers, combined their expertise to develop the most innovative machine program in the industry!



### Advantages

- > Self draining thanks to vertical orientation
- > No dead spots
- > Surface finishes meet FDA, 3A and EHEDG requirements
- > GMP compliant versions available
- > Clean-in-place (CIP) and steam-in-place (SIP) compatible versions available
- > Extensive mixing tool options
- > Robust design thanks to a separate bearing assembly
- > Specially adapted designs for pharmaceuticals, food, cosmetics, and chemicals
- > Suitable for high pressures and temperatures
- > High-quality mechanical cartridge seal
- > Simple scalability for all sizes
- > Scale-up support provided by IKA
- > Many certificates/extensive documentation available (e.g. FDA, 3.1 material certificates, IQ/OQ, etc.)



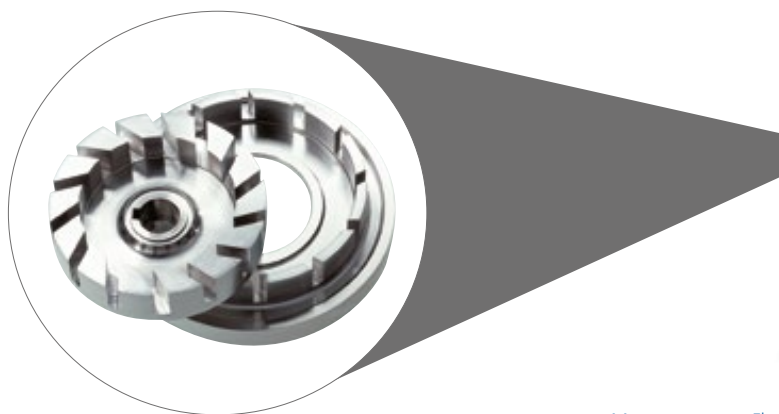
## ULTRA-TURRAX Inline | UTL 2000

### /// Single-stage dispersing machine

The UTL is a single-stage dispersing machine for producing emulsions and suspensions. A wide variety of rotor-stator combinations (generators) is available to adapt the machine to the application. The UTL runs at the same circumferential speed across all sizes and is therefore very easily scalable. A wide range of options, such as explosion protection (ATEX), different sealing materials and different flange types are available. Thanks to its high-quality surface finish and the design of the dispersing chamber, the ULTRA-TURRAX is easy to clean. The machine empties itself and is suitable for cleaning in place (CIP).

#### Example applications

- > Sauces
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Sizes UTL 2000	Motor power [kW]	Flow rate* max. [l/h]	Motor speed [rpm]	Circumferential speed [m/s]
UTL 2000/03 (magic LAB)	0.9	130	15,000	23
UTL 2000/04 (Process/Lab Pilot)	1.5	300	3,000	23
UTL 2000/05	4	2,500	3,000	23
UTL 2000/10	7.5	8,000	3,000	23
UTL 2000/20	22	20,000	3,000	23
UTL 2000/30	37	40,000	1,500	23
UTL 2000/40	55	80,000	1,500	23
UTL 2000/50	110	125,000	1,500	23

\* Self pumping rate based on H<sub>2</sub>O and standard tool configuration