Systems & plants

/// Always right for your process

IKA processing plants can be used to produce solutions, emulsions and suspensions in many applications. Owing to the advanced design, they can handle products that range from low to high viscosity.

Our plants are flexible and easily adaptable to any application. They are used, for example, to produce cosmetic creams and lotions in the cosmetics and pharmaceuticals industry, mayonnaise and dressings in the food industry, suspensions and emulsions in the chemical industry, and for paints and lacquers. Based on our long experience with many applications, IKA is your expert partner for process plants.

Scale-up

/// Develop – Optimize – Scale from lab to production

Simplified scale-up using identical dispersing parameters for all sizes makes for reliable scaling up. When new products are developed, the processes are initially tested in pilot plants. Lab-scale trials are also used to confirm changes in recipes or ingredients.

By using identical design and dispersion parameters, IKA systems guarantee reliable scale-up with constant product quality.





Systems & plants

/// Overview



IKA magic LAB

The tiny, yet powerful inline laboratory dispersing machine, designed for mixing dispersing and wet milling. It can also be converted for batch operation with a 1 to 2 liter capacity.



IKA magic PLANT

The most versatile laboratory reactor with a 2-liter vessel and an agitator for mixing and homogenizing liquids and pastes.



Compact Mixing Plant XPP

The compact mixing and dispersing plant XPP has that something extra for your process technology. It is ideally suited to homogeneously incorporating large quantities of powdered solids and liquid additives into a liquid, efficiently and cost-effectively.

Standard Production Plant



Master Plant

IKA's homogenizing and emulsifying Master Plant is available for useful volumes from 10 to 4,000 liters. It mixes and disperses efficiently, controls the temperature and feeds additives. The innovative GMP-compliant mixing plant is ideal for processing high viscosity products, especially in the food, cosmetic and pharmaceutical industries.

IKA pilot plants

/// Lab Pilot and Process Pilot



IKA Lab Pilot 2000/04

Inline pilot scale dispersing machine with ability to upscale to production scale. Standard version with ULTRA-TURRAX UTL module with single seal.



IKA Process Pilot 2000/04

Pilot scale inline dispersing machine with mechanical seal. Suitable for working under vacuum/pressure and at high temperatures. Standard version with ULTRA-TURRAX UTL module.



ULTRA-TURRAX UTL module

Single stage module for producing simple emulsions & suspensions.



DISPAX REACTOR DR module

Three stage disperser for producing the finest emulsions and suspensions and for simulating single pass processes.



Colloid Module/ Cone Mill MK/MKO

Wet milling using a milling tool with an adjustable gap Emulsifying (MK) and de-agglomeration (MKO) of viscous products.



CMX module

Lump free and dust free incorporation of powders and granules into liquids.



MHD module

Continuous incorporation of powders into liquids, quantity based & in 1 process step.



DBI module

2-stage module for pumping, dispersing & sucking in liquids and solids in combination with a recirculation loop and a mixing vessel.

Technical data	LAB PILOT 2000/04	PROCESS PILOT 2000/04
Power supply [V]	3-phase 380 – 420	3-phase 380 – 420
Motor power [kW]	1.5/2.2	2.2/4
Max. product temperature [°C]	120	120
Max. process pressure/vacuum [bar]	3/-0.5	10/-1
Speed [rpm]	8,050	8,050
Circumferential speed [m/s]	23	23
Flow rate [l/h]*	500	500
Dimensions (W x D x H) [mm]	450 x 250 x 350	450 x 250 x 900
Weight of basic machine [kg]	36	53

^{*} At 8,050 rpm, UTL module, 4 M, water

	LAB PILOT CONTROLLER	PROCESS PILOT CONTROLLER
Technical data		
Max. motor power [kW]	2.2	4
Frequency range [Hz]	20 – 87	20 – 87
Speed range [rpm]	3,170 – 13,789	3,170 – 13,789
Circumferential speed [m/s]	9.4 – 41	9.4 – 41