



Attica **Automation**

SEEING BEYOND THE HORIZON

Product Catalog 2.0

WE DELIVER

QUALITY SOLUTIONS

INSPECTION | ASSEMBLY | PACKAGING | FEEDING



www.atticaautomation.com



sales@atticaautomation.com



(248) 236-2454



A LITTLE BIT **ABOUT US**

Established in 1999, Attica Automation has become a leader in providing solutions for our client. Our drive for precision combined with our love of technology gives us the upper hand when it comes to inspection and quality. Our knowledge of the industry and care for our clients also gives us the ability to excel above the competition.

"If you need a machine and don't buy it, then you will ultimately find that you have paid for it and don't have it."

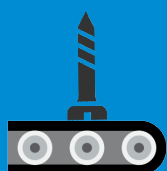
(Henry Ford)

OUR INCREDIBLE INSPECTION SOLUTIONS

Over the years, each of our machine models have been upgraded and refined to bring you the best in the business.



ATTICA VISION™ SYSTEMS ***(VISION INSPECTION)***



AV-B100 SERIES

Conveyor style material handling



AV-D100 SERIES

Rotary dial style material handling



AV-R100 SERIES

Robotic material handling

The AV-B100 is a turn-key inspection and sorting system designed around the use of the conveyor as the primary material handling and part presentation system. What sets each model apart is the method that each machine uses to perform these operations.

Each model in the AV-D100 series incorporates a rotary dial to perform the material handling and part presentation. These dials have many different options including the following: indexing and continuous dials, steel and poly slotted dials, and poly flat dials.

Robotics allows us to inspect those “hard to handle” parts. These systems include any type of robotic material handling including high speed, multi-axis robots to simple “Pick and Place” robots. These systems also allow us to combine many different processes into one.

GET HELP FROM **SUPPORT EXPERTS**

Downtime is not an acceptable option for us. Making sure your machine is in production is our priority.

Under Promise Over Deliver

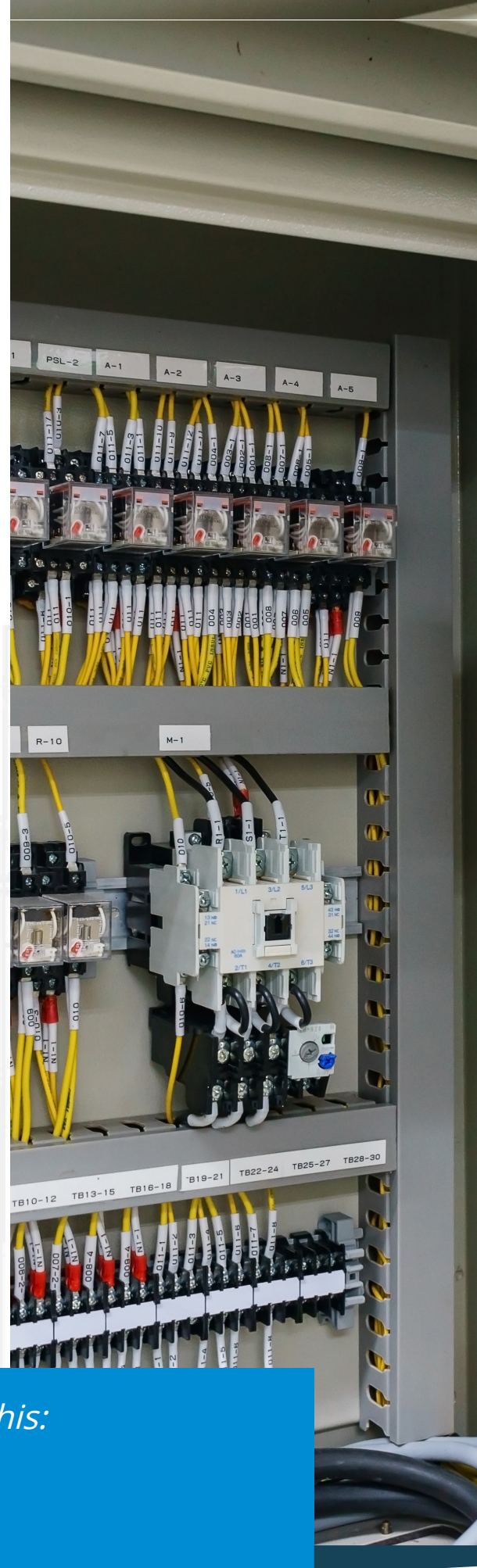
When a client connects with us for any type of request, our response is a “promise”. Whether support, service, sales or marketing, we take our promises very seriously. We spend the needed time to test and verify that we came do what we promise.

As we continue to support our clients, this belief has continued to benefit each of our clients which, in turn, benefits us.

We take the time to look at your needs and find the best solution in the shortest amount of time. We are here to make your life easier so you don't have to be the expert.

Now that the promise has been made, we can deliver. Our service and support group has the experience and knowledge to resolve any type of issue including:

- Upgrades
- Programming
- Machine Control
- Training
- Replacement Items
- Electrical Troubleshooting
- Testing and verification
- Whatever you need!



*The golden rule for every business man is this:
“Put yourself in your customer’s place.”*

(Orison Swett Marden)

ABOUT OUR **WARRANTY & SERVICE**



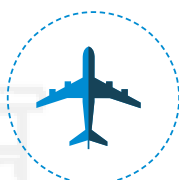
MANUFACTURER'S WARRANTY

Each and every one of our machines comes with a one year manufacturer's warranty to guarantee that the machine will perform as promised.



REMOTE TECHNICAL SUPPORT

Don't wait for support. We have designed each machine to allow us to give you full support from our headquarters. As long as you have internet access, we can perform support, upgrades, programming, motion control, and more!



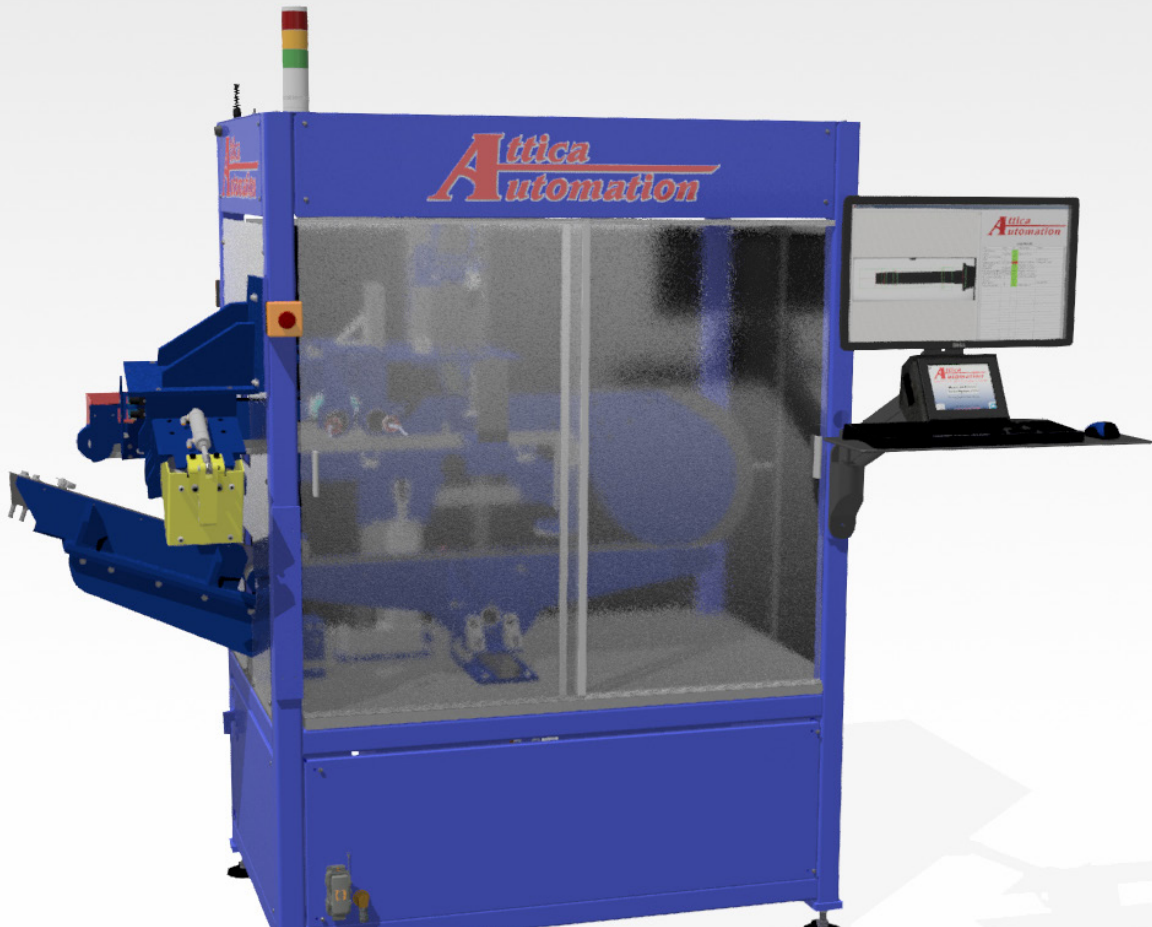
ONSITE SERVICE AND SUPPORT

In those rare cases that you need us to come onsite, we have a fully functional support group ready to service your needs. Whether you need programming, replacement parts, or custom upgrades, we are there to make it happen.



ADVISING & CONSULTING

Customer service is key. Each of our groups has the expertise to find a solution. Whether Sales, Service, or Support, we are here to make it happen.



SPEED COMBINED WITH PRECISION

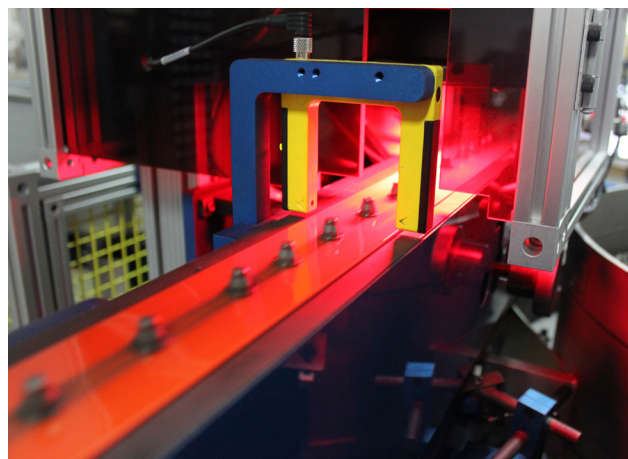
INTRODUCING THE **AV-B100 SERIES**

Conveyor Inspection Systems



This is our original design

Each AV-B100 is built on some type of conveyor system that manages and handles the parts during inspection. Each of our inspection machines is equipped with similar options, but we have found that there are advantages to separating a few of these material handling methods. This separation, when it comes to material handling, has allowed us to provide 3 different models:



AV-B100-G3

MAGNETIC BELT



Inspect Large Parts

The AV-B100-G3 is our standard bolt and screw inspection machine, but it has been overhauled to run many different parts. This design carries the part on a series of conveyors to inspect the head of the part as well as the body and underside of the head. This model requires the part to be ferrous and hang by its head.

Machine Specs:

Height: 7'
Width: 4'
Depth: 4'
Weight: 2400 lbs

Performance:

Speed: 350-1000 PPM
Tolerance: +/- .001"

AV-B100-G4

MAGNETIC BELT



Inspect Both Sides

The AV-B100-G4 is based off the original design, but it has been improved to allow for the following:

- multiple inspection stations
- increased footprint size
- dust and sound enclosure
- advanced features
- runs a wider selection of parts.

Machine Specs:

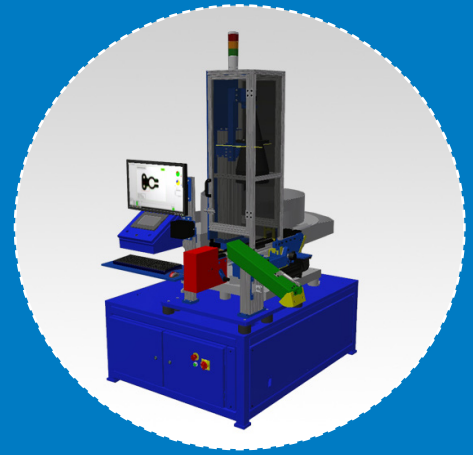
Height: 7'
Width: 4'
Depth: 4'
Weight: 1700 lbs

Performance:

Speed: 150-500 PPM
Tolerance: +/- .002"

AV-B100-V

V-BELT



Headless Parts

The AV-B100-V is a V-Belt inspection machine designed to inspect any type of part that can lie flat in a "V" style track. While there are certain limitations to every part, this system has given us the ability to track, inspect, and sort many different type of parts that can sit in a "V".

Machine Specs:

Height: 7'
Width: 4'
Depth: 4'
Weight: 2200 lbs

Performance:

Speed: 150-400 PPM
Tolerance: +/- .001"



MORE OPTIONS | MORE FLEXIBILITY | MORE PRODUCTIVITY

ABOUT OUR

AV-D100 SERIES

Rotary Dial Inspection Systems

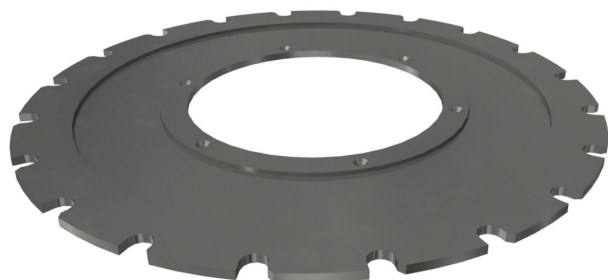
[Inspection](#) | [Assembly](#) | [Customizable](#)

Every machine built today has a designed purpose with desired results. To make a machine that “can do it all” would be virtually impossible, but the goal of the AV-D100 series is to allow for the most customization possible.

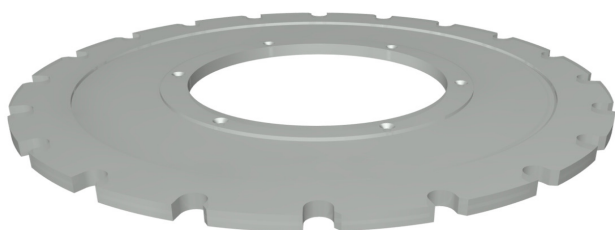
Over the years, we have standardized this machine and created a long list of options and customizations to give our clients the best machine possible. The AV-D100 series is a rotary dial system that rotates the parts and presents them to multiple stations. This allows us to use this series for inspection, assembly, automation, manufacturing, and more!

AV-D100-S

SLOTTED DIAL



STEEL AND CLEAR DIALS



Machine Specs:

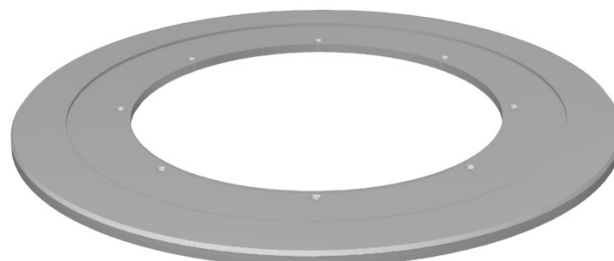
Height: 7'
Width: 10'
Depth: 4'
Weight: 1900 lbs

Performance:

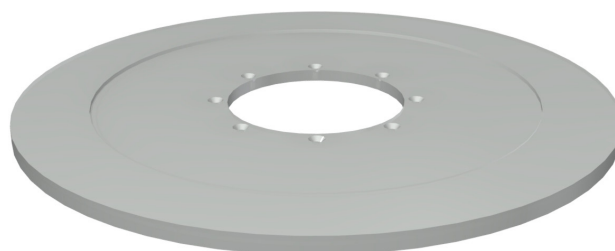
Speed: 150-500 PPM
Tolerance: +/- .001"

AV-D100-F

FLAT DIAL



GLASS DIALS

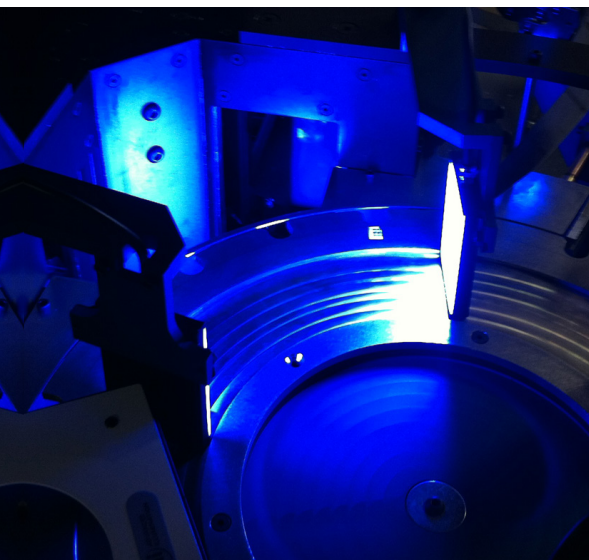


Machine Specs:

Height: 7'
Width: 10'
Depth: 4'
Weight: 1700 lbs

Performance:

Speed: 250-700 PPM
Tolerance: +/- .001"

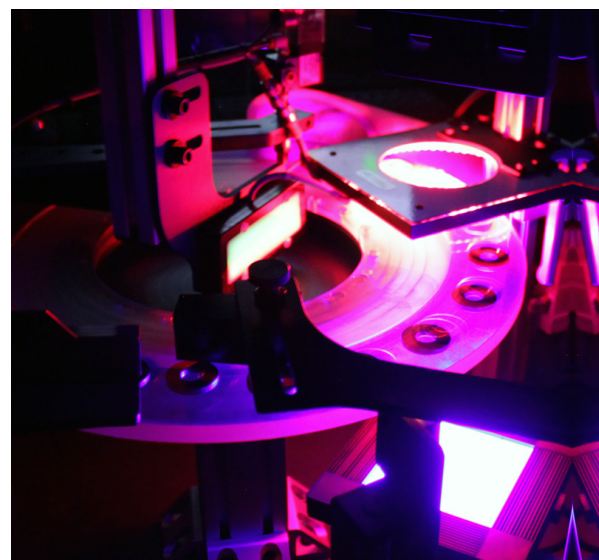


AV-B100 Series



AV-D100 Series

AV-R100 Series

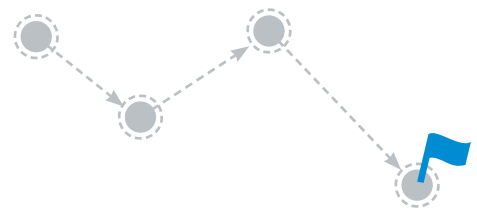


MicronScope

Additional Options

ROBOTICS | ASSEMBLY | INSPECTION

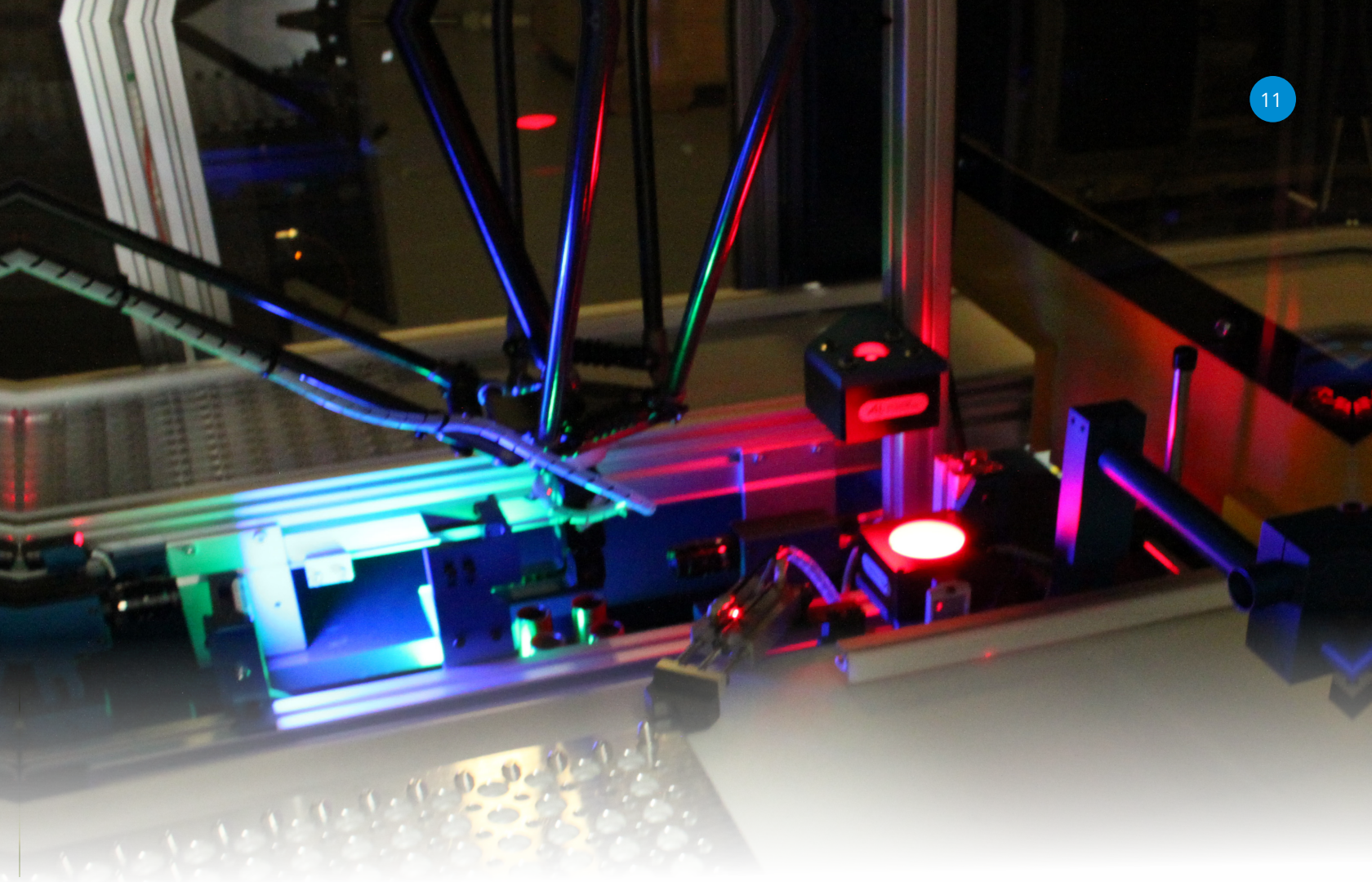
HERE IS OUR **AV-R100 SERIES**



Combine Multiple Steps Into One

While many of our product lines are designed to fit a wide variety of parts, we still see the need for more flexibility and options for our clients. That is why we have created the AV-R100 Series Robotic Inspection Systems.

The AV-R100 Series is the best of both worlds. It allows us to combine multiple processes into a single solution. Using many different types of robotics, this machine series allows us to provide a solution to the toughest issues our clients run into.



1. INSPECTION

Incorporates multiple inspection stations and technologies:



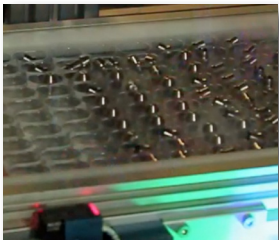
2. PRODUCTION

Add assembly or formation processes to your inspection:



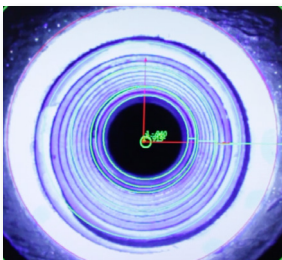
3. PACKAGING

Individual or bulk packaging can be included in this system:



4. FLUID APPLICATION

Fluid application can be used for production and marking:



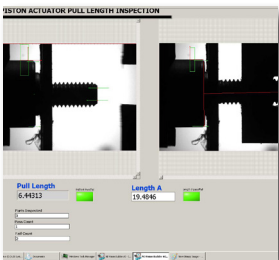
5. STAKING

Allows you to add production processes to a single system:



6. PHYSICAL TESTING

Add testing for torque, load, pressures, pull tests, and more!

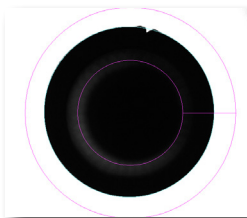


| | | AV-B100-G3 | AV-B100-G4 | AV-B100-V | AV-D100-S | AV-D100-F | AV-R100 |
|------------|---------------------|------------|------------|-----------|-----------|-----------|---------|
| PRODUCT | Bolts & Screws | x | x | | x | | x |
| | Headed Parts | x | x | x | x | x | x |
| | Magnetic Parts | x | x | x | x | x | x |
| | Plastic Parts | | | x | x | x | x |
| | Ball Studs | x | x | | x | x | x |
| | O-Ring | | | | | x | |
| | Rivets | x | x | x | x | | |
| | Machined Parts | x | x | | x | x | x |
| | Nuts | x | x | | x | | |
| | Studs | | | x | | | x |
| | Shafts | | | x | | | x |
| | Washers | | | | | x | |
| | Headless Parts | | | x | | | |
| | Ammunition | | | x | | x | x |
| | Coins | | | | | x | |
| | MORE | | | | | | |
| PART SPECS | Magnetic | x | x | | x | | x |
| | Hang by the head | x | x | | x | | x |
| | Headless | | | x | | x | x |
| | Plastic | | | x | x | x | x |
| | Flat | | | | | x | x |
| OPTIONS | Packaging system | x | x | x | x | x | x |
| | Bulk Feeding system | x | x | x | x | x | x |
| | Head inspection | x | x | | x | x | x |
| | 360° Inspection | x | x | | x | x | x |
| | Under the head | x | x | x | | x | x |
| | Hardness testing | x | x | x | x | x | x |
| | Flipping station | x | x | | | x | x |

COMMON DEFECTS

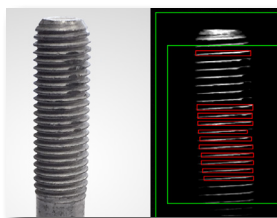
1. CRACKS

Cracks can be tricky. We use vision to remove this defect.



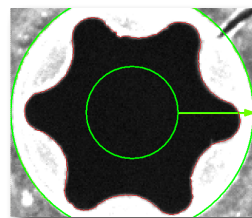
2. THREADS

MIN/MAX thread pitch, Spiral threads, damaged threads, etc.



3. HEAD INSPECTION

Torx® recess Inspection, plating build up, broken punch, etc.



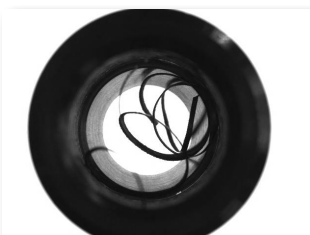
4. BODY PROFILE

Check dimensional characteristics from a view of the body profile.



5. FOREIGN MATERIAL

Check to make sure there is no foreign material getting through.



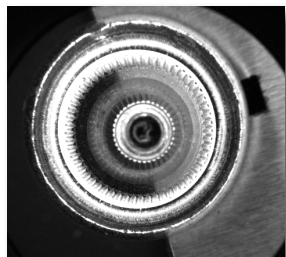
6. OCR

Read part codes, head markings, numbers, letters, and more.



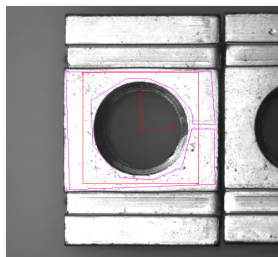
7. 360° INSPECTION

Trace internal threads, look for surface defects, and more.



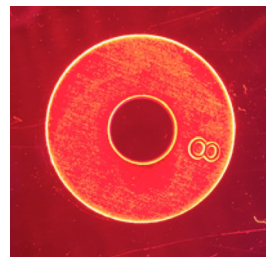
8. PLATING PRESENCE

Determine if your parts have been plated properly.



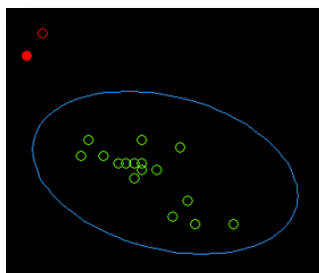
9. SURFACE DEFECTS

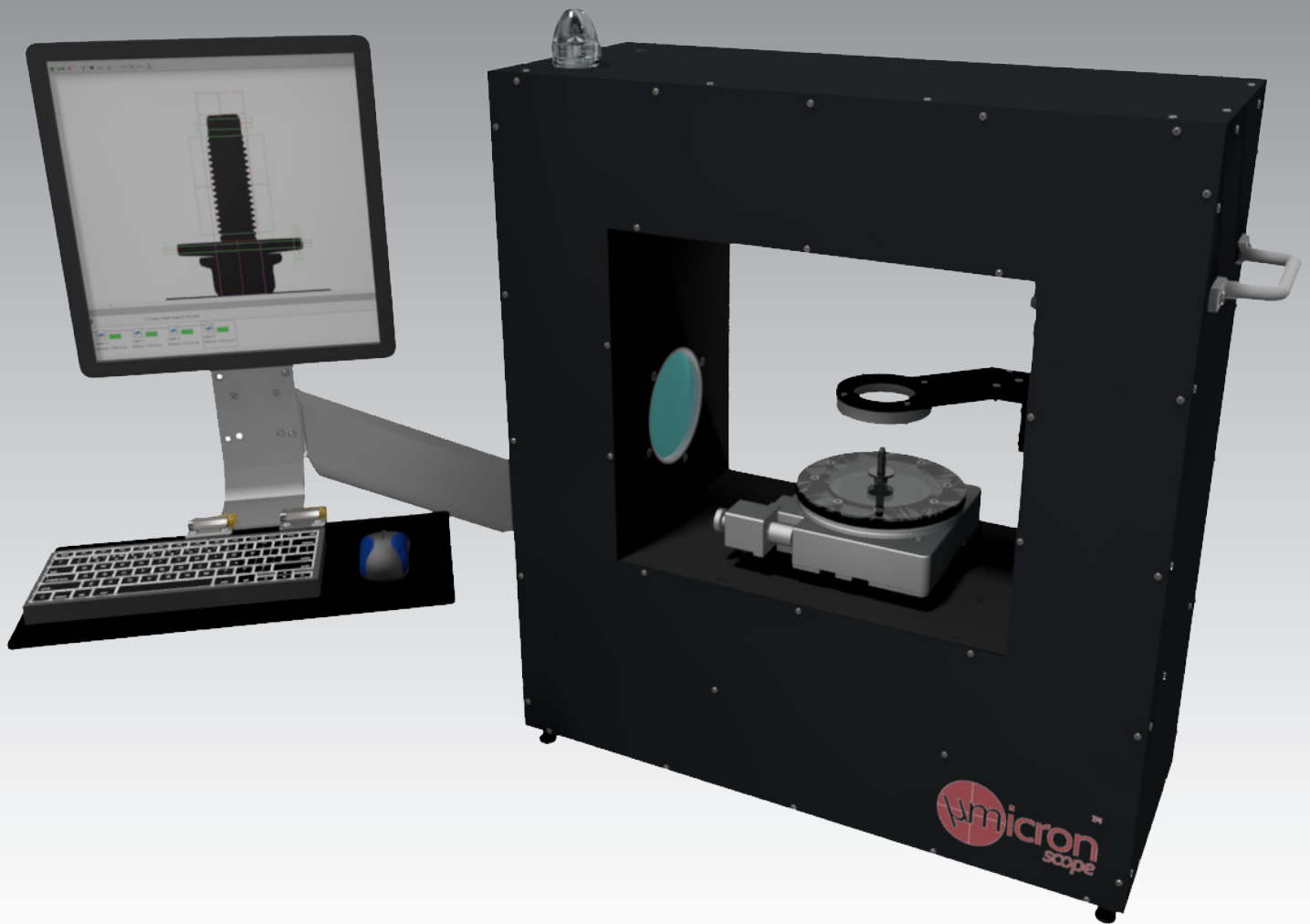
Dented parts, markings, plating problems, and more.



10. HARDNESS TESTING

Determine if your parts has been heat treated or not.



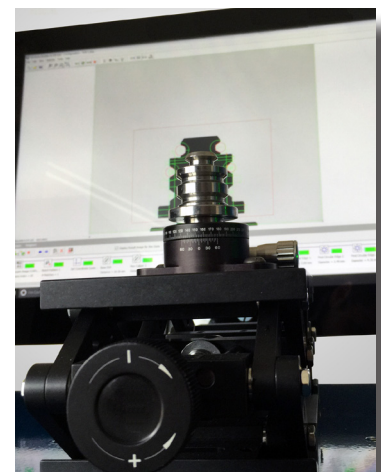


PRECISION | VERSATILITY | REPEATABILITY

NEW MICRONSCOPE

Quality Lab | Production Floor

This premier inspection system incorporates the latest in precision vision technology to create an easy to use quality instrument. This system removes the need for traditional measuring tools, and it allows you to inspect your product quickly and accurately. With a full featured set of inspection tools, you now have the ability to check virtually any feature of your part.

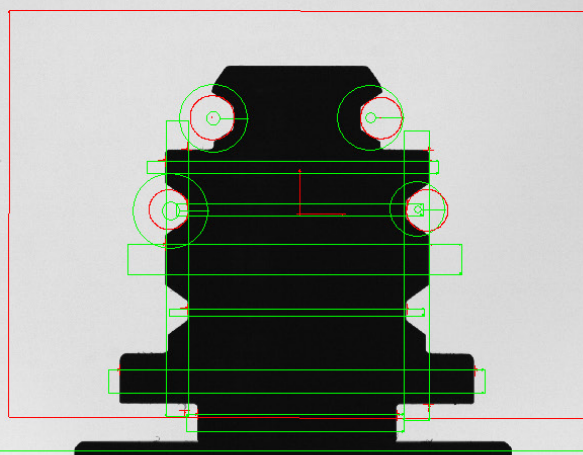
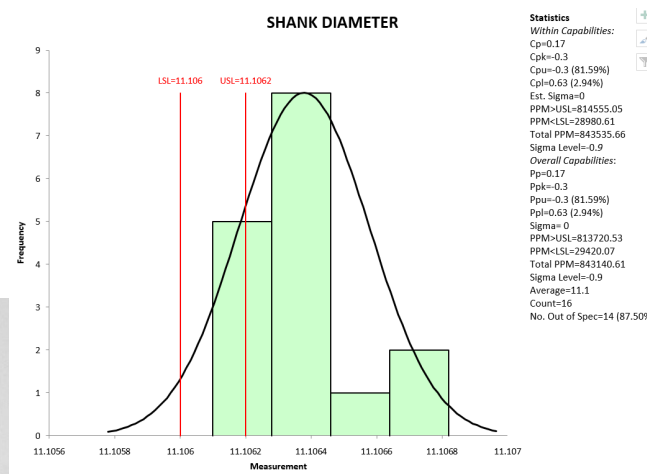
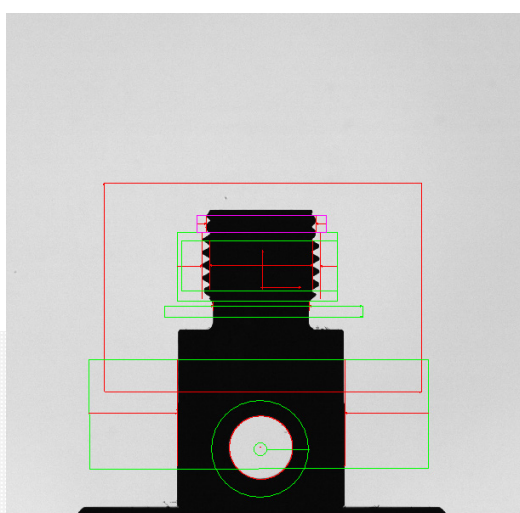


MACHINE FEATURES

- Accurate within microns
- All measurements are in real time
- Simultaneously measure multiple dimensions
- Customized SPC / Quality reporting built in
- Single or Continuous image acquisition modes
- Separate operator and programming interfaces
- Full features inspection toolset to allow for customized inspection
- User friendly software package
- Precision optics and lighting

TECHNICAL SPECS

- Accuracy +/- (mm): 0.0077
- Repeatability +/- (mm): 0.001
- Area: 94mm x 75mm
- Power: 100/220V - 50/60Hz
- Weight: 60 lbs
- High precision Bi-Telecentric Len
- Collimated telecentric LED back light
- Precision turn table
- Precision scissor lift



00825 2560x2048 0.37X 228 (505,2004)


State: Inspect

☒ Display Result Image for this State

Acquire Image (1394,...) Match Pattern 1 Set Coordinate Syste... Base DIA Max Caliper 2 Max Caliper 3 Max Caliper 4 Max Caliper 5 Max Caliper 6 Find Circular Edge 1 Find Circular Edge 2 Find Circular Edge 3

Frame Index = 16 # Matches = 1 Distance = 19.58 mm Distance = 34.83 mm Distance = 21.49 mm Distance = 25.89 mm Distance = 21.48 mm Distance = 25.90 mm Diameter = 3.89 mm Diameter = 4.07 mm Diameter = 4.35 mm

Inspection Status
PASS



Can you tell
which bolt isn't

Hard?

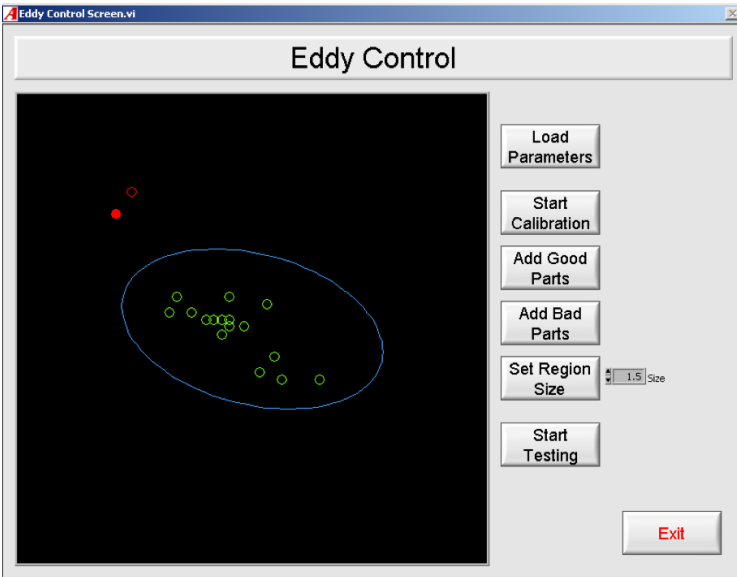
We can!

*Our high speed eddy current system
now integrates with all our machinery to
give you the ability to verify that each and
every part went through the heat treat process*

ADAPTIVETM
eddy current

NEW ADAPTIVE EDDY CURRENT

HIGH SPEED | HARDNESS TESTING | 100% INSPECTION



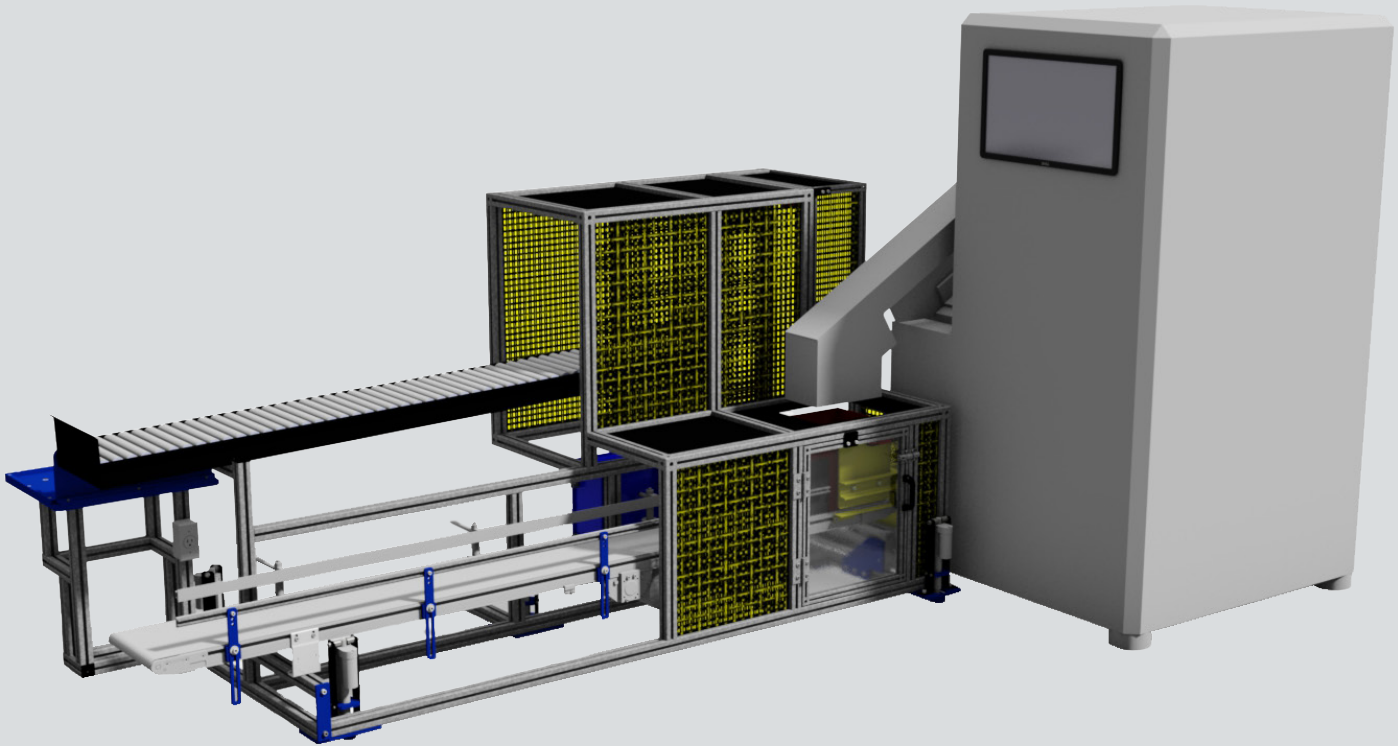
Our Adaptive Eddy Current™ was internally designed to exceed today's stringent quality standards. We have spent many hours developing and testing our eddy current to be adaptive and configured for high speed inspection. We have designed Adaptive Eddy Current™ in such a way that it can be added into all our product lines and made part of our Attica Vision software.

A little info about Eddy Current

Eddy Current Testing is an electromagnetic technique used on conductive materials to detect several conditions. When an energized coil is brought near to the surface of a metal component, eddy currents are induced into the specimen. These currents create a magnetic field that opposes the original magnetic field. Sub-surface defects will distort the eddy currents and alter the opposing magnetic field. By measuring how the impedance of the coil in close proximity to the specimen is affected by variations in the magnetic field

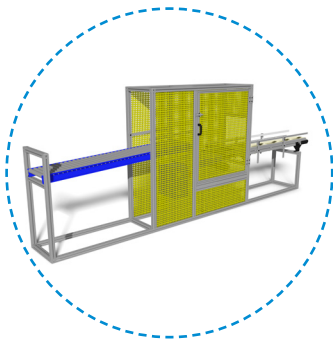
Eddy Current Inspection is a non-contact procedure that is unaffected by the presence of oils, paints and coatings on the test specimen. This greatly reduces preparation time prior to inspection. Eddy current testing is very fast, if used in the correct material handling system— making it ideal for high volume sorting of parts for flaws, and material anomalies.

Eddy currents are also affected by the electrical conductivity and magnetic permeability of materials. Therefore, eddy current measurements can be used to sort materials. It can also tell if a material has seen high temperatures or been heat treated, which changes the conductivity of some materials. One of the major advantages of eddy current as an NDT tool; is the speed that the inspections and measurements can be performed.



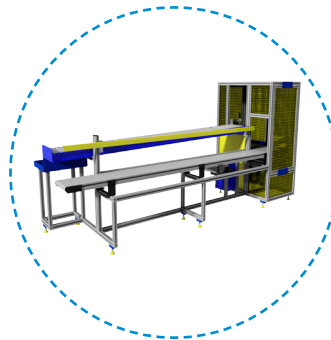
AP SERIES | PACKAGING | HANDLING | COUNTING

AP-C100 LONG CONVEYOR



The AP-C100 is our standardized packaging and handling system. This system works with the inspection system to count your batch, index the boxes, and advance the next box in place. This system allows the machine to continue to run while you bring in new boxes.

AP-C200 DUAL CONVEYOR

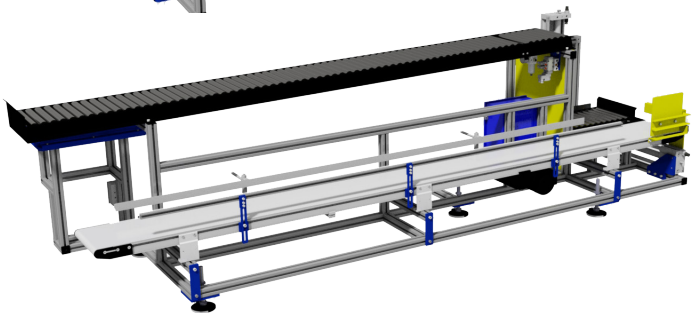
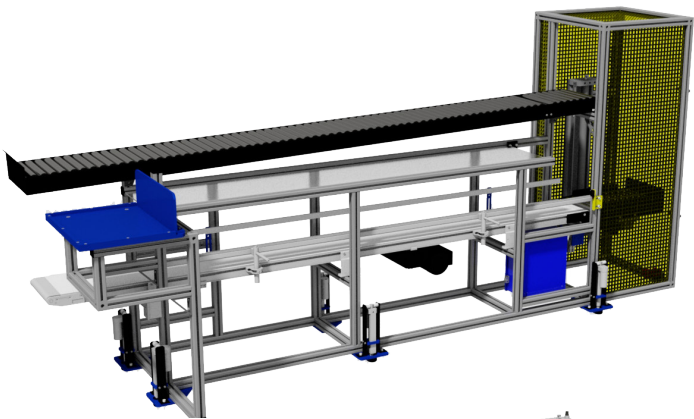
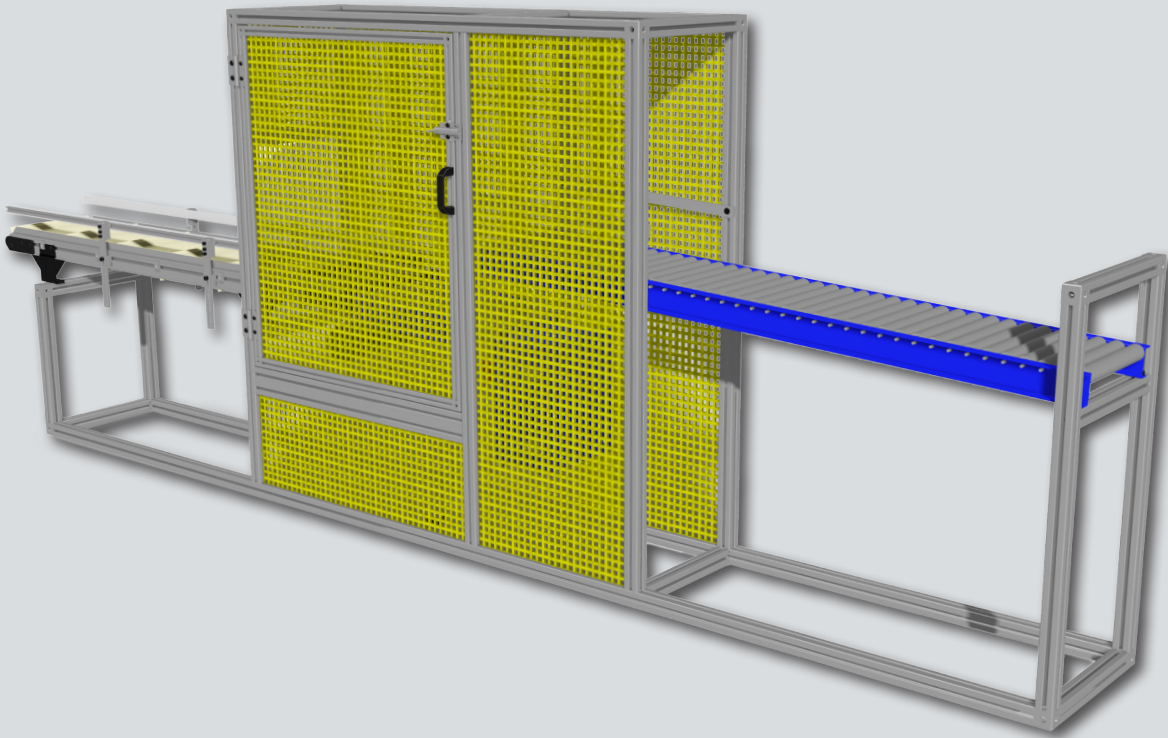


The AP-C200 is our "side-by-side" packaging system that allows for a large amount of boxes to be setup at one time. This side by side system has a larger footprint, but it allows the user to walk away from the machine while the machine continues to box your product.

AP-C200OU OVER-UNDER CONVEYOR



The AP-C200OU is a deviation from the standard model that allows you to have your conveyors design in a "Over/Under" fashion. This allows for a smaller footprint and gives each of our customers another option for packaging solutions for their equipment.



Adaptive Eddy Current

AP Series

AF Series

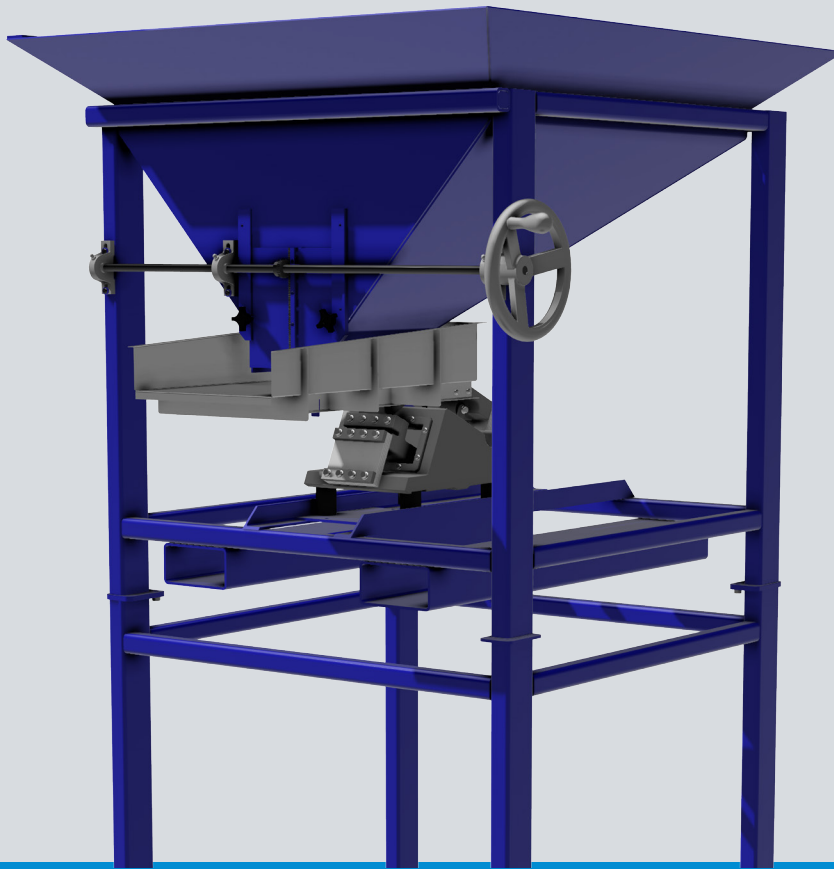
AV-B100 Series

AV-D100 Series

AV-R100 Series

MicronScope

Additional Options



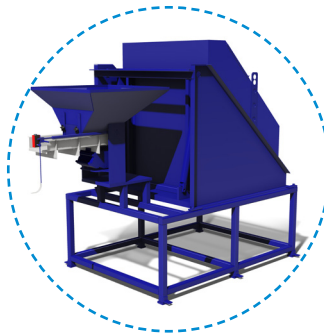
AF SERIES | FEEDING | BULK LOADING

AF-G100 GRAVITY FED



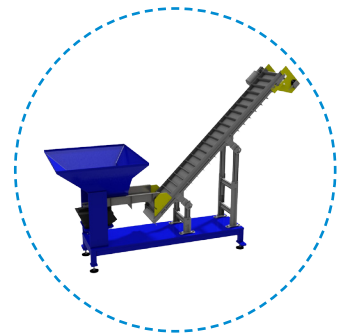
The AF-G100 is a gravity fed bulk feeding system that incorporates into each of our inspection systems. Designed to be loaded with a fork lift, this system can be controlled through the system, or it can be setup as an independent feeding system.

AF-H100 HYDRAULIC FED

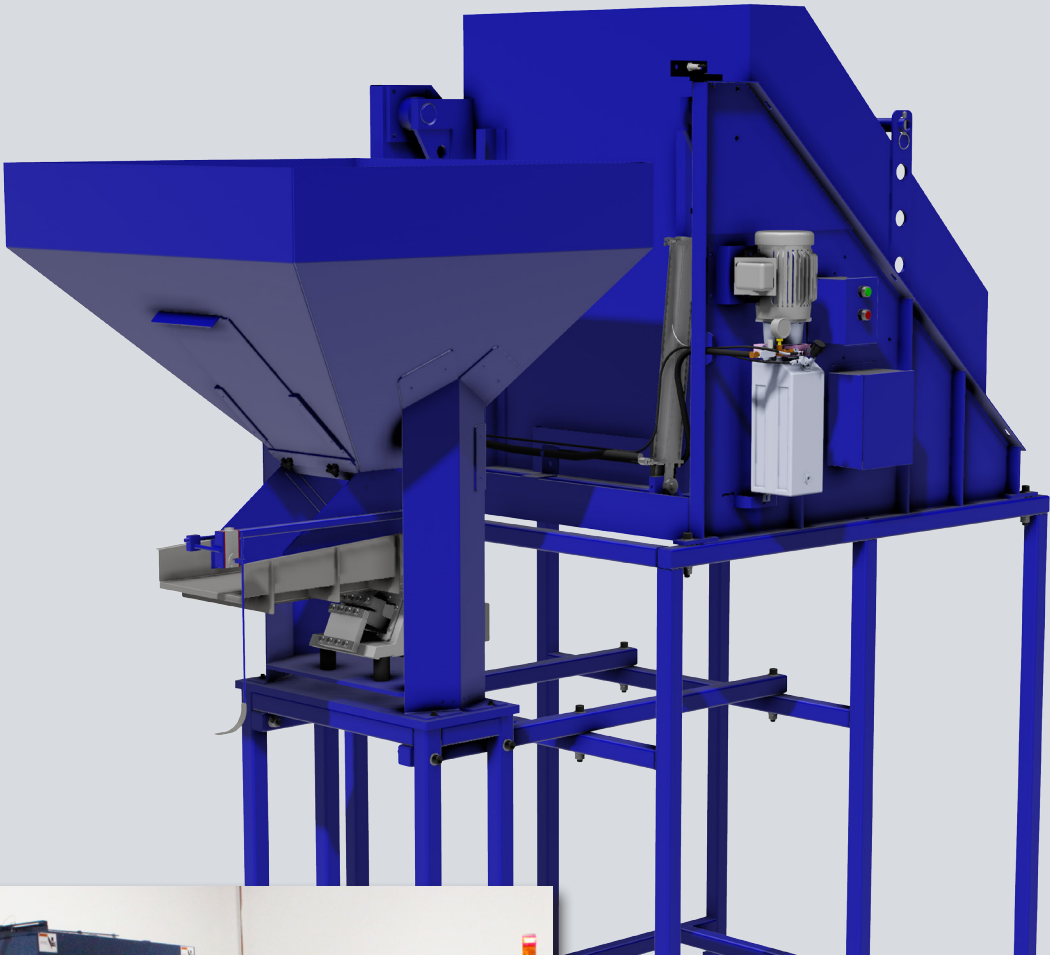


The AF-H100 is based off the original design of the G100, but it adds the hydraulic lift feature allowing you to load the unit as ground level. From here, the unit will swing and load the inspection machine without any interaction from the operator.

AF-C100 CONVEYOR FED



The AF-C100 is our bulk feeding system that uses a conveyor to transfer the parts. Some of the many options of the AF-C100 include magnetic conveyors, cleated conveyors, steps conveyors, and more. This system allows us to provide another loading option.



Adaptive Eddy Current

AP Series

AF Series

AV-B100 Series

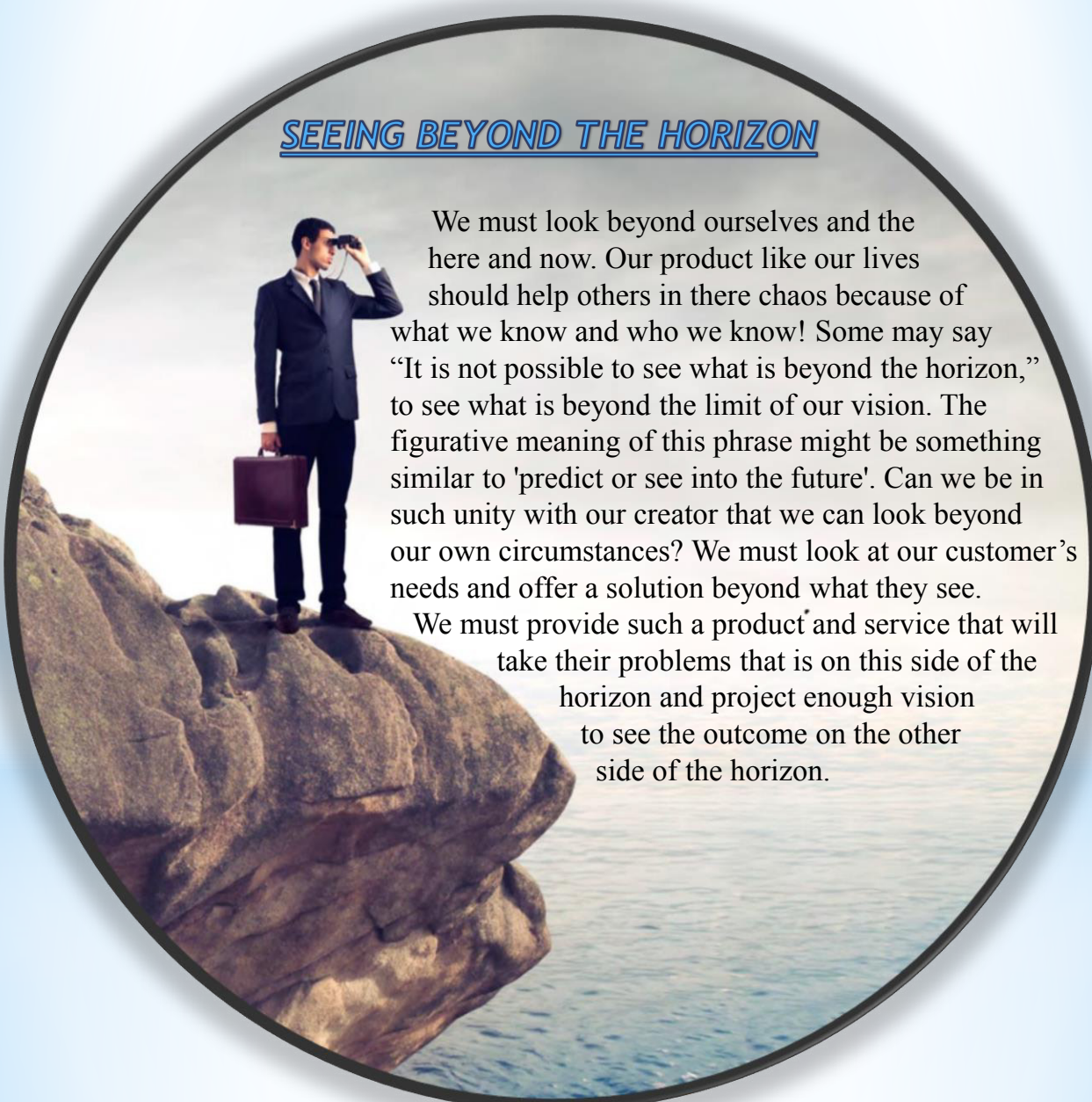
AV-D100 Series

AV-R100 Series

MicronScope

Additional Options

SEEING BEYOND THE HORIZON

A circular frame containing a photograph of a man in a dark suit and tie standing on the edge of a large, dark rock. He is holding a brown briefcase in his right hand and looking through binoculars with his left hand. The rock is positioned over a body of water, and the horizon is visible in the distance under a clear sky.

We must look beyond ourselves and the here and now. Our product like our lives should help others in there chaos because of what we know and who we know! Some may say “It is not possible to see what is beyond the horizon,” to see what is beyond the limit of our vision. The figurative meaning of this phrase might be something similar to 'predict or see into the future'. Can we be in such unity with our creator that we can look beyond our own circumstances? We must look at our customer’s needs and offer a solution beyond what they see.

We must provide such a product and service that will take their problems that is on this side of the horizon and project enough vision to see the outcome on the other side of the horizon.

Attica Automation

| Requestor information | |
|-----------------------|--|
| Company name | |
| Street address | |
| City and Zip | |
| Phone number | |

| RFQ specific information | |
|--------------------------------|--|
| Date of request | |
| Deadline for delivery of quote | |

| Contact persons | |
|--------------------------|--|
| For purchasing questions | |
| For technical questions | |

| Quality requirements | | |
|--------------------------------------|-------------|---------|
| Defect listing (order of importance) | Defect Name | Samples |
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| | | GOOD |

| Additional Questions | Notes | | |
|----------------------------------|-------|-----|----|
| Total Quantity? | | | |
| Shift per day w/ hrs per day? | | | |
| Speed requirements? | | | |
| Prints for each part? | | | |
| Budget for the project? | | | |
| Do they need a capability study? | | | |
| What is their biggest need? | | | |
| | | Yes | No |

Email to sales@atticaautomation.com

SO WHY WAIT?
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