Established in 1950, Carrier is internationally known for its pioneering work in the field of bulk material handling and processing. Carrier specializes in the manufacture of fluid bed processors, vibrating conveyors, feeders, screeners, and spiral elevators.

Through the years, Carrier has developed processing equipment to meet the needs of a broad range of industries, including chemicals, synthetics, foundry, glass, food, explosives, wood, coal, metals, scrap, and recycling.

Carrier continues to bring new technology to the market, as well as new value to existing technology through its Research and Development Lab. The lab serves as a technology base in which to confidentially test the feasibility of new products and processes, simulating actual operating conditions.

With a technology profile of over 150 patents, each application is custom tailored. Computer-assisted design and manufacturing procedures provide the background for the innovative engineering required to achieve unmatched production efficiencies.

Corporate Profile

With an extensive line of processing machines and vibrating equipment, we are your ONE-STEP SOLUTION to:

- Accumulate
- Agitate
- Blanch
- Blend
- Calcine
- Classify
- Cool
- Convey
- De-Oil
- Dry
- Distribute
- Divide
- Dry/Cool
- Elevate
- Feed
- Flatten
- Heat
- Dewater
- Moisten
- Orient
- Proportion
- Quench
- Recycle
- Screen
- Separate
- Shakeout
- Singulate
- Solidify
- Sort
- Tumble
- Wash
- Withdraw

Solutions for Food, Dairy, and Pharmaceutical Applications

Representatives

Carrier is represented by more than 75 manufacturer’s representative organizations throughout the U.S., Canada, Mexico, Korea, People’s Republic of China, Taiwan, Chile, Argentina, Colombia, Brazil, Australia, Peru, Eastern Europe, and Western Europe. Licensees: India, Japan, Sweden and Australia.

Contact our United States office for the nearest representative in your area.

Locations

United States: Carrier Vibrating Equipment, Inc. and Vibranetics Division
P. O. Box 37070 • Louisville, Kentucky 40233-7070
Phone: (502) 969-3171 • Fax: (502) 969-3172
E-mail: cve@carriervibrating.com • Web site: www.carriervibrating.com

Canada: Carrier Vibrating Equipment Canada
P. O. Box 759 • Aurora, Ontario L4G 4J9
Phone: (905) 727-3185 • Fax: (905) 727-3187
E-mail: cve@carriervibrating.ca

Europe: Carrier Europe s.a.
Parc Industriel-Zone 1
Rue de l’Industrie, 20 • B-1400 Nivelles, Belgium
Phone: 32-67-483755 • Fax: 32-67-483759
E-mail: ceur@carriereurope.be

© 2005 Carrier Vibrating Equipment, Inc. P.O. Box 37070, Louisville, KY 40233-7070
HISTORY

A History of Innovation

Trust the Experience of Carrier

Since 1950, Carrier has been designing and manufacturing innovative process equipment for the food, dairy and pharmaceutical industries to dry, cool, elevate, sort, coat, convey, feed or screen. Each unit is custom built and designed to work superbly with each unique application.

Carrier offers a wide range of unique, highly functional solutions. You can rely on individual attention from experienced process engineers—combined with the depth of our staff and extensive in-house manufacturing capabilities—to provide decisive project control, on-time deliveries, and product support that is second to none.

You can depend on Carrier as your exclusive process equipment supplier—one that goes that extra mile for their customers and does whatever it takes to exceed expectations! No process challenge is too demanding for Carrier. Simply present us with your project objectives. We’ll study the application and build a system to match your most demanding sanitary specifications and environmental codes.

LABORATORY TESTING

Laboratory Testing

Carrier’s Take the Test program dates back 50 years!

Carrier knows that experienced design and manufacturing is only part of the development process. The proof is in the pudding, so to speak, which is why Carrier invests more in research and testing than any other food processing, vibratory equipment manufacturer.

Our 20,000 square-foot Research and Development Laboratory offers an extensive line of equipment to test a combination of processes such as conveying, cooling, drying, drying/cooling, elevating, feeding, pelletizing, screening, shaking, and sorting. By simulating actual operating conditions, Carrier is capable of testing the feasibility of new products and processes with confidence. Rental equipment is also available for on-site testing to facilitate the needs of special product requirements.

Testing can be beneficial in serving to:

- Research new equipment designs, processes and methods in confidence.
- Simulate operating conditions.
- Improve efficiencies of existing process lines.
- Chart material characteristics and behavior in a specific process.
- Ensure equipment meets specs and qualifies for a performance warranty.
- Analyze test data to assist in equipment selection.
- Confirm eventual investment decisions.

More importantly, Carrier understands the confidentiality of testing new products. Carrier is a source that you can trust, which is why we secure our clients confidence through supporting mutual confidentiality agreements.
A History of Innovation

Trust the Experience of Carrier

Since 1950, Carrier has been designing and manufacturing innovative process equipment for the food, dairy and pharmaceutical industries to dry, cool, elevate, sort, coat, convey, feed or screen. Each unit is custom built and designed to work superbly with each unique application.

Carrier offers a wide range of unique, highly functional solutions. You can rely on individual attention from experienced process engineers—combined with the depth of our staff and extensive in-house manufacturing capabilities—to provide decisive project control, on-time deliveries, and product support that is second to none.

You can depend on Carrier as your exclusive process equipment supplier—one that goes that extra mile for their customers and does whatever it takes to exceed expectations! No process challenge is too demanding for Carrier. Simply present us with your project objectives. We'll study the application and build a system to match your most demanding sanitary specifications and environmental codes.

Laboratory Testing

Carrier’s Take the Test program dates back 50 years!

Carrier knows that experienced design and manufacturing is only part of the development process. The proof is in the pudding, so to speak, which is why Carrier invests more in research and testing than any other food processing, vibratory equipment manufacturer.

Our 20,000 square-foot Research and Development Laboratory offers an extensive line of equipment to test a combination of processes such as conveying, cooling, drying, drying/cooling, elevating, feeding, pelletizing, screening, shaking, and sorting. By simulating actual operating conditions, Carrier is capable of testing the feasibility of new products and processes with confidence. Rental equipment is also available for on-site testing to facilitate the needs of special product requirements.

Testing can be beneficial in serving to:

- Research new equipment designs, processes and methods in confidence.
- Simulate operating conditions.
- Improve efficiencies of existing process lines.
- Chart material characteristics and behavior in a specific process.
- Ensure equipment meets specs and qualifies for a performance warranty.
- Analyze test data to assist in equipment selection.
- Confirm eventual investment decisions.

More importantly, Carrier understands the confidentiality of testing new products. Carrier is a source that you can trust, which is why we secure our clients confidence through supporting mutual confidentiality agreements.
Easy Flow Vibrating Conveyor

The Easy Flow conveyor is an innovative design created specifically for food processors. Much lighter than traditional vibrating conveyors, this conveyor can be installed just about anywhere. Dynamic reactions are virtually eliminated so installation is simple and economical.

The heart of the Easy Flow conveyor is its state-of-the-art linear force output drive and absorbed base technology. This quiet and reliable conveyor is a versatile workhorse that will offer years of trouble-free service.

Posi-Flow™ Vibrating Conveyor

Carrier Posi-Flow™ vibrating conveyors are custom engineered specifically for your application. The Posi-Flow™ can provide a gentle, “shuffling” motion (ideal for moving fragile snacks, cereals, and coated products), or produce a more aggressive vibratory motion (to convey sticky or sluggish products or to break up agglomerates). Posi-Flow™ conveyors will smoothly convey from four feet to 400 feet without buildup in the conveyor trough or in your package!

Featuring a design that is undoubtedly the most rugged in the industry, the Carrier Posi-Flow™ is built for high-capacity conveying applications or those that combine conveying with other functions such as cooling, heating, screening, sorting or distributing.

DMC Horizontal Motion Conveyor

The DMC conveyor uses a purely horizontal motion, sliding products across the conveying surface with a slow-advance, quick-return action. In addition to gently conveying light or fragile materials, the DMC conveyor’s sliding action promotes self-cleaning of the trough interior.

The Carrier DMC conveyor can achieve higher conveying speeds than competing horizontal motion conveyors and can be used as a bidirectional conveyor.
Easy Flow Vibrating Conveyor

The Easy Flow conveyor is an innovative design created specifically for food processors. Much lighter than traditional vibrating conveyors, this conveyor can be installed just about anywhere. Dynamic reactions are virtually eliminated so installation is simple and economical.

The heart of the Easy Flow conveyor is its state-of-the-art linear force output drive and absorbed base technology. This quiet and reliable conveyor is a versatile workhorse that will offer years of trouble-free service.

Posi-Flow™ Vibrating Conveyor

Carrier Posi-Flow™ vibrating conveyors are custom engineered specifically for your application. The Posi-Flow™ can provide a gentle, “shuffling” motion (ideal for moving fragile snacks, cereals, and coated products), or produce a more aggressive vibratory motion (to convey sticky or sluggish products or to break up agglomerates). Posi-Flow™ conveyors will smoothly convey from four feet to 400 feet without buildup in the conveyor trough or in your package!

Featuring a design that is undoubtedly the most rugged in the industry, the Carrier Posi-Flow™ is built for high-capacity conveying applications or those that combine conveying with other functions such as cooling, heating, screening, sorting or distributing.

DMC Horizontal Motion Conveyor

The DMC conveyor uses a purely horizontal motion, sliding products across the conveying surface with a slow-advance, quick-return action. In addition to gently conveying light or fragile materials, the DMC conveyor’s sliding action promotes self-cleaning of the trough interior.

The Carrier DMC conveyor can achieve higher conveying speeds than competing horizontal motion conveyors and can be used as a bidirectional conveyor.
Spiral Elevators

Carrier pioneered the use of vibrating spiral elevators as a means of processing while elevating. Each spiral is specially designed to provide a retention time sufficient for cooling or drying of your product. Heated or chilled process air can be circulated in a completely enclosed spiral to maintain your product’s temperature or drying and/or cooling can be achieved with a forced air distribution system. In lieu of or in addition to the direct heat transfer of the process air, the spiral flights can be jacketed for indirect cooling or heating. Carrier’s jacketed flight technology is proven and reliable and will never leak.

The spiral elevator is ideal for elevating fatty or oily products such as meats and cheeses. Conveying is gentle and cleanup is simple. Each flight is designed to eliminate pockets, ledges, and corners. Other products well suited for the spiral elevator are cereals, grains, vegetables, snack foods, seasonings, tablets, and powders. Just about anything will convey up a Carrier spiral elevator.

Carrier spirals can be built in diameters as small as 24” and as large as 10 ft. The drive can be located below the spiral or top-mounted to feed the spiral as low as 16” from the floor without a pit. Carrier spirals can also be modified to gently draw material downward with a positive conveying motion where gravity drops and stationary spiral chutes are undesirable.

Processing Features of Carrier TMSP and DDSP elevator-processors:

1. **Air cooling, drying, or heating.** Air is forced from the centertube baffle into the conveyed material from above or underneath through a perforated deck.
2. **Indirect cooling, drying, or heating.** A jacketed flight design is used to provide indirect heat transfer to the conveyed material. Water, steam or other fluid can be used.
3. **A combination of (A) Direct Heat Transfer and (B) Indirect Heat Transfer.**
4. **Material Separation:** size separation of materials or dewatering of liquids can be achieved with scalping screens or perforated plates throughout the flights.
Spiral Elevators

Carrier pioneered the use of vibrating spiral elevators as a means of processing while elevating. Each spiral is specially designed to provide a retention time sufficient for cooling or drying of your product. Heated or chilled process air can be circulated in a completely enclosed spiral to maintain your product’s temperature or drying and/or cooling can be achieved with a forced air distribution system. In lieu of or in addition to the direct heat transfer of the process air, the spiral flights can be jacketed for indirect cooling or heating. Carrier’s jacketed flight technology is proven and reliable and will never leak.

The spiral elevator is ideal for elevating fatty or oily products such as meats and cheeses. Conveying is gentle and cleanup is simple. Each flight is designed to eliminate pockets, ledges, and corners. Other products well suited for the spiral elevator are cereals, grains, vegetables, snack foods, seasonings, tablets, and powders. Just about anything will convey up a Carrier spiral elevator.

Carrier spirals can be built in diameters as small as 24” and as large as 10 ft. The drive can be located below the spiral or top-mounted to feed the spiral as low as 16” from the floor without a pit. Carrier spirals can also be modified to gently draw material downward with a positive conveying motion where gravity drops and stationary spiral chutes are undesirable.

Processing Features of Carrier TMSP and DDSP elevator-processors:

1. Air cooling, drying, or heating. Air is forced from the centertube baffle into the conveyed material from above or underneath through a perforated deck.
2. Indirect cooling, drying, or heating. A jacketed flight design is used to provide indirect heat transfer to the conveyed material. Water, steam or other fluid can be used.
3. A combination of (A) Direct Heat Transfer and (B) Indirect Heat Transfer.
4. Material Separation: size separation of materials or dewatering of liquids can be achieved with scalping screens or perforated plates throughout the flights.
Fluid Bed Processing

Carrier’s fluid bed processors can gently dry, cool, heat, toast, sterilize, classify, or agglomerate food, dairy, and pharmaceutical products, whether batch or continuous. A single fluid bed processor can efficiently perform two or more of these functions.

Each process is tested in our laboratory or pilot-tested at your facility to optimize process parameters and verify performance. The result is a guaranteed solution to your process problems.

Conventional Fluid Beds

Carrier’s conventional fluid beds are a good choice for materials that can be easily fluidized and have a relatively narrow particle size distribution. Conventional fluid beds use only a gas passed through a fluidizing media to create the fluidized bed—no vibration is needed. They are ideal for very large production capacities and for most cooling applications. Cleanout is simple and there are no moving parts.

Vibrating Fluid Beds

Like conventional fluid bed processors, vibrating fluid beds function by passing a process gas directly through a bed of solids via a perforated plate or another type of fluidizing media. Vibration is added to aid in fluidization of more difficult to fluidize materials.

Vibrating fluid beds are very well suited for food and dairy applications because:

- Products with wide particle-size distributions can be processed. Vibration will help to discharge oversize particles that do not fluidize easily.
- Products that are temperature sensitive can be processed in a “sub-fluidized” state to ensure first-in/first-out processing. This process produces consistent results without hot or cold spots. Products such as nuts, seeds, and beans can be processed without burning or under-drying.
- Fragile products can be processed with little or no product degradation. A very gentle amplitude/frequency combination is selected for fragile combination products such as cereals, pelletized foods, cut berries and vegetables.
Fluid Bed Processing
Carrier’s fluid bed processors can gently dry, cool, heat, toast, sterilize, classify, or agglomerate food, dairy, and pharmaceutical products, whether batch or continuous. A single fluid bed processor can efficiently perform two or more of these functions.

Each process is tested in our laboratory or pilot-tested at your facility to optimize process parameters and verify performance. The result is a guaranteed solution to your process problems.

Conventional Fluid Beds
Carrier’s conventional fluid beds are a good choice for materials that can be easily fluidized and have a relatively narrow particle size distribution. Conventional fluid beds use only a gas passed through a fluidizing media to create the fluidized bed—no vibration is needed. They are ideal for very large production capacities and for most cooling applications. Cleanout is simple and there are no moving parts.

Vibrating Fluid Beds
Like conventional fluid bed processors, vibrating fluid beds function by passing a process gas directly through a bed of solids via a perforated plate or another type of fluidizing media. Vibration is added to aid in fluidization of more difficult to fluidize materials.

Vibrating fluid beds are very well suited for food and dairy applications because:

• Products with wide particle-size distributions can be processed. Vibration will help to discharge oversize particles that do not fluidize easily.

• Products that are temperature sensitive can be processed in a “sub-fluidized” state to ensure first-in/first-out processing. This process produces consistent results without hot or cold spots. Products such as nuts, seeds, and beans can be processed without burning or under-drying.

• Fragile products can be processed with little or no product degradation. A very gentle amplitude/frequency combination is selected for fragile combination products such as cereals, pelletized foods, cut berries and vegetables.
Dairy & Pharmaceutical Systems

Solutions for the Dairy Industry
Carrier has extensive experience processing dairy products, from powdered whey to shredded cheese. Directional-hole fluidizing decks are used to promote product uniformity and eliminate weepage or sifting while reducing entrainment of good product in the exhaust gas. Most importantly, Carrier dairy grade fluid beds are built with the same rugged construction, care, and attention to detail that has been built into the world’s most reliable fluid beds for over 50 years.

Solutions for the Pharmaceutical Industry
Carrier’s fluid bed designs are also excellent for pharmaceutical applications, highly effective in processes involving drying, cooling, agglomeration, and classification of powders. Design innovation and rigorous testing ensures Carrier equipment will provide precise, dependable performance in single or multi-function applications.

Technology Leader
Carrier pioneered the use of vibrating fluid beds and has led the industry with over 50 years of innovative solutions and thousands of installations. Carrier’s process engineers have six different drive designs and an unlimited number of amplitude/frequency combinations available to design a solution that meets your process requirements, while maximizing energy efficiency and minimizing cost.

Delta-Phase Drive
This patented device is the most advanced drive technology available. It is the only drive that permits infinite online adjustment of the angle of vibration to precisely control retention time. The Delta-Phase drive is a far superior method of retention time control than adjustments to weir height, amplitude, or frequency—which can dramatically decrease process efficiency or product quality.

The Delta-Phase drive is PLC based with an unlimited number of presets to preprogram the optimum retention time for different products or recipes.

Special Features and Options
- Clamped hoods and covers for easy access.
- Clean-in-place and fire suppression systems.
- Sanitary, USDA approved construction to meet 3A standards.
- Recirculated gas and closed loop systems for improved energy efficiency or solvent recovery.
Dairy & Pharmaceutical Systems

Solutions for the Dairy Industry
Carrier has extensive experience processing dairy products, from powdered whey to shredded cheese. Directional-hole fluidizing decks are used to promote product uniformity and eliminate weepage or sifting while reducing entrainment of good product in the exhaust gas. Most importantly, Carrier dairy grade fluid beds are built with the same rugged construction, care, and attention to detail that has been built into the world’s most reliable fluid beds for over 50 years.

Solutions for the Pharmaceutical Industry
Carrier’s fluid bed designs are also excellent for pharmaceutical applications, highly effective in processes involving drying, cooling, agglomeration, and classification of powders. Design innovation and rigorous testing ensures Carrier equipment will provide precise, dependable performance in single or multi-function applications.

Technology Leader
Carrier pioneered the use of vibrating fluid beds and has led the industry with over 50 years of innovative solutions and thousands of installations. Carrier’s process engineers have six different drive designs and an unlimited number of amplitude/frequency combinations available to design a solution that meets your process requirements, while maximizing energy efficiency and minimizing cost.

Delta-Phase Drive
This patented device is the most advanced drive technology available. It is the only drive that permits infinite online adjustment of the angle of vibration to precisely control retention time. The Delta-Phase drive is a far superior method of retention time control than adjustments to weir height, amplitude, or frequency—which can dramatically decrease process efficiency or product quality.

The Delta-Phase drive is PLC based with an unlimited number of presets to preprogram the optimum retention time for different products or recipes.

Special Features and Options
- Clamped hoods and covers for easy access.
- Clean-in-place and fire suppression systems.
- Sanitary, USDA approved construction to meet 3A standards.
- Recirculated gas and closed loop systems for improved energy efficiency or solvent recovery.
Established in 1950, Carrier is internationally known for its pioneering work in the field of bulk material handling and processing. Carrier specializes in the manufacture of fluid bed processors, vibrating conveyors, feeders, screeners, and spiral elevators.

Through the years, Carrier has developed processing equipment to meet the needs of a broad range of industries, including chemicals, synthetics, foundry, glass, food, explosives, wood, coal, metals, scrap, and recycling.

Carrier continues to bring new technology to the market, as well as new value to existing technology through its Research and Development Lab. The lab serves as a technology base in which to confidentially test the feasibility of new products and processes, simulating actual operating conditions.

With a technology profile of over 150 patents, each application is custom tailored. Computer-assisted design and manufacturing procedures provide the background for the innovative engineering required to achieve unmatched production efficiencies.

With an extensive line of processing machines and vibrating equipment, we are your ONE-STEP SOLUTION to:

- Accumulate
- Agitate
- Blanch
- Blend
- Calcine
- Classify
- Cool
- Convey
- De-Oil
- Dry
- Dry/Cool
- Elevate
- Feed
- Flatten
- Heat
- Meter
- Mix
- Moisten
- Orient
- Proportion
- Quench
- Recycle
- Screen
- Separate
- Shakeout
- Singulate
- Solidify
- Sort
- Tumble
- Wash
- Withdraw

Representatives

Carrier is represented by more than 75 manufacturer’s representative organizations throughout the U.S., Canada, Mexico, Korea, People’s Republic of China, Taiwan, Chile, Argentina, Columbia, Brazil, Australia, Peru, Eastern Europe, and Western Europe. Licensees: India, Japan, Sweden and Australia.

Contact our United States office for the nearest representative in your area.

Locations

United States: Carrier Vibrating Equipment, Inc. and Vibranetics Division
P. O. Box 37070 • Louisville, Kentucky 40233-7070
Phone: (502) 969-3171 • Fax: (502) 969-3172
E-mail: cve@carriervibrating.com • Web site: www.carriervibrating.com

Canada: Carrier Vibrating Equipment Canada
P. O. Box 759 • Aurora, Ontario L4G 4J9
Phone: (905) 727-3185 • Fax: (905) 727-3187
E-mail: cve@carriervibrating.ca

Europe: Carrier Europe s.c.
Parc Industriel-Zone 1 Rue de l’Industrie, 20 B-1400 Nivelles, Belgium
Phone: 32-67-883753 • Fax: 32-67-883759
E-mail: ceur@carriereurope.be

We Make Your Work Flow