AUTOMATION MADE SEAMLESS™

ROBEX

BRAND CATALOG



0

R



To make manufacturing and producing goods easier, so that manufacturers can save time and worry less.

00

- H D

TABLE OF CONTENTS

RIBER 21 anto

6

ROBEX

A RE-INTRODUCTION	4
CERTIFICATIONS	4
OUR VISION	5
OUR MISSION	5
OUR GLOBAL FOOTPRINT	6
OUR BUILD LOCATIONS	6
GLOBAL LOCATIONS	7
INDUSTRIES	8
CAPABILITIES	10
PROJECT MANAGEMENT	12
MANUALS & DOCUMENTATION	13
HOW ROBEX MAKES AUTOMATION SEAMLESS	14
CUSTOMERS	16
SUPPLIERS	17
SPC AND DATA COLLECTION	18
SUPPORT	19

RIBEX

REEX

R

A RE-INTRODUCTION

Three Hard-Working Companies. One Smart Technology Solution.

RōBEX, +Vantage Corporation, and Mid-State Engineering are three premier industrial robot integrators who have merged to create an engineering powerhouse. This newly restructured automation company has become a distinguished market leader in diverse automation, inspection, assembly, and systems integration within several key industries such as automotive, aerospace, food and beverage, glass and plastic packaging, and pick, pack and palletizing, among others.

RōBEX

RōBEX is a leader in robotic manufacturing and materials handling integration that leverages custom solutions, world-class project management, and aftersales service to bring value to customers through robotic automation systems for improved productivity and safety.



•Vantage Corporation is an automation company with an outstanding reputation for its innovative technology and first-rate team. They are highly regarded for their deep technical expertise in inspection, measurement, and assembly automation systems integration.



Mid-State Engineering specializes in mechanical and electrical engineering, in-house fabrication & welding, and integration of custom engineered solutions. They also specialize in traceability, part marking, panel fabrication, and vision systems.

CERTIFICATIONS

Recognized Expertise

Our corporate reorganization has created a sound, multi-disciplinary firm of engineers, fabricators, automation designers, and support specialists. We operate as a one-stop shop able to design, build, and deliver turnkey automation solutions to support you in delivering your products on time, to spec, and within budget for your customers.









- Toledo Metro Area Top Workplaces 2023
- Plus Onerobotics
- ISO 9000:2015 Certification

- Coherix Systems Integrator Program
- Q-DAS (registered trademark) Certification
- Orbit (Registered Trademark) 3 Network
 Authorized System Integrator

OUR VISION

To be the worldwide leader of automation and implementation solutions

Most forward-thinking companies want a long-term partnership with an automation company that can address labor shortages, improve parts quality, and reduce the need for multiple vendors. The new RōBEX enterprise collaborates with our partners to understand their production needs, develop single-source creative solutions, and provide world-class after-sales service so you can excel at producing and delivering your best products.

Take charge and take advantage of the automation revolution by launching your own manufacturing programs with confidence. Our competent blend of engineering expertise, technical capability, market competitiveness, and peerless after-sales support services ensures the best outcomes for your business.

With RōBEX, significant engineering potential is available in several key global markets, including Mexico, Canada, and China. Our innovative, value-added smart technology solutions can be custom-made to integrate into your existing processes anywhere. Plus, you will have in-country technical field and engineering personnel who can support all your needs.

OUR MISSION

To make manufacturing and producing goods easier so manufacturers can save time and worry less

Through this new transformation, we are accelerating how we automate and optimize manufacturing processes for customers seeking manufacturing excellence.

Manufacturers often struggle with defective parts, multiple vendors, and stranded engineering solutions. With our global accessibility, you will never have to waste your time negotiating with different vendors or worry about the interoperability of the various components of your automation solution.

Get in touch with an engineer today to begin creating the ideal solution your company needs and reap the benefits immediately.

For more information, please visit: robex.us/about-us/

OUR GLOBAL FOOTPRINT

Meeting You Wherever You Are

The RōBEX automation company alliance has well-established systems and networks to enable local project collaboration and information-sharing to deliver solutions quickly. From start to finish, our engineers, builders, electricians, and program managers will work closely with your team to ensure the results meet your standards. As a company with 2,500+ machines built, over 130,000 square feet build capacity, and more than 160 team members, RōBEX is ready to work with you to help your new production program come to life.

Our Build Locations





8600 S. Wilkinson Way Perrysburg, OH 43551 <u>View on Google Maps</u>





12623 Newburgh Road Livonia, MI 48150 <u>View on Google Maps</u>





986 Industrial Drive Tipton, IN 46072 <u>View on Google Maps</u>





Parque Industrial Padres Santos Nav. Saltillo, Coahuila, 7940 CP 25123

Global Locations

Teamwork is the key to success in any manufacturing process improvement project. Our team of automation experts has members stationed around the world. We can deliver superior results for any situation, anywhere.

For more information, please visit: robex.us/about-us/

INDUSTRIES

Structured Approach. Innovative Outcomes.

We can design, build, and install custom solutions for multiple industries. Manufacturers, large and small, have already benefited from RōBEX expertise to build up and maintain their production lines at optimal speed. With decades of in-plant experience, we are committed to on-time, on-budget completion of installation and/or maintenance projects.



Aerospace

Aerospace/automotive assembly automation is particularly challenging, but you can still increase production volume with higher-quality components and lower costs.



Medical

With medical manufacturing automation, companies can utilize robots that reduce product variability and improve product quality.



Automotive

Advances in robotics technology have allowed automotive manufacturers to achieve new levels of efficiency with fewer defects and lower costs per unit.



Plastics

With precise robotics, it is now possible to manufacture a wide variety of plastic components, even if they are small or delicate.



Glass & Plastic Packaging

A custom automated solution can help meet your packaging needs, and maximize the efficiency of your operation, which will ultimately positively impact your budget.



Beverage Packaging

Utilizing automation can help you achieve a consistently high level of product quality, maximum throughput, and plant availability, all while maintaining flexibility and scalability.



Pick & Pack Packaging

These machines are ideal for operations that demand uninterrupted speed, reliability, inspection, sorting, accuracy, and dexterity.

Optimization Never Rests

Even after we finish a project, we like to stay in touch. Unexpected issues can show up at the worst possible times, affecting your business. Any production line interruption can impact your bottom line, so we recommend (and can provide) periodic operation audits to identify and help prevent potential problems.



CAPABILITIES

Applicable. Accessible. Adaptable.

Whether it's assembly and part-making automation, turnkey automation systems, bulk part handling, implementing autonomous mobile robotics, palletizing, or vision system inspection and software integration, we have built custom solutions for numerous applications, processes, and industries.

3D & 2D Non-Contact Vision Inspection Systems

- 2D Visual Inspection Sensors
- 2D Industrial Visions Systems
- Telecentric Lenses for
 Dimensional Inspection
- Custom Lensing and Setups for Specific Application Requirements
- 2D Vision Cameras
- 2D IPV Sensors
- 3D Visual Inspection Sensors
- 3D Laser Line Profilers
- 3D Structured Lighting
- Fixed-Mounted 3D Sensors for In-Line Applications
- Robot-Mounted 3D Sensors
 for Flexible Inspection

Pick, Pack, & Palletizing

- Palletizing
- Mixed SKU Handling
- De-Palletizing
- High-Speed Pick and Place
- High-Speed Sortation
- Case Packing
- Stretch Wrapping
- Weight Measurement
- Bulk Conveyance Systems
- Vacuum Gripping
- Box Erecting Systems

Collaborative Robots

- Labeling
- Machine Tending
- Pick and Place
- Gluing and Dispensing
- Palletizing
- De-Palletizing
- Un-erected Case Loading
- Bin Picking

Robotic Part Handling

- 3-Axis Robotics
- 4-Axis Robotics
- 6-Axis Robotics
- Rail-Mounted 7-Axis Robotics
- Simulation & Proof of Concept
- Custom EOAT Design
- Box Erecting Systems

Autonomous Mobile Robotics

- MiR Robotics
- Seegrid Robotics
- Quick-Change Machines
- Complete Integration of
 AMRs Into Existing Lines
- Pallet Stacker
- Tugger

Line Side Delivery

Automatic Transfer Systems

- Pick-and-Place Transfer
 Systems
- Gantries
- Robots
- Indexers
- Continuous Running
 Conveyors
- Palletized Conveyors
- Accumulating Conveyors

Bulk Part Handling

- Track Feeders
- Vibratory Feeders
- Bowl Feeders
- Rotary Tables
- Centrifugal Feeders
- Elevator Feeders

IPV, Poka-Yoke & Attribute Inspection

- In-Process Verification of Critical Features
- Go/No-Go Inspection
- Retroreflective Sensors
- Through-Beam Sensors
- Proximity Sensors
- Measurement Probes
- Hard Gages
- Vision Inspection

Automatic Calibration and System Verification

- Robot Loaded Calibration
 Artifacts
- HMI Prompted Calibration
 Sequences
- Verification of Calibration Process on Set Time Schedules
- Load Cell Verification
- Dimensional Verification
- Leak Test Verification
- Red Rabbit Verification

Laser & Part Marking Systems

- Inkjet Marking
- Laser Marking
- Dot Peen Marking
- Stamp Marking
- Label Applicators

Eddy Current & Resonance Test Systems

- Dynamic Eddy Current
 Testing
- Statis Eddy Current Testing
- Dynamic Resonance Testing

Leak Test Systems

- Pressure Decay Leak Test Systems
- Vacuum Decay Leak Test
 Systems
- Flow Inspection

Riveting Systems

- In-Line Riveting
- In-Line Blow-Fed Riveting

Robotic Riveting

Torquing

- In-Line Blow-Fed Torque Systems
- In-Line Track-Fed Torque Systems
- Robotic Torquing Systems
- Torque and Angle Monitoring
- Process Control
- Post Torque Inspection
- Customized Torque
 Sequences

Manual Assembly Stations

- Operator Assisted Torquing
- Operator Assisted Pressing
- Guided Assembly Operations
 - Verification of Operator Task Completion
- Poka-Yoke and Inspection for Manually Set Components

Pressing Systems

- In-Line Blow-Fed Press Systems
- In-Line Track-Fed Press Systems
- Force and Distance Monitoring
- Servo Press Systems
- Hydraulic Press Systems
- Pneumatic Press Systems
- Air Over Oil Press Systems
- Press Curves Output Function
- In-House FEA Analysis
- Post Press Inspection

Dimensional Measurement

- Contact Measuring Probes
 for Dimensional Inspection
- Tracing and Reading of
 Geometric Tolerances
- Custom Air Spindle Build
 and Design
- In-House Air-To-Electric
 Converter
- OD Air Gauge Inspection
- ID Air Gauge Inspection
- Linear Air Gauge Inspection

Gluing & RTV Application

- Robotic RTV Dispensing
- Servo-Driven RTV
 Dispensing
- Glue Dispensing Monitoring
 Systems
- Post RTV 3D Inspection
- Adhesive Application Processes
- ID Bore Adhesive Application
- FIPG Application and Inspection

CNC Tool Compensation Gage Systems



PROJECT MANAGEMENT

Professional & Transparent to Ensure Successful & Timely Integration.

STRUCTURAL CASTINGS

We work under the principle of total cooperation between our business and yours. RōBEX stands by our fulltransparency project management process to keep our customers informed and up-to-date every step of the way.

Why Project Management is Vital for Factory Automation

Integrating new systems is a complicated process with dozens of moving parts. Meeting your timeframe and budget requires careful planning by expert automation integrators. To maintain transparency, we keep you informed every step of the way. We provide weekly update meetings during the entire project, from the initial mechanical design phase to programming, debugging, and run-off.

Comprehensive Timing Plans, Updated Weekly

RōBEX employs industry best practices to ensure a seamless, professionally managed project. We utilize Gantt charts to track timeline expectations effectively and coordinate your know-how into a finished deliverable. This means constant evaluation of progress, providing a real-time look at project status every step of the way.

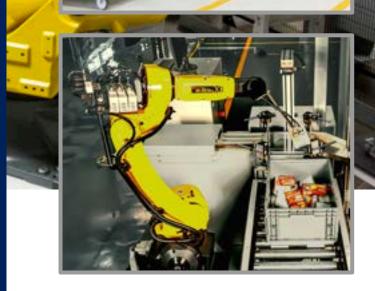
Proficient Action Deck Tracking and Follow Up

We utilize a meticulous action item system to establish goals, set targets, and determine deliverables. This allows your automation integration to have expected close dates on every aspect of the project. By tracking both the small- and large-scale aspects of the project, you are given granular control over your integration every step of the way.

MANUALS & DOCUMENTATION

RōBEX stands behind our commitment to being your single-source supplier and integrator for all systems we provide. This extends beyond the delivery of physical assets to your facility. We provide complete life-cycle support for your system.

This includes giving you operational manuals to get our systems running, 2D and 3D CAD drawings thorough enough for a complete system rebuild, and a list of all spare parts with original OEM part numbers. We hold nothing back from our customers. When you buy the machine, you buy the engineering. Simple as that.



CONTRACTOR OF STREET

R

HOW ROBEX MAKES AUTOMATION SEAMLESS

Our One-Stop Shop Process for Launching a New Project

With RōBEX acting as your single-source system integrator, we cover every aspect of the system integration process, from project management, design and analysis, through manufacturing, installation and support. All documentation developed during the design and manufacturing process is yours as well, part and parcel to our commitment to transparency in engineering.













STEP 8

÷

段

₩÷

- Assembly and Build
 Progress updated in real time through action boards
- Progress pictures provided at regular intervals
- Assembly performed by trained, in-house technicians

STEP 10

System Run-Off and Final Build Acceptance

- Pre- and post-run inspection performed and signed off by RöBEX Quality Assurance
 Full system validation including bully testing, GR&R and
- equipment effectiveness studies

 Equipment safety reviews for operator health

STEP 12

On-Site Factory Acceptance Post-installation validation including bully testing, GR&R

- and equipment effectiveness studies
 Health and safety reviews with customer staff
- RöBEX Quality Assurance sign off of post-run checks
 demonstrating requirements compliance
- Customer sign off of system validation and requirements
 compliance

STEP 14

After-Sales Service

- Remote and onsite support for verifying functionality
 Full-service team to fulfill warranty covered services
- Available to support product line changes and retooling

STEP 9

Integration, Programming and Debugging

- HMI Design language and programming shared with customer for approval and transparency
 Ensure system interfaces meet customer requirements
- and specifications
 Complete system backups provided for customer
- acceptance and autonomy in maintenance

STEP 11

Installation and On-Site Support

- Installation and system standup services provided by RöBEX technicians
 Includes training for production and maintenance staff for
- smooth transition into production operation
 Installation plans provided as part of the TDP

STEP 13

- Technical Data Package Handoff
- All mechanical part files, assemblies and drawings
- All electrical schematics and writing diagrams
 Full backups of HMC and PLCs
- Troubleshooting, maintenance, production and training manuals















SUPPLIERS

- Fortna (MHS Conveyor Corp)
- Allen-Bradley
- Siemens
- FANUC
- MiR
- Seegrid
- AutoGuide
- Fetch Robotics
- Lantech (wrappers)
- Wulftech (wrappers)
- Keyence
- COGNEX
- Joulin / Piab
- PlusOne Robotics
- **SVT** Robotics
- Apera Al
- ROEQ

- **Jtec Industries**
- ABB •
- Yaskawa
- Mitsubishi Electric
- Epson
- KUKA
- SCHUNK
- LMI Technologies
- Wenglor
- Teledyne DALSA
- Camco
- Bastian
- Sankyo Automation
- Dorner
- Stelron
- Feeding Concepts Inc.
- American Feeding Systems

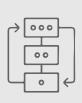
- Deane Systems •
- Visumatic
- Hoosier Feeder Company
- **TOX® PRESSOTECHNIK** •
- FEC .
- Kistler •
- Weber
- Atlas Copco •
- Ingersoll Rand •
- Telesis
- MECCO .
- Datalogic
- Laserax •
- Lion Precision .
- lbg
- The Modal Shop

SPC AND DATA COLLECTION

For Unmatched Factory Control

RōBEX has years of experience working with numerous Factory Information Systems (FIS). So we can make Statistical Process Control (SPC) data collection a seamless part of your process with an integrated suite of powerful tracking tools. Our in-house Real-Time Gage Controller (RTGC) provides real-time SPC to tie in machine data to your system. We can also support bi-directional communication with your database to help you make intelligent manufacturing decisions.

For example, after reading a product's barcode, our system can detect what processes it has or has not been through. Then, based on this information, our system can decide how to react. We can perform designated operations and re-submit product information into the database by associating it with the product serial number, type, time stamp, etc.



Process Mapping

Data is the fuel that is driving more efficient manufacturing. That's why all of our systems are designed to optimize your process. Our systems are built to capture real-time Statistical Process Control (SPC) data collection, with a fully integrated suite that handles data collection and process control. This feeds into your Factory Information System and is ANSI/ISO standard compliance.

Process Improvement



One of the most valuable benefits of automated inspection in manufacturing is the ability to see changes in the production line in real-time. In-line measurement makes us more efficient and accurate than ever at tracking micron-scale changes, which could spell disaster for precision components. So our solutions use real-time SPC data collection and gauge control, allowing vital production data to be displayed in up-to-the-second detail.

Process Optimization



Our automation company makes full factory integration seamless, communicating with QDAS and factory information systems to track and visualize vital production functions. Our systems also support ANSI and ISO standards, ensuring compatibility with your metrology standards. Our systems automatically generate GR&R, CPK, and test study reports. With our team on your side, the power to instantly track every part of your process is in your hands.

SUPPORT

Surpassing the Competition

We are committed to providing total automation solutions. This means not only providing top-quality automation equipment but also providing the installation and service capabilities to keep running at peak production for years to come.

A Global Presence with Local Support

We have an international presence with offices and 24/7 support centers worldwide to ensure you're always connected.

On-Site Service at Your Plant

Our teams will travel to customer facilities to troubleshoot, problem solve, and keep your plant running at capacity.

Remote Support for Immediate Response

Our controls and service engineers can remotely access machines and help solve issues anywhere on the planet at a moment's notice.

Expert Industrial Equipment Installation

We will travel to your factory site to conduct the installation and deliver a custom installation to your approval every time.

Operator and Maintenance Training

Our team will bring your maintenance and production staff up to speed on the day-to-day maintenance and control of our machines. They will also provide manuals and documentation on all our equipment.

HAVE AN IMMEDIATE NEED?

PLEASE CALL US AT 734-432-5055 OR VISIT <u>ROBEX.US/CONTACT-US/</u>



RōBEX

8600 S. Wilkinson Way, Perrysburg, OH 43551

734-432-5055 service@robex.us automation@robex.us

www.robex.us

ROBEX