In some applications, it is sometimes only necessary to grind a very small amount of material at a high degree of fineness. A small amount of such proceeded material or trial product is enough for testing the product or material and then improve or refine it. Finally, when the desired condition is reached, it is delivered to the factory floor for high volume production. This is often the case in industries such as cosmetics, inks, paints, rubber products and pesticides. In many research institutes and universities such needs also exist. A SeFluid compact laboratory bead mill is just designed for above purpose.

On SeFluid laboratory bead mills, we use hygienic stainless steel for the main components and high-grade wear-resistant ceramics for the wet parts. The use of ultra-fine grade zirconium beads, combined with an easy to operate interface, provides the user with an efficient and high-quality product for trial production.

How does it work?

The laboratory bead mill motor drives the internal feeding device to rotate at high speed. This will form a negative pressure, and through self-priming. The material placed in the upper tank then flows into the grinding cavity. The proceeded medium with high filling rate in the cavity is driven by the rotation of the dial to produce force in each direction and irregular movement. The particles of proceeded medium continuously collide and frict. At the same time, the screen will separate the material and the grinding beads. The material flows from the material tank to the grinding cavity circularly, to achieve small particle size and narrower particle size range.

Features & Specification

- Ideal for small amount grinding or laboratory purpose.
- Super fineness — can reach below 1 micrometer.
- High grinding efficiency, the same product, the same fineness, grinding time only 2/3 of the traditional equipment.
- The grinding chamber and moving parts are made of ceramic material, which reduces the wear and tear of the equipment.
- According to the actual need to change the different speed, in order to achieve the best grinding effect.
- Built-in self-priming pump system, reducing the cleaning of the delivery pipe.
- With Cooling System for Working Head and Feeding Hopper
- With Inverter for Speed Regulation
- With High sensitivity thermometer
- Adopt large end face normal pressure type mechanical seal, reliable and safe seal; long service life
- Double-end mechanical seal using light oil cooling; the machine seal can be observed from the outside whether leakage.
- Mechanical seal coolant delivery: pump delivery and circulating cooling water cooling, coolant can be cooled by white oil.
- Grinding Structure: Rod pin type, greatly improve the grinding efficiency.
- Material of Grinding Parts: Zirconia ceramic for rod pins, suitable for grinding conditions of various materials.
- Static discharge mode; processed materials through the combined gap screen ring separator, the gap is 0.4mm (can be upgraded); because the separator overflow area and the use of special structural design, it will not block the separation gap and smooth discharge of large output.
- With diaphragm pump and pipeline for medium feeding, easy to disassemble.
- Surface: Mirror polishing
- Mechanical seal feed pressure: max. 0.3 MPa (3kgf)
- Dispersion line speed: about 10-13m/s
- Material: High hardness wear-resistant special ceramics for working chamber inside cylinder and milling rotor assembly (no metal ion contamination to milled medium, and no discoloration of milled materials to milled medium); SS304 for other parts

Specifications

MODEL	CHAMBER VOLUME (L)	MOTOR POWER (kw)	WORKING CAPACITY (l/batch)	MEDIUM SIZE RANGE (mm)	WEIGHT (kg)	SIZE (mm)
SELBM100	0.1	0.37	0.2-1	0.2-2.0	50	300X400X550
SELBM300	0.3	0.75	0.2-2	0.2-2.0	50	300X400X550
SELBM500	0.5	1.5	0.5-2	0.2-2.0	68	320X460X550
SELBM1000	1	2	0.6-4	0.2-2.0	95	350X420X620