

**SOLUTIONS  
& SERVICES**

The logo features the word "Bastian" in a large, black, serif font. Above the letter "i" is a blue swoosh that curves over the top of the word. Below "Bastian" is the word "SOLUTIONS" in a smaller, blue, sans-serif font.

**Bastian**  
SOLUTIONS

a TOYOTA ADVANCED LOGISTICS company

# Bastian Solutions integrates leading technologies in material handling and information systems coupled with proven operational strategies.

Our experts combine the powers of scalable material handling systems, innovative software and custom automation engineering for complete, unique solutions. Our goal is to use these tools to help companies, across a broad spectrum of industry segments, become leaders in their industries.



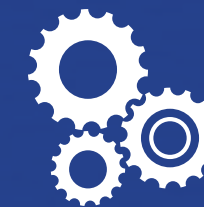
## Material Handling Solutions for any Industry

We know material handling solutions do not come in a one-size-fits-all package. That's why we hold decades of experience in custom vertical industry solutions. Our experts partner with you to engineer a material handling system focused on your business objectives.



### SPEED

In an era when "Same-Day Delivery" is the expectation, speed is a critical element for successful operation. As an independent systems integrator, we engineer solutions that shatter the standards of typical facility speeds.



### EFFICIENCY

As markets continue to push omni-channel fulfillment requirements, efficiency is more important than ever. Our solutions are not limited by historical standards. We seek efficiency for the modern facility.



### SUPPORT

To keep your downtime to a minimum, we offer many different services such as delivery and assembly of parts, maintenance and repairs, customer training, and 24/7 system support when and where you need it.

## What We Add to Your Operations

We engineer and integrate systems that position our customers for success in their industries.



### ACCURACY

When customer reviews are critical to business success, order accuracy must be second-to-none. Our solutions provide game-changing visibility with reliable order picking technology.



### INTEGRATION

Material handling solutions don't come in a one-size-fits-all package. Each solution requires a unique blend of integrated technology for the greatest impact. We recommend and use what's best for your business, not the other way around.



### FLEXIBILITY

As market demand changes, your fulfillment system will also be required to adapt. We design systems that scale with demand and bring the biggest results for minimal investment.

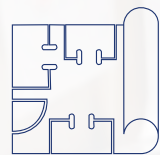


# Supply Chain Consulting

Our independent consulting group provides engineering support for companies looking to improve their supply chains. Using detailed research and data analysis, strategic recommendations are presented based on your business goals and requirements.

If you are considering enhancing or changing your operations – optimizing your supply chain network, improving your distribution center or manufacturing processes or implementing a new material handling system – hiring a Bastian Solutions consultant ensures you get the most effective operation with the highest return on investment.

## Our Consulting Approach



### STEP 1: DEFINE

Our engineers work with project stakeholders to determine your project objectives.



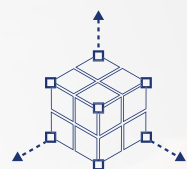
### STEP 2: MEASURE

Information is collected so our team of engineers fully understands your business requirements.



### STEP 3: ANALYZE & MODEL

Analyze data from your operating systems and create data models that predict future states.



### STEP 4: DESIGN

Concepts are developed by applying qualitative and quantitative methods to criteria determined in the data analysis phase.



### STEP 5: VALIDATE

System costs are estimated and a complete economic analysis is done to determine feasibility of each alternative.



### STEP 6: RECOMMEND

Our consulting engineers recommend a plan of action with project stakeholders to meet your business objectives.

## Consulting & Design Solutions



### Facilities Master Plan

We follow a 4-stage methodology to ensure your next facility project is executed with precision and success. The four stages consist of research, design, sourcing and implementation.



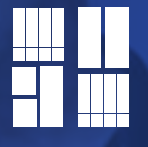
### Engineering Study

Consulting Studies provide a customized road map for improving operations based on your business objectives and future goals.



### Engineering Survey

The Bastian Engineering Survey™ methodology was developed as a resource to provide a road map for operational improvement by leveraging unique design concepts to reduce costs and improve material handling system quality.



### Layout and Warehouse Design

Whether your current layout is for an existing or a new "greenfield" facility, our goal is to plan around the function and the process.



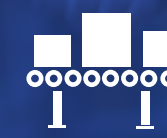
### Supply Chain Network Design

We use state-of-the-art optimization software and a proven methodology that delivers the lowest cost supply chain network, while meeting all your service level requirements.



### Simulation

Results of a computer simulation can help determine throughput rates, the number of employees needed to pick orders, design problems, and system bottlenecks.



### Lean Manufacturing Studies

Lean manufacturing studies focus on the identification and elimination of waste within production environments using TPS (Toyota Production System).



### Labor Measurement

Our engineers are certified in the application of Maynard Operation Sequence Technique (MOST®), which is the most reliable method of determining labor standards.



### Slotting Analysis

A slotting analysis will tell you which of your products move faster and where to store inventory in your facility to minimize time out the door to your customer.



### WMS Selection

Our independent consultants assist with finding the perfect WMS (Warehouse Management System) solution for your operations using objective observation and proven procedure.



ZiPline Conveyor is a low-profile, energy efficient brand of conveyors and accessories designed for a variety of products. Our designs are quiet, flexible and easily integrate with new or existing material handling systems. Every ZiPline Conveyor product is designed and built at our new advanced manufacturing facility in Westfield, Indiana.

# Engineering & Manufacturing

With world-class engineering and manufacturing capabilities, Bastian Solutions provides turn-key solutions from design engineering and simulation all the way through project management and installation. We take great pride in providing exceptional service and flexibility to our customers.

Our solutions vary in complexity from simple projects to complete material handling systems. Outfitted with decades of experience in independent integration alongside accomplished manufacturing capabilities, we design solutions exclusive to your processes that cannot be harnessed with standard technology. Our in-house controls and engineering capabilities in addition to world-class customer support, uniquely positions us to help our customers excel in their markets.



## Industrial Robotics & Mobile Robotics

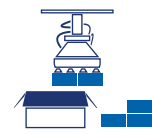
We are an independent robotics system integrator combining the best robotic arms on the market with our own engineered and manufactured end of arm tools. We use the latest in vision technology and additive manufacturing to develop turn-key solutions in the areas of:



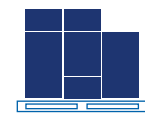
VISION GUIDED



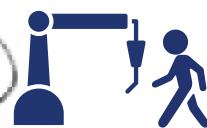
PICK & PLACE



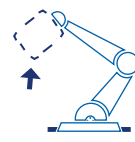
CASE PACKING



ROBOTIC PALLETIZING



COLLABORATIVE ROBOTICS



END OF ARM TOOLING



MACHINE TENDING



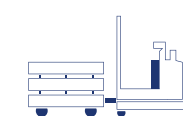
MOBILE ROBOTICS

## Autonomous Vehicles

Autonomous vehicles are changing the way warehouses define "efficiency." Dependable and versatile, autonomous vehicles are a cost-effective way to optimize your manufacturing and assembly line processes through automation.



PALLET TRUCK



TUGGER



TUG-CART MOUSE



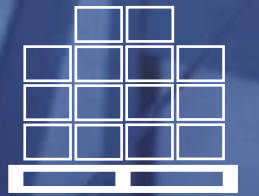
SORTATION CONVEYOR



CASE CONVEYOR



GOODS-TO-PERSON WORKSTATIONS



PALLET CONVEYOR



# Integration

Every solution Bastian Solutions proposes is considered on its own merits to provide tremendous productivity gains and a quick return on investment.

As a systems integrator, we seek out leading technologies in both material handling equipment and information systems coupled with proven operational strategies. Our goal is to use these tools to help companies, across a broad spectrum of industry segments, to be leaders in their industries.



GOODS-TO-PERSON  
PERFECT PICK

## Order Fulfillment

Order fulfillment technology is capable of reducing labor costs with improvements in service levels, higher throughput and scalability. Whether you're looking to improve accuracy, productivity, customer satisfaction--or all of the above--our experts can provide a solution tailored to your facility.



GOODS-TO-PERSON  
MINI-LOAD ASRS



GOODS-TO-PERSON  
AUTOSTORE

### Goods-to-Person

Goods-to-person is a modern method of order fulfillment in which products are delivered directly to an operator or picking robot. These systems are flexible and scalable while providing dense product storage and security.



GOODS-TO-PERSON  
VANDELANDE ADAPTO

### Person-to-Goods

Increased product flow and more customer demands are difficult challenges for manual processes to overcome, order fulfillment technologies such as voice, pick to light or RF scanning solutions can help current labor processes optimize and improve.



AUGMENTED  
REALITY PICKING



PICK-TO-VOICE



RF SCANNERS  
AND DEVICES



LIGHT DIRECTED  
PICKING

## Industrial Controls

We offer complete controls solutions for machine automation and material handling systems. Our solutions include motion control, assembly, process control, material handling, furnace control, data collection and reporting.

Our **Human-Machine Interfaces (HMI)** keep you connected with your system like never before with user-friendly monitoring and controlling.

Our **Panel Shop** offers panel design and fabrication for custom products, material handling systems, testing & quality control before shipment, and installation capabilities.

## Supply Chain Software

From inventory control to hardware agnostic integration, our Exacta software suite powers the most complex automation systems.



### Exacta Warehouse Execution System

The Exacta Warehouse Execution System (WES) is a powerful, independent solution designed for order fulfillment combining software modules from the Exacta Warehouse Management System (WMS) and Warehouse Control System (WCS) into one platform. Exacta WES comes as a fully integrated solution, or it can function as separate components to ensure you have the tools and visibility for maximum system uptime





## Preventative Maintenance & Support

Our customer support team is dedicated to helping you fix specific issues and answering questions regarding your material handling system. From the beginning of a project throughout operation, we will work directly with you to maintain and manage your system so that it performs to its greatest capability.

We offer many different services such as delivery and assembly of parts, maintenance and repairs, customer training, and 24/7 system support. We guarantee to respond quickly to any inquiries that you have. Bastian Solutions also offers maintenance and service contracts, which are available monthly, quarterly, bi-annually, and annually.

● TOYOTA MATERIAL HANDLING  
NORTH AMERICA  
SERVICE CENTERS



## Ordering Parts Online Is Easier Than Ever

Keeping up with system maintenance can easily be done at any time through our customer portal. Quickly and easily find parts and accessories through a curated list of products designed for your system.

For general inquiries, we offer a large inventory of material handling products through our online store. Search for custom conveyors, lift tables, casters, workstations, totes, safety equipment, parts & more.

Visit [BastianSolutions.com/store](http://BastianSolutions.com/store) today!

# Case Studies

Our industrial automation expertise helps our customers across industries achieve their automation goals.



## Puma

PUMA, a leading sports apparel distributor, partnered with Bastian Solutions to select, design, and implement an AutoStore goods-to-person system to consolidate and improve order fulfillment operations at its third party logistics facility in Torrance, California. The facility, owned and operated by Cal Cartage, now handles up to 200 e-commerce lines per hour per operator and 700 wholesale units per hour per operator. This allows PUMA to easily meet same-day fulfillment and peak seasonal demands.



## Southern Glazer's Wine & Spirits



After consolidating all inventory and functions of its Florida facilities into one location, Southern Glazer's Lakeland, Florida, facility is now the largest spirits and wine distribution hub on the planet. To maximize the space and productivity, Bastian Solutions developed an advanced material handling system that could manage more than 12,000 SKUs supported at this facility.

## NewEgg



One of the largest e-commerce electronics retailers in the U.S., opened a new, 400,000 square foot distribution center in Indianapolis, IN, to better support its growing Midwest customer base. The system features Perfect Pick, a robotic, goods-to-person shuttle system; ZiPline low-profile conveyor; and a light-directed picking lane for fast moving SKUs.

# Global Headquarters

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## UNITED STATES

INDIANAPOLIS, IN  
PHONE: 888.725.3046

## MEXICO

SAN LUIS POTOSÍ

## AUTOMATION ENGINEERING

GREENFIELD, IN

## MOBILE ROBOTICS

FARMERS BRANCH, TX

## AGV RESEARCH & DEVELOPMENT

GEORGETOWN, KY

## BRAZIL

PAULÍNIA, SP, BRAZIL

## CANADA

ONTARIO

## ROBOTICS

MARYLAND HEIGHTS, MO

## COMPOSITE

## PALLET & IOT

INDIANAPOLIS, IN

## INDIA

BENGALURU, KARNATAKA

## SOFTWARE

LOUISVILLE, KY

## RESEARCH & DEVELOPMENT

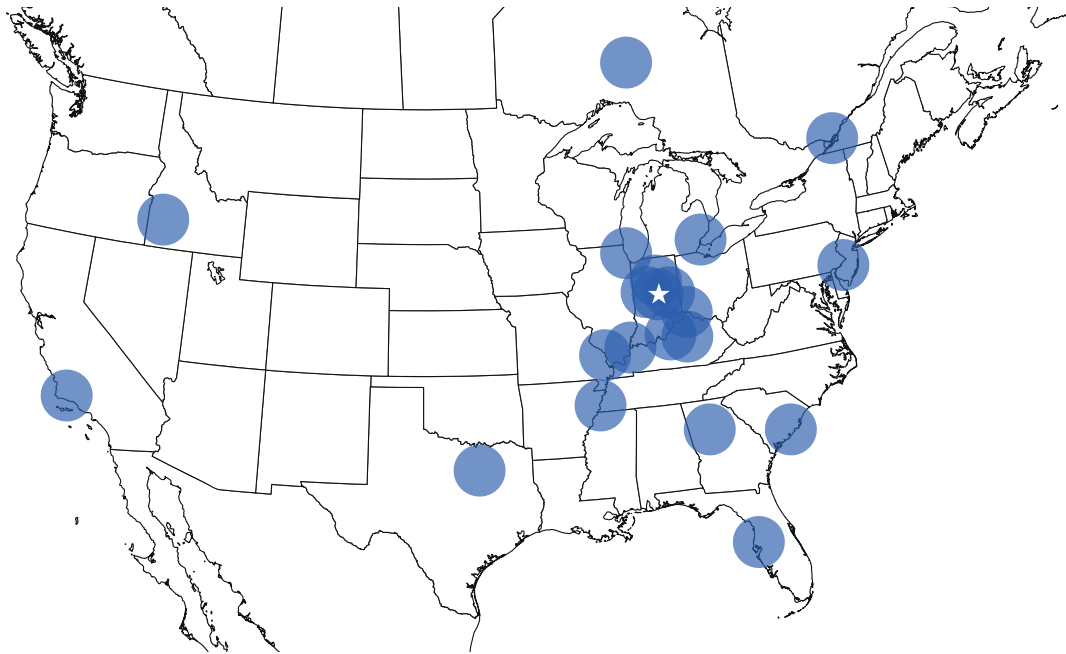
BOISE, ID

## ADVANCED

## MANUFACTURING CENTER

WESTFIELD, IN

With over 20 field offices to support customers across the globe.



**Bastian**  
SOLUTIONS

a TOYOTA ADVANCED LOGISTICS company

[WWW.BASTIANSOLUTIONS.COM](http://WWW.BASTIANSOLUTIONS.COM)