



Automated X-ray Inspection Systems



Autonomous Operation for Increased Productivity

PRECISION ROBOTICS

for accurate and repeatable product placement.

CHOOSE THE BEST COMBINATION

of North Star Imaging's X-ray or CT system and robot to meet your needs.

SIMPLE INTERFACE

for a superior user experience and seamless operator transition.

RobotiX Systems

Increasing Productivity Through Autonomous Operation

Incorporating robotic systems into your processes can help increase your operational efficiencies and improve testing quality. Automation and continuous improvement in process efficiency is critical in today's workplace where resources are stretched and human capital is at a premium.

North Star Imaging's RobotiX loaders and manipulators allow for automatic part loading/unloading and parts manipulation for reduced cycle times, increased productivity, and better imaging for complex parts.

Our patented Dual RobotiX solution allows you to easily capture images on parts with complex geometries-eliminating the need for film exposure and complicated fixturing. The increased freedom of motion of two robot arms working in harmony to scan around your parts means less manual parts repositioning and door time for faster turnaround times.

Precision Robotics

Our RobotiX solutions, when combined with our Assisted Defect Recognition software can greatly automate the X-ray inspection process. This is more important than ever in a tight job market where human capital is at a premium.

Simple Interface

RobotiX function effortlessly through a simple interface that allows the operator to easily create new robotic motion programs. RobotiX motion programs are created through our efX-DR acquisition software, which allows the operator to use a single software interface.

Multiple Robotic Solutions for Your Automation Needs

Our standard RobotiX solutions are designed to seamlessly integrate with our standard X-ray systems and efX-DR & efX-CT software. We have a robotic solution for all types of applications, part sizes, and operational processes.



RobotiX Part Loaders

RobotiX part loaders allow for automatic part loading and unloading for reduced cycle times and increased productivity.

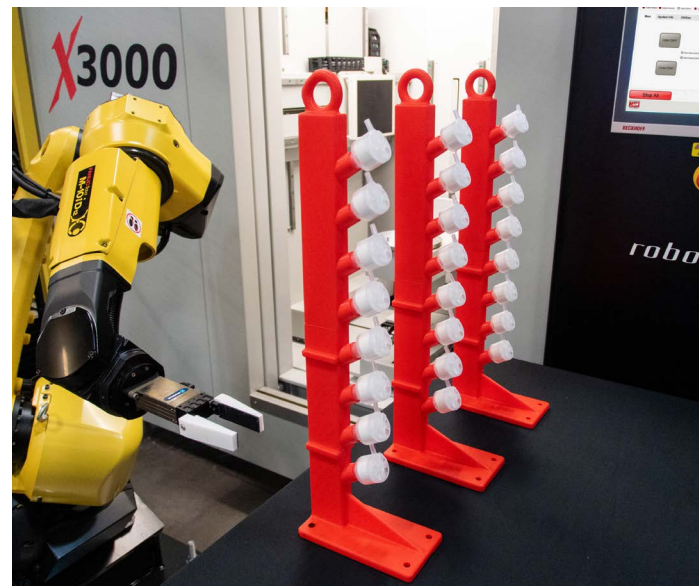
Set-up and operation of our RobotiX part loaders are effortless through a simple interface that allows the operator to easily create new robotic motion programs. RobotiX motion programs are created through NSI's efX-DR acquisition software. This feature allows the user to program the robot and configure the image acquisition parameters all through a single software interface. This means your operators don't have to learn another software program, which saves your company valuable time and money.

Benefits

- Automatic part loading for autonomous operation
- Reduced cycle time for increased productivity
- Simple user interface with sub-routines
- Seamless integration with efX-DR & CT

Features

- Available on the X25, X3000, X5000
- 6 Axis
- Reach & capacity dependent upon application
- Up to ± 0.00079 in (± 0.02 mm) repeatability
- OSHA Compliant Safety Fence



X25 RobotiX Part Loader

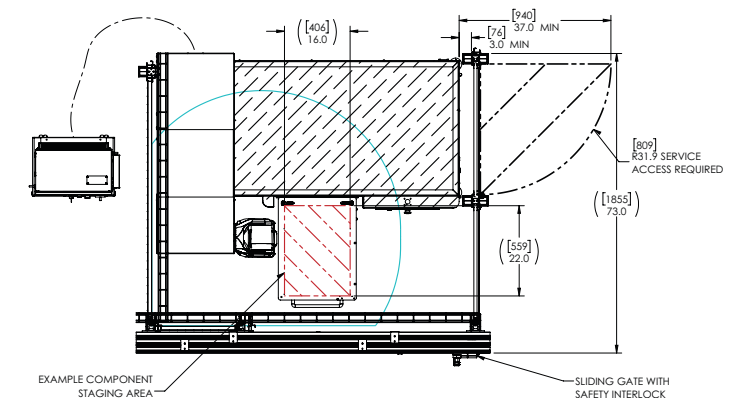


X-ray System Highlights

- Ideal for submicron X-ray and CT applications
- X-ray Energies from 10–160 kV
- Maximum Focal Distance: 37 in [94 cm]
- Overall maximum System Resolution: ~ 900 nm
- 6 in [15 cm] diameter x 9 in [22 cm] tall nominal part envelope

RobotiX Loader Highlights

- Fanuc LR-Mate 200iD/7L robot
- Maximum Payload: 15 lb [7 kg]
- Mounted to the side of the cabinet
- Cascading primary safety gate
- Secondary swing gate with padlock for side panel service access
- Supports electronic grippers



X3000 RobotiX Part Loader

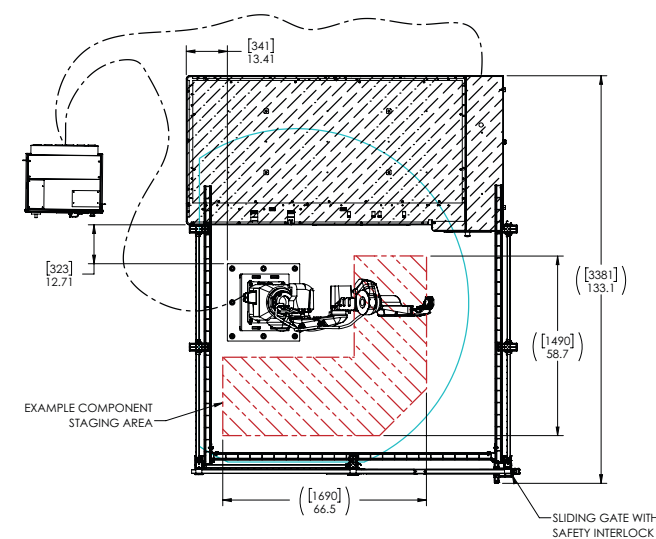


X-ray System Highlights

- X-ray Energies from 10–240 kV
- Maximum Focal Distance: 53 in [134.6 cm]
- Overall Maximum System Resolution: ~900 nm
- 19.5 in [50 cm] diameter x 24 in [61 cm] tall nominal part envelope

RobotiX Loader Highlights

- Fanuc M-10iD/12 robot
- Maximum Payload: 26 lb [12 kg]
- Robot mounted on angled pedestal
- Mount is anchored to floor
- Safety fence with sliding gate
- Supports electronic and pneumatic grippers



X5000 RobotiX Part Loader

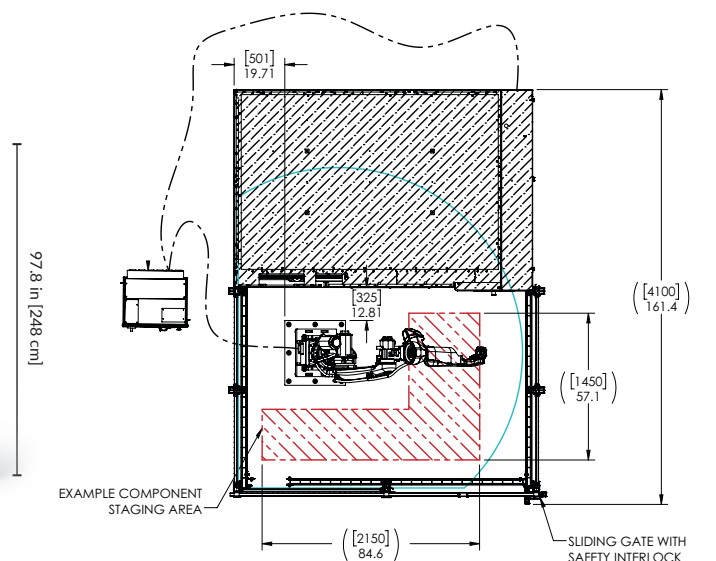


X-ray System Highlights

- X-ray Energies from 10–450 kV
- Maximum Focal Distance: 47 in [119.4 cm]
- Overall Maximum System Resolution: ~900 nm
- 32 in [81 cm] diameter x 58 in [121 cm] tall nominal part envelope

RobotiX Loader Highlights

- Fanuc M-20iD/35 robot
- Maximum Payload: 77 lb [35 kg]
- Robot mounted on angled pedestal
- Mount is anchored to floor
- Safety fence with sliding gate
- Supports electronic and pneumatic grippers



RobotiX Part Manipulators

North Star Imaging's RobotiX manipulators allow you to scan more parts quicker for reduced cycle times and increased productivity.

Scanning parts with complex geometries can require you to get scans from different angles. If done manually, someone is required to reposition parts and possibly change out fixtures. Time is wasted each time the X-ray tube shuts off and the door has to open and close.

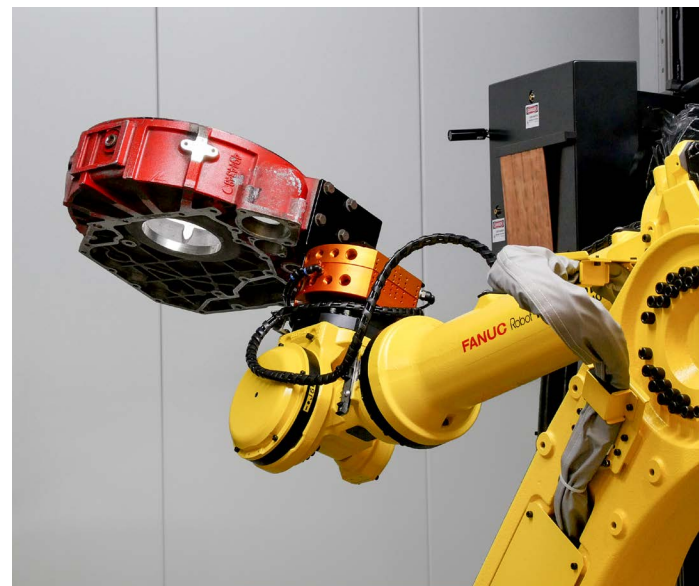
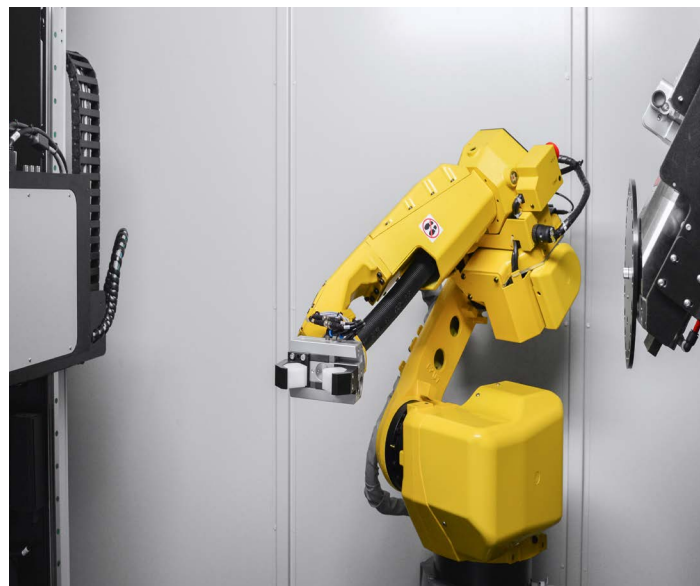
Our robotiX part manipulators can eliminate wasted time by repositioning parts as needed for each scan.

Benefits

- Automatic part manipulation for autonomous operation
- Reduced cycle time for increased productivity
- Simple user interface with sub-routines
- Seamless integration with efX-DR & CT

Features

- Available on the X5000 & X7000
- 6 Axis
- Reach & capacity dependent upon application
- Up to ± 0.00079 in (± 0.02 mm) repeatability



X5000 RobotiX Part Manipulator

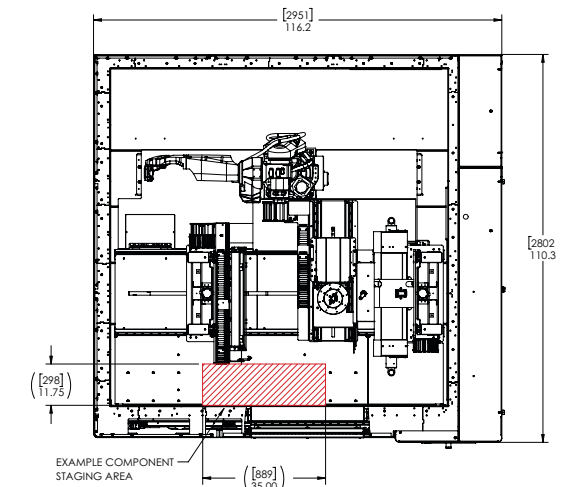


X-ray System Highlights

- X-ray Energies from 10–450 kV
- Maximum Focal Distance: 47 in [119.4 cm]
- Overall Maximum System Resolution: ~ 900 nm
- 32 in [81 cm] diameter x 48 in [121 cm] tall nominal part envelope
- Cabinet extended by 32 in [81 cm] in comparison to the standard X5000

RobotiX Loader Highlights

- Fanuc M-20iD/25 robot
- Maximum Payload: 55 lb [25 kg]
- Robot mounted to the base of the X5000 manipulator
- Robot is placed behind the manipulator in the radiation enclosure
- Supports pneumatic grippers



X7000 RobotiX Part Manipulator

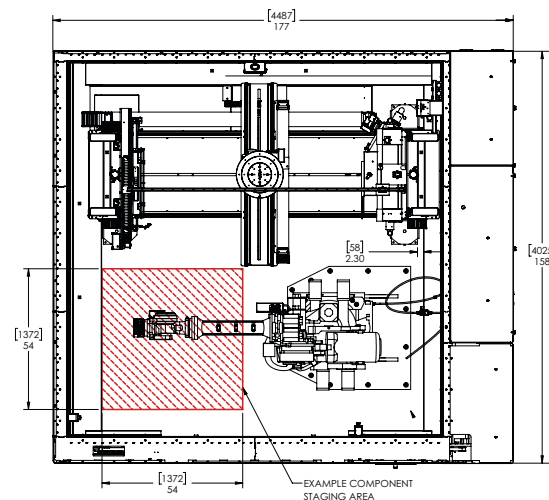


X-ray System Highlights

- X-ray Energies from 10–450 kV
- Maximum Focal Distance: 90 in [228 cm]
- Overall Maximum System Resolution: ~900 nm
- 60 in [152 cm] diameter x 60 in [152 cm] tall nominal part envelope
- Cabinet extended by 48 in [122 cm] in comparison to the standard X7000

RobotiX Loader Highlights

- Fanuc M-2000iC/210F robot
- Maximum Payload: 462 lb [210 kg]
- Robot mounted to the base of the X7000 manipulator
- Robot is placed in front of the manipulator in the radiation enclosure
- Supports pneumatic grippers

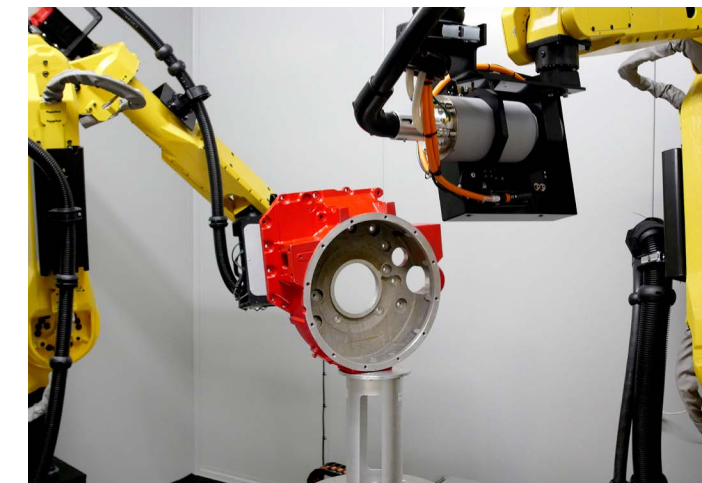


X7000 Dual RobotiX



North Star Imaging's unique Dual RobotiX precision technology features two robot arms working in harmony of movement to scan large parts.

Our simple interface allows operators to X-ray inspect large parts using 6-degrees of motion at any given point. The results — image accuracy, less complex fixturing and faster turnaround times.



Benefits

- Increased freedom of motion compared to conventional manipulator systems
- Allows for the capture images on complex parts which may have previously required film exposure or complex fixturing
- Ability to maneuver the tube or detector within cavities to support single wall exposures resulting in an improved image quality
- Increased throughput by providing the ability to acquire images of complex parts with less door cycles and manual repositioning
- Less need for complex fixture design, reducing time and cost to setup and support inspections
- Full control of the robots is provided through NSI's motion and imaging software
- Increase in the safety of system operators

ISO 9001:2015
ISO 14001:2015



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