

three dimensional mixer with low noise characteristics

Three dimensional mixer is a kind of equipment that mixes materials through a special three-dimensional movement. Its mixing barrel will rotate while rotating, so that the material can move in multiple directions, thus achieving efficient and uniform mixing effect.

Three Dimensional Mixer

Three dimensional mixer is suitable for mixing materials in different states such as granules, powders and liquids, which is widely used in pharmaceutical, chemical, food, metallurgy, building materials and other industries.

Features

1. Three-dimensional movement: the mixing barrel at the same time rotation and rotation, the material in the barrel to experience a complex trajectory, to avoid the accumulation of materials and specific gravity of the phenomenon of segregation.
2. High uniformity: mixing uniformity rate of up to 99% or more, can effectively ensure that different densities, different particle size of the material to achieve good mixing results.
3. Low noise and low energy consumption: the use of advanced drive technology, running noise, low energy consumption, in line with environmental requirements.



4. Long service life: high durability of the equipment, simple maintenance, suitable for long-term high load operation.
5. Convenient cleaning: stainless steel mixing barrel with smooth inner surface, and not too many complex devices, cleaning is very convenient, suitable for frequent replacement of materials.
6. Small size, simple structure: compact design, small footprint, simple structural design, operation and maintenance are more convenient.

Advantages

1. Efficient mixing: three-dimensional motion design can ensure that the material is evenly distributed in multiple directions, reducing the problem of material accumulation and specific gravity polarization, suitable for mixing a variety of materials.
2. Energy saving and environmental protection: compared with the traditional mixing equipment, three dimensional mixer can reduce energy consumption, while the noise is low, in line with modern industrial requirements for environmental protection.
3. Easy to use: easy operation and maintenance, reducing the operator's difficulty and maintenance costs. The mixing barrel is smooth without dead angle, easy to clean and replace the material.
4. Adaptable: not affected by the type of material and density differences, widely used in a variety of industrial fields, the need for high-precision mixing occasions.

Working Principle

The core component of the three dimensional mixer is the mixing cylinder, the mixing cylinder driven by the drive device at the same time to carry out two kinds of movement: one is the rotation, the other is the rotation. Rotation makes the material in the cylinder along the cylinder wall to produce circular movement, the rotation makes the mixing cylinder to occur as a whole of the rotary movement, the formation of materials in the cylinder of the three-dimensional trajectory. Through this multi-angle, complex movement, the material can be fully mixed in the cylinder, and there is no obvious specific gravity polarization and material accumulation phenomenon. This movement avoids the centrifugal force that may occur in the traditional mixing method and ensures uniform mixing.

Application Areas

1. Pharmaceutical industry: used for pharmaceutical raw materials, granular materials, powder and capsule uniform mixing, to ensure the stability of drug quality.
2. Chemical industry: for a variety of chemical raw materials and additives mixed, need to fine mixing of chemical powders or particles.
3. Food industry: can be used for mixing different types of food raw materials, such as seasoning, formula powder, granular food.
4. Metallurgical industry: used for mixing powder metallurgy materials, metal particles, to ensure the uniformity of metal components.

5. Building materials industry: used for mixing of building materials such as cement, sand, etc., to ensure the uniformity of the proportion of different components.
6. Laboratory: suitable for a small amount of sample mixing, the mixing uniformity of the high requirements of the experimental scene.

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Model	M5L	M10L	M15L	M20L
Mixing bucket volume	5L	10L	15L	20L
Mixing bucket speed	12rpm	12rpm	12rpm	12rpm
Motor power	0.55kw	0.55kw	0.55kw	0.75kw
Weight	90kg	100kg	120kg	130kg
Dimensions	600x600x650mm	650x650x700mm	650x650x700mm	750x800x850mm
Loading capacity	60% of the volume, regardless of the specific gravity of the material			
Mixing time	10 minutes(Can be set arbitrarily)			