



BAY INDUSTRIAL GROUP

INNOVATIVE TECHNOLOGY FOR INDUSTRY

Bay Design, Inc.

Engineered Material Handling Solutions

Bay Automation, Inc.

Precision Automated Equipment

Phone: 410-737-9280

Fax: 410-737-9284

Email: sales@bayindustrialgroup.com

www.bayindustrialgroup.com



BAY INDUSTRIAL GROUP

INNOVATIVE TECHNOLOGY FOR INDUSTRY

Products & Services

Bay Design, Inc.
Engineered Material Handling Solutions

Bay Automation, Inc.
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Bay Industrial Group Companies

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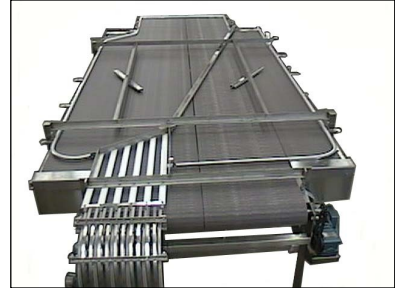
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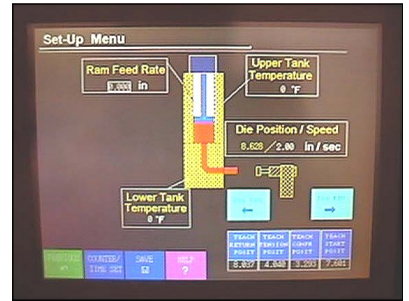
Bay Design, Inc

- System Integration
- Mechanical and Electrical Engineering
- Controls and Programming
- Custom Industrial Equipment
- Ergonomic Devices
- Custom Tooling & End Effectors
- Material Handling
- Conveyors
- General Fabrication



Bay Automation, Inc

- System Integration
- Concept Evolution
- Robotic Work Cells
- Hard Automation Cells
- Indexing Dial Machines
- Vision Inspection & Quality Control
- Machine Vision
- Test Equipment
- End of Arm Tooling
- Pick & Place
- Motion Control



Electrical Controls

- Control Programming
- UL approved panel shop

Installation Services

- Mechanical Installation
- Electrical Installation
- Commissioning

Distributor Products

- Case Conveyor
- Parts Conveyor
- Monorail Systems
- Light Duty Cranes
- Hoists
- Manipulators
- Balancers
- Vacuum Lift Equipment



Visit us on our Website:
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Programming & Controls Capability

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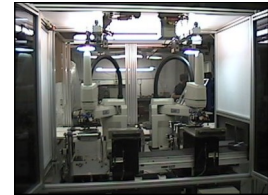
Industry Familiarity:

Bottling Lines
Personal Care Products
Aggregate Grinding Mill
Glass Manufacturing
Box Making
Dairy
Bakery
Automotive
Batch Material Packaging
Pharmaceutical



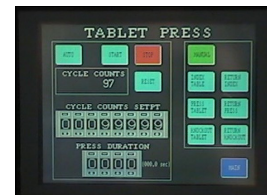
Applications:

Bottle Conveyor Systems (Glass and Plastic)
Bottle Filling Equipment
Bagging Equipment
Oven/Proofer Controls
Bulk Material Load-Out
Palletizing/Depalletizing
Inventory Control Systems
Robotic Material Handling
Object Recognition and Acquisition
SCADA Systems for Batch Product Packaging
Servo Controls for Conveyor and Pick & Place applications
Electrical Usage Monitoring
SPC Systems



Control/HMI Software:

AIM/V+ (Adept robotics languages)
Genesis
Factory Link
Visual Basic
PLC
Function Block
Instruction List
Ladder Logic



HMI Hardware:

Allen Bradley, Maple Systems, Automation Direct

PLC Hardware:

Allen Bradley, Square D, Omron, Keyence, Koyo (Automation Direct), GE, Seimens, Texas Instruments, Mitsubishi



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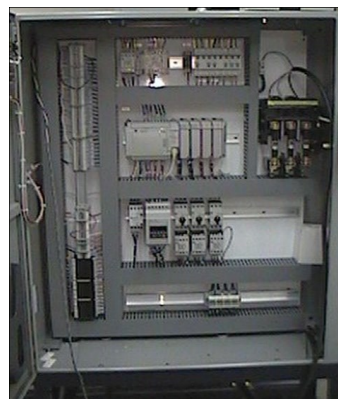
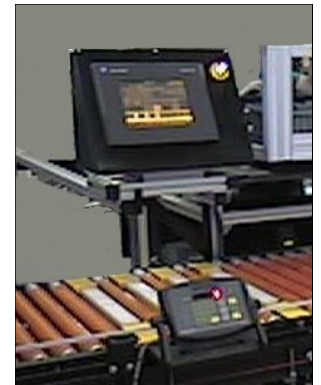
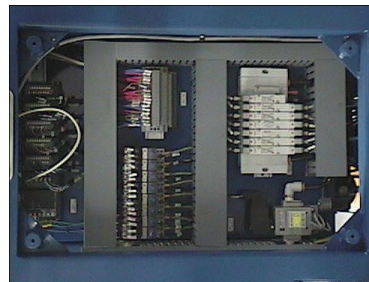
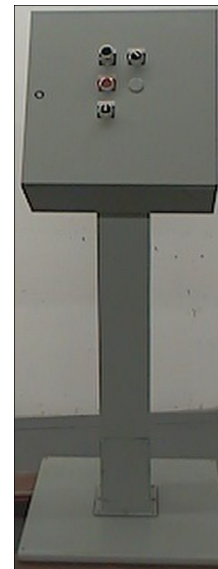
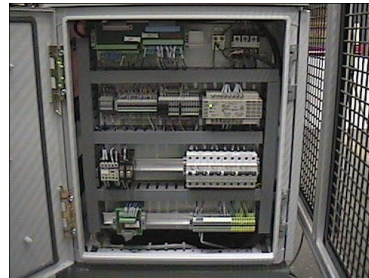
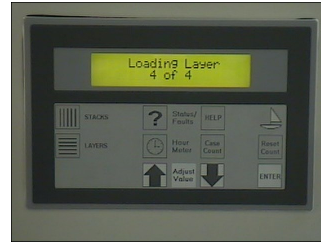
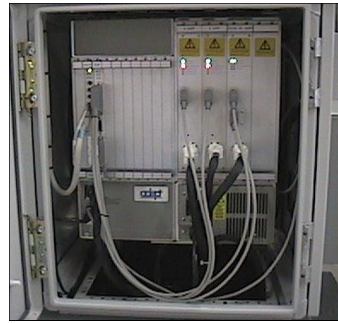
Control Panels

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BAY INDUSTRIAL GROUP

INNOVATIVE TECHNOLOGY FOR INDUSTRY

Tabletop & Mattop® Conveyor

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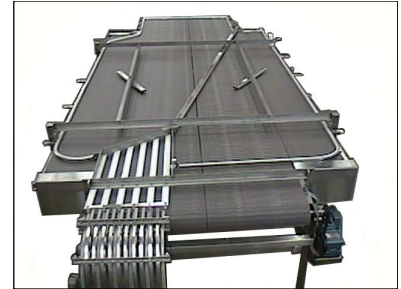
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Features:

Heavy Duty Construction
Modular Design
Completely Assembled Prior to Shipment

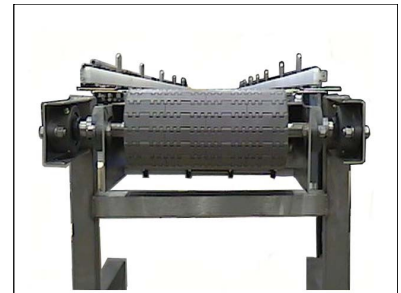
- Frames
- Wearstrips
- Rail Brackets
- Rails
- Motors
- Guards

Factory Tested



Industry Familiarity:

Personal Care Products
Beverage
Box Making
Baked Goods
Pharmaceutical
Food
Produce
Heavy Machinery
Tobacco



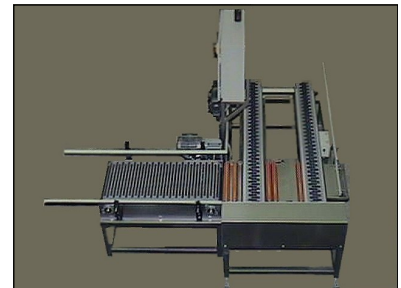
Applications:

Tray Handling
Bottle Conveyor
Accumulation Tables
Bulk Handling
Filling
Taping and Labeling



Specialty Areas:

Electrical Controls
Servo Laners
Pneumatic Diverters
Denesters
Pick and Place
Flap Openers
90° High Speed Tray Transfer
Robotics
Vision Inspection





BAY INDUSTRIAL GROUP

INNOVATIVE TECHNOLOGY FOR INDUSTRY

Semi-Automatic Case Loader

Bay Design, Inc.

Engineered Material Handling Solutions

Bay Automation, Inc.

Precision Automated Equipment

Bay Industrial Group Companies

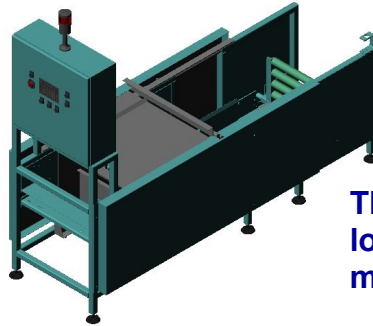
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The Model 3600 Case Loader was designed to improve efficiencies and reduce staffing requirements associated with operations that make use of operators to manually load cases.

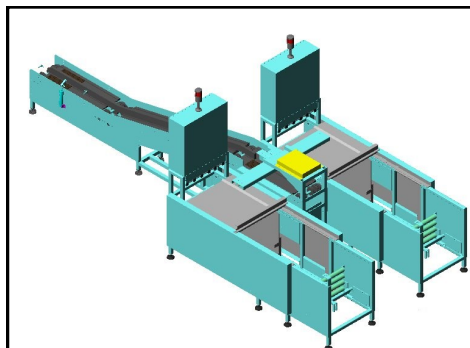


The Model 3600 Case Loader will load any product that requires a matrix pack pattern such as:

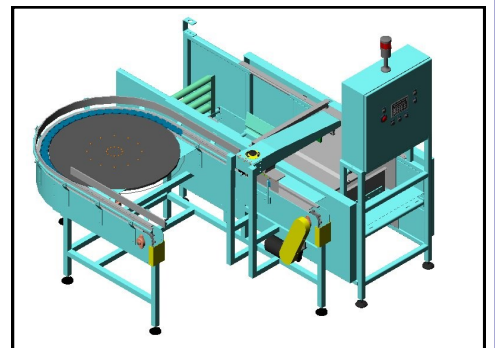
- **Cartons**
- **Sleeved Product**
- **Tubes**
- **Rolls**

Features:

- Economically priced for improved ROI
- Heavy duty construction
- Powder coat finish
- 110 volt power service
- Touchscreen & PLC Controls
- Operator friendly interface
- UL listed control enclosure
- Ergonomic work height
- Multiple infeed configurations available
- Open design for easy QC access
- Designed to easily interface with up-stream equipment
- Easy to install and relocate
- Small footprint
- Easy Changeover w/o change tooling
- Wide range of products and case sizes
- Optional power discharge
- Optional Dual Pusher infeed



Twin Model 3600 Case Loaders
(w/ optional Dual Conveyor Infeed and Pushers)



Model 3600 Case Loader
(w/ optional Rotary Table Infeed)

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BAY INDUSTRIAL GROUP

INNOVATIVE TECHNOLOGY FOR INDUSTRY

Pick and Place

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Features:

- Economically priced for improved ROI
- Heavy duty construction
- Powder coat finish
- PLC Controls
- Operator friendly interface
- UL listed control enclosure
- Ergonomic work height
- Open design for easy QC access
- Designed to easily interface with upstream equipment
- Easy to install and relocate
- Small footprint
- Easy Changeover w/ change tooling
- Wide range of products sizes





BAY INDUSTRIAL GROUP

INNOVATIVE TECHNOLOGY FOR INDUSTRY

Manually Powered Roll Transporter

Bay Design, Inc.

Engineered Material Handling Solutions

Bay Automation, Inc.

Precision Automated Equipment

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Specifications:

- 500 lbs to 4000 lbs capacities available
- Safely Transport up to 60" dia. x 24" wide rolls
- Pump Action using hand or foot operation
- Indicator Scale for Accurate Lift Positioning
- Self-Contained; requires no external power source



Model No.	Lift	Roll Diameter	Roll Width	Capacity
RM500	10.0"	48.0"	10.0"	500 lbs.
RM1000	12.0"	60.0"	14.0"	1,000 lbs.
RM2000	12.0"	60.0"	14.0"	2,000 lbs.

Custom Configurations Available:

Call our Customer Service Department for custom applications



BAY INDUSTRIAL GROUP

INNOVATIVE TECHNOLOGY FOR INDUSTRY

Flap Opener

Bay Design, Inc.

Engineered Material Handling Solutions

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The Flap Opener is designed to open major and minor corrugated box flaps for a variety of box sizes. Two servo driven cam arms mounted on a common adjustable plate reach into the box and lift the minor flaps then rotate them 180 degrees to allow the automatic removal of the box contents. The machine is equipped with adjustable motorized side belts to power the box through the machine while the flaps are being opened.



Features:

- Designed to accommodate multiple box sizes without the need for change parts
- Fully adjustable motorized side belts
- Servo driven cam arms to open minor flaps
- Adjustable major flap opening rails
- Common mounting plate for easy adjustments



BAY INDUSTRIAL GROUP

INNOVATIVE TECHNOLOGY FOR INDUSTRY

Print-Head Stand

Bay Design, Inc.

Engineered Material Handling Solutions

Bay Automation, Inc.

Precision Automated Equipment

Bay Industrial Group Companies

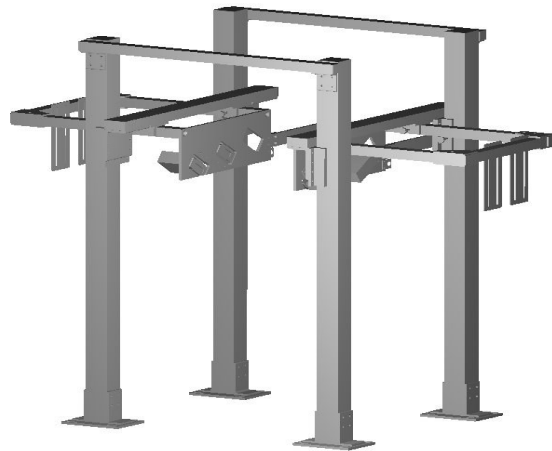
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The Print-Head Stand is designed to provide quick changeover with precise positioning of multiple coder print-heads. Built to accommodate an almost unlimited range of box sizes, the Stand is easily and quickly adjusted in one step—without using any tools. The key is the integrated design of the guide rails and the print-heads. With Bay Industrial Group's Print-Head Stand you get speed, accuracy, decreased downtime, increased productivity, and simplicity without sacrificing technology.



Features:

- Dramatically reduces changeover time
- Designed to accommodate multiple box sizes without the need for change parts
- Fully adjustable without the use of tools
- Heavy duty aluminum construction
- Guide rails adjust with the print-heads thus eliminating the need for independent rail adjustments
- Easily mounts over your conveyor without modifications

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BAY INDUSTRIAL GROUP

INNOVATIVE TECHNOLOGY FOR INDUSTRY

High Speed 90° Transfer

Bay Design, Inc.

Engineered Material Handling Solutions

Bay Automation, Inc.

Precision Automated Equipment

Bay Industrial Group Companies

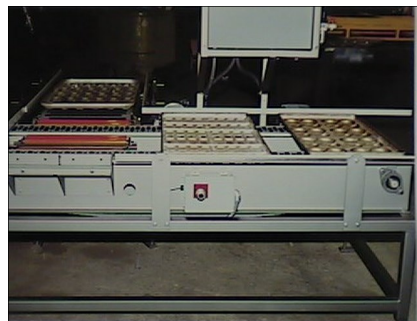
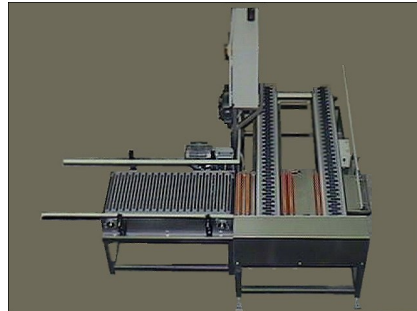
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This ninety degree transfer was designed to handle large pans (2' x 3') at sixty pans per minute. The Mattop® induction belt with friction strips pulls a gap from existing conveyor. The pop up powered roller transfer is covered with polyurethane for better control of the product. A custom proximity sensor actuator ensures a repeatable transfer position. The dual Mattop® take away conveyor is also equipped with friction strips for a more positive transfer.



Features:

- High speed Mattop® belt conveyor
- Pop-up powered roller transfer section
- Proximity sensor actuator for proper transfer
- Dual Mattop® take away conveyor
- Adjustable side rails and supports
- Controls to allow system to stand-alone
- Designed for sixty trays per minute



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Power-Assisted Load Manipulator

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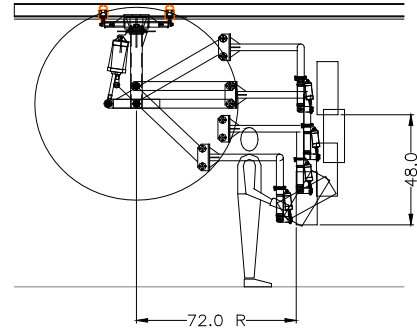
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Model No.	Pick-Up	Lift	Radius	Capacity
LM50	24"	48"	72"	150 lbs.

Specifications:

- 150 Lb. Capacity.
- 12' Diameter Work Area.
- Load Sensitive Control.
- 48" Vertical Lift Range.
- Requires No Electrical Power Source.
- 4 Axes of Free Movement.
- Extended Range when used with Overhead Rail System. (available as an option)

Custom Configurations Available:

- Pick-up Height.
- Lift Height.
- Work Envelope.
- Mass.

Call our Customer Service Department for custom applications and provide them with the above information:



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Robotic Work-Cell

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This work cell was introduced into an existing line, which required orientation of large, unwieldy panels. The four-axis SCARA robot solved many problems related to operator fatigue and maintaining production rates. The work cell features high-speed, twin lane, induction belt conveyor, and interlocked work area enclosure. Custom designed "end-of-arm" tooling incorporates multi-stage vacuum generator/cup array and confirmation sensors.



Features:

- High speed lift and rotate with accurate positioning
- Adept robotics with custom vacuum tooling
- Custom interface with existing equipment
- Pneumatic buffer section for timing parts



BAY INDUSTRIAL GROUP

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Robotic Inspection Cell

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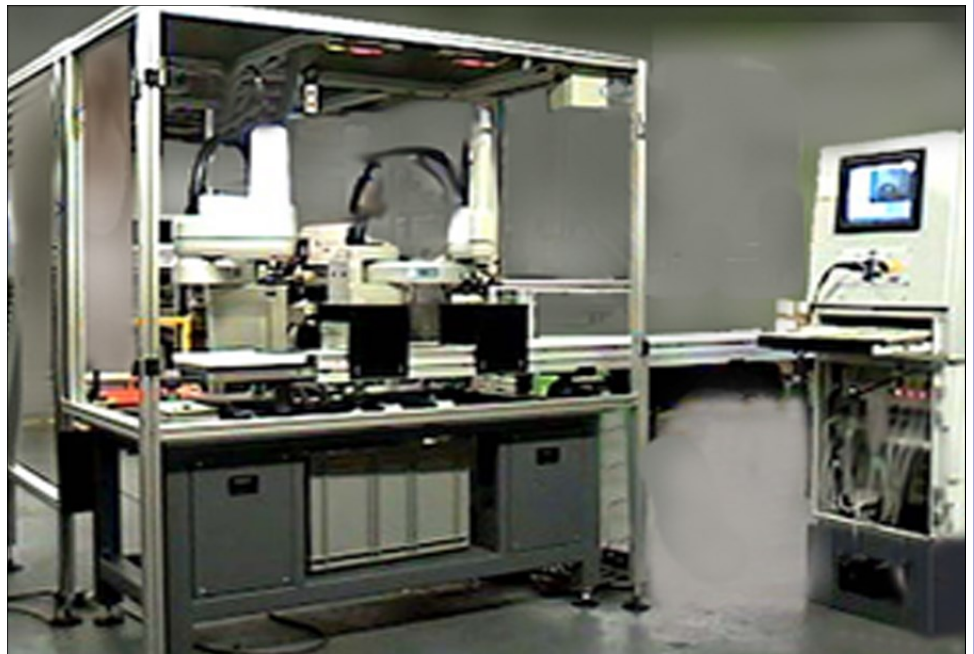
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The Inspection Cell was developed for inspection and singular placement of stacked parts. As each stack enters the work area from one of two conveyors, their image is acquired and compared to a known specification. Each robot is dispatched to the relative location of the acquired part and retrieves the uppermost part from the top of the stack. Parts are then carried to a specific registered destination point for further processing. The vision system locates both part center and angular rotation for proper registration.



Features:

- Dual Robot/Vision Work-Cell configuration
- Location-Inspection-Orientation of work piece
- Custom graphic touch screen monitor
- Significant variety of graphics to inspect and orient

Bay Industrial Group....

Is comprised of two divisions, Bay Design, Inc. and Bay Automation, Inc. Each division is focused on various aspects of the material handling industry and the combination of the two divisions provide for a comprehensive approach to all your material handling needs. In addition, Bay Industrial Group has a complete UL panel shop and a team of electrical programmers, as well as a full range of field services, including mechanical/electrical installation and start-up to support the two divisions.

Bay Design....

Offers a wide variety of equipment and services, from standard conveyors and mezzanines to complete systems integration.

Bay Automation....

Provides expertise in the area of factory automation, from precision assembly machines and robotic assembly to vision inspection and guidance.