Technical specifications

Unit size and weight	Robotized unit: 1600 x 1300 mm – 800 kg. With rotary table: 3000 x 1300 mm – 1000 kg. With closure: 4830 x 2900mm – 3000 kg.
Max. part size specifications	Cylinder of 2000 mm diameter and 2000 mm height.
Field of view	From 340 x 215 x 200 mm^3 to 550 x 390 x 200 mm^3.
Cameras	1.4 Mpxls / 5 Mpxls 3D sensor camera. Photogrammetry camera: 7 µm + 7 µm/m.
Accuracy	From 18 µm.
Repeatability	20 µm.
Speed	Up to 0.25 sec/shot.
Operating conditions	Temperature: 5 – 45°. Light: Designed to work regardless of light conditions, in ambient industrial conditions. Electrical compatibility: 200 V – 600 V 50 Hz / 60 Hz III Phase.
Rotary table (up to 600 KG parts)	Includes flexible holding fixtures for supporting multiple parts types.
Floor mounting or fixing	Anchors for floor fixing.
Closure	Includes emergency stop button, safety sensors and fencing. Entry: 2500 mm width with photoelectric sensors. Maintenance door.

Contact us

Asea Brown Boveri, S.A.
Illa de Buda 55
08192 Sant Quirze del Valles
Barcelona, Spain

abb.com

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Specifications subject to change without notice.

August 2017

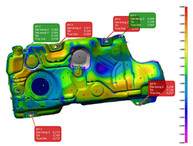
ROBOTICS

FlexInspect - Robotic quality inspection cell.

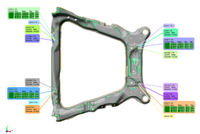
Guarantee in metrology, revolution in production.

Be one click away from 100% quality control automation

Tolerance color maps



Reference points control



Customizable reports

2D sections

FlexInspect (Sidio Airus®).
A new generation of measuring cells.
FlexInspect is a new generation of standardized measuring cells, which are designed to deliver cost-effective, state-of-the-art robotic 3d measuring operations. All cells deliver maximum performance whilst making optimum use of available space. Every stage in the product production (prototype / preproduction / ramp up / mass production) has its measurement needs. ABB have developed different solutions to suit your needs.
The cells are equipped with centralized power distribution. All components such as a robot, positioners, 3d scanning equipment, CAD comparison computer and other peripheral devices are supplied from one source; this means that only one power supply cable is necessary for the whole cell.

FlexInspect (Sidio Airus®) is the most effective solution in your industry.
- General industry.
- Automotive industry:
  – Cross members, stamped parts, door modules, exhaust systems, brake components, car seats, wheels, axles, dash boards.
  – Aeronautical industry: Geometrical inspection of 100% parts.

Be one click away from 100% Quality Control Automation.
A fruitful collaboration with nub3d, today part of ABB, has brought to the market the best-of-class solutions:

- "Plug & Play" system – Easy automated inspection to simplify operation for production employees.
- "Shop floor" inspection – To provide rapid feedback about production process variation, for improved process control and scrap reduction.
- Cost reduction – Reduction of the faulty parts replacement while value is added by the capacity of ensuring 100% quality.
- Competitiveness increase – Time saving on inspection process execution and big savings based on the reduction of revision campaigns.
- Compliance with the International Standards – VDI/VDE certification Part 2&3.

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The FlexInspect (Sidio Airus®) turnkey solution is the ultimate answer for industries looking for a fast ROI while reaching 100% quality control with a productivity ramp up, and operative costs reduction.

Key benefits

Single camera technology.
One camera system reduces the number of views overlapping and potential hardware failures.

White/blue light technology.
Great and adjustable light power to get the best digitizing results regardless of light conditions.

Shiny/black parts digitization.
EDR technology implemented system parameters adjustment to easily digitize shiny and black parts without the need for spray.

Extremely fast.
The XR technology and seamless integration with the ABB robot allow the scanning process to be done within the fastest time while the measured data is processed in real time using multiprocessor technology.

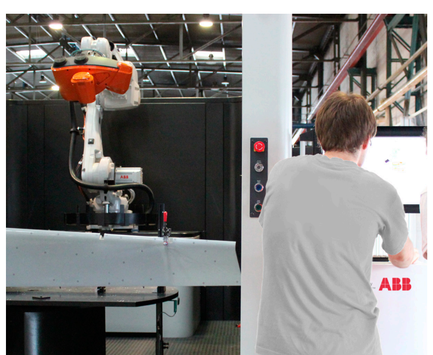
Self-compensation.
Vibrations and ambient conditions variations no longer affect the measurement, thanks to integrated photogrammetric technology.

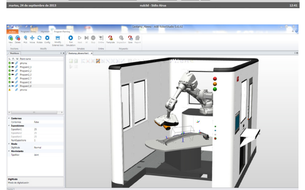
High flexibility
Combined with flexible holding fixtures, the simulator based on RobotStudio® allows easy configuration of new parts using only CAD data and an inspection plan.

Fast learning curve
Quick customization and very easy to use solution. No specific skills are required. Two training days are enough to handle and control the full operation of the cell.

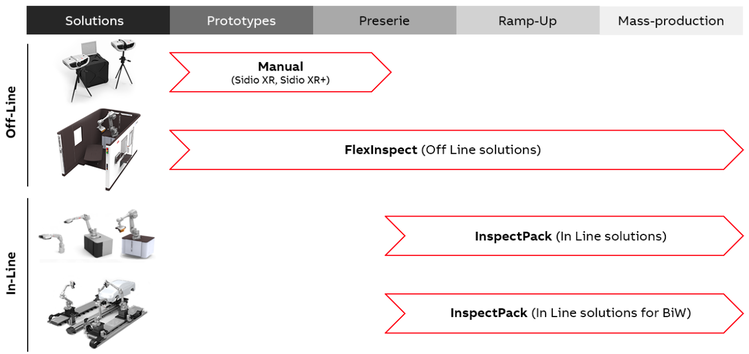
Touch screen control
Designed to allow the operator to have a hand in the process thanks to the friendly user interface and intuitive process.

Remote control assistance
Unit fully integrated with the ABB Patented Remote Service for retrieval of the system performance data. The root cause is immediately diagnosed and identified to determine how performance issues can be resolved.





3D Quality inspection: range of solutions



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Every stage in the product production & design (prototype / preproduction / ramp up / mass production) has its measurement needs: Accuracy, speed, portability, automation.

Manual (Sidio XR and XR+)
Portable 3d scanners range. Easily transportable in small size suitcase. There are different accessories that give you the ability to measure parts from several centimeters up to 5 meters. Manual measurement.

FlexInspect (Sidio Airus)
Automatic quality control of parts, offline measuring, manual loading and unloading. Maximum piece size 2 m.

InspectPack (Sidio Lite)
Automatic quality control of parts, in-line measuring, automatic loading and unloading. Modular system. Multirobot and multiscanner. It covers your measuring online needs.

InspectPack BiW (Sidio Lite)
Automatic quality control of parts, off-line/in-line measuring. Modular system. Multirobot and multiscanner. Maximum piece size 7 m. Specific design for the control of a vehicle body.