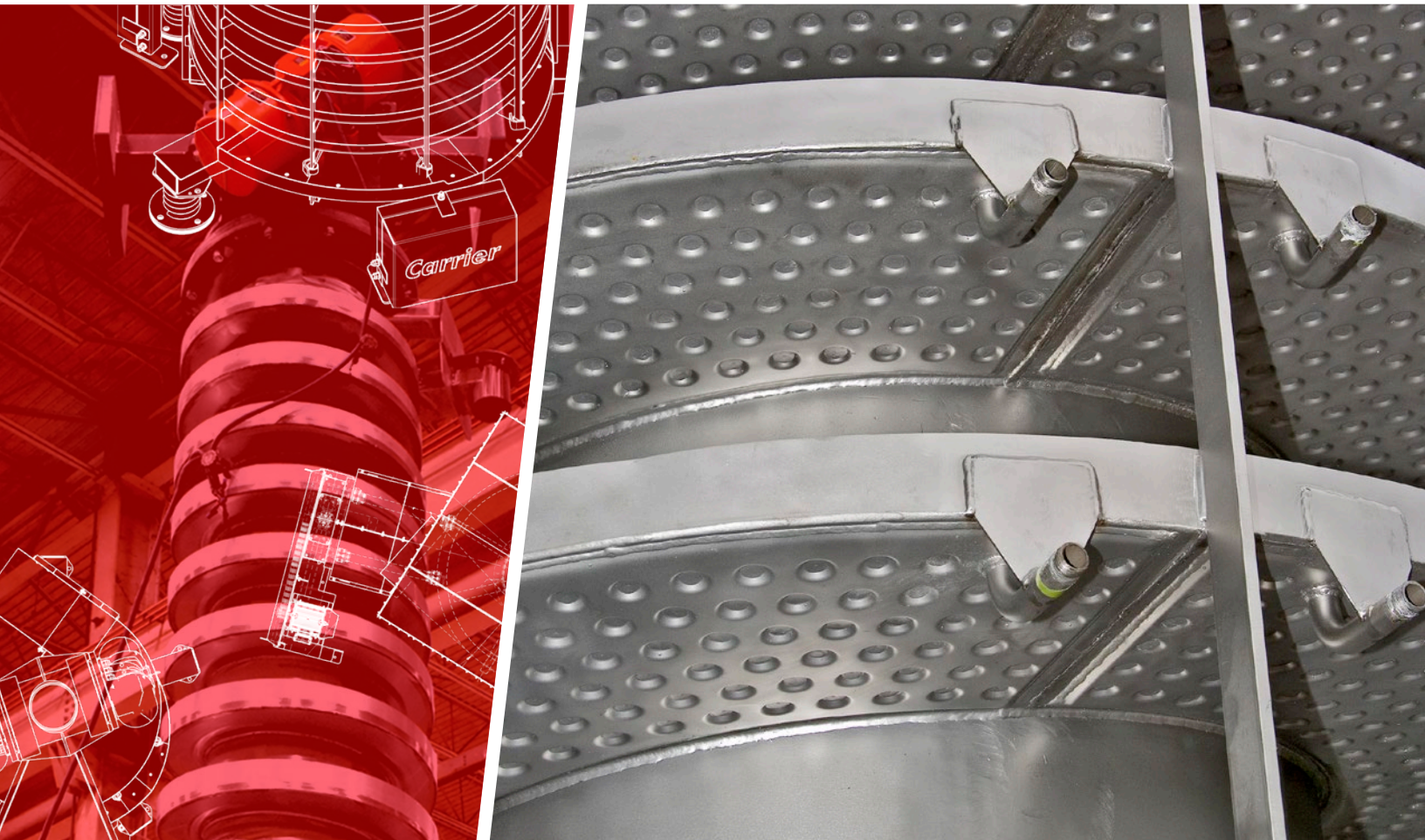


Vibrating *Spiral Elevators*

Carrier Vibrating Equipment was established in 1950 and is known internationally as the pioneer in vibration technology. In 1956, Carrier patented the natural frequency spiral elevator. Decades of experience and innovation has evolved into several modern designs, able to perform a number of processes, including drying, heating, cooling and conditioning, while also elevating the products.

Our Vibrating Spiral Elevators serve a broad range of industries such as rubber, catalysts, food processing, plastics, pharmaceuticals, minerals and others. With features including an easy-to-clean legless tower design, small footprint, adjustable retention time, direct drive, and soft isolation to minimize dynamic reactions, Carrier's Spiral Elevators ensure high processing efficiency and reliability.



Typical Applications:

- Rubber pellets
- Plastic pellets
- Catalyst
- Food products
- Pharmaceuticals
- High-temperature materials
- Fragile materials



Features & Benefits

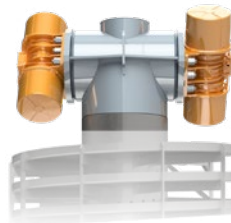
- Versatile design capable of drying, heating, or cooling material during elevation
- Vibrating units are designed to elevate a variety of bulk solids without spilling or plugging
- Adjustable stroke, speed, and retention time control for processing materials
- Jacketed flights provide indirect heat transfer with steam, oil, or water
- Specially designed water connections are anchored to the flight base to relieve stress on the jackets
- Direct drive motor design eliminates over-stroke



Options

Heating & Cooling

Holes can be incorporated into the tower to force air out and across the material. Air can be blown down onto the material from the hollow flight stiffeners on larger spiral units.



Drive Unit Design

Available in brute force or natural frequency design. Material can be conveyed aggressively or in a gentle, harmonic motion.



Flights

Jacketed flights are manufactured using heavy, pre-formed dimple plate and are plug welded to the center tower. They provide indirect heat transfer with steam, oil, or water.

Enclosures, Access Doors & Inspection Windows

Stationary or vibrating enclosures protect the unit and the materials from the environment and provide additional employee safety. Shrouds are available to protect the drive unit. Custom inspection windows can be incorporated for access to the spiral trough and material.



Size & Capacity

Available in diameters in excess of 11 feet and heights in excess of 60 feet with light to heavy-duty, high-capacity and high-temperature designs available.



Materials of Construction

Material contact surfaces can be fabricated from mild steel, stainless steel, or other metal alloys with non-stick coatings to reduce the likelihood of buildup. Sanitary construction for USDA/3A requirements is also available.



V-Trough Conveyor Design

Carrier's V-Trough design aids in conveying sticky materials that have a difficult time conveying up an incline.



Industries & Applications

From delicate pharmaceuticals to rubber, sand and castings, Carrier spiral elevators can convey your materials in a gentle or aggressive motion without degradation.

- Catalysts
- Plastic Pellets
- Polymers
- Rubber & Crumb Rubber
- Food & Dairy
- Pharmaceuticals
- Foundry
- And much more



Polymers



Plastic Pellets



Rubber & Crumb Rubber



Foundry & Sand Castings



Complete Systems For Process Optimization & Energy Efficiency

Carrier Spiral Elevator Processors are designed to elevate material while cooling, drying, and/or conditioning materials. Carrier can design additional processing equipment that can be integrated upstream or downstream for complete multistep process lines.

With over 70 years of experience in the engineering, design and manufacture of drying, cooling and vibratory technology, Carrier's complete systems are:

- Cost-effective, optimized & energy-efficient
- Customized in construction & application
- Reliable, easy to operate & low maintenance



Engineering & Manufacturing

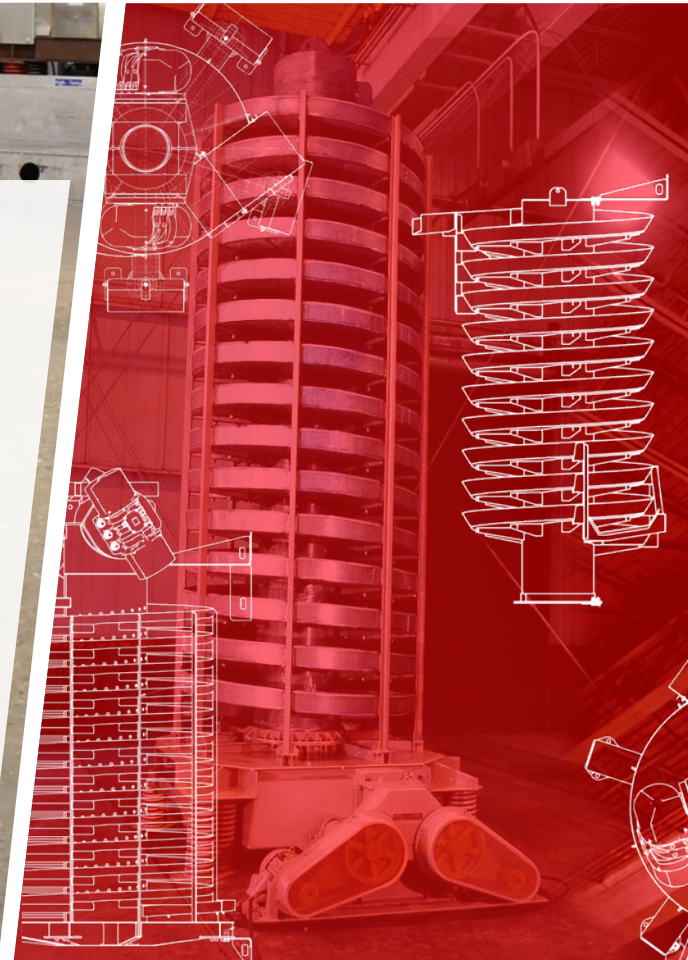
- Technology profile of over 150 patents
- Equipment designs are verified using Finite Element Analysis (FEA) to ensure trouble-free service and long life
- 3D equipment modeling
- State-of-the-art manufacturing facilities on 3 continents with robotic cutting and welding
- Manufacturing expertise working with mild steel, various grades of stainless steel, duplex stainless and other exotic alloys for specialty applications
- Welders certified to ASME & AWS standards
- ISO 9001:2015 certified



Lab Testing

Be confident that your powder and bulk solids processing is efficient with CPEG's 15,000 ft² state-of-the-art test lab. With our lab, you have access to the most extensive testing capabilities in the industry. Multiple pieces of equipment can be combined for multistep and multistage testing to simulate field operation, validate new equipment designs and provide complete process solutions. Combined with our full analysis of material characteristics and measurements of material behavior in specific processing applications, you are assured an efficient, reliable and safe solution, all backed by our process warranty.

Field testing with rental equipment is available when lab testing would not effectively simulate process operating environments.



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