Data Sheet
Colloid Mill MK 2000/05

Colloid Mill MK 2000/05

The IKA MK 2000 is a high-performance inline colloid mill capable of performing wet and fine milling of tough and grainy raw materials. The MK 2000 is especially suitable for the production of colloidal solutions or extremely fine emulsions and suspensions. Excellent dispersing performance allows the IKA Colloid Mill MK 2000 to be used for continuous processes, provide a narrow distribution range of ground particles in a single pass. For challenging milling task the colloid mill can be installed into a recirculation loop with working vessel by means of tube connections.

For optimum adaptation of the machine to the process it can be equipped with different milling tools. The spiral geared as well as the cross geared tools are available.

The conical geometry of the milling tools enables an axial displacement of the stator for an infinite adjustment of the milling gap. This allows influencing the dispersing effect, particularly regarding task with variable raw materials.

As neither the rotor nor stator is slotted throughout, the probability of particles passing through the generator untreated is negligibly small. These collective features enables the IKA Colloid Mill MK to achieve the finest particle size reduction, thereby contending with a high pressure homogenizer by attaining similar dispersing results at higher flow rates.

The IKA Colloid Mill MK 2000 is available in seven different sizes, with varied possible throughput from 1.5 to 350 gpm. All machine sizes can work with the same circumferential rotor speed, which ensures reliable scale-up.

Advantages of the IKA MK 2000:

High throughput in combination with excellent grinding results
Different milling tools to customize milling shear rates
Infinitely adjustable gap settings between rotor/stator for control of particle size reduction
Compactness of production systems with IKA Colloid Mill MK as a result of the inline design of the machine
Suitable for products in a wide viscosity range, up to 50,000 cPs
Capable of operation under pressure up to 16 bar
Easy scale-up processes developed with the laboratory machine MK onto production machine MK
All wetted parts are made of 316L stainless steel
High-value seal with ware-resistant materials
High quality surface finishes for easy cleaning
Other material and finishes are available upon request
Machine is self-draining. CIP and SIP capable
Low noise level
3A-Sanitary conformed and certified
Pharmaceutical execution available upon request
Explosion protected execution deliverable

Technical Data	
Flow rate (max)	10 gpm
Standard Motor power	10 Hp
Motor speed	3,600 rpm
Standard Tip speed	23 m/s
Speed regulation possible	Yes
Dispersing tools	Variable
Single mechanical seal	Yes
Double mechanical seal	Yes
Ex-proof possible	Yes
Process pressure (max)	16 bar
Process Temp. (max)	120° C
Cleaning	Yes, CIP
Sterilization	Yes, SIP
Inlet	2”
Outlet	1 ½”
Ident. No.	**MK 2000/05**

IKA® Works, Inc. / 2635 Northchase Pkwy S.E. / Wilmington / N.C. / 28412 / Tel.: 800 733 3037 / process@ikausa.com