

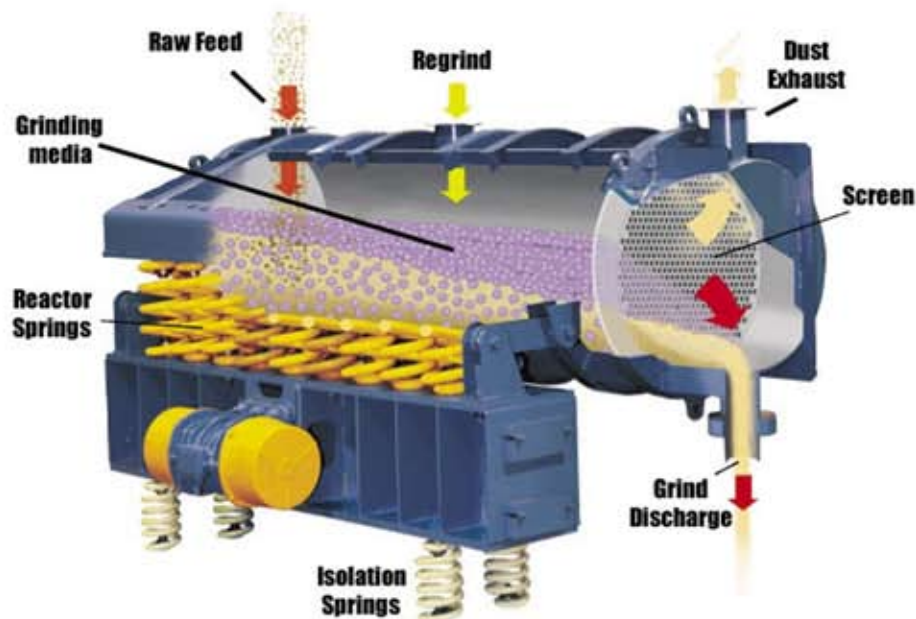
VIBRA-DRUM™ GRINDING MILL

EFFICIENT GRINDING

Exceptional grinding performance and energy saving are the result of the Vibra-Drum's natural frequency design. A sub-resonant two-mass drive and spring system alternately stores and releases grinding power. Once in motion, energy is only needed to move the grinding media as a fluid mass, and to overcome frictional losses. The Vibra-Drum can be used for processes other than grinding. It has been used to process and agglomerate fiberglass, mix product components, clean castings, and other processes.

VIBRA-DRUM FEATURES

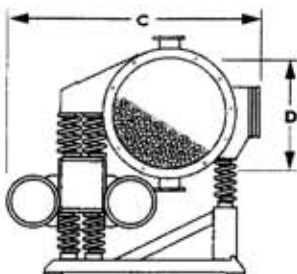
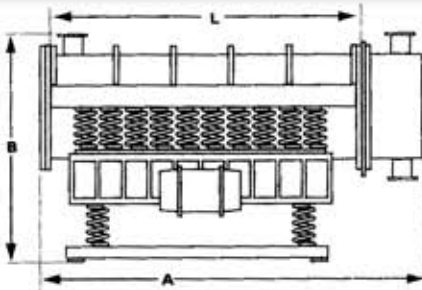
- More Uniform Particle Shape is the direct result of Vibra-Drum's high frequency, low impact design. Unlike rotary mills, the unit generates a high degree of material attrition. The result: faster, more efficient grinding action with less process heat due to higher operating efficiency.
- Low Initial Cost is another important user benefit. Compare Vibra-Drum to rotating mills with equally sized grinding chambers and media loads.
- Proven Energy Savings range from 35-50% reductions in kW hours per ton of processed material. These impressive savings are derived from data collected from actual production units currently in operation.
- Reduced Maintenance Costs are the result of our unit's unique design. There are no expensive drive reducers or mill support bearings to maintain. Additionally, only 60% of the grinding chamber requires liners.
- Increased Flexibility results from the fact that the General Kinematics' mill does not rotate. Options include flexible regrind location, piping of water or chemicals inside the grinding chamber, and stroke control on the drum shell to enhance the grinding process. Dry grinding options may include efficient air sweeping and collection systems.



WIDE RANGE OF APPLICATIONS

Here are just a few of the materials successfully processed by General Kinematics' proven vibratory drum grinding mill.

- Abrasives
- Alumina
- Aluminum Oxide
- Barite
- Barium Ferrite
- Calcined Magnesite
- Clay
- Gerro Alloys
- Ferro-Silicon
- Graphite & Synthetics
- Iron Oxides
- Magnetite
- Metallic Slag
- Moly
- Nickel/Ferro Chrome Alloys
- Various Ores - Copper, Iron, Gold
- Chrome Carbide
- Petroleum Coke
- Phosphate
- Quartzite
- Shale
- Silica Sand
- Silicon Carbide
- Silicon Metal
- Slags, various
- Titanium
- Tungsten Carbide



| Model Number | Chamber Size (DxL) | Horsepower (1200 rpm) | LENGTH A | HEIGHT B | WIDTH C | CU. FT. MATERIAL |
|--------------|--------------------|-----------------------|----------|----------|---------|------------------|
| MD 2x6 | 24"Ø x 6'-0" | 10 | 7'-3" | 5'-3" | 4'-6" | 3 |
| MD 3x10 | 36"Ø x 10'-0" | 15 | 11'-3" | 7'-0" | 6'-6" | 11 |
| MD 4x15 | 48"Ø x 15'-0" | 30 | 15'-5" | 10'-5" | 12'-0" | 30 |
| MD 6x18 | 72"Ø x 18'-0" | 100 | 21'-9" | 12'-8" | 11'-6" | 81 |