











Used throughout nearly every process industry, ROSS Multi-Shaft Mixers are robust and versatile. Available in a variety of configurations, as either **dual shaft mixers** or **triple shaft mixers** depending on batch characteristics, Multi-Shaft Mixers accommodate a flexible range of shear input and viscosities up to several hundred thousand centipoise. The mixer's basic design consists of two or more independently driven agitators working in tandem to ensure fine solids dispersion, efficient turnover and uniform heating/cooling.

A characteristic advantage of Multi-Shaft Mixers over typical single shaft devices is that they are closed systems and thus offer benefits in vacuum mixing. A simple dual shaft mixer design consists of a saw-tooth disperser blade enabling fast powder wet-out and dispersion, while the two or three-wing anchor supplies a steady exchange of materials from different parts of the vessel. In triple shaft mixers, a high shear rotor/stator head is typically utilized in addition to the disperser and anchor for high-viscosity emulsion applications.

Single-shaft emulsifier mixers face a common limitation- viscosity. When the material viscosity is too high, localized heating may occur in the blade area and product mixing becomes inefficient. Meanwhile, material near the mixing tank walls become stagnant

and doesn't get mixed at all. The mixing shaft may also buckle or deform due to the intense force received by it.

Ginhong's Multi-Shaft Mixers are used suitably for very high viscosity mixing applications. They are composed of two or more independently driven agitators working in tandem.

Ginhong manufactures two configurations for Multi-Shaft Mixers; the LZ Dual Shaft Mixer and the SZ Triple Shaft Mixer.

The LZ Dual Shaft Mixer is used for materials with viscosities ranging from 1 to 500,000 centipoises such as putties, chewing gums, and soaps. On the other hand, the SZ Triple Shaft Mixer is used for materials with viscosities ranging from 1 to 750,000 centipoises.

Advantages (benefits)

Eliminates Flow Isolation

Studies show that Multi-shaft mixer configurations are more efficient in eliminating flow isolation because of the wider area of mixing.

More aggressive Mixing

Multi-shaft Mixers agitators are more aggressive than Single Shaft Mixer agitators and provide an accurate mix in a shorter period of time. These make it better for extracting protein from material source.

Elimination of voids

Multi-shaft Mixers offered by Ginhong processes mixing applications under vacuum, which is beneficial for certain adhesives and sealants to develop higher densities and achieve better tensile properties as a result of improved shearing and contact of the different components.

Scalability

Ginhong manufactures a wide variety of mixers with a great range of viscosities and applications. Their extensive range of pumps and process systems are designed to withstand extremities when delivering efficient metering, processing and analyzing.

Faster Mixing Times

Multi-shaft mixers have smaller mixing times compared to the single shaft configuration

Prevents Material Bridging

Multi-shaft Mixers prevent bridging and roll-back by distributing the product evenly. This is beneficial as it prolongs equipment life and prevents microbial growth in the equipment

Application

Used in the making of printing inks, sealants, caulks, hot melt adhesives, magnetic media slurry, creams, lotions, toothpastes;

Highly filled formulations such as soy-based adhesives, cement pastes, urethane sealants and other caulking compounds;

Hand Sanitizer