

COLLOID MILL

The colloid mill is a versatile equipment that finds application in various industries for its ability to perform processes like particle size reduction, dispersion, emulsification, and homogenization. Here is an overview of the utilization of colloid mills and the corresponding processes:

Particle Size Reduction:

Colloid mills are used to reduce the size of solid particles suspended in a liquid or semi-solid medium. The high-speed rotor-stator action generates intense shear forces that break down the particles, resulting in smaller particle sizes. This process is commonly applied in industries such as food, pharmaceuticals, and chemicals.

Dispersion:

Colloid mills are effective in dispersing and distributing solid particles or immiscible liquids within a continuous liquid medium. The shear forces created by the rotor-stator action break down agglomerates and ensure uniform dispersion of the dispersed phase throughout the continuous phase. This is useful in applications such as paint, coatings, and ink production.

Emulsification:

Colloid mills are widely used for emulsification, which involves the dispersion of one immiscible liquid (the dispersed phase) within another continuous liquid phase. By subjecting the two phases to intense shear forces, the colloid mill promotes the formation of a stable emulsion. This process is used in industries like food, pharmaceuticals, cosmetics, and chemical manufacturing.

Homogenization:

Colloid mills are employed for homogenization, which involves reducing the size of particles or droplets within a liquid to achieve uniform distribution. This is particularly important in applications where product consistency and stability are crucial, such as in the production of creams, lotions, and sauces in the food and cosmetic industries.



Technical Specifications Table:-

MODEL	BPCM - 3HP	BPCM - 5HP
OUTPUT	120 -12,000 KGS	120 -12,000 KGS
PARTICLE SIZE REDUCTION	5 TO 10 MICRONS	5 TO 10 MICRONS
HOPPER CAPACITY	15 LTS	15 LTS
MOTOR	3 HP. 2820 RPM. 440 V, 50 CS/ 3 PH	5 HP. 2820 RPM. 440 V, 50 CS/ 3 PH
HEIGHT	1200	1200
FLOOR SPACE	410 X 680 MM	410 X 680 MM
NET WT.	130 KG	160 KG
GROSS WT.	220 KG	240 KG