

Colloid Mill | MK 2000

Applications

- > Colloidal solutions
- > Micro-suspensions
- > Incorporation of pigments
- > Metal-oxide suspensions
- > Micro encapsulation
- > Coating masses
- > Mustard
- > Mayonnaise
- > Ointments



The colloid mill MK 2000 is especially used for wet milling, deagglomeration and the production of viscous emulsions. The high tip speeds, combined with an extremely small shear gap, produces intense friction on the material being processed. The friction and shear that result is commonly referred to as wet milling. The rotor and stator are cone shaped, and have three stages of increasingly fine serrations, or grooves. The stator can be infinitely adjusted to obtain the desired gap setting between the rotor and stator.

The grooves change directions in each stage for increased turbulence. With high quality finishes and materials, the MK tool offers an extremely efficient milling geometry.

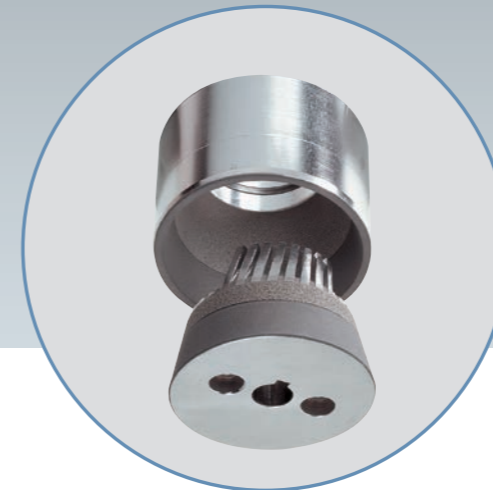
Type	Flow rate* (max.) [l/h]	Motor power [kW]	Motor speed [rpm]	Circumferential speed [m/s]
MK 2000/03 (magic LAB®)	200	0.9	3,000	23
MK 2000/04 (PROCESS-Pilot)	300	1.5	3,000	23
MK 2000/05	2,500	7.5	3,000	23
MK 2000/10	7,500	15	3,000	23
MK 2000/20	20,000	37	3,000	23
MK 2000/30	40,000	55	3,000	23
MK 2000/50	60,000	160	3,000	23

* Self pumping rate with H₂O, 0.1 mm shear gap and standard tool.

Cone Mill | MKO 2000

Applications

- > Pigments
- > Polymers
- > Coatings
- > Crystals, wet milling
- > Ceramics slurries



Another unique IKA® innovation, the cone mill MKO 2000 was designed to extend beyond the capabilities of the colloid mill. Given its innovative design, it is capable of wet milling and grinding, producing even smaller particle sizes than a colloid mill. The milling gap is infinitely adjustable so that exact amount of milling action can be obtained.

The surface of the milling tool is coated with an extremely hard coating that has a very rough surface texture. The coatings consist of high quality materials such as carbides and ceramics, and have different grain sizes. The milling tool produces an extremely intense shear zone that can process materials with high or low viscosities, but even finer distribution and particle sizes than a colloid mill.

Type	Flow rate* (max.) [l/h]	Motor power [kW]	Motor speed [rpm]	Circumferential speed [m/s]
MKO 2000/03 (magic LAB®)	25	0.9	3,000	23
MKO 2000/04 (PROCESS-Pilot)	100	1.5	3,000	23
MKO 2000/05	150	4	3,000	23
MKO 2000/10	500	15	3,000	23
MKO 2000/20	1,500	37	3,000	23
MKO 2000/30	3,000	55	1,500	23
MKO 2000/50	6,000	160	1,500	23

* Typical flow rates for medium viscosity products at 0.1 mm shear gap