

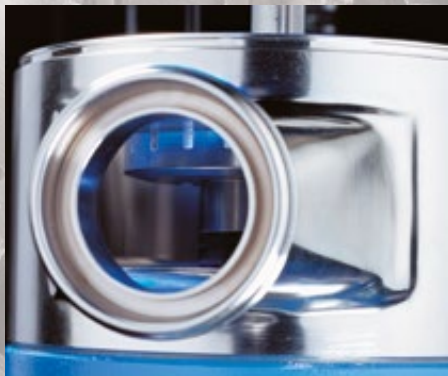
Inline dispersing & solid-liquid mixing

/// 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.



Solid-Liquid Mixer CMX

// Powder incorporation in recirculation

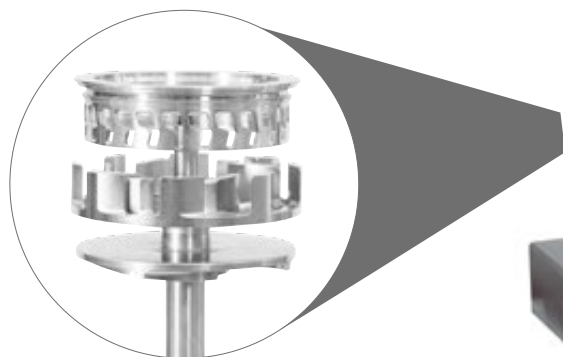
Incorporating powders into liquids, without lumps and without dust, is an important part of many processes. The CMX 2000 utilizes a specially designed rotor that creates extreme suction to draw in solids, while it pumps the liquid at the same time. The liquid can then be re-circulated until all powders are incorporated.

Additional dispersing can be accomplished by continually re-circulating without adding more powder. Dispersing can then be continued with closed powder inlet.

Depending on the product and powder characteristics, high solids concentrations can be achieved.

Example applications

- > Hydrocolloids
- > Alumina suspensions
- > Starch solutions
- > Calcium carbonate
- > Milk powder
- > Fumed silica
- > Carbopol
- All applications where large quantities of solids are incorporated into liquids



Sizes CMX	Motor power [kW]	Powder incorporation [kg/h]	Flow rate (max.) [l/h]
CMX 2000/03 (magic LAB)	0.9	250	1,500
CMX 2000/04 (Process Pilot)	4	1,300	5,000
CMX 2000/05	15	4,700	14,000
CMX 2000/10	30	8,900	32,000
CMX 2000/20	55	16,200	70,000
CMX 2000/30	110	25,500	110,000
CMX 2000/50	200	46,000	200,000

High performance mixing machine MHD 2000

/// Powder incorporation in a single pass

When production quantities require a non-stop process, the MHD is perfect for getting the job done. Solids and liquids are instantaneously mixed and dispersed in one step while maintaining a dust free environment. The MHD combines the solid and liquid, and disperses them into a homogeneous, final product. Tanks and other auxiliary equipment are usually unnecessary, saving on overall and operating costs. The MHD has a unique, patented design that doesn't require suction to draw in the powders, which eliminates aeration. The MHD offers the greatest flexibility in production, and maximum product consistency. The MHD can also run in recirculation mode for enrichment processes. The MHD prevents bridging and air entrapment. Scalability is ensured by maintaining a constant tip speed of 23 m/s throughout the product range.

Example applications

- > Fertilizers
- > Vitamins
- > Incorporation of color pigments
- > Pectines
- > Guar gum
- > Starches
- > Cellulose
- > Flour
- > Fillers



Sizes MHD	Motor power [kW]	Flow rate (max.) [l/h]	Max. solids capacity [l/h]
MHD 2000/03 (magic LAB)	0.9	50	30
MHD 2000/04 (Process Pilot)	2.2	200	100
MHD 2000/05	5.5	700	500
MHD 2000/10	11	2,500	1,300
MHD 2000/20	15	7,000	2,800
MHD 2000/30	30	20,000	6,200
MHD 2000/50	75	40,000	11,200