HOW THE VIBRATORY MILL WORKS

The Mill consists of a grinding chamber and vibrating motor.

The grinding chamber is a vertical cylinder filled with small pieces of grinding media. Most often these are half-inch alumina cylinders. The material to be ground is introduced into the voids between the grinding media. Thus, all the energy from the vibrating motor is imparted directly to the grinding media without the necessity for intermediate gears, drives or clutches.

The top eccentric weight causes a horizontal gyration of the grinding chamber, while the bottom eccentric weight provides a gyrating tilt. This unique motion causes three dimensional, high-frequency vibration.

Cylindrical media gives face, line and point contact for narrower particle size distribution. Ball media gives point contact for breaking up larger particles and for a wider size distributions.

KEY USER ADVANTAGES

Narrow Particle Size Distribution
The ability to control particle size precisely is very important in most industries processing finely ground materials. The Vibratory Mill is unequalled in this important aspect of grinding technology.

Negligible Product Contamination
Ball or pebble mills contaminate through friction and high wear of the media and linings. The Vibratory Mill’s high frequency and small impact forces generate low heat build-ups and low media wear.

No Special Installation
Deep, heavy concrete foundations, or specially reinforced structure are not required. The major vibrating forces are directed to the grinding chamber with a minimum of vibration transmitted to the base.

Efficient To Sub-Micron
High frequency and low amplitude is the most efficient way to convert energy to reduce particle size to the sub-micron range.
AMKCO'S LINE OF VIBRATORY GRINDING MILLS

WG-10 Low Amplitude Grinding Mill
Maximum working capacity is 10 litres. Standard base with 10 spring assemblies. Product discharge valve assembly. Metal cover assembly.
Motor: 0.2 Kw
Shipping Wt.: 90 Kg
Media Load: 90 Kg

WG-120 Low Amplitude Grinding Mill
Maximum working capacity is 120 litres. Standard base with 12 spring assemblies. Cover assembly with one charge port. Product discharge assembly with product discharge valve.
Motor: 3.75 Kw
Shipping Wt.: 650 Kg
Media Load: 950 Kg

WG-280 Low Amplitude Grinding Mill
Maximum working capacity is 280 litres. Standard base with 24 spring assemblies. Product discharge and discharge valve assembly. Cover assembly with one charge port.
Motor: 7.5 Kw
Shipping Wt.: 2,500 Kg
Media Load: 2,600 Kg

DG-550 High Amplitude Grinding Mill
Mill can grind wet or dry product. Maximum working capacity is 550 litres. Standard base with 24 spring assemblies. Product discharge and discharge valve assembly. Cover assembly within section and charge port.
Motor: 7.5 Kw
Shipping Wt.: 2,000 Kg
Media Load: 1,000 Kg
AMKCO Process Equipment Pte. Ltd is a manufacturer of wet and dry grinding, screening, sieving, and separator equipment for the chemical, food, pulp and paper, and other processing industries. Our core product is the circular vibratory screen... a compact production machine for making mechanical separations through the proven use of multi-plane, inertial vibration techniques first patented in the USA in 1954.

AMKCO’s mission is to provide the highest value in the market at the lowest cost. We use only modern ISO 9001 motors. Amkco has personalized engineering service to solve separation and pulverizing problems.

Our product line of circular vibratory separators has led us to develop machines to process paper mill white water, to pulverize, and to wet grind to 1 micron.

In addition to the standard machines described in this brochure, AMKCO offers a wide range of special units and systems to meet special screening requirements. Whatever your grinding or screening needs are, “It pays to talk to a specialist at AMKCO.”

Manufactured in North America

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