

Virtek Vision

Transform Rail Industry Assembly with AI-Driven Machine Vision Solutions

The rail industry demands the highest standards of precision, efficiency and quality in its assembly processes.

Enter Virtek IRIS™ 3D with process monitoring feature, the next-generation solutions designed to elevate your operations with state-of-the-art AI and laser-based vision systems. Discover how these innovations can revolutionise your assembly processes, reduce costs and improve overall quality.



Virtek Vision Positioning System (VPS)

Watch our [video](#) to find out more

The Power of Vision in Your Manufacturing Process

Virtek Iris 3D takes assembly to a new level by integrating a laser-guided vision system that guides operators through part assembly with unmatched accuracy and efficiency. Here's how:

- **Eliminate manual measuring, marking and fitting:** Traditional manual methods are time-consuming and prone to errors. Virtek's laser system projects the exact part positions directly from CAD data on to the workpiece, ensuring precise as-designed placement every time.
- **Reduce templates & storage:** Physical templates are costly and can cause production delays. By eliminating the need for templates, the IRIS software significantly reduces production expenses and streamlines your workflow.
- **Minimise human error & enable rapid design changes:** Direct CAD integration ensures that assemblers are always working with the most current designs, eliminating discrepancies

between 'as-built' and 'as-designed'. This allows for quick adaptation to design changes without compromising quality.

AI-Enabled Camera System for Enhanced Process Monitoring

The Virtek IRIS 3D process monitoring & AI camera system introduces a transformative shift in quality assurance and process visibility:

- **Real-time QA integration:** Our latest software upgrade includes the process monitoring feature, paired with the NEW AI-enabled camera system. This integration provides real-time feedback and quality assurance during the assembly process.
- **Persistent quality records:** Automate the generation of detailed quality records for every part. This includes high-resolution images, serial numbers, time stamps and adherence to quality standards, ensuring comprehensive documentation.
- **Visual documentation:** Seamlessly capture high-

resolution images at critical production stages, creating a detailed visual record of each assembly step.

- **Full traceability:** Assign unique serial numbers to every part or component, linking them to captured images for complete traceability. Easily track the production history of any unit, enhancing transparency and accountability.
- **Data-driven process analytics:** Utilise real-time digital data to gain valuable insights into your assembly line efficiency. Identify bottlenecks, optimise processes and make informed decisions based on concrete data.
- **Automated image capture:** Predefine stages for image capture to eliminate manual intervention, enhancing the efficiency and accuracy of your assembly line.
- **Time-stamped action logging & reporting:** Every action within the work order is time-stamped, producing detailed quality records. Comprehensive reporting provides insights into the timing of each step, helping to identify areas for improvement.

Elevate Your Assembly Process Today

Are you ready to revolutionise your rail industry assembly processes? Embrace the future of precision and efficiency with Virtek's Machine Vision Solutions.

Check out our new AI-enabled camera system



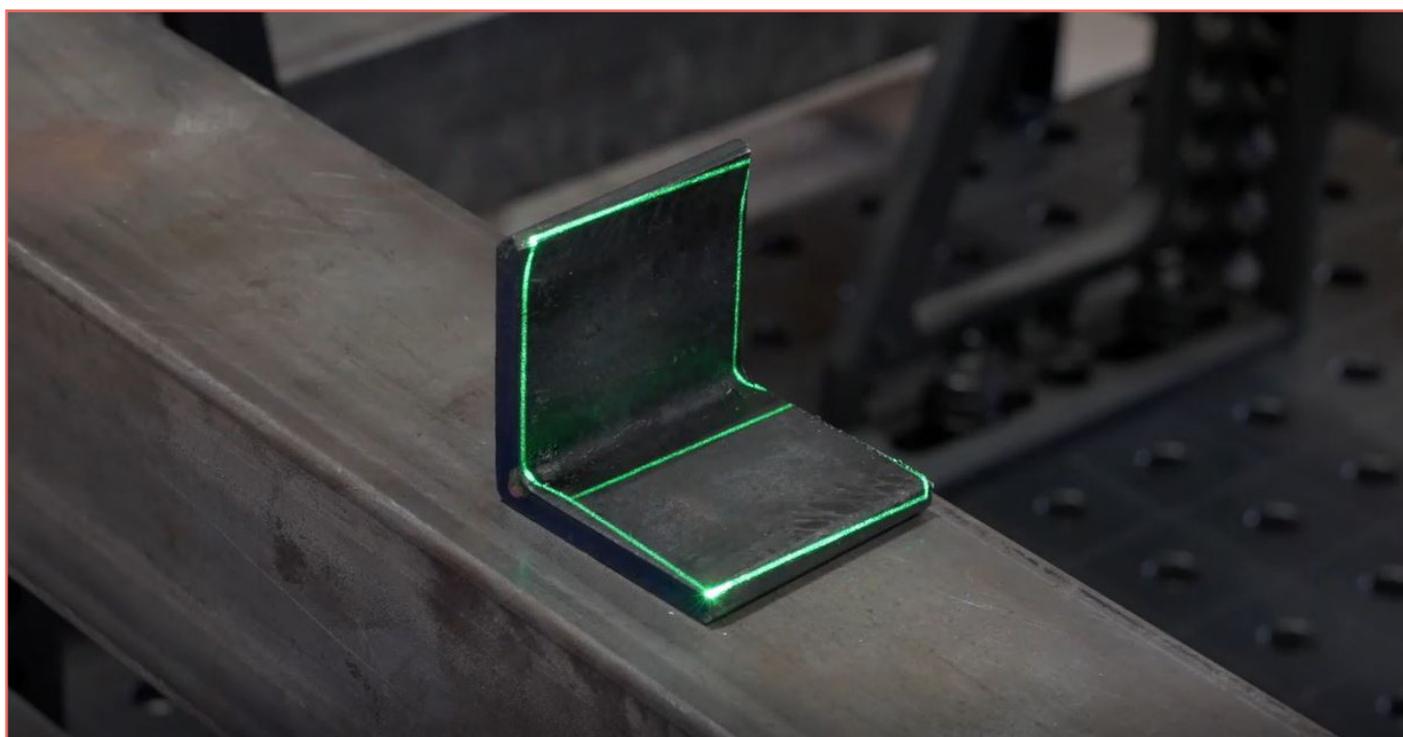
Click [here](#) to watch our video

AI-enabled solutions are designed to provide unparalleled accuracy, reduce costs, and enhance overall quality.

Take the first step towards transforming your operations and elevate your assembly process. Contact us today to schedule a demo and unlock the potential of AI and laser-guided precision for your rail industry projects.

www.virtekvision.com

VIRTEK IRIS 



VIRTEK

Engineering
Simplicity.

Machine Vision Solutions for Welded Assembly



ELIMINATE JIGS AND TEMPLATES



PROCESS MONITORING

Virtek Iris™ 3D with Process and Monitoring and Ai-enabled Camera System: Create a permanent quality record, by capturing images, visually documenting every step in the assembly process. Includes detailed reporting for quality assurance.

[WATCH VIDEO](#)



PART ASSEMBLY

Virtek Iris™ 3D with Vision Positioning System (VPS): Simplify fitting and accelerate the assembly process by eliminating manual measurement, marking and templates using NEW features CAD Visualization and Pick n Project (PnP).

[WATCH VIDEO](#)



LAYOUT

Virtek LTG™ with Laser Projection System (LPS10): Streamline the layout process in seconds, ideal for "one-of-a-kind" rail industry projects. Designed to optimize the assembly of steel and miscellaneous metals.

[WATCH VIDEO](#)

GAIN MORE EFFICIENCIES IN THE WELDED ASSEMBLY PROCESS

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