



Leaders In High Quality Custom Conveying Systems

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Starting with the End in Mind.

Your customer only knows what they see...the end product. It has to be perfect in order to get the response you want:

Another purchase.

That's why the handling of your product is crucial to the experience. Benda Manufacturing takes pride in its solutions and understands the importance of your product and reputation.

Welcome to Benda Manufacturing.

Benda Manufacturing BMI is a leading provider of product handling systems for the food, beverage, pharmaceutical and other specialty industries. Our scalable solutions range from a single, custom or a complete production line system that fully integrates to your current structure. BMI's experienced design engineers continue to discover innovative ways to make automation smarter, faster and gentler. Our conveyor systems are made to USDA, FDA, 3A Dairy, BISSC & UL standards.

BMI continues to fill the marketplace with sought after solutions. That's because we offer flexibility in choosing a single conveyor, upgrade your existing system, custom-made

conveyor, unit machinery and controls to a full scale solution. Our industry experienced engineering staff provides the intelligence to make our solutions smart and fast today with room to grow.

Our solutions are 100% Benda made and supported. Our conveyors, unit machines and controls are designed and created right at our facility in Tinley Park, Illinois, where our teams work closely to ensure that the quality, standards and testing results meet the criteria of our customers and us.

Service for Maximum Performance.

Being a recipient of a BMI solution offers you only the best quality and reliability in the market today. Maintaining excellence is essential. Benda offers a preventative maintenance package that thoroughly inspects and tests for functionality and performance. We're proud of what we built and confident in its execution.

Conveyors

Conveyors are the connectivity within the continuous process. Even though they are performing a simple operation of transporting product, conveyors are key to the navigation of a production line. BMI is skilled in the design and manufacturing of conveyors. To find out more about the various conveyor offerings, contact us at 708.633.4600 and ask for a BMI solutions engineer.

BMI offers an array of belt type conveyors for your specific needs. Choose from plastic, fabric, wire or roller belts built in a driven, slaved, incline, decline, flighted, low or high friction or curved configuration.



Modular Plastic Conveyor

Plastic belts are a great way to extend the life of your conveyor. Our plastic belts are constructed with an interlocking, bricklaid pattern for strength and durability. BMI offers a variety of belt options including flat, friction and roller top and flush grid. Configurations can be built in straight, incline/decline and radius. Let us know the length, width and color(s) you'll need.

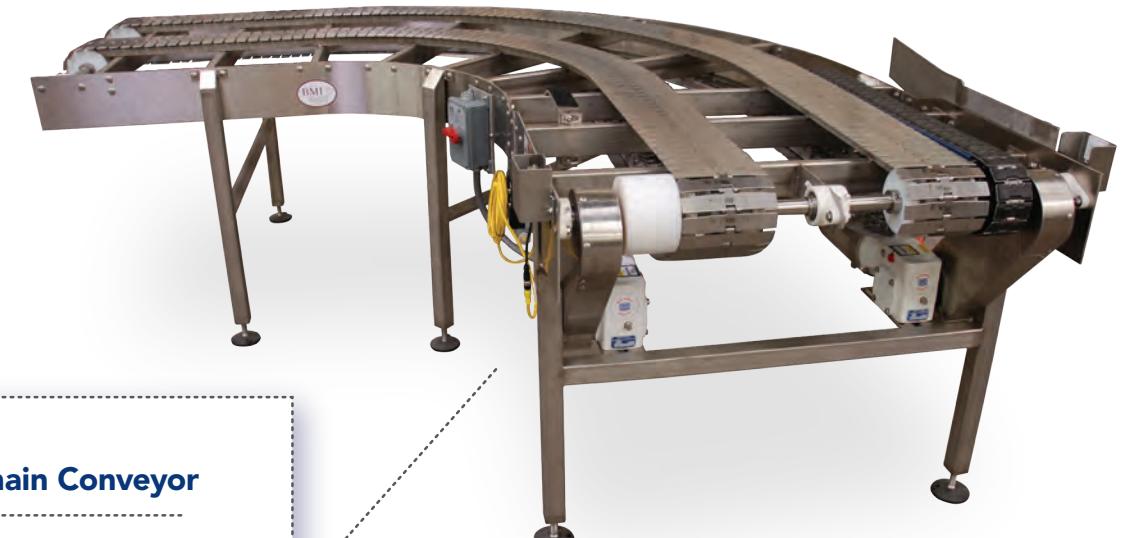


Table Top Chain Conveyor

The Table Top Chain conveyor continues to find new applications. BMI has applied these conveyors in a variety of food, beverage, pharmaceutical and other product movement industries. BMI offers both plastic and steel belts in a straight running or side flexing configuration.



Wire Rod Belt Conveyor

BMI's Wire Rod Belt conveyor provides product cooling, icing drop off and flow through fines with minimal touch. The flow through fines can be collected in pans and discarded or placed back into production. Choose from straight, radius or tight turning radiiuses.

Transfer Unit Conveyors

Transfer units play a small but vital role in transferring product from one conveyor to the next. Our transfer units retain a consistency of movement without changing the direction, shape, tipping or damaging the product. The units can be installed in existing or new product lines with easy wash down construction. Choose from various belt types and sizes such as plastic and wire, powered round or hex rollers in single, double or triple configurations.



Fabric Conveyor

Fabric conveyors are one of the most versatile applications serving operations where transporting product is open yet organized. The fabric belt comes in flat and troughed slider, v-grooved or roller bed which can be developed in various lengths, widths, elevations and much more.



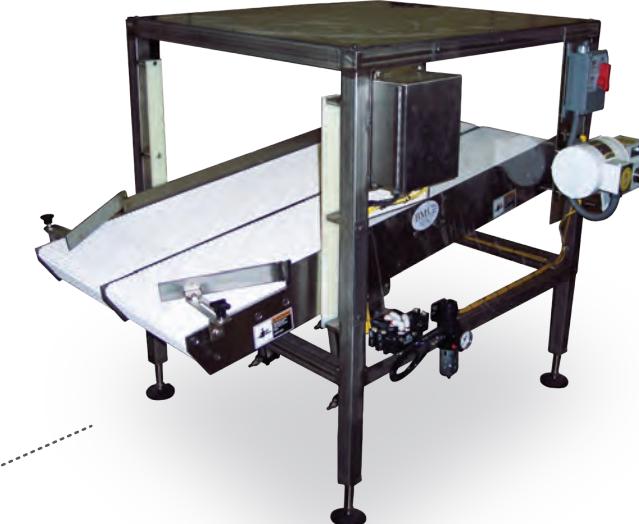
High Speed Single Filer

Moving product quickly and gently in production is BMI's High Speed Single Filer conveyor. Without damage or loud noise, the conveyor organizes the product into a single file. BMI engineers work to determine the safest and fastest speeds for your product.



Either/Or Vertical Switch Conveyor

BMI's Incline/Decline Switch conveyor can be adjusted automatically or manually at the completion of a full production run. Choose from a plastic, fabric or wire rod belt for optimal performance.



Unit Machines

Explore the machines that perform the critical tasks. The quality and quantity are to be consistent; smooth, automated and perfect. That's a Benda Unit Machine. To find out more about our Unit Machines, contact us at 708.633.4600 and ask for a BMI solutions engineer.

Basket Stacker

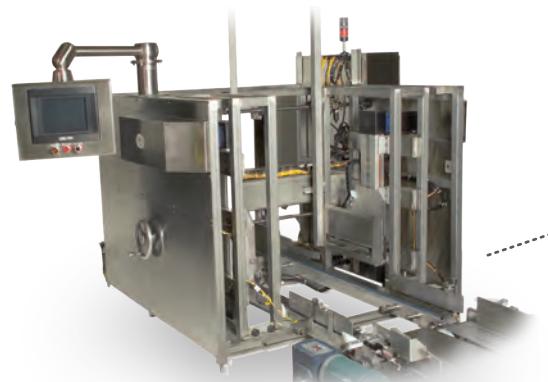
In 2002, BMI discovered innovative ways to stack baskets and trays quickly, securely and gently. We continue to dominate the marketplace with the fastest unit, stacking 40 baskets or trays per minute. Our bottom up dual servo design allows for repeatability and fast stacking.

Both the stacker and unstacker allow for multiple sizes in both manual and automatic adjustment modes.



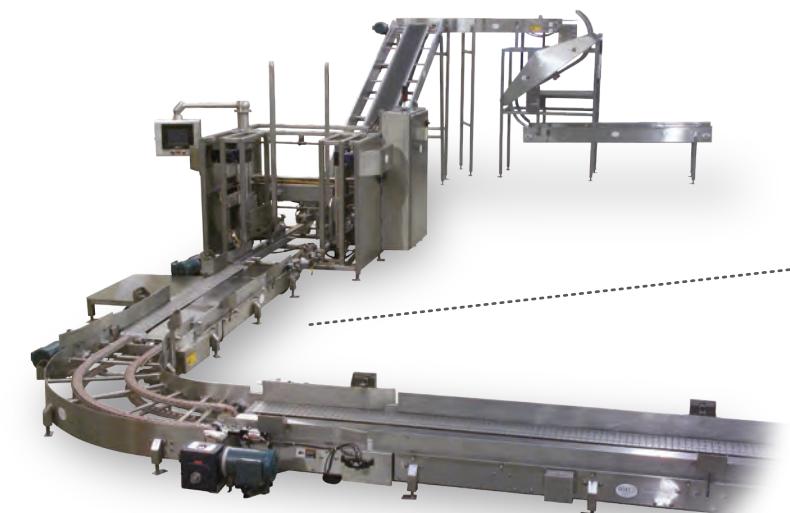
Basket Un-Stacker

Again in 2002, BMI achieved new ways to un-stack baskets and trays quickly, securely and gently. We continue to dominate the marketplace un-stacking 33 baskets or trays per minute. Our compact design un-stacks baskets from the bottom-out while utilizing the Basket Orientor to rotate the cross nested basket to its proper position.



Basket Orientors

The Basket Orientor accepts cross nested pairs in a compact area saving up to 15 feet of floor space. The Orientor releases the bottom tray to proceed while lifting the cross nested tray and rotating it to its proper position. The efficient and quick process also allows for various tray and basket sizes. The Basket Orientor can be used as a stand alone unit machine or use within the BMI Fast Basket Unstacker frame.



Basket Stack Accumulator

Companies are always searching for ways to minimize repetitive tasks for the production floor operators while maximizing floor space. The Basket Stack Accumulator is modular in design with extendable storage in order to gain the consistent repeatable feed of baskets and trays. Our modular design allows for maximum utilization of floor space coupled with heavy duty clamps for proper stacking position.

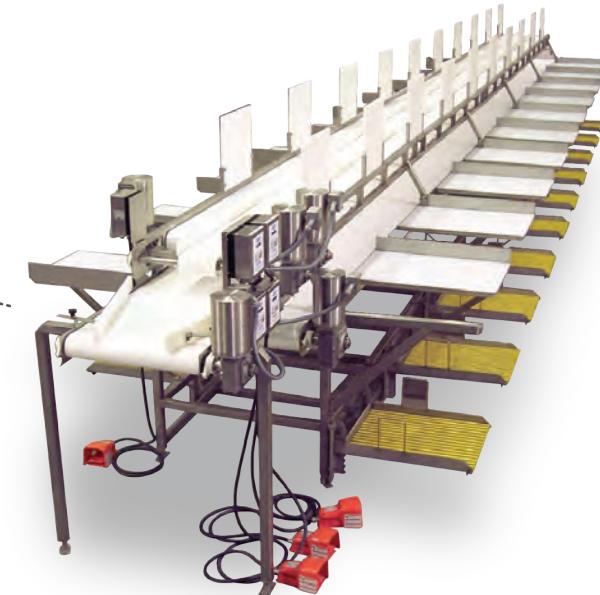


Basket Trash Dump

Removing trash from a basket or tray is a messy task. BMI has developed a stainless steel motorless system that can be adjusted to numerous basket and tray sizes. The 'S' shaped basket drops down by the natural forces of gravity, turns upside down to completely empty out the basket. The Basket Trash Dump can be used with our complete basket unstacking system or easily integrated into any existing system because of its adaptable design and compact size.

Manual Packaging System

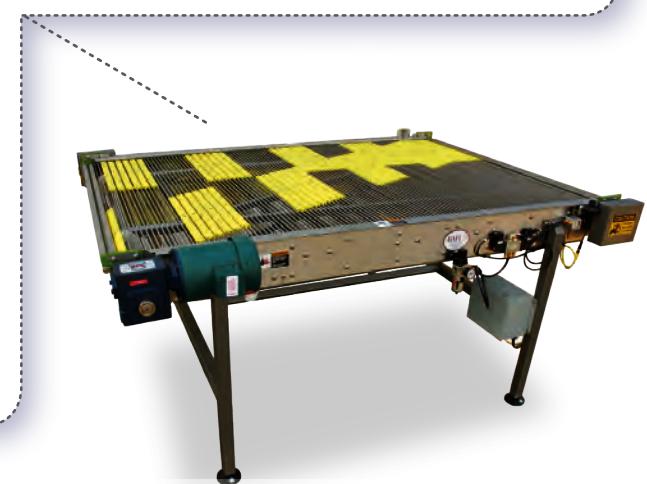
The ergonomically designed Manual Packaging System gives the workers the comfort they need for speed and efficiency. BMI creates both turntable and in-line style packing stations that are specifically sized for your product and operation. The automatic carton feed offers uninterrupted flow and can easily be integrated with case erectors, bag inserters, labelers, tapers and palletizers.



Divert Sorters

BMI knows the considerations for moving product quickly and carefully while diverting direction in the production line. We've developed four types of sanitary divert sorter solutions in order to accommodate for the various product weights. Our tool-less removable slats are easy to extract for easy cleaning and sanitation.

- **High Speed Divert Sorter** – BMI's small footprint diverter moves light weight products such as small cartons and dough balls at high speeds;
- **Medium Duty Divert Sorter** – Our diverter is great for moving light weight products such as small cartons or bread loaves;
- **Medium-Heavy Duty Divert Sorter** – These two piece slat diverters are perfect for those in-between weights where control and manageability of the product is a necessity;
- **Heavy Duty Divert Sorter** – BMI offers a divert sorter that's great for moving heavy cases or product.



Count & Weigh AutoPack System

The Count & Weigh AutoPack System is ideal for products from frozen food to hardware. When counts and weights are important, this unit single files bulk product then accurately counts and weighs the item and gently places it into a carton. The automatic carton feed offers uninterrupted flow and can easily be integrated with case erectors, bag inserters, labelers, lidders, tapers and palletizers.

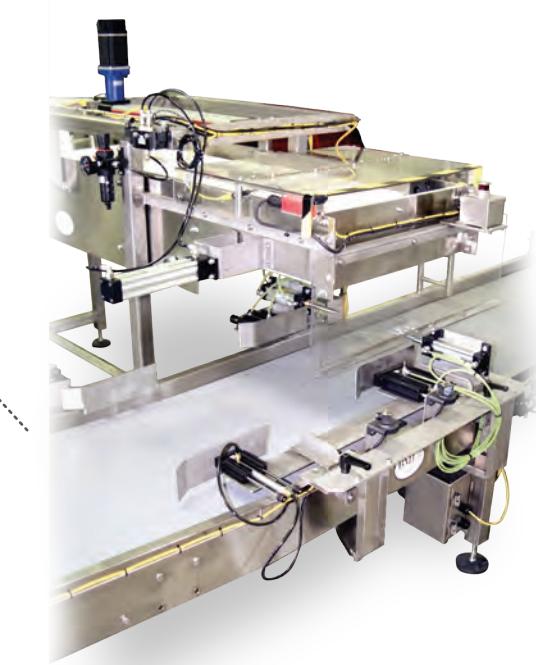


High Speed Vertical Unit

BMI's heavy duty High Speed Vertical unit adjusts to your production line without interrupting the flow of your product. The unit is specifically constructed for repetitive processes and fast changing to your operations. Choose up to three positions for maximum flexibility and productivity. BMI offers rufftop fabric and plastic friction belts.

High Speed AutoPouch Pack System

Flexibility and scalability is BMI's High Speed AutoPouch Pack System. The system adapts to a range of pouch sizes, rates and pack patterns and easily expands for additional products and patterns. The servo driven slide discharge manages each product for accurate placement of product.



Robotic Pick & Place Automation Palletizer

Robotic palletizers are a perfect solution for companies demanding flexibility in its production lines. Because of the various movements of the robotic arm, the BMI solution can pick and place small to large, light weight and heavy cartons systematically. The solution reduces errors and labor while maximizing throughput.



Oven Loader/Unloader

The BMI Oven Loader/Unloader are designed to load and unload bread, bun, hearth products and specialty pans directly into and out of the oven. Our engineer designed controls enables consistent staging of product prior to entering or exiting the oven. Components include grouper conveyors, servo driven push bars, preload and unload mesh transfer conveyors.

High Speed Slicer Feed System for High Speed Bread & Bun Lines

BMI offers complete control of the product by using delicate, yet consistent transfers, bread alignment devices, diverters, product accumulators along with controls for continuous flow of product through your slicers and baggers. This innovative design accommodates your unique requirements for continuous throughput.



Servo Driven Reciprocator

BMI offers a fast, reliable method for product transfers using our powered reciprocating unit. The servo driven retracting assembly gently shifts the product in a firm short or long movement allowing it to transfer to the next stage in a precise, accurate manner without damaging the product.

Controls

Control Systems are the heart of any operation. Using only state-of-the-art technology, BMI fully integrates key devices such as RFID, line scan cameras, full color operator interface and bar code readers for achieving intelligent operational efficiencies. These achievements are only reached by adhering to the high standards of Underwriters Laboratories (UL), JIC, NEC and NEMA. Our designs directed by our engineers are what sets us apart.

Our control designs include the use of programmable controllers, variable frequency drives, servo driven motion and human machine interfaces. Components from Allen Bradley are standard but the use of other components is upon request. System connectivity at the machine level or plant level can be accomplished by the use of Ethernet, DeviceNet or Profibus. System architecture includes the control design, customer integration and network integration as well as product and automation testing and assembly.

PLC Programming; Allen Bradley, Motion, VFD, Profibus
Systems Architecture design, integration, network integration
Product and automation testing and assembly



Engineering Services

Conveyors and unit machines in itself are just a piece of steel. The in-depth industry experience of BMI's engineers is what brings them to life. BMI continues to reinvest its revenues to the advancement of technology through the intelligence of its engineers.

That's why our engineering services are offered to our new and existing customers.

Requirements Definition & Engineering Design

A BMI engineer will work with you in order to fully understand the requirements of the system needed. We'll gain an understanding of your desired results, how it performs and what you want it to do. Next, we take the information and begin to design a system.



Design

Our experienced engineers are skilled at designing a single, custom or full system. We use only leading technologies such as simulation software and the latest engineering software in order to visualize and measure its performance.

We carefully analyze each aspect of the design in order to find the maximum ways to produce an efficient process while minimizing expense, maintenance and resources. At BMI we test all equipment to ensure speed, accuracy and success of installation.

Project Management

One of our experienced project managers will guide your project from conception through implementation. We carefully track each aspect of the project to ensure the delivery is on-time and on-budget. Upon delivery of the system a spare parts list is generated as well as a manual for all unit machines in order to ensure its full functionality with minimal downtime.



Professional Engineering Services

Many of our customers ask for engineering assistance. BMI has the breadth and depth of engineering talent to help with challenging issues.

Some of our expertise include:
Supervisory Software such as Wonderware
Equipment Control such as LabView
Programming languages such as Visual Basic, Visual C++, Visual Basic.Net
Various programming softwares such as Siemens, Modicon, Adapt Robots Rofin Laser

Preventative Maintenance

Conveyors, unit machines and controls work hard for you every day. It's important to care for the machines in order to ensure its full effectiveness. BMI offers a preventative maintenance program where an expert comes on-site to check critical aspects of the machine each year. For high use machines use BMI's preventative maintenance program that offers on-site care twice per year.

