



Optimise Start and End of Line Operations

Streamline Production Processes and Enhance Verification with New Machine Vision and Fixed Industrial Scanner Solutions from Zebra Technologies



In fast-moving, high-pressured production environments, efficient start and end-of-line operations are essential. You need to ensure that the right products arrive at the right place at the right time – and that everything’s as it should be as items proceed on their way.

Save Time, Effort and Cost While Improving Productivity

Checking contents, reading codes and the end-to-end tracking of items is key to operational efficiency. Automation makes life significantly easier in each of these areas.

Whether you need to check a tote, read the code on a pallet, make sure a box has gone to the right conveyor or ensure the type and presence of items in a stillage, automated sensor-based scanning systems can verify and validate everything for you. This can deliver significant time and cost savings, and when it comes to repetitive tasks, automated systems will always give you an edge.

A Smarter Solution to Streamline Production

Our innovative and automated Fixed Industrial Scanning and Machine Vision solutions provide trusted performance for the identification, measurement, tracking and inspection of items from production right through to distribution. Managed from an intuitive single software platform, these devices make life easier and more efficient in production-line environments.

Within any start and end-of-line operation, using Fixed Industrial Scanners will streamline repetitive scanning tasks. And with the devices purposefully designed to flex and grow with your business, you can easily enhance these same cameras with Machine Vision capabilities via a quick and simple software upgrade. This enables you to benefit from advanced imaging and sensing technology, without investing in new hardware – and without having to switch between software applications.



Optimal Versatility Enhances Efficiency and Quality Control

Thanks to their dual capability, the smart cameras make quick work of both code reading and more sophisticated visual inspections, as required.

You can mount a Fixed industrial Scanner on a production line, for example, to automatically scan a pallet or stillage as it approaches a location. Reading the code on the side of the pallet verifies that the right parts have arrived at the right point in the process.

Add the power of Machine Vision to your scanners (via a remotely managed software upgrade) and you can instantly take advantage of more advanced inspection applications. Now you can use the same camera to also check for the presence of the pallet wrapping, for example. Has it already been removed, so the contents are accessible to be loaded onto the production line? The same check can be repeated at the end of the line, before robotic de-stacking, to ensure processed items are properly prepared to pass on to the next job in the workflow.

Machine Vision can also be used to verify that contents being lifted out of the totes on a stillage are what they are meant to be – or to reject an item if it doesn't exactly match 'target image' parameters. The inspection functionality can also be programmed to alert production line supervisors to issues such as pallet wraps, unexpected item shapes or misalignment on a conveyor causing potential blockages, for example.

All this is enabled via industry-leading decoding algorithms and camera performance that helps enhance quality control and increase efficiencies while minimising downtime, wastage and operational risk.

| Fixed Industrial Scanner Functionality | Enhanced Machine Vision Capabilities |
|---|---|
| <ul style="list-style-type: none"> • Print and apply verification and data validation <ul style="list-style-type: none"> • Label quality checks and application verification, to ensure print quality is monitored and labels are properly fixed before they become a problem. • Code reading for conveyor routing <ul style="list-style-type: none"> • Basic reading of codes on the sides of: <ul style="list-style-type: none"> • Totes • Boxes • Pallets • Stillages | <ul style="list-style-type: none"> • Pallet wrap check before depalletization • Label presence checks • Advanced label content inspection • Package content presence and quantity checks • Quality inspections of package content • Palletising / Pick and plate coordinates • Operator guidance |

- ✓ Accelerate production processes
- ✓ Increase efficiency
- ✓ Decrease downtime
- ✓ Streamline workflows
- ✓ Improve accuracy
- ✓ Reduce risk



A Powerful Line-Up of Devices to Suit Your Applications



FS10
Your Quick and Compact Solution

Just plug this small footprint Fixed Industrial Scanning smart camera into the USB port of a workstation, laptop, tablet or any other host device to capture barcode data.



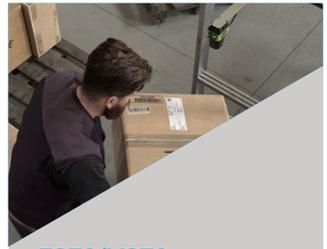
FS20/VS20
Your Easily Integrated Solution

Multiple connectivity options facilitate easy integration into your PLC or Host network, enabling primary Fixed Industrial Scanning and Machine Vision applications to feed all the processes that drive your business.



FS40/VS40
All-in-One Solution

Tailor this adaptable Fixed Industrial Scanning and Machine Vision device to your specific needs by choosing from flexible options that include standard and wide-angle field of view, liquid lens options, built in filters, and multiple illumination, power and connectivity options.



FS70/VS70
Fully Customizable Solution

Address complex imaging needs and make even the most challenging code reads or inspections easy to capture. Customise your Fixed Industrial Scanning and Machine Vision application by choosing from four image sensors and a wide range of C-mount lenses and lighting options.

Ease Scanner and Camera Management with Zebra Aurora™

Zebra Aurora is a single software platform to control your Fixed Industrial Scanners and Machine Vision smart cameras. Elegantly designed to provide a ‘consumer style’ interface, it removes much of the time and cost of running a network of devices across your locations – with several added benefits:

- **ImagePerfect** – Ensure you have the best image by capturing up to 16 images per event, while customising settings like exposure, illumination and more.
- **Golden Image Compare** – Quickly identify and resolve capture fails by comparing views to the ‘golden image’ that was captured during set-up. Images will appear side-by-side, enabling swift identification of the cause of the issue.
- **Build Capabilities** – Easily and quickly add (or configure) a wide range of tools and capabilities you need to your devices to get the job done, such as moving from scan to inspection, for example.¹
- **Connect Devices** – Interface the devices with your systems, to set up and customise PLC communications or GPIO behaviours and define the key data you want to send out, for example.

Take the Next Step

Following on from other landmark advances in manufacturing in recent years – from robotics to big data, real-time operational visibility, new materials, and more – Fixed Industrial Scanners and Machine Vision smart cameras present the next opportunity to secure significant efficiencies. These automated devices save time, help operatives work in more intuitive ways and safeguard the quality of your production line processes.

¹ Upgrade license fees may apply

For more information about machine vision solutions visit www.diversifiedtech.net



Diversified Technologies dba MCT/RAM
2 West Main Street, 3rd Floor Victor, NY 14564
www.diversifiedtech.net
585-461-2110 • sales@diversifiedtech.net



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Machine Vision Specialist