

FLUID-FLOW™

Vibrating Fluid Bed Systems

The efficient way to process while conveying.

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 hot castings, our unique method of processing with vibration has served all major industries around the world - providing the most efficient systems to simultaneously convey and process materials.

One-Step Processing

Carrier's unique vibration technology gives you the power to perform varieties of processing functions while conveying, feeding or elevating bulk materials. From the most delicate grains to the bulkiest ores, our patented drive systems apply harmonic motion to handle your materials without degradation.

Carrier Gives You the Processing Power to:

Dry	Screen	Moisten
Distribute	Meter	Scalp
Orient	Quench	Dewater
Classify	Tumble	Divide
Blend	Grade	Sort
Recycle	Separate	De-oil
Wash	Proportion	Solidify
Agitate	Blanch	Accumulate
Cool	Heat	Calcine

Solutions Designed to Order

Our vibrating machinery doesn't come ready-made "off-the-shelf". We design and build each unit to order. Our engineers work with your engineering team to tailor each piece of equipment to match product type, process parameters, and upstream/downstream capabilities. Designs satisfy sanitary specifications and other industrial standards. Complete research and development capabilities are available to set design parameters for new and unusual process requirements.

We Put Your Process to the Test

Comprehensive product/process testing allows the exploration of various processing methods and new technologies for equipment evaluations before investment. Carrier's lab is equipped to test customers' samples in simulated production operations to offer **cost-effective equipment solutions** based on their specific profit demands.

This confidential "teamwork" approach affords mutual knowledge and satisfaction that a proposed system meets precise requirements. If required, complete field test packages are available for testing at your facility. Whether using our in-house lab, on-site testing, or a combination of the two, our Total Systems Process Warranty assures performance.

Put Carrier to the Test

Just tell us what you are moving and 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. Our engineering creativity combines with technology to MAKE YOUR WORK FLOW, whether you need:

- New equipment designs, processes or methods,
- Improved efficiencies of existing process lines,
- Or complete analysis of material behavior in any given process

Call Carrier Vibrating Equipment today and see how we can make things flow better for you.

FLUID-FLOW™ Vibrating Fluid Bed Systems

Improve Product Quality While Lowering Capital Costs and Energy Consumption

Pioneering in vibrating equipment technology, Carrier continues to expand innovative applications to a wide range of processing plants. More and more industries rely on our improved and cost-efficient methods for processing while moving their products. Multifunctional, space-saving equipment meets industrywide construction and environmental codes, while providing low-energy, minimum maintenance operation.

Materials benefiting from Carrier's processing techniques include:

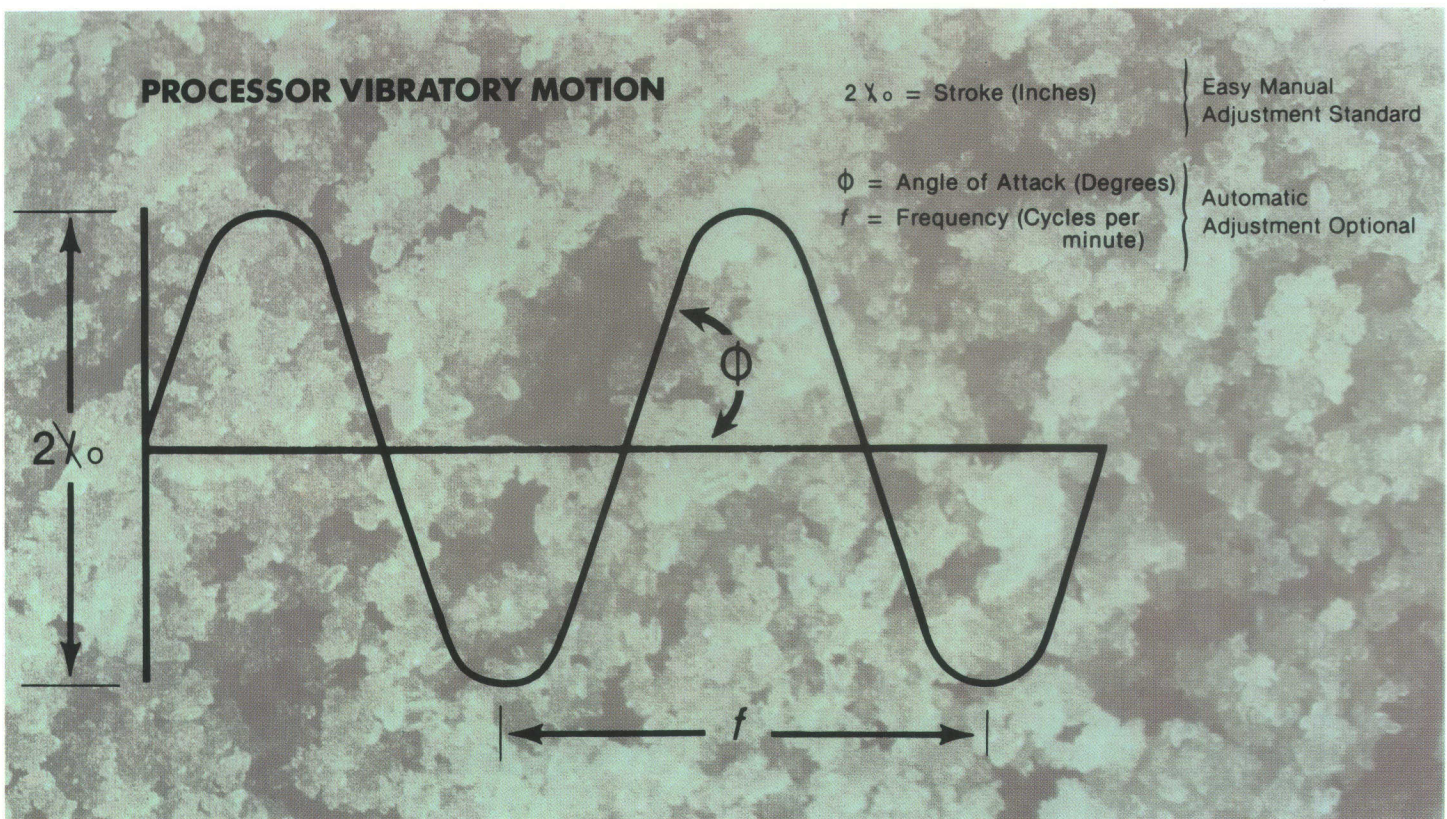
Synthetics	Dairy Powders	Bark
Minerals	Ores	Seeds
Fertilizer	Confections	Cheese
Plastics	Pharmaceuticals	Resins
Pet Foods	Fiberglass	Glass
Sugar	Cereals/Grain	Pasta
Tobacco	Bauxite/Clay	Rice Bran
Coal/coke	Crumb Rubber	Explosives
Vegetables	Rubber Pellets	Detergents
Tile Chips	Scrap/Refuse	Sludge
Acid Crystals	Chemical Compounds	Salt

Improved Process Action

Carrier Vibrating Fluid Bed Systems are specially designed to provide a continuous passage of air through the product bed — giving you a more efficient drying and cooling process at a minimum retention time because your material's surface area contact is maximized.

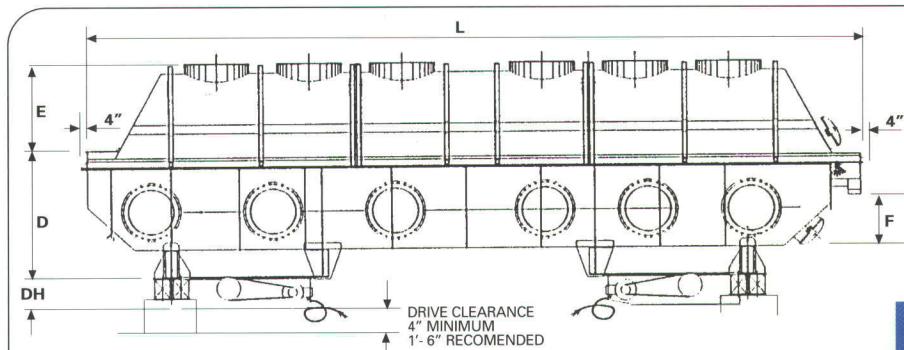
Eliminate Hot Spots and Accelerate Reactions

Our unique one-step processing allows you to classify or combine fragile and degradable materials safely while drying, cooling, heating and mixing. Custom-made drilled decks are gently vibrated to move your material through the processor without degradation. Particles are mixed and turned to promote temperature uniformity and increase the speed of chemical reactions. Built to compensate for thermal expansion, systems are unaffected by hot supply air up to 1200°F.

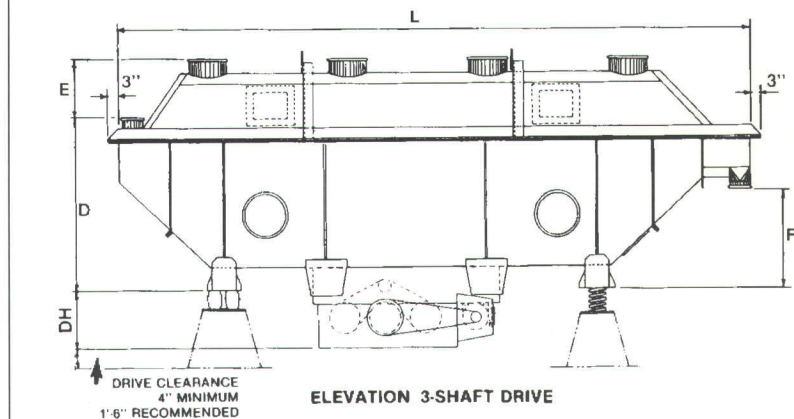


THE **Carrier** VIBRATING ADVANTAGE

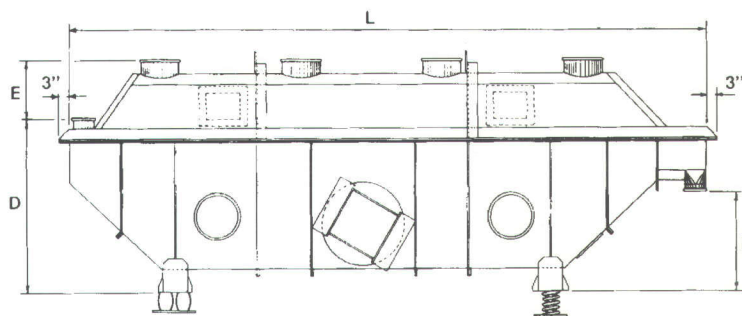
Your work flows more smoothly thanks to our **THREE-SHAFT DRIVE TECHNOLOGY**. This patented drive system ingeniously applies harmonic motion through a series of gentle "throws and catches" to convey without degradation. You control the retention time by adjustment in vibration angle, stroke and frequency.



ELEVATION (2) x 3-SHAFT DRIVE

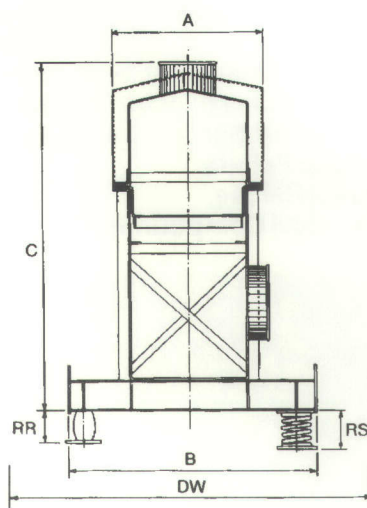


ELEVATION 3-SHAFT DRIVE



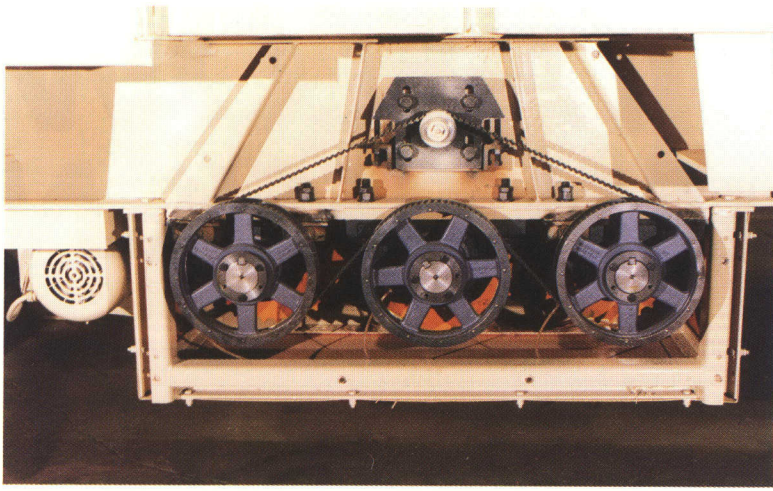
ELEVATION TWIN DRIVE

FLUID-FLOW™
VIBRATING
FLUID BED DRYER/
COOLERS



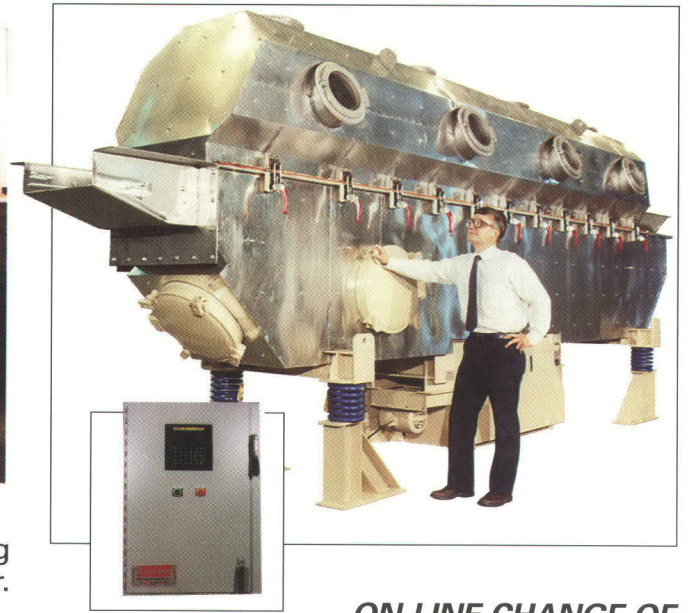
CROSS-SECTION

"L" (Lgth.)	Model No.	WEIGHT LBS.		DRIVE HP		"DH" Drive Height	"DW" Drive Width		"A"	"B"	"C"	"D"	"E"	"F"	"RR" Rubber ISOL.	"RS" Spring ISOL.
		Twin	3-Shaft	(2 Motor)	3-Shaft		Twin	3-Shaft								
10'-6"	1260S	2500	2600	1	2	1'-9"	5'-0"	2'-6"	1'-6"	3'-0"	5'-0"	3'-9"	1'-3"	2'-0"	8"	9"
	2460S	3000	3100	1	2	1'-9"	6'-0"	2'-6"	2'-6"	4'-0"	5'-3"	3'-9"	1'-6"	2'-0"	8"	9"
	3660S	3300	3300	1	2	1'-9"	7'-0"	2'-6"	3'-6"	5'-0"	5'-9"	3'-9"	2'-0"	2'-0"	8"	10"
	4860S	4400	4100	1 1/2	3	1'-9"	8'-0"	2'-6"	4'-6"	6'-0"	6'-6"	4'-0"	2'-6"	2'-6"	8"	10"
	6060S	5100	5400	1 1/2	5	2'-0"	9'-0"	2'-9"	5'-6"	7'-0"	7'-3"	4'-0"	3'-3"	2'-6"	8"	10"
15'-6"	1260S	3100	3200	1	2	1'-9"	5'-0"	2'-6"	1'-6"	3'-0"	5'-3"	4'-0"	1'-3"	2'-6"	8"	9"
	2460S	4100	4000	1 1/2	3	1'-9"	6'-0"	2'-6"	2'-6"	4'-0"	5'-6"	4'-0"	1'-6"	2'-6"	8"	10"
	3660S	4800	4600	1 1/2	3	1'-9"	7'-0"	2'-6"	3'-6"	5'-0"	6'-0"	4'-0"	2'-0"	2'-6"	8"	10"
	4860S	5600	4600	2	5	2'-0"	8'-0"	2'-9"	4'-6"	6'-0"	6'-6"	4'-0"	2'-6"	2'-6"	8"	10"
	6060S	6600	6900	2	5	2'-0"	9'-0"	2'-9"	5'-6"	7'-0"	7'-3"	4'-0"	3'-3"	2'-6"	8"	10"
20'-6"	7260S	10000	10300	3	7 1/2	2'-0"	10'-11"	3'-0"	6'-7"	8'-0"	8'-7"	4'-4"	3'-8"	3'-3"	8"	1'-0"
	2460S	5000	4800	1 1/2	3	1'-9"	5'-0"	2'-6"	1'-6"	3'-0"	5'-6"	4'-0"	1'-6"	2'-6"	8"	9"
	3660S	5700	6100	2	5	2'-0"	7'-0"	2'-9"	3'-6"	5'-0"	6'-0"	4'-0"	2'-0"	2'-6"	8"	10"
	4860S	6600	7000	2	5	2'-0"	8'-0"	2'-9"	4'-6"	6'-0"	6'-6"	4'-0"	2'-6"	2'-6"	8"	10"
	6060S	9800	9200	3	7 1/2	2'-0"	10'-0"	3'-0"	5'-6"	7'-0"	8'-0"	5'-0"	3'-0"	3'-0"	8"	1'-2"
25'-6"	7260S	12400	12000	5	10	2'-6"	11'-3"	3'-6"	7'-8"	8'-2"	9'-6"	6'-0"	4'-0"	3'-6"	8"	1'-2"
	2460S	6300	6800	2	5	2'-0"	6'-0"	2'-9"	2'-6"	4'-0"	5'-6"	4'-0"	1'-6"	2'-6"	8"	10"
	3660S	7100	8100	2	7 1/2	2'-0"	7'-0"	3'-0"	3'-6"	5'-0"	6'-0"	4'-0"	2'-0"	2'-6"	8"	10"
	4860S	10200	10500	3	10	2'-6"	9'-0"	3'-6"	4'-6"	6'-0"	7'-3"	4'-9"	2'-6"	3'-0"	8"	1'-0"
	6060S	131000	13200	5	10	2'-6"	10'-0"	3'-6"	5'-6"	7'-0"	8'-3"	5'-0"	3'-3"	3'-3"	8"	1'-2"
30'-6"	7260S	NA	18300	NA	15	2'-6"	NA	3'-8"	7'-8"	8'-2"	9'-9"	5'-9"	4'-0"	3'-9"	8"	1'-2"
	4860S	14000	14000	7 1/2	15	2'-6"	9'-3"	3'-8"	4'-6"	6'-0"	8'-0"	5'-3"	2'-9"	3'-3"	8"	1'-2"
	6060S	NA	18000	NA	20	2'-6"	NA	3'-10"	5'-6"	7'-0"	9'-0"	5'-6"	3'-6"	3'-6"	8"	1'-2"
40'-6"	7260S	NA	22000	NA	25	2'-6"	NA	4'-0"	7'-8"	8'-2"	10'-0"	6'-0"	4'-0"	4'-0"	8"	1'-2"
	6060S	NA	28800	NA	(2) x 10	2'-6"	NA	4'-2"	5'-10"	7'-0"	9'-6"	6'-0"	3'-4"	4'-4"	8"	1'-2"
	7260S	NA	33700	NA	(2) x 15	2'-6"	NA	4'-2"	6'-10"	8'-2"	10'-0"	6'-0"	4'-0"	4'-4"	8"	1'-2"
8460S	NA	38600	NA	(2) x 15	2'-6"	NA	4'-2"	7'-10"	9'-2"	10'-6"	6'-0"	4'-6"	4'-4"	8"	1'-2"	



THREE-SHAFT DRIVE

Provides smooth vibration for conveying while keeping power requirements low — and maintenance even lower.



ON-LINE CHANGE OF VIBRATION ANGLE WITH PUSH-BUTTON CONTROL

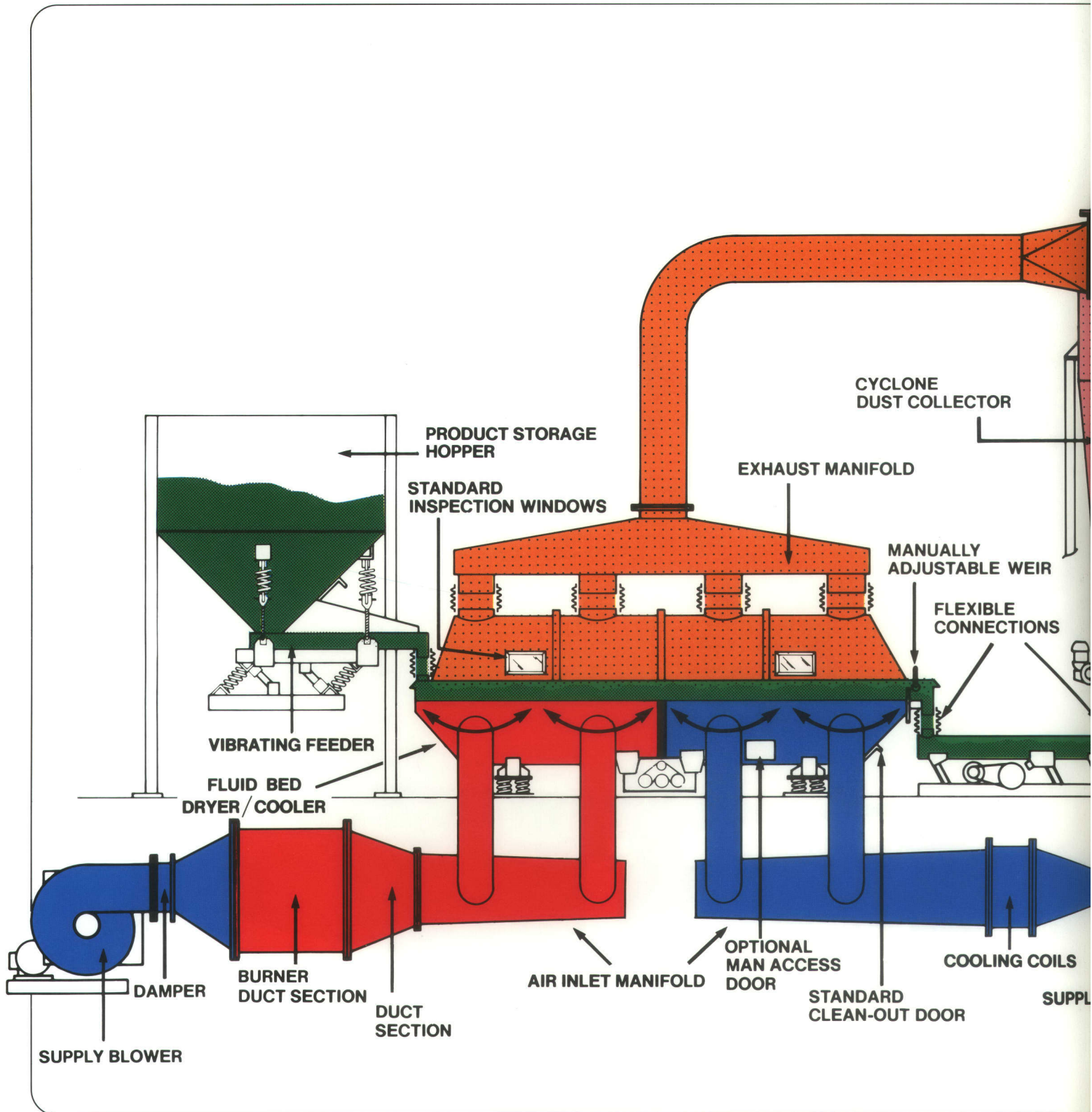
Carrier's patented Delta-Phase II® drive system offers ultimate control of retention time *without* high cost or increased floor space. Completely electronic on-line adjustment — no downtime necessary for product and process changes.



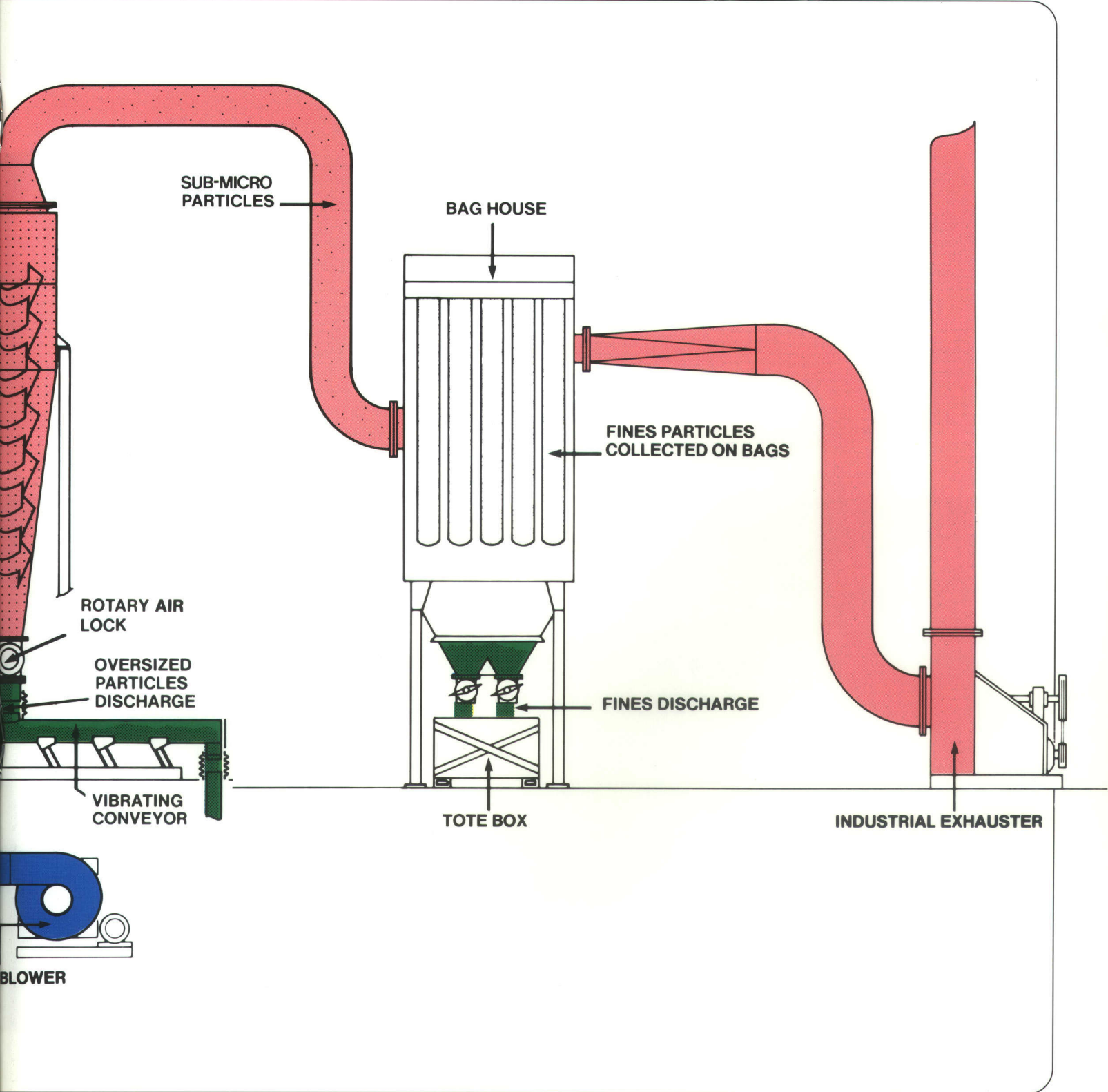
EASY TO OPERATE AND MAINTAIN

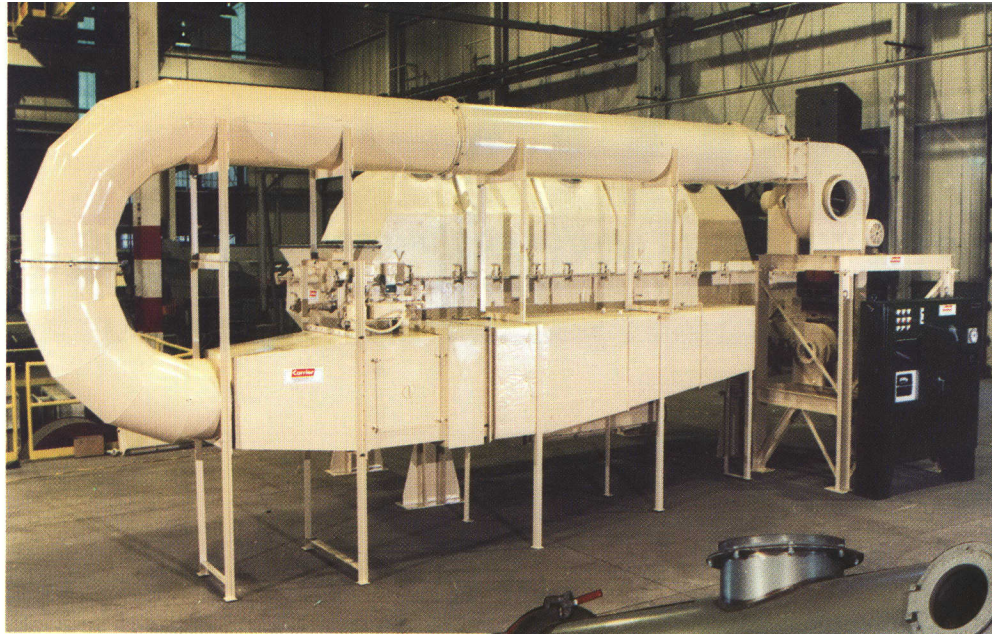
Strategically placed inspection ports and access doors permit observation of your work flow at crucial intervals. And because there are so few moving parts, the only maintenance required is periodic bearing lube.

Carrier® FLUID-FLOW™ TOTAL SYSTEM DESIGN



SYSTEMS INCLUDE: blowers, heating and/or cooling source, charging feeder, dust collection, duct work, air and temperature controls.



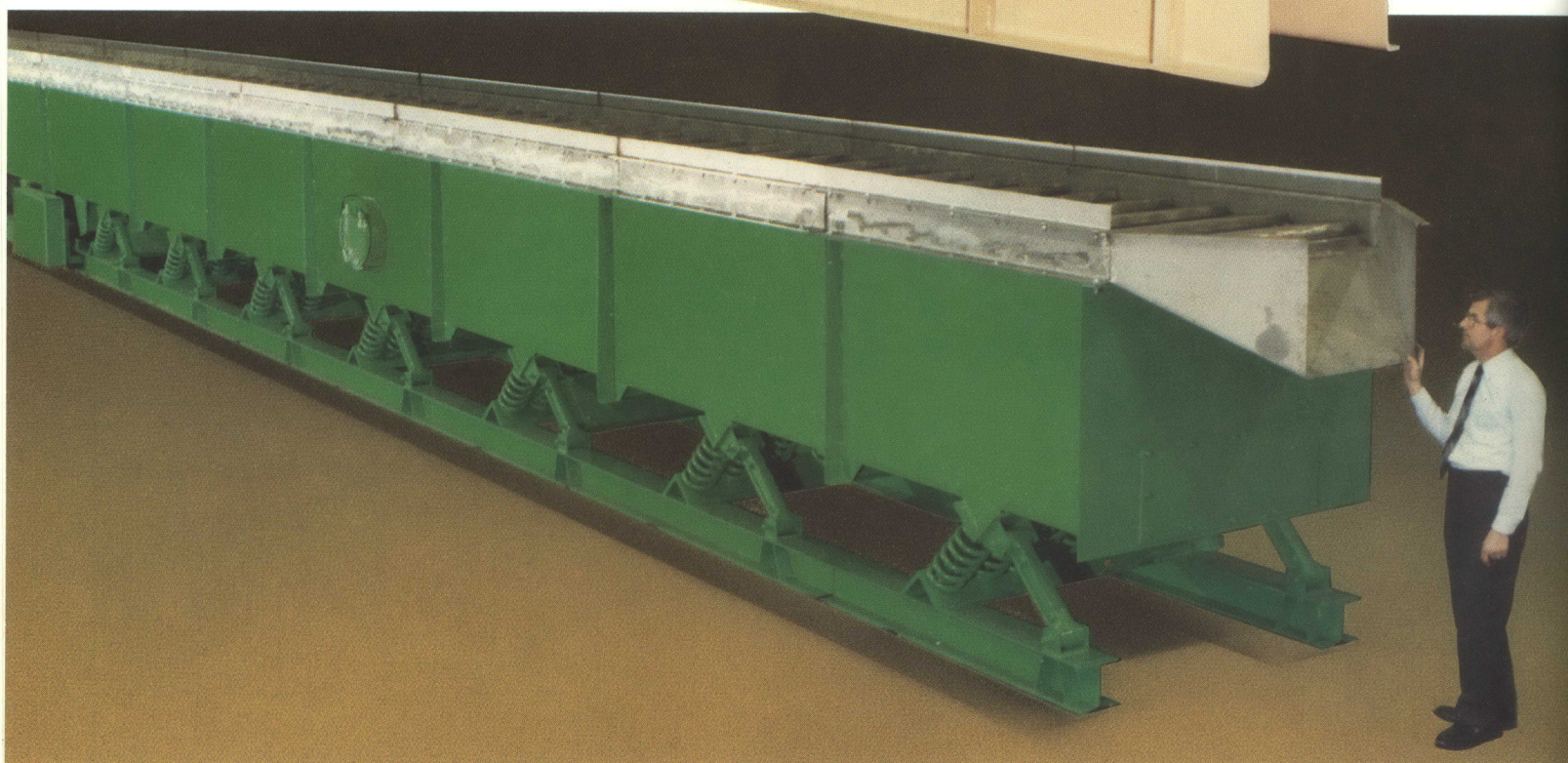
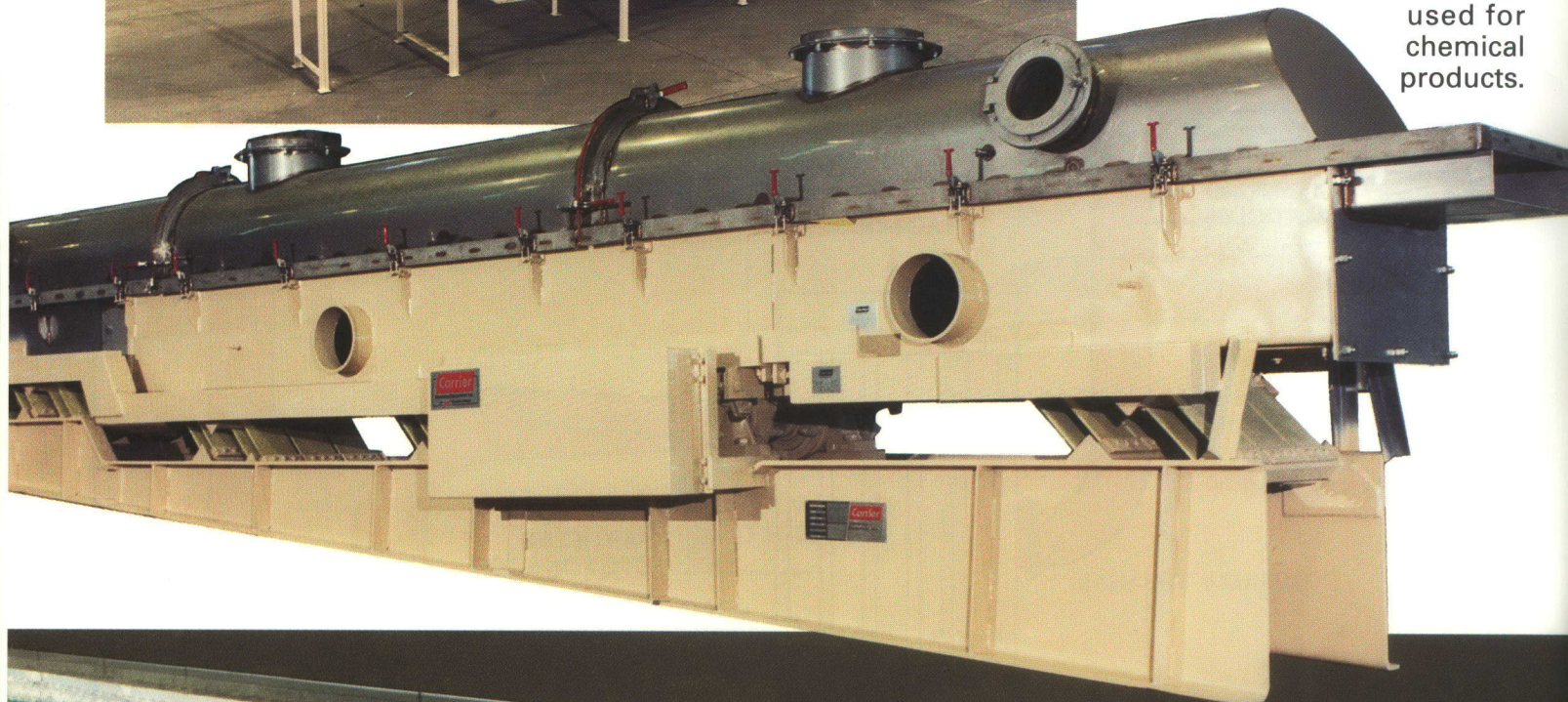


Chemical Pellet System

Carrier's unique one-step processing was called for in this chemical product system, which safely processes sensitive materials.

Dryer/Cooler Screen Conveyor for chemical products

Carrier's Fluid Bed Systems will simultaneously dewater, dry, screen and feed, as seen in this unit used for chemical products.

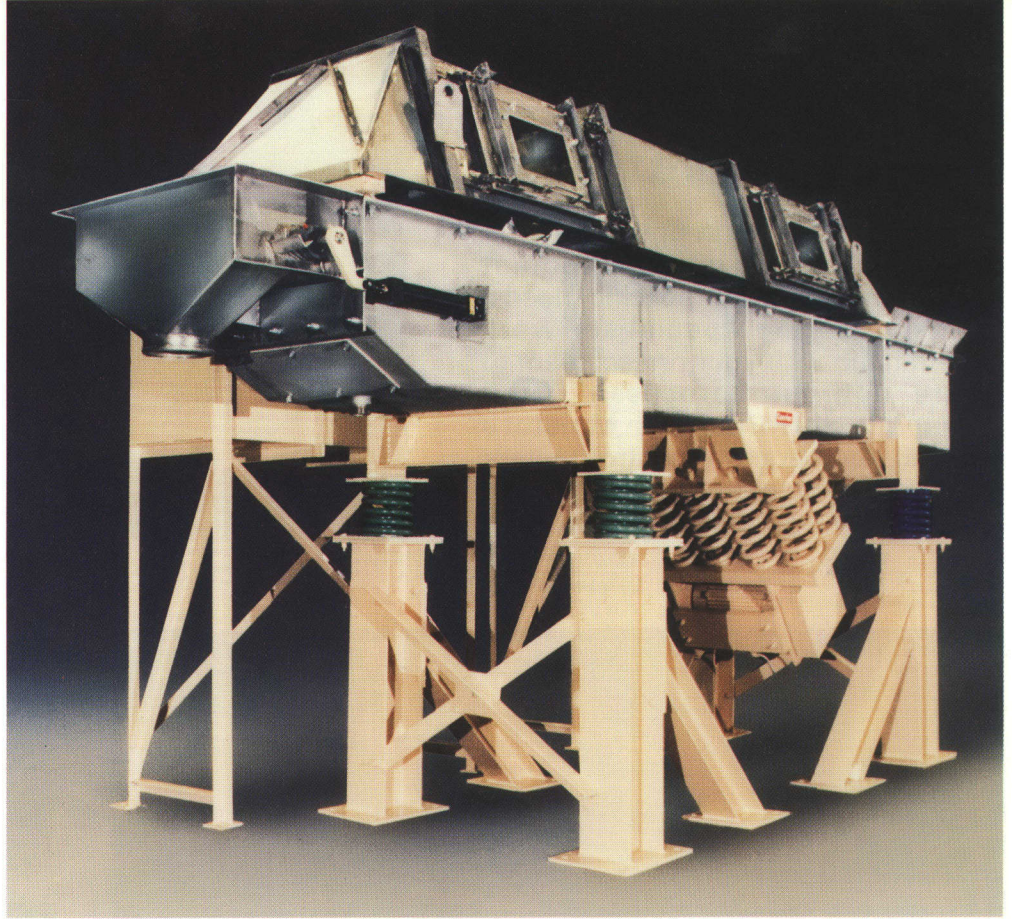


Coil Spring Cooler Conveyor

Carrier designs systems to fit specific needs. This Coil Spring Conveyor was engineered for efficient high-capacity cooling of compound rubber pellets used in making tires. A spray/dewatering conveyor and transfer conveyor completed the system.

**Adhesive
Briquettes Unit**

Carrier custom-designed this single system with all needed auxiliaries to dewater two types of adhesive briquettes, dry them in a fluidizing zone, and then feed them to packaging lines.



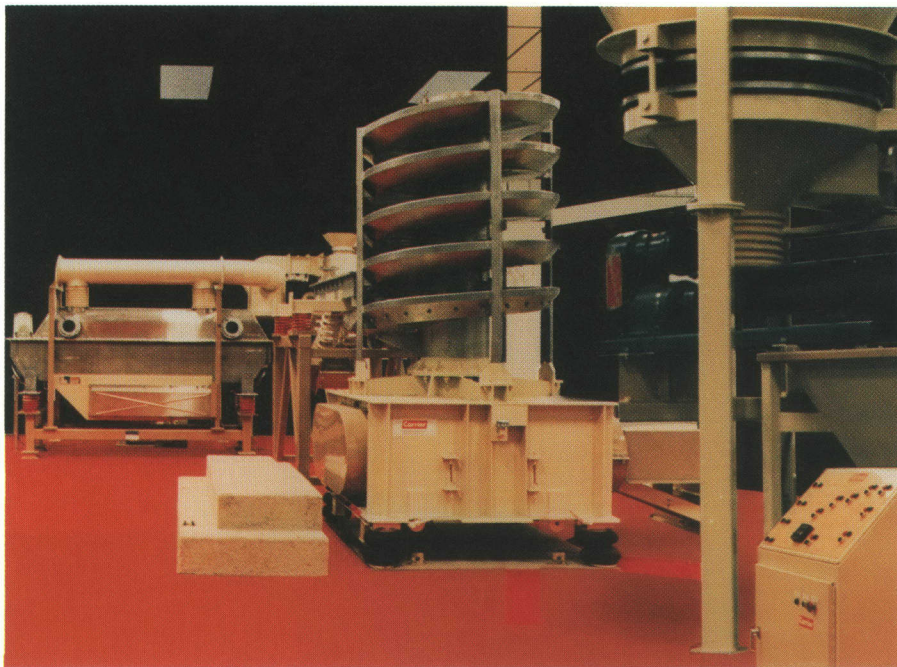
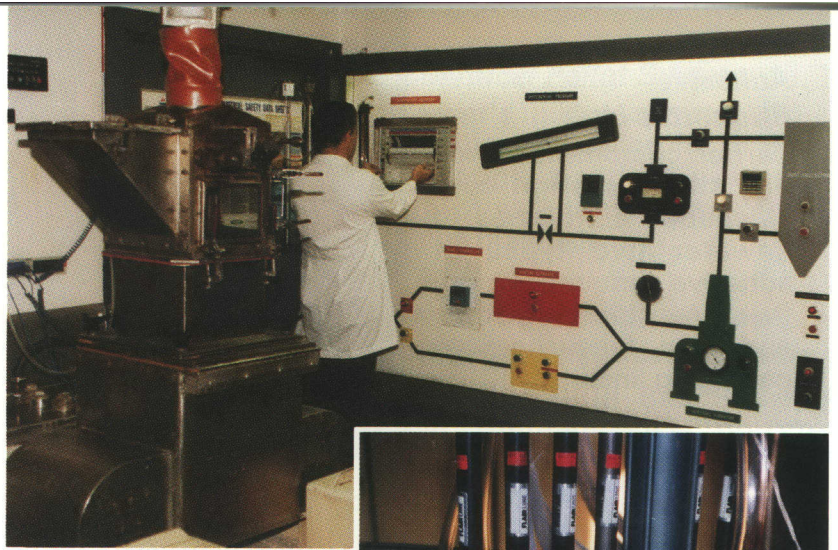
Leaf Spring Conveyor for cocoa powder

Even the finest materials can be processed with ease, thanks to this Leaf Spring Fluid-Bed Conveyor used to dry and cool cocoa powder.



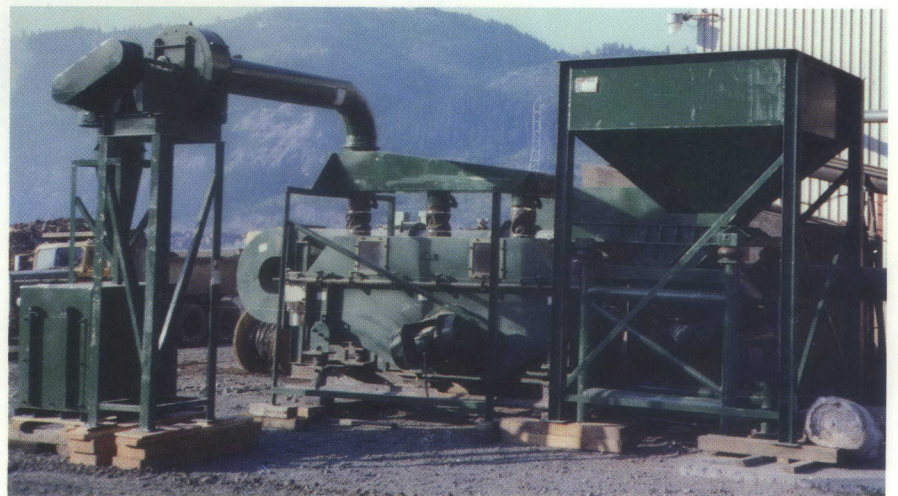
TEST DRIVE

Carrier's extensive in-house laboratory evaluates various equipment applications for your specific needs. Our engineering specialists work hand-in-hand with your project team to assure optimum processing and conveying performance. Moisture analysis, temperature control, retention time and pressure data are automatically recorded.



TOTAL SYSTEM PROCESS WARRANTY

Carrier verifies all process parameters to assure system performance. Our problem-solving system brings together distinctly qualified people to analyze your requirements. The result — mutually valuable technical expertise across a broad range of industries.



Field test packages, fully instrumented for complete spectrum testing, are available for testing at your job site to gather needed data for proper design. Simple one-piece construction, fully assembled on a portable frame, makes for easy installation.

CARRIER MAKES THE WORK FLOW FOR PROCESSING INDUSTRIES AROUND THE WORLD

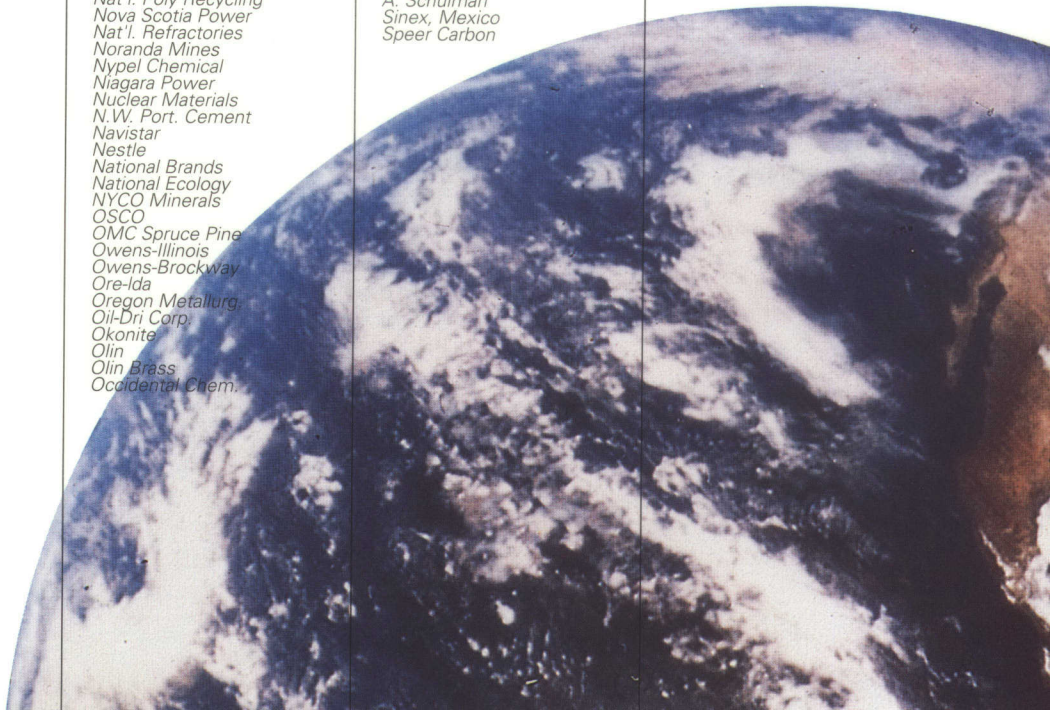
Abbott Labs
Amstar Sugar
Allied Signal
Akzo
American Can
A D M
Amax Nickel
Anchor Foods
American Pelletizing
Alcan Recycling
Anchor Hocking
Armstrong World
Arkansas Eastman
Alflex
Amway
American Steel
Advanced Elastomers
Arcadian Corp.
Allegheny Power
Alpo
American Nutrition
Aristech
Armco
Ameripol/Synpol
American Cyanamid
Anniston Ordnance
American Electric Power
Amax Coal
Alcan Powder & Pigments
Allyndale Corp.
Anchor Glass Cont.
Albis Canada
Amoco
A. O. Smith
Allied Chemical
American Synthetics
Asgrow Seeds
Atlas Chemical
Alcoa
AMF Telescope
Amax Phosphate
Anheuser-Busch
Airco Products
Acheson-Colloids
Amherst Coal
American Potato
Amax Chemical
Blaw Knox
Bristol Labs
Beatreme Foods
Brand S Lumber
B&W Tobacco
Barton Salt
Blommer Chocolate
Borden
Buckeye Cellulose
Boise Cascade
Blue Circle Atl. Cement
Borg-Warner Chemical
Bethlehem Steel
Briggs/Stratton
B. P. Polymers
Bendix
Baymag-Canada
BASF Fibers
Cooper Tire
Certainteed
Carbon Products
Colonial Rubber
Columbia Recycling
Courtaulds
CPC International
Columbian Chemical
Colonial Sugar
Crown Zellerbach
ChemWaste Mgmt.
Central N.Y. Bottle
Clow
Caterpillar
Criterion Catalyst
Custom Vinyl
Cereales, Mexico
Coors
Celanese Plastics
Cumberland Recycling
Coal Liquid
City of Ames
Cataphote
Carnation
Charms Candy
Cities Service
Carborundum
Copolymer Rubber
Colgate Palmolive
Chemical Lime
Cyprus Miami Mining
Can. Polystyrene
Ciba-Geigy
Cargill Salt
Campbell
Calgon Carbon

C&H Sugar
Coperbo
California Vegetable
Crown Central Petro
Chevron
Corning
Commercial Solvents
Cuba Cheese
Central Soya
City of Detroit
City of Honolulu
Day Products
Doe Run
Dragon Products
E. I. DuPont
Dow Chemical
Diamond Salt
Doane Products
Dad's Products
Domino Sugar
Dietrich Milk
Dairyland Power
Delco
Dairymens
Donnelley
Didier Taylor
Delmarva Power
Degussa
John Deere
Domstar Gypsum
Exide Corp.
Energy Fuels
Eveready Battery
Englehard
Eli Lilly
Eastman Kodak
Excel Wire/Cable
Exxon
Enviroplastics
Ethyl
Eastern Assoc. Coal
Environmental Sys.
East. Freeze Dry
Emerson
ENICHEM
Flex-O-Lite
Food Ingredient Tech.
Ft. Howard Paper
Feeco International
Flavor House
Firestone
Fuller
Fiber Industries
Ford Meter Box
FireKing International
Federal Paper
Fisher Mills
Ferro Source
Georgia Kaolin
Grinnell
GTE Glass
Gulf Chemicals
GTE Products
Grande Cheese
General Housewares
Glenmore
Great Lakes Carbon
General Mills
General Foods
Griffin Corp.
Georgia Pacific
Goodyear
Goodrich
G. E. Lighting
General Electric
Gould
G. E. Plastics
Georgia Kraft
General Tire
Gardner-Denver
General Motors
A. P. Green
Glover Feeds
Helena Chemical
Hillshire Farms
Holly Carburetor
Hoechst-Celanese
Hi Pro Feeds
Hershey
Hecla Mining
Hules Mexicanos
Hercules
Hubbard Milling
Hardy Salt
Harbison Walker
Huish Chemical
Hoosier Energy
Hoover Universal
Hatco Chemical
Hankuk Glass

Industrias-Negromex
Ideal Cement
Interstate Bakeries
International Paper
Interlake
INCO Recycling
I C I America
ITT Domestic Pump
International Salt
Inter-Plast
Johns Manville
Jasper Corp.
Kingsford
Kobelco Metal Pwds.
Kwikset
Kal Kan
Krispak/Canada
Kentucky Stone
Kimberly Clark
Kerr-McGee
Kraft
Kellogg
Kahns
Kumho Tire
Land-O-Lakes
Laem Chabang Ind.
Lantic Sugar Ltd.
Lambert Seafood
LaRoche Chemical
Lomac Inc.
Lake Charles Carbon
Libby Foods
Lever Brothers
Louisiana-Pacific
Lifesavers
Lykes Pasco
L & L Products
Liggett/Myers
Libby-Owens
Lavino
Masonite
Miles, Inc.
Manville
Millikin
Malt-O-Meal
Miller Brewing
Mitsubishi
Moore Plastics
Mobil Mining
Muehlstein
Martin Marietta
Mobay Chemical
Maxwell House
Magnum Magnetics
Mono-Chem
Monsanto
Minn. Corn Processing
Microwave Fusion
Morton Salt
Master Metals
Manley Tools
Mississippi Lime
Mead Container
Nat'l. Poly Recycling
Nova Scotia Power
Nat'l. Refractories
Noranda Mines
Nypel Chemical
Niagara Power
Nuclear Materials
N.W. Port. Cement
Navistar
Nestle
National Brands
National Ecology
NYCO Minerals
OSCO
OMC Spruce Pine
Owens-Illinois
Owens-Brockway
Ore-Ida
Oregon Metallurg.
Oil-Dri Corp.
Okonite
Olin
Olin Brass
Occidental Chem.

Polysar
Pioneer Products
PPG
Phillips Lighting
Phillips Petroleum
PQ Corp.
Procedair Ind.
Peabody Coal
Productos De Leche
Protein Blenders
Packard Electric
Pillsbury
Pet Foods
Polyscience
Planters
Procter & Gamble
Purechem
Potlatch
Pine Hall Brick
Pennwalt
Publishers Paper
Plough
Pfizer
Polymer Rubber & Chem.
Plating Systems
Philip Morris
Potters Industries
Posco, Korea
Proctor & Schwartz
Quaker Oats
Quikrete
Quality Confections
Riverton Cement
RJR-Nabisco
Rogers
Romchim IV
Reynolds Metals
Reese Candy
Rohm & Haas
Ross Labs
Riceland
Reed Tool
Ralston Purina
Revere Copper
Scrap Tech
Sundance/Canada
Squirrel Brands
Safeway Stores
Scott Paper
Sid Richardson
Shieldalloy
Sony Magnetics
J. R. Short Milling
Shell Chemical
Standard Brands
Stauffer Chemical
Sigri Carbon
Springfield Plastics
Simplot Mining
St. Regis
Seagrams
Staley
Sweets Candy
A. Schulman
Sinex, Mexico
Speer Carbon

Shell, Netherlands
South Point Ethanol
Southern Clay
Sunline Brands
Standard Oil
Stackpole Carbon
Shintech, Inc.
Southern States Coop.
Saferco Products
Stoelting
Seapak
Searle
Sunmaid
Spice World
Sierra Pacific
Timet
Tennessee-Eastman
Teledyne
Teknor Apex
Tarkett Ind.
Thatcher Glass
Thiokol Chemical
Tennessee Alloys
Texaco
Texada Lime
3-M
Texas Gulf Chem.
Twin City Concrete
TRW Carr
Uniroyal
Uncle Ben's Rice
UOP Molecular Sieve
United Catalyst
Universal Leaf
Union Carbide
U. S. Steel
United Merchants
Utah Marb. Cement
U. S. Mineral
U. S. Plywood
Union Camp
Universal Cement
U. S. Tobacco
United Catalyst
Velsicol Chemical
Vetroret Int'l.
Valley Dolomite
Victaulic
Wolfcreek Coll.
Wheatland Tube
Western Energy
W. R. Grace
Weetabix
Western States Sugar
Weyerhaeuser
Westvaco
WTE Corp.
Wayne Pigments
Willamette Ind.
WRC Ind.
Waste Alternatives
Zeon Chemicals





Vibrating Equipment, Inc.

THE STANDARD OF EXCELLENCE IN BULK MATERIAL HANDLING AND PROCESSING EQUIPMENT

Fluid Bed Dryer/Cooler Systems, Conveyors, Spiral Elevators, Feeders, Shakeouts
Screens, Bin Activators, Pile Dischargers

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www.carriervibrating.com • e-mail: cve@carriervibrating.com

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