POSi-FLOW™
Vibrating Conveyors
The efficient way to convey bulk materials.

We Make Your Work Flow
Carrier
Vibrating Equipment, Inc.
WE MAKE YOUR WORK FLOW

Since our origin in 1950, Carrier has been recognized as the industry leader in designing and building bulk material handling equipment. From fine powders to heavy metals, our multi-functional conveyors have served all major industries around the world—providing the most efficient systems to simultaneously convey and process varieties of products.

One-Step Processing
Carrier's unique vibration technology gives you the power to perform processing functions while conveying in a single self-contained unit.

<table>
<thead>
<tr>
<th>Dry</th>
<th>Sort</th>
<th>Accumulate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cool</td>
<td>Meter</td>
<td>Dewater</td>
</tr>
<tr>
<td>Heat</td>
<td>Quench</td>
<td>Divide</td>
</tr>
<tr>
<td>Calcine</td>
<td>Agitate</td>
<td>De-oil</td>
</tr>
<tr>
<td>Blend</td>
<td>Grade</td>
<td>Tumble</td>
</tr>
<tr>
<td>Wash</td>
<td>Separate</td>
<td>Proportion</td>
</tr>
<tr>
<td>Solidify</td>
<td>Blanch</td>
<td>Distribute</td>
</tr>
<tr>
<td>Classify</td>
<td>Scalp</td>
<td>Recycle</td>
</tr>
<tr>
<td>Screen</td>
<td>Moisten</td>
<td>Orient</td>
</tr>
</tbody>
</table>

Solutions Designed to Order
Installing new equipment is an important investment. This is why we invest the time to study each individual application. We build each unit to order to assure equipment that fits precisely into your manufacturing operation. Working with your engineering team, we tailor it to match your most demanding sanitary specifications, industrial and environmental codes. Our R&D specialists conduct tests for design parameters in new or unusual applications.

Improve Your Product Quality While Lowering Capital Costs and Energy Consumption
Repeat users attest to our uncommon expertise for design of quality equipment. Our experience in improved and cost-effective conveying methods includes applications for products industrywide:

- Sugar
- Vegetables
- Seeds
- Confections
- Fiberglass
- Sand
- Cereals
- Limestone
- Coal
- Scrap
- Chemicals
- Compounds
- Glass
- Food Powders
- Crumb Rubber
- Explosives
- Rubber Pellets
- Bauxite
- Coke
- Metals
- Clay
- Meat
- Pharmaceuticals
- Carbon Black

Carrier's Natural Frequency Conveyors utilize a drive tuned in resonance with the spring-supported weight system. Most of the drive force alternately stores and releases by the springs. Once this harmonic motion is initiated, the springs are the driving medium to maintain constant motion under trough loads. Conveyor lengths up to three hundred feet operate efficiently in a single drive. POWER AND MAINTENANCE REQUIREMENTS ARE MINIMAL.

Each spring, uniformly spaced, is an individual driving medium, distributing drive forces equally over conveyor length to prevent destructive force concentrations. As a result of this controlled linear motion and perfect timing, Carrier's POSI-FLOW™ conveyors produce gentle vibratory action to move materials, including fragile practices, safely.
We are the only full line vibrating equipment designer whose varied patents and experience permit complete utilization of NATURAL FREQUENCY conveying advantages:

- Versatility in Construction and Application
- Reliable Operation Over Long Equipment Life
- Energy Efficiency
- Multifunctional — Space Saving
- Minimal Maintenance
- Safe, Clean Operating Environment

Carrier Engineers select spring and drive type to suit each application. Drives can be located at any convenient point; along the length, at the end, or overhead.

Spring assemblies provide continuous support and maintain the conveyor’s structural rigidity for service ranging from light to maximum loads.

**Shockless Drive**
Designed for most normal conditions, this economic, positive eccentric drive is cushioned from effects of starts/stops and load reactions by the torsion bushings.

**Poz-A-Flex® Drive**
Designed for medium-duty applications, rubber marshmallow springs in compression offer the advantage of the rubber compression drive at lower cost. Operates in overstroke and understroke conditions.

**Shock Absorber Drive**
Designed for low maintenance under steady force and rapidly reversing forces, the shock absorber compensates for changes in the neutral level of the pan, distributing the load to the spring system.

**Rubber Compression Drive**
Designed for heavy duty service, hoppering, frequent starts/stops, or variable speed, the rubber in the drive is selected to cushion these effects. Overstroke is accepted without structural member overstress or affecting integrity of the drive.

**Leaf Springs**
Simple, low-cost design for long stroke and medium to light duty applications; virtually unaffected by continuous moisture exposure.

**Coil Springs/Leaf Spring Stabilizers**
Rugged, heavy duty construction for high capacity application; excellent for high-temperature use.

**Rubber Shear Springs/Rocker Arm Stabilizers**
Designed for high impact loading medium to heavy duty applications; impervious to water and abrasive atmosphere.

**Coil Springs/Rocker Arm Stabilizers**
For heavy impact and transverse loads, this combined assembly provides durability for maximum longevity in operation with low maintenance.
**SOLUTIONS**

**POSI-FLOW™ Conveyors**

**DYNAMIC BALANCING AND VIBRATION ISOLATION**

**BASE MOUNTED**
Conveyor base mounts to support designed to absorb vibrations. Recommended for installation at or below grade.

**ISOLATED WEIGHTED BASE BALANCING**
Conveyor base with several times the mass weight of pan is mounted on isolation springs. Depending on spring type, isolation percentage is 80 to 90%.

**BALANCED**
Counterbalance member operates 180° out-of-phase with conveyor pan. Identical spring systems create equal and opposite forces to reduce reactions by 90%.

**BASE EXCITED BALANCING AND ISOLATION**
Counterbalance member under conveyor pan with spring connection to pan. Reduces reactions by 95%.

**ISOLATED-BALANCED**
Balanced type conveyor with base mounted on isolation springs. Combination reduces reactions by 98%.

Pans are fabricated in a variety of stainless and other alloys or fiberglass. Sizes and types are based on capacities, material characteristics, plant space, and fit-up to existing equipment.

Deep, smooth, one-piece trough construction in POSI-FLOW™ conveyors prevents spillage and hang-ups.

Conveying around a building support column
POSİ-FLOW™ Design Flexibility

Stainless steel conveyor designed especially for food, dairy, and pharmaceuticals

Water pools quench and solidify glass cullet and other molten materials for ease of handling and reuse

Leaf spring conveyor distributes various types of clay and refractory materials through 36 gates

Coil spring conveyor for wood-waste, logs, and foundry use
Carrier Has The Features You Need

If you need special features to combine various functions with conveying—use Carrier's design expertise. These are a few ideas to facilitate cost-effective conveying.

Channels separate rubber parts, convey to built-in water spray and air dry sections

Scalping section in woodwaste conveyor

Metal parts orient while conveying on 4 lane double decks

High temperature construction and diverters to side discharge points
To Make Your Work Flow Better

Channels to orient and distribute

Stainless steel replaceable screen decks on leaf spring conveyors

POSİ-FLOW™ Features Include:

- Double Decks
- Replaceable Components
- Screens—Louvers
- Dividers
- Diverters
- Liners
- Custom Shaped Troughs,
- Inlets
- Outlets
- Self-Locking Gates
- Dust-Tight Covers
- Heat Blankets
- Hot Air Plenums
- High Temperature Pans
- Dynamic Balancing
- Support Stands

Trough tapers from large intake to small discharge

Various techniques to minimize noise levels are a result of Carrier’s emphasis on R&D

Air cylinder-operated gates divert prills
Carrier’s POSI-FLOW™ Conveyors Are Positive Performers

Some of the benefits users tell us about...

Energy efficient
Minimal product degradation
Low maintenance
Easily cleaned

APPLICATIONS INCLUDE:

Conveying
Screening
Sorting
Dewatering
Feeding

OF:

Cheese Powders
Cheese Curd
Whey
Lactose
Sugar
Salt
Lecithin
Vegetables
Meats
Cereals
Various Other Foods
And Confections

USDA Dairy Accepted screening conveyor for dairy products

Balanced conveyor scalps overs from cereal while conveying

Isolated and balanced seafood screening conveyor

Isolated S/S conveyor scalps, screens and elevates food powders
Cheese curd dewatered, scalps, and conveys on stainless steel unit, designed for complete washdown.

Wet sweetener cake drops from 4 centrifuges. Surges are leveled to deliver continuous flow. Enclosed conveyor accepts nitrogen purge.

Onion rings separate from slices on this special design food grade conveyor.

Leaf spring conveyor for foods and confections.
Through Carrier’s unique blend of design skills and application technology, conveying efficiencies are improving for thousands of high quality products around the world.

Agricultural chemical distributor

Stainless steel covered unit convey uphill from 2 charge points

Covered units with gates screen and distribute tobacco stems and pieces
To Suit Industry Needs

All POSI-FLOW™ Conveyors illustrated in this brochure were designed for the specific needs of the users.

Juice in cans cools while conveying under water-spray

Ampli-Flex™ Variable Amplitude Conveyor for precision metering of a wide range of products.

Conveyor revolves 360° to feed

Bag flatteners facilitate quick and safe palletizing

Tell us what you're moving. Tell us what you want to do to it along the way. And we'll show you how Carrier Vibrating Equipment can make it better and move it faster. Whether you need new equipment designs, processes and methods...improved efficiencies of existing lines...or analysis of material behavior in a given application...our engineering creativity combines with technology to MAKE YOUR WORK FLOW.