



fives



YOUR **SMART AUTOMATION**
SOLUTIONS PROVIDER

WELD INSPECTION

Motion-Synchronized Robotic Inspection for Complex Geometries

Kawasaki Robotics' patented Pulseboard technology, integrated into an advanced weld inspection solution by Fives DyAG's automation group, transforms robotic inspection by synchronizing image acquisition directly to real-time robot movement enabling distortion-free, high-resolution inspection of complex welds and curved surfaces even during acceleration and deceleration.

Unlike conventional robotic inspection systems that rely on fixed-frequency image triggering, Kawasaki's proprietary Pulseboard technology continuously outputs high-speed pulse signals based on actual robot tool-tip displacement. This allows line-scan cameras to capture images at precise positional intervals regardless of robot speed variation, dramatically improving inspection accuracy, repeatability, and cycle times.

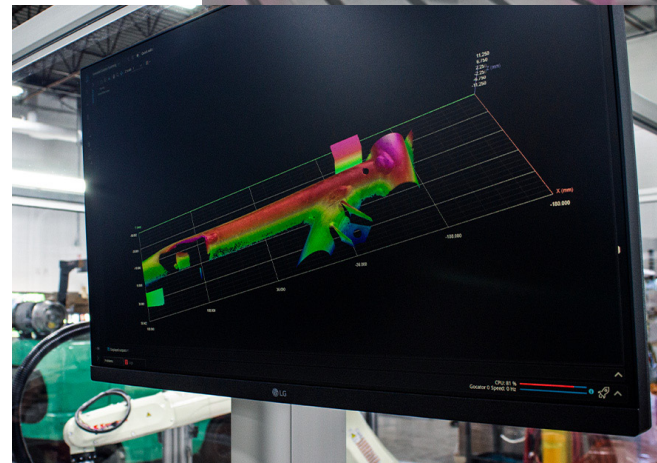
Fives DyAG's vision integration expertise, combined with a 3D line-scan camera and Kawasaki's advanced motion-control platform, delivers high-speed, high-accuracy inspection without requiring repeated robot stops or constant-speed motion profiles.

Key Benefits

- Up to 10x faster inspection cycle times
- Distortion-free imaging during acceleration and deceleration
- Precise defect localization and traceability
- Reduced robot teaching and setup requirements
- Accurate inspection of complex curves and geometries
- Real-time synchronization between robot motion and image acquisition
- Seamless integration into existing Kawasaki robotic systems

Specifications

Kawasaki Robot	RS013N
Kawasaki Controller	F60
Payload	13kg
Max Reach	1460mm
Repeatability	±0.03
Cell Footprint (L x W x H)	70" x 80" x 79"



Fives DyAG specializes in custom industrial automation and systems integration, delivering solutions in controls engineering, robotics, machine vision, and custom software for advanced manufacturing environments.

MAIN OFFICE/HQ: Fives DyAG Corp. | 46912 Liberty Drive
Wixom, Michigan 48393 | fdc.sales@fivesgroup.com | +248 426 8300
www.fivesgroup.com

Contact us!
fdc.sales@fivesgroup.com
T +1 248 426 8300

