











# Wenzhou Qiangzhong Machinery Technology Co.,Ltd.

QiangZhong Technology is Committed to a China's professional provider of dairy, food, beverage, daily chemical, agrochemical, bio-pharmaceutical, etc. industries.

## COLLOID MILL

The conventional type is painted on the outer body and not covered with stainless steel. While the sanitary type is all covered with stainless steel, except for the motor junction box. In both types of colloid mills, all the parts in contact with the material (except the motor) are made of stainless steel, especially the key rotating and static grinding discs have been strengthened. Therefore, it has good corrosion resistance and wear resistance, so that the processed materials are pollution-free and meet the requirements of sanitation and cleanliness.



JM-L Vertical Colloid Mill



JM-F Split Colloid Mill









JM-W Horizontal Colloid Mill



JM-F Sanitary Split Colloid Mill



JM-F Split Colloid Mill



JM-F Split Colloid Mill

# Colloid Mill is a second generation of wet ultra-particulate processing equipment

Suitable to grind, homogenize, emulsify, disperse and mix various types of emulsion Widely used in food (fruit syrup, fruit juice, protein milk, soy milk, milk tea, dairy products, beverages, etc.), pharmaceuticals (various types of syrups, nutrient solutions, proprietary Chinese medicines, paste medicaments, etc.), daily chemicals (toothpaste, cosmetics, detergents, etc.), chemical industry (pigments, dyes, lubricants, petroleum catalysts, etc.), emulsified asphalt, coal flotation machines, ceramic shaft materials, emulsion explosives, nanomaterials and other industries.

Circulation Tube: suitable for low-viscosity materials that need recycling and reflux for grinding, such as soy milk, mung bean drinks, etc.

Rectangle Inlet:suitable for high and medium viscosity materials that don't need reflux or grinding, such as peanut butter, chili sauce, etc.

- Both rotor and stator are made of stainless steel, the rotor rotates at high speed and the stator keeps static, which makes materials passing the toothed bevel bear great force of shear and friction.
- Capacity depends on concentration and viscosity of materials? A colloid mill mainly consists of a motor, grinding parts, driving and base part. Among them, dynamic grinding core and static grinding core are key parts. So you may need to choose different models according to nature of materials.
- Sanitary food-grade stainless steel. Except motor part, all contact parts are made of stainless steel, especially both dynamic grinding disc and static grinding disc are reinforced, making them better properties of corrosion-resistance and wear-resistance. In that case, the finished materials are non-pollution and safe.

#### **Technical Parameters:**

JM-F JM-L	Fineness (um)	Capacity (T/h)	Diameter (mm)	Cooling Pipe(mm)	Outlet (mm)	Feed Port (mm)	Speed (r/min)	Power (kw)	Weight (kg)	Dimension (mm)
50	2-40	0.01-0.1	50	10	20	30	2900	1.5	60	255x500x700
65	2-40	0.02-0.5	65	10	20	30	2900	1.5/2.2	65	500x345x675
80	2-40	0.3-1	80	12	25	48	2900	3	150	700x570x920
100	2-40	0.5-2	100	12	25	66	2900	5.5/7.5	240	800x645x900
120	2-40	0.5-3	120	12	32	66	2900	7.5	250	800x645x900
140	2-40	0.5-4	140	12	32	66	2900	7.5/11	275	800x750x1020
200	2-40	1-10	200	12	38	100	2900	15/18.5	400	900x850x1200

Note: (F split type / L vertical type / W horizontal type) Any change without prejudice to basic structure and performance is not informed in advance. Capacity varies according to nature of material and listed capacity is based on water as media. Additionally, JM-65 and JM-50 can also be equipped with 220V motor. Any other model with 3KW above motor is equipped with 380V motor.

#### **▼** Spiral Feeder

For feeding materials of large particles to the mill disc.



### **▼** Blade Feeder

For fluid of small particles, semi-fluid and emulsion materials.



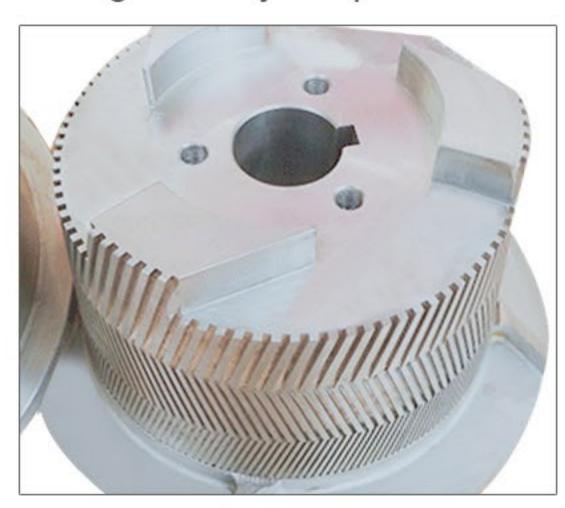
#### **▼** Static Disc

It makes materials greatly sheared and rubbed when passing though toothed bevels

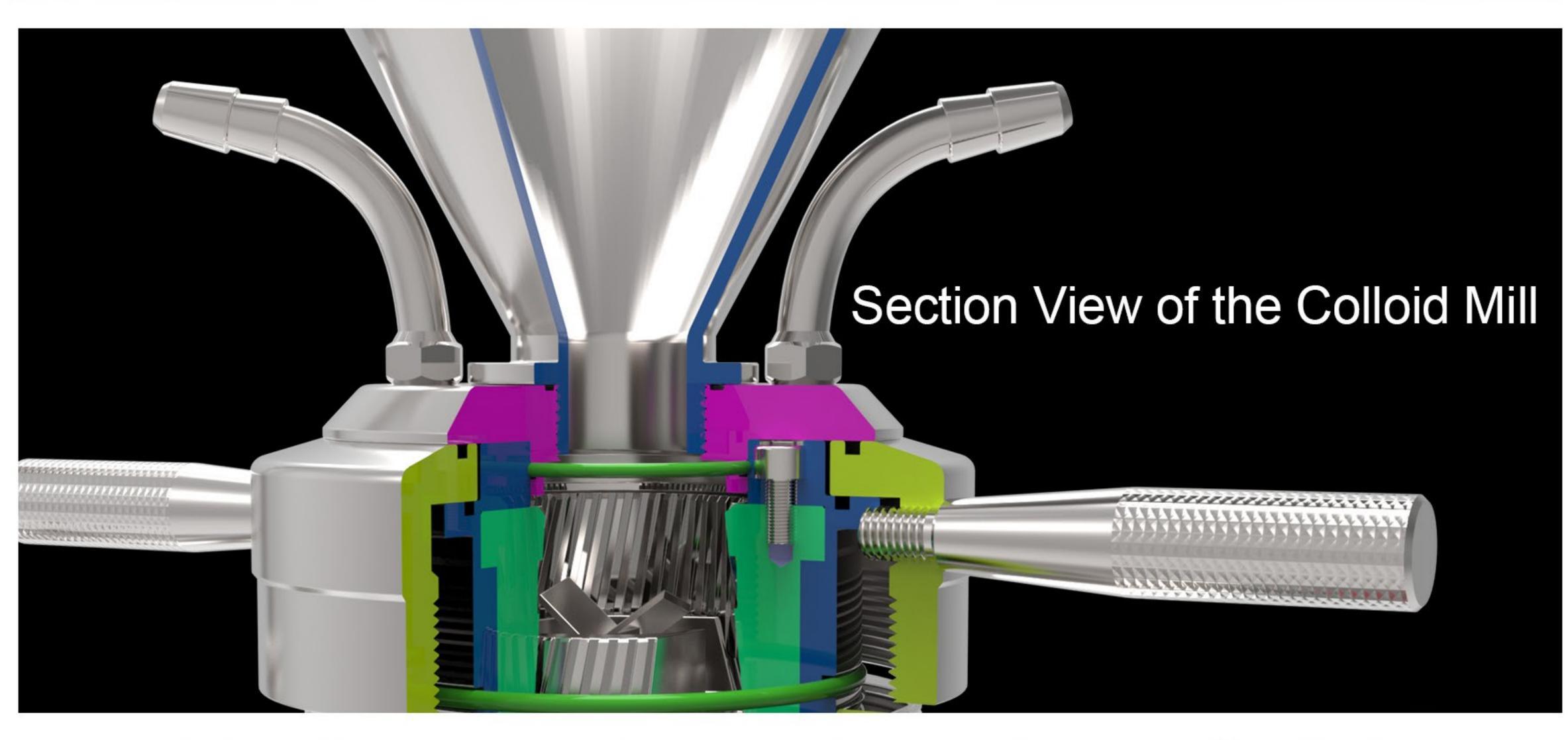


#### **▼** Rotation Disc

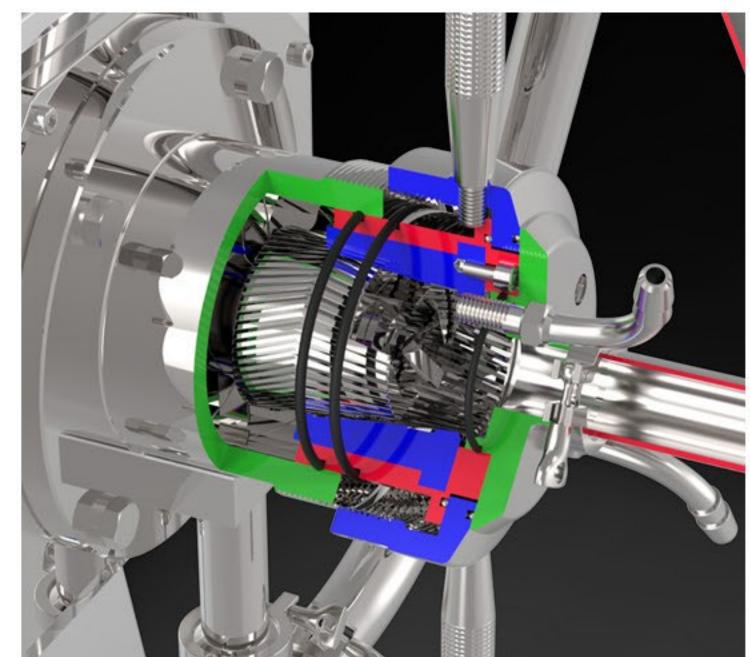
Making materials effectively ground, emulsified, crushed and homogenized by complex forces

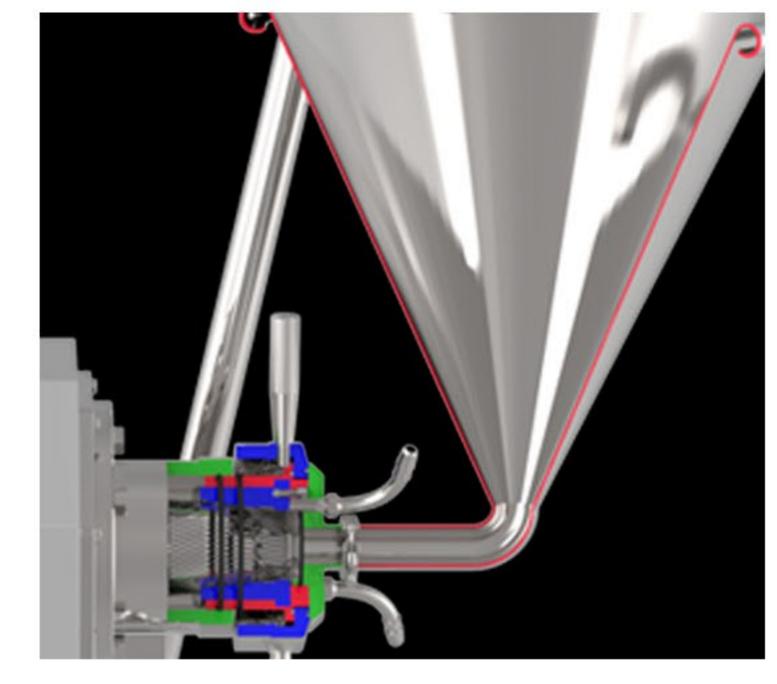


# Solutions for high-efficiency, dispersion, cut, refinement, smash, emulsification, mixing, homogenization, high purity









## Suitable to grind, homogenize, emulsify, disperse and mix various types of emulsion







Almond Milk



Vegetables



Soya-bean Milk



**Peanut Butter** 



Meat Sauce









Sheep Soup Fish Sauce

Sesame Paste

ketchup



Question: Can the colloid mill grind corn, millet, soybeans, mung beans, red beans, rice and other grains? If yes, how fine can it be? What is the output?

Answer:1. Fresh corm(without water) can be ground for each model, and the grinding effect is better after adding water. The specific output is based on different models, please consult our sales staff for details.

- 2. The rice cannot be ground by adding water directly, but the rice that can be crushed by hand after soaking for a long time can be ground. It is recommended to add more water for grinding;
- 3. Regarding mung beans, red beans, mung beans and soybeans, it is recommended to soak them for a long time before grinding. The fineness of corn, red beans and mung beans after grinding can reach below 300 mesh, and the fineness of soy beans after grinding is about 80-150 mesh. The colloid mill is a fine grinding equipment, mainly used for secondary processing of materials. The higher the hardness of the material itself, the more difficult it is to be ground, and the greater the impact on the service life of the equipment. Different materials have different grinding fineness. If you need technical support, please consult our sales staff.

#### Question: Can the colloid mill grind bones?

Answer: The colloid mill cannot grind hard objects such as bones. The material is easy to get stuck in the cavity, wear the grinding disc, and cause the motor to load. Please do not do that. Otherwise, it may cause the equipment damage, that is man-made damage and not covered by the warranty.

#### Question: Can the colloid mill grind seafood? What is the output? How fine is it?

Answer: The colloid mill can grind seafood. Since seafood contains salt, its chlorine content is relatively high, and it is corrosive to metals. It is recommended to choose stainless steel 316L with better corrosion resistance for colloid mills. Stainless steel 304 has weak corrosion resistance and is easy to rust. Before grinding, it is recommended to compare the size of the seafood with the size of the hopper port of the colloid mill. If it is easy to block the hole, you need to choose a screw feeder, and better cut the seafood into small pieces to prevent blocking the feeding port, unable to enter the cavity, and cannot be ground. If you need more technical support, please contact us. Note: The flow data on the parameter table is based on the flow of water, not the actual material output.

#### Question: What is the difference between the split type and the vertical type of the colloid mill?

Answer: Their functions are the same, and their models of the same specifications have the same output. But they are different in appearance and structure. The motor of the split colloid mill is installed on the side, even after the equipment is working for a long time, the seal of its cavity is aging, causing liquid leakage, and it will not cause damage to the motor. The motor of the vertical colloid mill is installed directly and vertically at the bottom. If liquid leakage occurs, the motor may be easily short-circuited and cause damage to the motor. The split type has relatively better performance and higher price, but the vertical type is economical and more cost-effective. You can choose the most suitable type and model according to your budget and actual needs.

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