Cole-Parmer®

Gain Market Advantage with the IKA® Magic LAB®

Sample preparation for process development and beyond

New

Wet Grinding – Fine Grinding – Emulsifying – Dispersing/Mixing – Powder/Granule Incorporation

Sample preparation for process development and beyond

The IKA Magic LAB was developed to meet the needs of research scientists and mixing specialists within the pharmaceutical, cosmetics, chemical, and food industries who need to use the same methods from initial formulation to mass production. The versatile Magic LAB allows you to select from seven different mixing technologies using a variety of available mixing heads, all with programmable speed control to determine the best mixing function for the process.

Applications

Easily adjust speed range, set nominal and values, and choose specific-language readout (English, Spanish, French, German or Italian) with the push-button display screen.

Storage case features rollers for convenient transport and premolded drawers for handy mixing head storage.

Offers Flexibility

Easily configure the Magic LAB to operate as a continuous mixer or as a batch mixer—allowing you to evaluate the most efficient process method for your product.

Saves Time

With typical flow rates in the 10- to 150-L/hr range and small sample requirements, you can efficiently determine the best process method required for plant production, thus eliminating the need for pilot plants.

Saves Space

Small tabletop product design of the Magic LAB minimizes space requirements.

Saves Money

Magic LAB eliminates the need to purchase separate mixers—operates as both a batch mixer and in-line mixer!

Allows smooth changeover from laboratory to production plant!

Single-stage in-line dispersing

Easily Change Mixing Heads for Different Applications—no special tools or training required

Single-Stage In-Line Dispersing
Mix liquids with very different velocities or accelerate your solution. Single-stage in-line dispersing is perfect whenever normal stirring or mixing is not sufficient—reduces mixing time by up to 50% compared to conventional stirrers.

Three-Stage Dispersing
Guarantee optimal homogeneity and stability of emulsions and suspensions using the three-stage, high-shear dispersing module for finer particle size reduction.

Powder-Liquid and Suction-Feed Powder-Liquid Dispersing
Incorporate powders or granules into liquids using the powder-liquid or suction-feed powder-liquid dispersing modules during batch mixing. Plus, the suction feed mixing head enables a continuous production of dispersions.

Powder-liquid dispersing

Colloid or Cone Mill
Allow wet and fine milling of hard and granular raw materials, as well as the production of finest emulsions and pastes, using the colloid or cone mill.

Batch Operation
Allow preparation in a glass beaker (beaker sizes up to 1.5 liters) before switching over to an in-line system.

Micro-Plant
Micro-plant development of formulations and processes lets you optimize different process parameters such as speed, shear rate, temperature, pressure, and time.

Batch operation

Micro-plant

Cole-Parmer®

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International customers
Call 847-549-7600 to reach our International Sales Department or contact your local dealer.

FREE TECHNICAL APPLICATIONS ASSISTANCE!

Performance Specifications

Power output: 900 W
Process pressure: 2.5 bar (max)
Process temperature: 194°F (90°C)
Material: stainless steel

Instrument weight: 6 kg
Dimensions: 10½"L x 6"W x 8½"H (266 x 160 x 215 mm)

CE 1 year warranty

Catalog number	IKA model	Description	Rotor speed (rpm)	Max throughput	Power
ML-04300-01	UTL	IKA Magic LAB base with single-stage in-line dispersing mixing head	3000 to 26,000	150 L/hr	220 VAC, 50 Hz
Base unit requires a plug; order separately below depending on country					
ML-04200-00	Plug for U.S. (15 amp)				
ML-04200-10	Plug for Europe				
ML-04200-12	Plug for Switzerland				
ML-04200-14	Plug for U.K.				
ML-04200-16	Plug for Australia				
ML-04200-18	Plug for China				
ML-04200-20	Plug for India				

ML-04201-35 **Transformer** for standard 110 VAC wall plug. Requires plug 04200-00 above.

Optional Mixing Heads

Catalog number	IKA model	Description	Rotor speed (rpm)	Max throughput
ML-04201-21	DR	Three-stage high-shear dispersing	3000 to 26,000	80 L/hr
ML-04201-23	MK	Colloid mill	3000 to 26,000	700 L/hr
ML-04201-25	MKO	Cone mill	3000 to 26,000	700 L/hr
ML-04201-27	CMS	Powder-liquid dispersing	3000 to 16,000	800 L/hr
ML-04201-29	MHD	Mechanical-feed powder-liquid dispersing	3000 to 26,000	60 L/hr
ML-04201-33	UTC	Batch operation	10,000 to 24,000	1.5 L/hr
Use with 04300-01; 04201-21, -23, -25 only				
ML-04201-31	Micro-Plant	Micro-plant development	Based on mixing head	

Optional Generators

Catalog number	IKA model	Description	Max throughput
Use with 04300-01; 04201-21, -29 only			
ML-04202-00	2P	Pumping rotor with coarse stator	190 L/hr
Use with 04300-01; 04201-21 only			
ML-04202-02	2G	Coarse rotor and stator	130 L/hr
ML-04202-04	4M	Medium rotor and stator	130 L/hr
ML-04202-06	6F	Fine rotor and stator	130 L/hr

What's included: Base unit, single-stage in-line dispersing mixing head (IKA model UTL), mixing chamber, generator (IKA model 4M), rotor, and transport case. Base unit requires selection of a separate country-specific plug for 220 VAC operation.