

ENGINEERING, DESIGN AND MANUFACTURING THAT KEEPS THE LINE MOVING.

At Magnum Systems, we take a total system approach, which allows us to look at your complete process and develop the most efficient engineered solution for your production line. Depending on your material type, application environment, business objectives and financial goals, Magnum Systems designs a material handling solution that best fits your needs.



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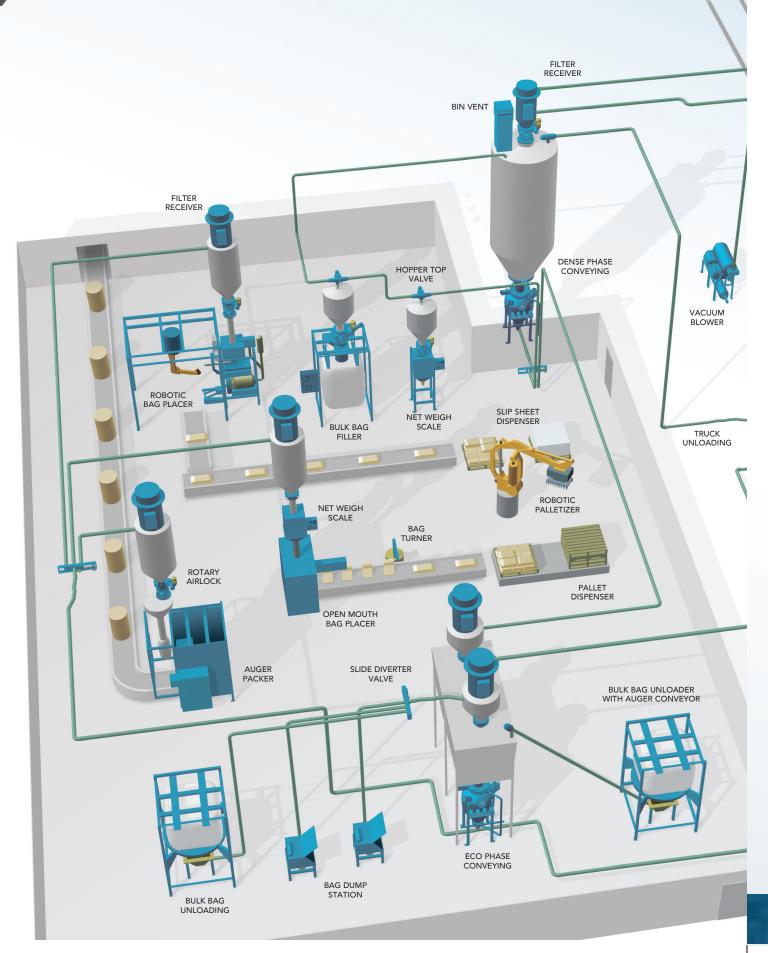


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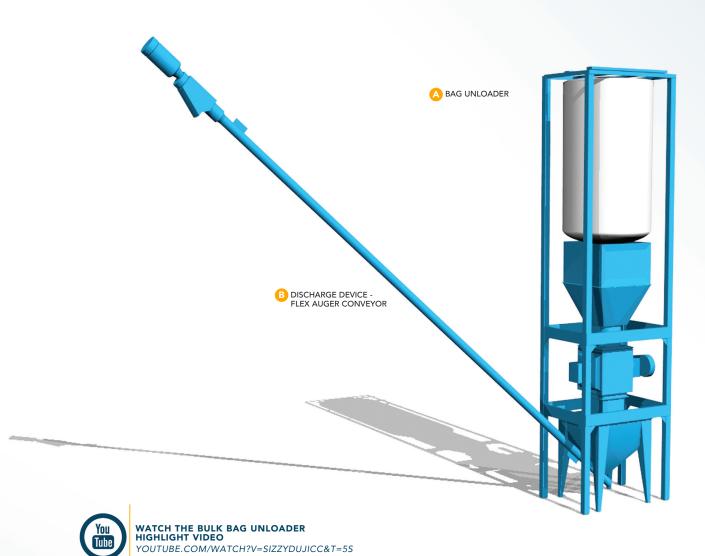
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RAIL TO PALLET AND EVERYWHERE IN BETWEEN



FIBC/RIBC UNLOADING SYSTEMS







IBC2000 - Fork Lift Frame

- Up to 4000 lb capacity
- Bag pan protects operators during product discharge
- Untie box for easy bag spout access and dust collection port



IBC2000 - Hoist & Trolley Frame

- Up to 4000 lb capacity
- Hoist and Trolley with UPD for ease of handling bag during loading and unloading
- Bag pan and Untie box





Gravity Discharge Options

- Mechanical Conveyor
- Drag Conveyor
- Flex Auger Conveyor
- Volumetric Feeder
- Loss-in-weight Feeder
- Rotary Valve

Pneumatic Discharge Options

Vacuum Conveying System with Airlock

FIBC/RIBC FILLING SYSTEMS







IBC3000

- Fill up to 3000 lb bags/containers
- Adjustable Bag Clamps for Various Bag Sizes • Double wall/inflatable spout with neck seal



- Actuated knife gate for bulk and dribble filling • Integrated load cell weigh system for increased accuracy
- Double wall/inflatable spout with neck seal for dust





PALLET DISPENSER

- Store up to 17 empty pallets
- Automatically indexes empty pallet for placement of slip sheet and or container prior

C EXIT CONVEYOR



Roller Conveyors

• Transfer pallets with bottom boards in parallel with direction of travel

3 Chain Conveyors

• Economical option, easy for operators to stand on while hanging bag

Slat Conveyors

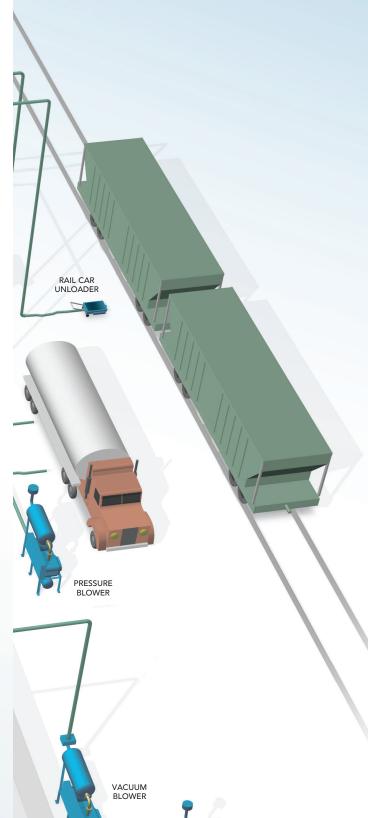
• Used when no pallet is present, can also be a source for operators to stand on while hanging bag





TRD2000 ROBOTIC DENESTER

- Prepare 3 nested boxes for filling • Automatically indexes box to fill station
- 120 cycle times per hour



PRESSURE BLOWER

MAGNUM SYSTEMS, INC

Wipe that dust off and you may just find a Taylor Products or Smoot label on that air packer, palletizer or pressure blower. Since 1960, we've kept your line and process moving efficiently, and without much fanfare. After all, your best day is when you leave the plant/facility on time, not a care in the world. And, our best day is when your machines work so well you don't think about us.

OLD SCHOOL CRAFTSMANSHIP MEETS CONTEMPORARY **AUTOMATION AND PROCESSES**

Magnum Systems, Inc. is one of North America's leading designers and manufacturers of material handling and packaging systems for dry bulk materials. We earned that spot with our collective engineering knowledge and application experience. We're not all that flashy, but customers who process bulk materials such as grain, seeds, cereals, sugar, flour, plastic pellets, plastic powder, sand, cement, fly ash, fertilizers, and granular chemicals value our ability to keep their lines

KEEPING THE LINES MOVING BY FORGING AHEAD WITH **BETTER TECHNOLOGY**

Since 2001, Magnum Systems has moved a steady stream of new products and technologies to market, and we've kept the U.S. Patent

Magnum holds numerous patents for our pneumatic conveying systems and introduced the Eco Phase™ material handling solution, an innovative system that delivers very high levels of throughput with low energy consumption. Magnum's packaging systems are also recognized for their technical excellence. By partnering with leading providers of industrial robotics and electronics, Magnum ensures ongoing and efficient access to best-of-breed technology.

THERE'S VALUE IN LONGEVITY

Our customers depend on us to keep their lines moving, efficiently and without fail from rail or truck to pallet. We've been doing it for a very long time. We'll keep doing it for as long as our customers need us. After all, our systems are designed to last, fabricated in the U.S. with American quality and ingenuity. There is no better value than a system you can rely on day in and day out to keep your line moving.

EVERYTHING IS UNDER CONTROL

PROJECT MANAGEMENT

SERVICES



PRE-SALE SERVICE

+ Discovery

Our sales and engineering staff meet with you to determine needs and project goals.

+ Preparation

Our experts take the information gathered from site visits, customer meetings, and other discovery activities to optimize solutions to meet the needs of the customer while evaluating options for staging and/or future integrations.

+ Demonstration

Use our test facilities to validate concepts, identify concerns, determine customized features, and simulate real world scenarios.

+ Initial Proposal

Our sales and engineering staff provide cost effective and sustainable solutions tailored to specific customer requests.

IN-SALE SERVICE

- + Solidify partnership for successful application
- + Provide concept drawings, system calcs, and provide ROI information as needed.
- + Single project contact assigned and works with you through lifecycle of the project.

POST-SALE SERVICE

+ Factory Acceptance Testing (F.A.T.)

Ensure confidence in functionality and capability of the equipment BEFORE it reaches your facility.

+ Start-Up/Installation

Professional service from our project management and field service teams, on-site supervision as needed through full start-up and training of operations staff.

+ Technical Support

Designing a maintenance plan, walking your staff through trouble shooting techniques or hands-on, we are ready to assist you via phone, internet, email or face-to-face.

+ After-Market Service

Our experts can provide components, spare parts, accessories, and answers to help determine the next steps necessary to enhance your processing demands.







IBC3000 SERIES

- Fill 4 Drums per pallet
- Left or Right Hand Drum Arm
- Integral Drum Spout with Dust Collection
 Automated Pollet Handling Options
- Automated Pallet Handling Options



CONVEYORS

Roller Conveyors

 Transfer pallets with bottom boards in parallel with direction of travel

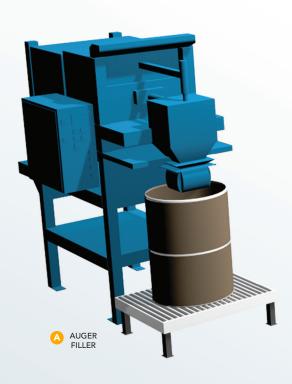
3 Chain Conveyors

 Economical option, easy for operators to stand on during loading

BOX/PAIL/DRUM FILLING SYSTEMS

FEATURES

- + HANDLE A VARIETY OF CONTAINERS
- + SEMI-AUTOMATED SYSTEMS
- + GRAVITY, AUGER, AND VIBRATORY FILLING
- + CUSTOM OPTIONS AVAILABLE









APO/APO DUAL

- Single or Dual Augers
- Drum or Bag in Box Spout
- Lift Platform with Rollers





VB SERIES

- Fill Up to 8 containers per min
- Vibratory Feeder
- Integral Product Hopper
- Weigh Platform with rollers

INDUSTRIAL AUTOMATED CONTROL SYSTEMS



THE BRAINS FOR YOUR SYSTEM, COMPONENTS, AND MACHINES.

BENEFITS

- + Increase Efficiency, Consistency & Accuracy
- + Reduce Downtime & Production Waste
- + Process Data available to ERP systems
- + Ease of Operating for Personnel

FEATURES

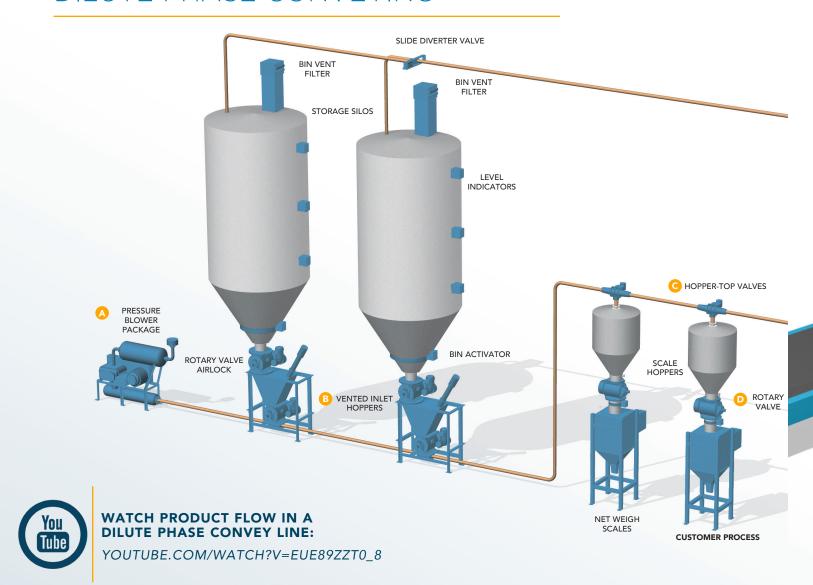
- + Specification Development
- + Control Panel Design, Fabrication & Assembly
- + Robotic Integration & Control Design
- + PLC Programming & HMI Development
- + Simulation & Testing
- + System Commissioning & Training

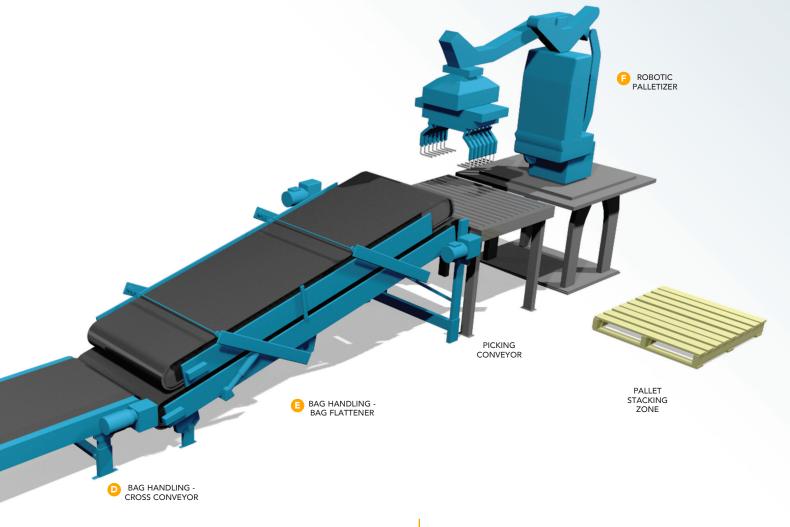


PNEUMATIC CONVEYING SYSTEMS

PRESSURE SYSTEMS

DILUTE PHASE CONVEYING







WATCH AN AUTOMATED VALVE BAG SYSTEM **PACKAGE PLASTIC RESIN:**

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- Positive displacement blower
- Pressures to 15 psig



- Vents blow-by air
- Prevents material bridging



HOPPER-TOP DIVERTER VALVE

- Allows materials to divert or bypass destination without leakage
- Minimal stack-up height
- Cost effective



D BAG HANDLING

CROSS CONVEYOR

- Wire Mesh or Flat Belt
- Cross Bar



BAG FLATTENER

- Conditions filled bag for palletizer
- PVC Flat Belts
- Compression Type



TRP3000 ROBOTIC PALLETIZER

- Palletize up to 27 BPM
 - Pick from 1 or 2 locations
 - Place in up to 3 locations
 - MRPT End Effector
 - Auto Adjustment between bag widths - Integral pallet forks and slip sheet
 - handling option available



LIFT TABLE

- Fixed or Adjustable Height
- Square or Round Options



AUTOMATED VALVE BAG

PACKAGING SYSTEMS

FEATURES

- + MANUAL, SEMI-AUTOMATED AND FULLY-AUTOMATED
- + SIMPLEX, DUPLEX AND TRIPLEX FILLING STATIONS
- + UP TO 1,080 BAGS PER HOUR

A BAG FILLER



AIR PACKER - MODEL A

- Single, Duplex or Triplex Systems
- Fill Up to 8 BPM/Spout
- Regenerative Blower
- Fill Spout Cut-off Gate
- Handles Powder Materials



AIR PACKER - MODEL C

- Single, Duplex or Triplex Systems
- Fill Up to 10 BPM/Spout
- Regenerative Blower
- Fill Spout Cut-off Gate
- Handles Granular Free Flowing Materials



AUGER PACKER - MODEL APV

- Single, Duplex or Triplex Systems
- Fill Up to 5 BPM • Drop-Out bottom for ease of cleaning
- Handles Materials that are Difficult to



IMPELLER PACKER - MODEL IPV

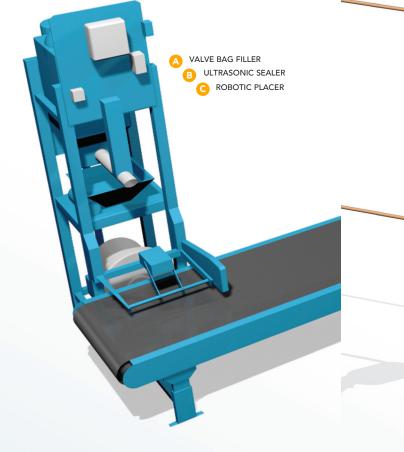
- Single Spout
- Fill Up to 9 BPM
- Hardened Impeller with Dual Feed Screws
- Handles Heavy/Dense Materials

B ULTRA-SONIC SEALING



- For use on extended sleeve seal-able bags; paper or plastic
- Increases dust control
- Prevents product loss during shipping

SLIDE DIVERTER VALVE

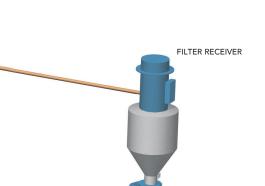


FEATURES

- SINGLE PICK-UP AREA
- MULTIPLE DESTINATIONS

MOST EFFICIENT CONVEYING OPTION

• LOW CAPITAL COST





BULK BAG FILLER



C ROBOTIC PLACING



TRV-1000 SUCTION GRIPPER

- Pneumatic Suction on Bag
- Integral Bag Pre-Opener
- Used with Static Bag Magazine



TRV-1000 CLAMP GRIPPER

- Clamp Grip on Bag
- Bag Pre-Opener Integral to Bag Magazine
- Pneumatic Suction on Bag for Pre-Opener
- Used with Horizontal Bag Magazine

ROTARY VALVE AIRLOCK

• Available in various sizes and materials

SYSTEM

- Controls material feed into convey line
- Manages pressure differential between convey line and feed source



SLIDE DIVERTER VALVE

- Divert or converge material
- Airtight seal between inlet and outlet
- Reduced material damage



BULK BAG FILLING

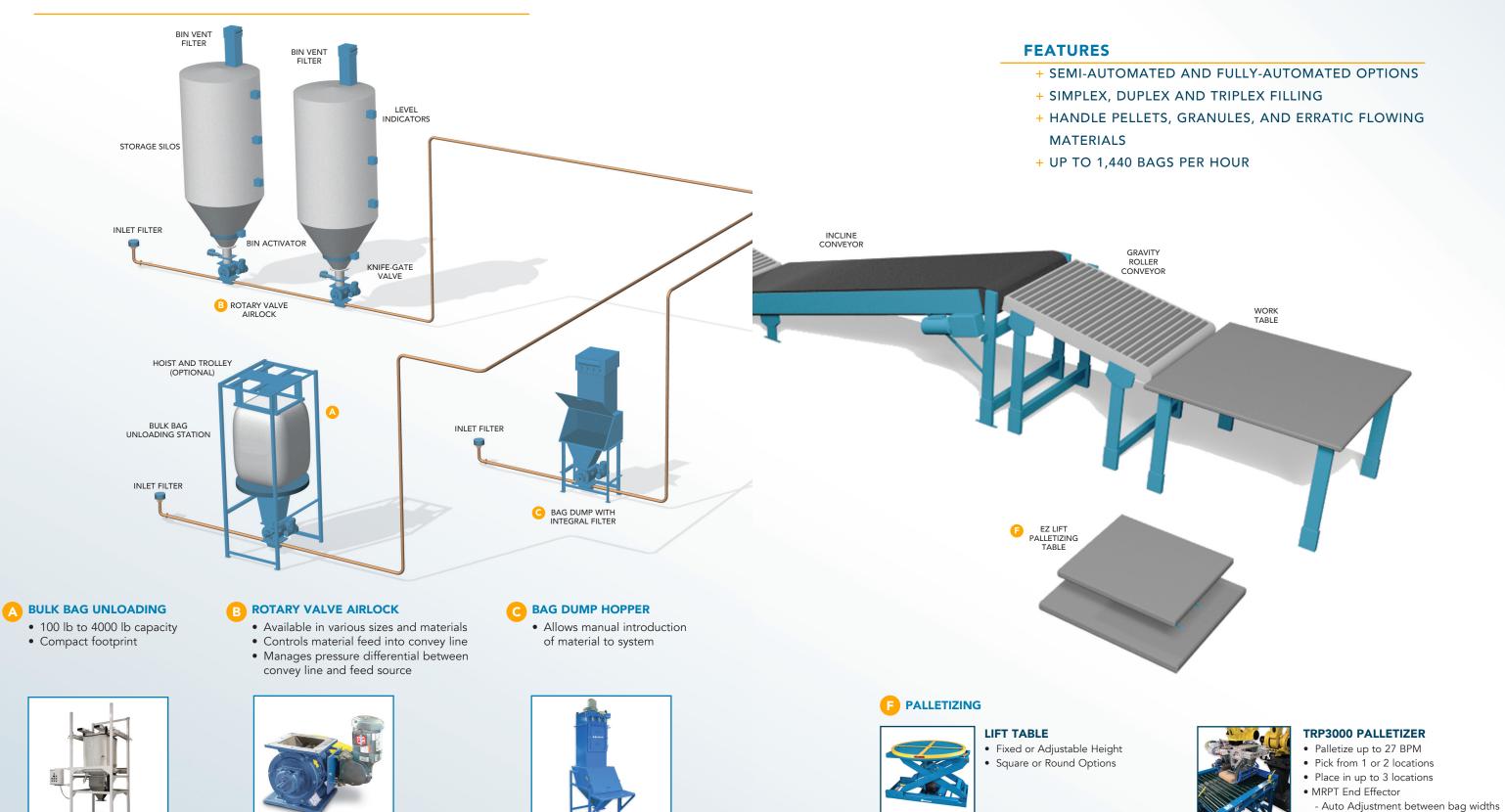
- 100 lb to 3000 lb capacity
- Bags, drums or boxes





PNEUWATIC CONVEYING SYSTEMS

VACUUM SYSTEMSDILUTE PHASE CONVEYING



- Integral pallet forks and slip sheet

handling option available

BAGGING A SCALE

AUTOMATIC B

BAG PLACER

OPEN MOUTH BAG

PACKAGING SYSTEMS





GN SERIES

- Up to 14 BPM on Simplex
- Up to 22 BPM on Duplex
- Bag in Place Switch
- V-Clamp Grip

VN SERIES

- Up to 10 BPM
- Vibratory Feeder with Belt Feeder Option
- External Flow Gate Adjustment



VG SERIES

- Up to 8 BPM
- Vibratory Feeder Bulk/Dribble Fill Cycle
- Pneumatic product Cut-Off Gate
- Load Cell Mounted Bag Spout

B AUTOMATIC BAG PLACER



ГОМР

- Place up to 8 BPM
- Net weigh Fillers
- Reformer Option
- Gross Weigh Configuration is Optional

C BAG CLOSER



PINCH BOTTOM SEALER

- Pinch Style Multi-wall paper bags
- Continuous Sealing
- Folds & Seals pre-glued bagsAdjustable Height/Mobile Frame
- Standard right to left operation



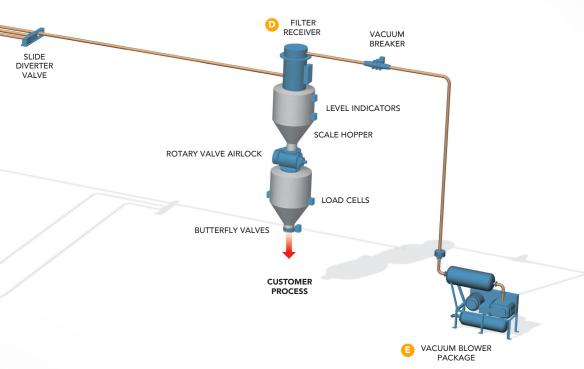
SEWING SYSTEM

- "Plain" Sewing System
- Multi-wall paper bags, woven, and laminated polypropylene
- Automatic In-feed
- Adjustable Height/Mobile Frame



FEATURES

- MULTIPLE PICK-UP POINTS
- COMMON DESTINATION
- INHERENT DUST CONTROL
- GOOD FOR HAZARDOUS MATERIAL APPLICATIONS



D BAG CLOSING CONVEYOR



TSC• Flat Belt or V-Belt Option

- Bag Guides
- Foot Pedal

E BAG TURNING/KICKING



IN-LINE BAG TURNER

 Flat Belt Conveyor with knockdown bar and integral turner

BAG KICKER

 Prepare upright bag for introduction to bag flattener or additional conveying line



RIGHT ANGLE BAG KICKER

- Right hand or left hand orientation
- Discharges upright bag at a right angle for introduction into a bag flattener or additional conveying line



- Material-Air Separator
- Filter bags or cartridges
- Designed for up to 17 inches Hg



E VACUUM BLOWER PACKAGE

- Positive displacement blower
- Vacuum levels to 17 inches Hg



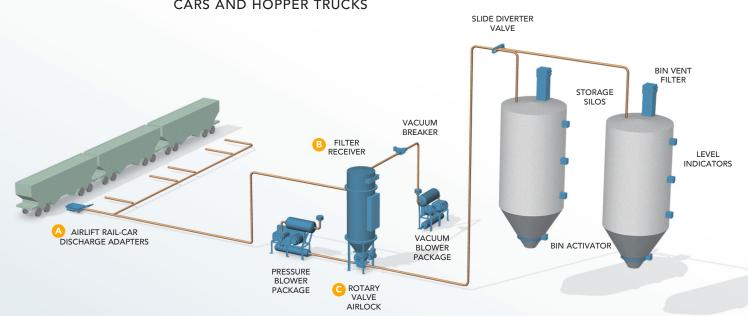
PNEUMATIC CONVEYING SYSTEMS

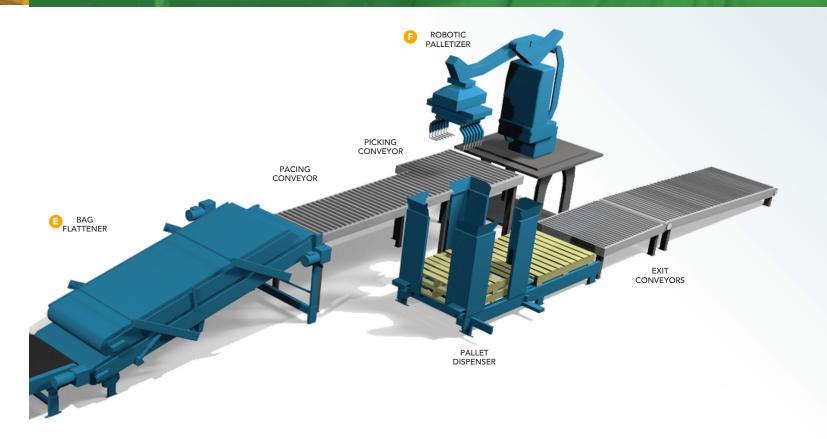
VACUUM/PRESSURE SYSTEMS

COMBINATION DILUTE PHASE

FEATURES

- MULTIPLE PICK-UP POINTS TO MULTIPLE **DESTINATIONS**
- INSTALLED FOR UNLOADING RAIL CARS AND HOPPER TRUCKS







WATCH THE SINGLE AUGER PACKER (APO) **BAG PET FOOD NUTRIENTS:**

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A RAIL CAR UNLOADING

- For use with vacuum unload systems
- Portable, easily handled by one person



FILTER RECEIVER

- Material-Air Separator
- Filter bags or cartridges
- Designed for up to 17 inches Hg



ROTARY VALVE AIRLOCK

- Purges material from between end shroud and end plates
- Patented design



WITH CAVITY AIR PURGE

- Reduces abrasion on rotor, cylinder and end plates



IN-LINE BAG TURNER

D BAG TURNING/KICKING

- Flat Belt Conveyor with knockdown bar and integral turner
- Prepare upright bag for introduction to bag flattener or additional conveying



RIGHT ANGLE BAG KICKER

- Right hand or left hand orientation
- Discharges upright bag at a right angle for introduction into a bag flattener or additional conveying line





BAG FLATTENER

- Conditions filled bag for palletizer PVC Flat Belts
- Compression Type



TRP3000 ROBOTIC PALLETIZER



- Palletize up to 27 BPM
- Pick from 1 or 2 locations
- Place in up to 3 locations
- MRPT End Effector
- Auto Adjustment between bag widths - Integral pallet forks and slip sheet handling option available



PALLET DISPENSER

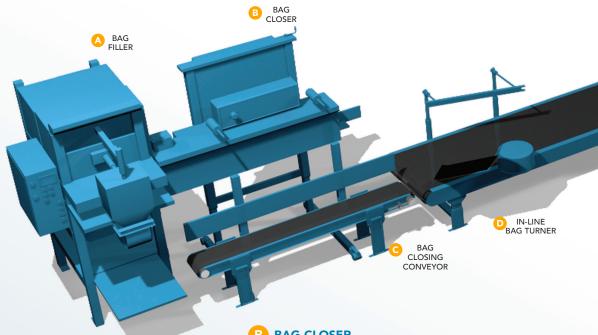
- Holds up to 17 empty pallets
- Increase operator safety
- Increase palletizing efficiency

OPEN MOUTH BAG

PACKAGING SYSTEMS

FEATURES

- + SEMI-AUTOMATED AND FULLY-AUTOMATED OPTIONS
- + HANDLE POWDERS AND MODERATELY FREE FLOWING MATERIALS
- + UP TO 360 BAGS PER HOUR



A BAG FILLER



AUGER PACKER - MODEL APO

- Up to 4 BPM
- Variable Speed Auger Bulk/Dribble Fill Cycle
- Inflatable Bag Spout for Dust Control



AUGER PACKER DUAL - MODEL APOD

- Up to 5 BPM
- Dual Augers Bulk and Dribble Fill Cycle
- Drop-down Bottom for ease of cleaning
- Inflatable Bag Spout for Dust Control



INCLINE AUGER PACKER - MODEL IAPO

- Up to 6 BPM
- Variable Speed Auger Bulk/Dribble Fill Cycle
- Pneumatic Product Cut-Off Gate

B BAG CLOSER



PINCH BOTTOM SEALER

- Pinch Style Multi-wall paper bags
- Continuous Sealing
- Folds & Seals pre-glued bags
- Adjustable Height/Mobile Frame
- Standard right to left operation

SEWING SYSTEM

- "Plain" Sewing System • Multi-wall paper bags, woven, and
- laminated polypropylene Automatic In-feed
- Adjustable Height/Mobile Frame
- **BAG CLOSING CONVEYOR**



TSC

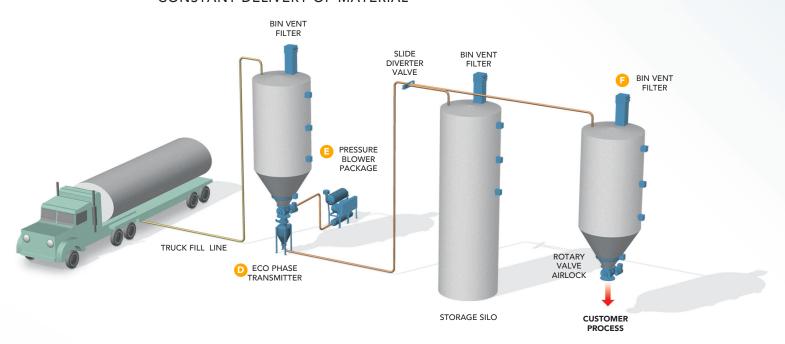
- Flat Belt • Bag Guides
- Foot Pedal

ECO PHASE PNEUMATIC CONVEYING SYSTEMS



FEATURES

- REDUCED ENERGY CONSUMPTION
- MAXIMIZES THE BEST ATTRIBUTES OF DILUTE AND DENSE PHASE CONVEYING
- CONSTANT DELIVERY OF MATERIAL



D ECO PHASE TRANSMITTER

- Unique technology
- Patented
- Continuous Feed
- No ASME Code vessel required
- High Solids loadings
- Lower Velocities
- Minimal material degradation



PRESSURE BLOWER PACKAGE

- Positive displacement blower
- Pressures to 15 psig



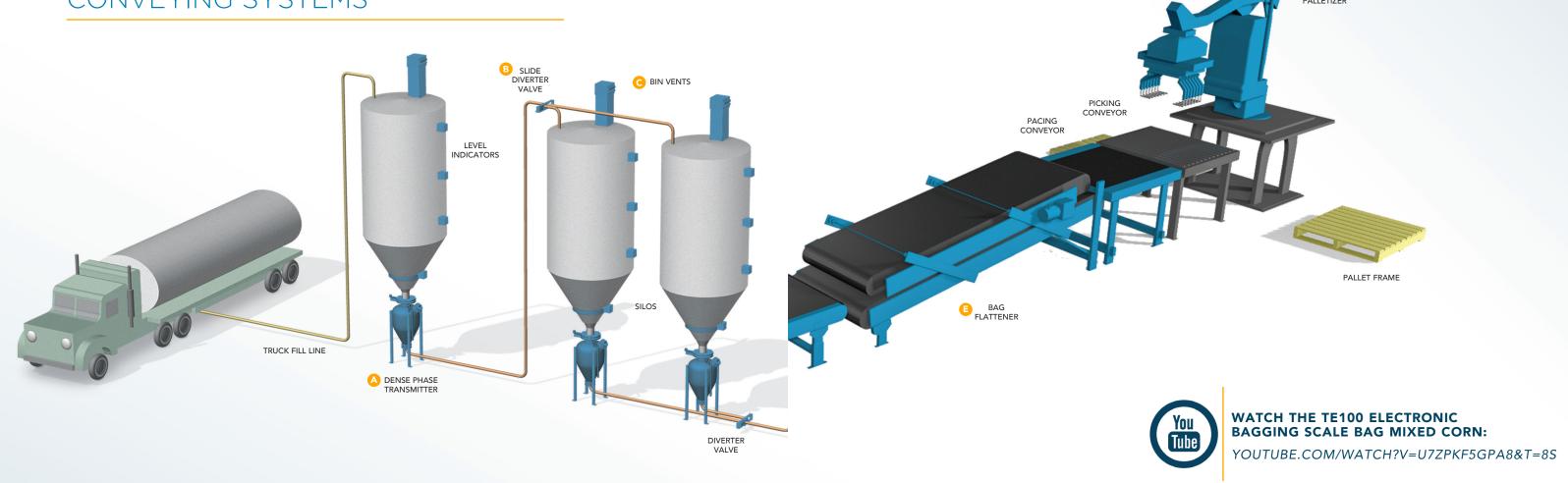
- Material-air separator
- Pulse jet filter
- Up to 15 Hg





PNEUMATIC CONVEYING SYSTEMS

DENSE PHASE PNEUMATIC CONVEYING SYSTEMS





- Up to 100 PSI
- 14-degree diversion angle for minimal pressure loss
- Two-way, bi-directional flow



BIN VENT

- Material-air separator
- Pulse jet filter
- Up to 15 Hg



D BAG TURNING/KICKING



IN-LINE BAG TURNER

- Flat Belt Conveyor with knockdown bar and integral turner
- Prepare upright bag for introduction to bag flattener or additional conveying line



RIGHT ANGLE BAG KICKER

- Right hand or left hand orientation
- Discharges upright bag at a right angle for introduction into a bag flattener or additional conveying line





Bag Flattener

- Conditions filled bag for palletizer
- PVC Flat Belts
- Compression Type



TRP3000 ROBOTIC PALLETIZER

- Palletize up to 27 BPM
- Pick from 1 or 2 locations
- Place in up to 3 locations
- MRPT End Effector
- Auto Adjustment between bag widths
 Integral pallet forks and slip sheet handling option available



LIFT TABLE

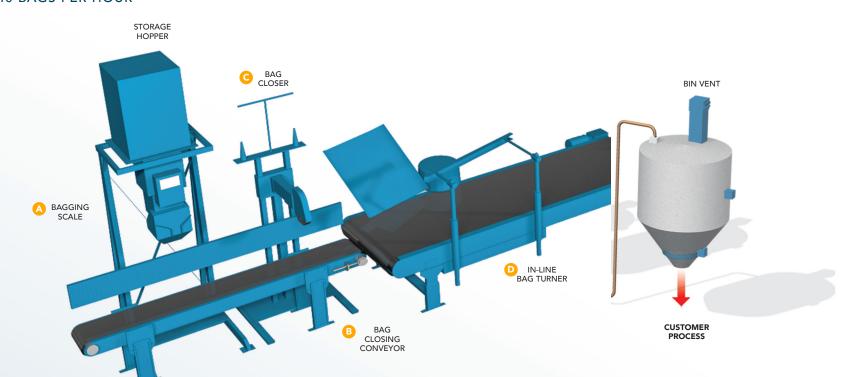
- Fixed or Adjustable Height
- Square or Round Options

OPEN MOUTH BAG

PACKAGING SYSTEMS

FEATURES

- + SEMI-AUTOMATED AND FULLY-AUTOMATED OPTIONS
- + HANDLE GRANULAR FREE FLOWING PRODUCTS
- + UP TO 840 BAGS PER HOUR



A BAGGING SCALE



- Up to 12 BPM
- Mechanical Beam Scale
- Adjustable Flow Gate
- Concentric Bag Clamp for Positive Grip
- Valve Bag Filling Option Available



OM2A

- Up to 12 BPM
- Mechanical Beam Scale
- Adjustable Flow Gate
- Pneumatic Bag Clamp with Auto Release



TE-100

- Up to 14 BPM
- Electronic Scale with Bulk and Dribble Filling • Bag in Place Switch Prevents Material Spills
- Self-correcting Weight Feature

TSC or TFC



B BAG CLOSING CONVEYOR

- Foot Pedal

C BAG CLOSER



SEWING SYSTEM • Single Thread Bag Closer

- Built-in Cutter • Pedestal Frame



HOT AIR SEALER

- Pillow Type Bag Sealer
- Speed 0-60 fpm
- Bag Top Trimmer
- Fwd/Off/Rev Switch

FEATURES

- GOOD FOR ABRASIVE OR DEGRADING PRODUCTS
- CONVEYS IN BATCH MODE
- USES COMPRESSED AIR
- NO ROTARY VALVE AIRLOCK REQUIRED

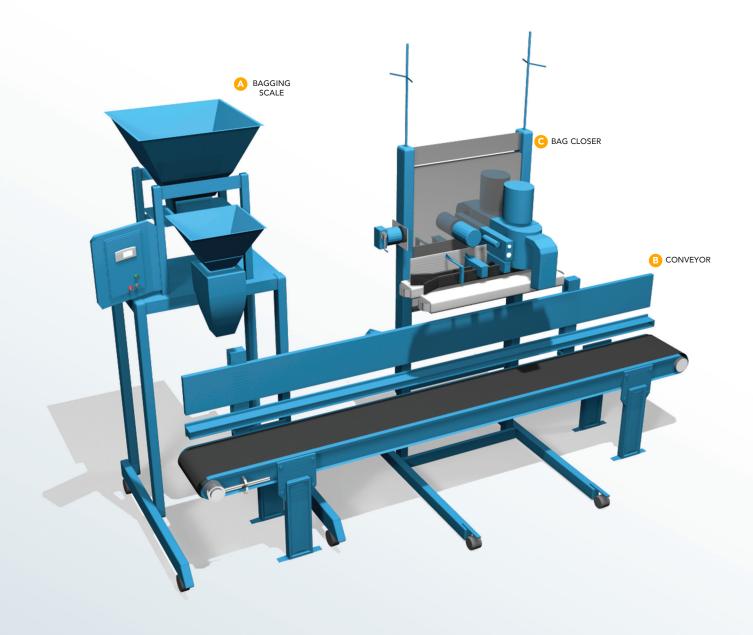


A DENSE PHASE TRANSMITTER

- High pressure capabilities
- Exclusive air management system
- Boosters or air trace lines not required



SMALL BAG/SPECIALTYPACKAGING SYSTEMS





FEATURES

- + SEMI-AUTOMATED AND FULLY-AUTOMATED OPTIONS
- + HANDLE POWDERS, PELLETS, FLAKES, AND CHIPS
- + SIMPLEX AND DUPLEX CONFIGURATIONS
- + UP TO 1,440 BAGS PER HOUR WITH DUPLEX MODELS

A BAGGING SCALE



TE-10C

- Fill 2 oz 5 lb bags, Up to 12 BPM
- Vibratory Feeder Net Weigh Bucket
- Conical Hopper increases material flow
- Tool-less disassembly for ease of clean-up
- Stainless steel construction

TE-10/TE-10 JUMBO

- Up to 12 BPM
- Vibratory Feeder with Net Weigh
- Integral Product Hopper
- Weigh Controller

TE-10 DUPLEX/ JUMBO DUPLEX

- Up to 24 BPM
- Dual Vibratory Feeders with Net Weigh Bucket
- Feed two products
- Integral Product Hopper
- Weigh Controller

B BAG CLOSING CONVEYOR



- Flat Belt or V-Belt Option
- Bag Guides
- Foot Pedal

BAG CLOSER



400 NS™ - SEWER

- "Plain" Sewing System
- Multi-wall paper bags, woven, and laminated polypropylene
- Automatic In-feed
- Adjustable Height/Mobile Frame



HOT AIR SEALER

- Pillow Type Bag Sealer
- Speed 0-60 fpm
- Bag Top Trimmer
- Fwd/Off/Rev Switch



BAND SEALER Heat Seal

Flat Belt