

## circular vibrating screen for pharmaceutical industries

Circular vibrating screen is an efficient and precise screening and grading equipment, which is suitable for many forms of materials, including dry powder, wet powder, fine particles, slurry and even high viscosity liquid.

### Circular Vibrating Screen

The Circular Vibrating Screen is essential for precise particle size control, impurity removal, and fine screening of raw materials in industrial processes. Featuring compact structure, stable operation, and high screening precision, it is widely used in chemical, food, pharmaceutical, new energy, metallurgy, ceramics, and environmental industries.

### Main Features

1. **High-precision screening:** Processes micro-fine powders above 10 $\mu$ m, achieving up to 400 mesh (38 $\mu$ m) precision.
2. **Multi-layer screen combination:** Supports up to 5 layers for multi-level screening and improved classification.
3. **Flexible discharge direction:** 360° adjustable discharge port suits different site layouts and process flows.
4. **Modularized design:** Simple structure allows quick disassembly and cleaning for easy maintenance.



5. **Powerful mesh clearing:** Supports bouncing ball, ultrasonic, and other clearing devices to prevent mesh blockage.
6. **Strong adaptability:** Excels with materials that are electrostatic, agglomerating, light, or viscous.
7. **Small footprint, low energy:** No complex foundations needed; runs stably at low temperature for 24-hour continuous operation.

### **Working Principle**

Driven by a vertical vibration motor, eccentric weights produce horizontal, vertical, and inclined vibrations, causing the screen body to move in three dimensions. This generates a spiral jumping trajectory for the material, rolling and distributing it on the mesh for effective screening and grading. For micro-fine powders, an optional ultrasonic vibration system superimposes high-frequency micro-vibrations on the mesh, preventing clogging and boosting efficiency, especially for sticky, ultra-fine, or agglomerated materials.

### **Typical Application Areas**

1. **Chemical industry:** PVC resin, paint, catalyst, additive screening.
2. **Food industry:** Dry and wet food sieving—flour, milk powder, seasoning, starch, etc.
3. **Pharmaceutical industry:** Purification and grading of powder and granule drugs.
4. **New energy industry:** Lithium battery materials—electrode powders, lithium carbonate, graphene.
5. **Metallurgy and metal powders:** Copper, aluminum, alloy powders, welding material screening.

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6. **Ceramics and abrasives:** Alumina, quartz sand, corundum, talcum powder classification.
7. **Environmental protection & recycling:** Sludge dewatering, solid-liquid separation in wastewater, etc.