



## Who we are

General Kinematics is the premier manufacturer of vibrating equipment for the processing of bulk materials. From vibratory feeders to entire process systems, GK can create the solution you require to process even the most difficult materials.

## What we do

No company in the field of vibratory equipment has consistently produced more innovative equipment ideas and problem solving application techniques than General Kinematics. For more than five decades we've maintained a solid reputation for design leadership – with exclusive vibratory drive systems, simplified spring reactor systems, and the most rugged and reliable construction available. Thousands of application tailored technical advancements have made General Kinematics' vibratory feeders and equipment excel in the most difficult environments.

## Why buy from GK

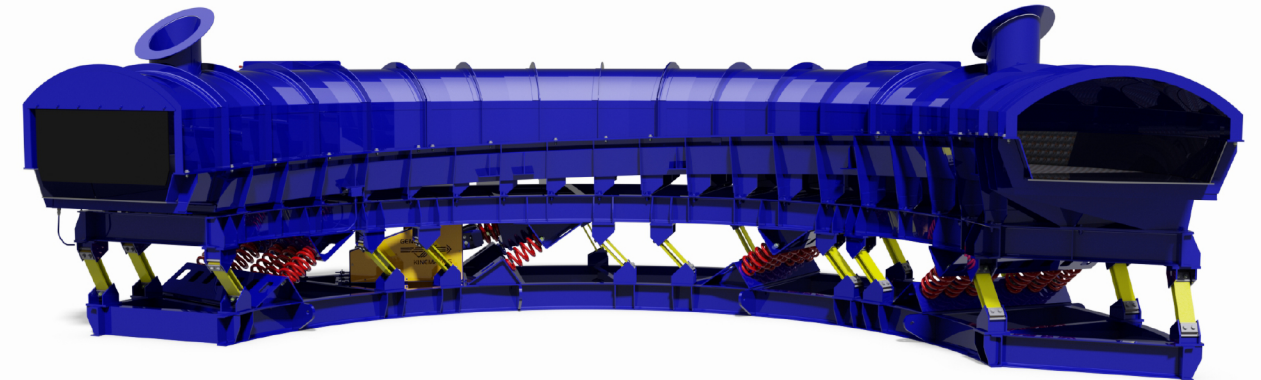
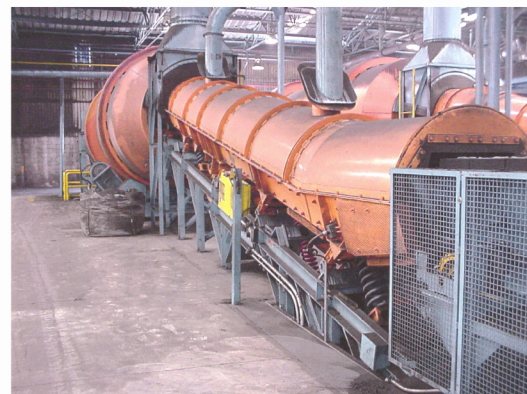
When facing the decision of purchasing capital equipment, a lot is on the line. Will the equipment work as promised? Will the equipment be reliable? Will it be a maintenance nightmare? What if it doesn't work? General Kinematics has proven through one successful installation to the next that our solutions reduce your risk of buying while helping to improve your process and increase profit to your bottom line.

## GK Highlights

- Extensive install base: 40,000+ installations in nearly every country.
- 24/7/365 customer service and support, with the ability to have a GK service representative on-site anywhere in the world in under 22 hours.
- Available same day shipping on all off the shelf, in-stock components.
- Industry leadership in innovation... 4 times the patents than the next leading vibratory equipment manufacturer.
- General Kinematics has the largest install base of vibratory foundry equipment in the world.
- All U.S. and many leading European automotive manufacturers choose General Kinematics vibratory equipment to solve their vibratory process solution needs.
- Over 150 power plants in the US trust GK vibrating feeders to keep their coal flowing.
- General Kinematics is the only heavy-duty vibratory equipment company certified in ISO:9001.

**General Kinematics partners with our customers to provide vibratory equipment that improves their throughput, increases their profitability, and reduces maintenance costs. GK employees genuinely want our customers to be successful in their businesses, and will do all they can to provide you with equipment and solutions to do so.**

## Installations Around the World



# THE ORIGINAL FOUNDRY CONVEYOR



## More than just conveying

Versatile vibratory conveyors by General Kinematics do more than just move materials. The inherent motion of continuously tossing and throwing material forward creates the opportunity to perform one or more processes along the way.

## A balancing style for every application

In many installations, the transmission of vibration to the surrounding supports or building steel must be reduced to a minimum. GK offers many types of counterpoised designs which absorb or isolate these forces.

## Designed to meet your needs

Recommending the correct design is one of the most important factors in meeting your needs for vibratory conveyors. It goes beyond just fit and finish; our experienced design staff gives careful considerations to product factors such as bulk density, angle of repose, product size, and configuration to name just a few.

GK conveyors are also designed with maintainability in mind. We offer designs with sub-assemblies that speed up trough and component replacement for high wear applications.

## Custom engineered for you

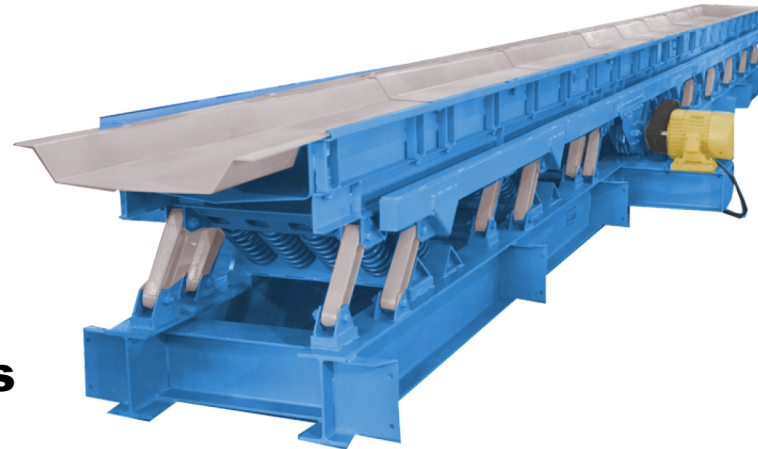
Our highly qualified staff of application engineers and equipment design specialists are always available to help you with value-added custom equipment design services. We work closely with customers to assure that conveyors and other ancillary equipment are precisely tailored to fit the most exacting process requirements.

Dependent upon your application, conveyors can be engineered and constructed with custom trough designs to handle hot, heavy, and/or abrasive materials in the foundries around the world. Optional materials of construction may include mild or abrasion resistant steel, stainless steel, or special alloys. Special patterns, perforations and trough thickness can also be specified to meet your application needs. Equipment service life is also extended via the use of conservative design parameters.

## What makes vibratory conveyors work

Vibratory conveyors normally consist of the following elements:

- A trough of varying length and dimensionality to carry material
- Mounting base for the conveyor and its machinery
- Stabilizer links that support the conveyor trough above the base
- Reactor spring system tuned to match drive speed
- Eccentric drive that imparts a controlled motion to the trough



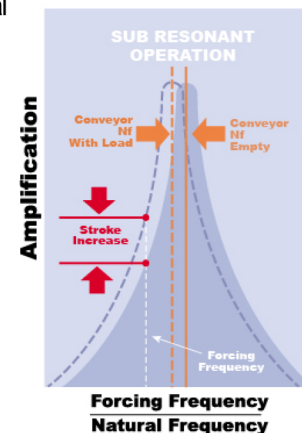
## The Principle of Natural Frequency

Natural frequency conveying moves materials smoothly and efficiently in a gentle series of "throws and catches." Spring systems are custom engineered and tuned to the weight of the conveying trough material.

This produces a system that resonates at the most desired natural frequency. Most important, when the conveyor operates near its natural frequency, more than 90% of the driving force is provided by the spring system. The eccentric drive provides only the additional energy lost because of friction.

Since each spring functions as an individual drive, all forces are uniformly distributed along the unit. No large destructive stresses appear at the trough connection, and power requirements are kept to a minimum. Equally important, there is a built in compensation for load surges – with smooth, even product flow.

### Response to Natural Frequency



## V-TROUGH®

General Kinematics V-TROUGH® inclined conveyors are designed to elevate your product without the inherent problems found with metal belts and other elevating products. The V-TROUGH® is based on GK's proven conveyor designs, with unique features like our PARA-MOUNT II® vibratory drive system and is available in various balancing options to best suit your process.



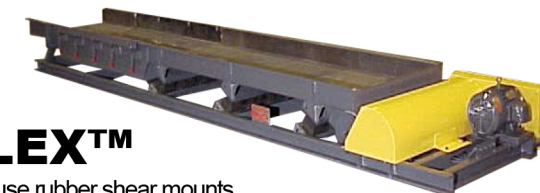
## SYNCRO-COIL®

SYNCRO-COIL® Vibratory Conveyors are designed for the extreme environment of foundry operation. Conveyors feature rugged long life components and heavy-duty construction and are designed specifically for your material and process.



## VIBRA-BELT®

VIBRA-BELT® Vibrating Belt Conveyors combine the best features of vibrating conveyors and belt conveyors into one superior material handling concept. The VIBRA-BELT® has a flexible trough suspended between the sides of a trough provided with GK proven vibrating conveyor drive and reactor system components. The result is an improved belt conveyor system, adaptable to a variety of materials and operating conditions, incorporating the incomparable reliability and cleanliness of vibratory equipment.



## SYNCRO-FLEX™

SYNCRO-FLEX™ Conveyors use rubber shear mounts to support and control dimensional motion, plus function as reactor springs to efficiently store and release energy. Their highly efficient design makes them ideal for low headroom applications such as foods. Simple, uncluttered construction provides maximum cleanliness in chemical and food processing applications along with less maintenance and wear in dusty environments.

## Applications:

- Elevating
- Recycling
- Cooling
- Drying
- Crushing
- Toasting
- Inspecting
- Orienting
- Fluidizing
- Cleaning
- Mixing
- Roasting
- Freezing
- Testing
- Packing
- Feeding
- Picking
- Sizing
- Blending
- De-watering
- Quenching
- Agglomerating
- Screening
- Separating
- Humidifying



## CASTING COOLING

Casting Cooling Vibrating Conveyors from General Kinematics gently convey and cool castings. Custom designed, they can include full hooding, air handling systems, stroke control and more. The design of these conveyors allows vibrating units to operate so that 90% of the force required to move your product is naturally created. The remaining 10% is provided by GK's low horsepower, high efficiency drive system.