



# MANUFACTURING



## Industry Guide

# Datalogic at a glance

**Datalogic Group** is a global leader in the **automatic data capture and factory automation** markets. It is well known around the world for designing and producing barcode readers, mobile computers, sensors for detection, measurement and safety, RFID, machine vision and laser marking systems. Datalogic solutions help customers increase the quality of their processes in the **Retail, Manufacturing, Transportation & Logistics, and Healthcare** industries.

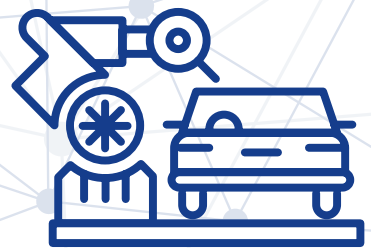
The Group has **50 years of history** behind it, during which enormous successes have been achieved: **8 R&D centers and 3 DL Labs in Italy, USA, Vietnam, and China; 9 manufacturing and repair facilities** in USA, Hungary, Slovakia, Italy, China, Vietnam, and Australia; a **portfolio of about 1,200 patents and patent applications** in multiple jurisdictions; thousands of prestigious partners and customers spread across five continents.

Datalogic Group has **offices in 27 countries worldwide**, with the headquarters in Bologna, Italy. It is through the close cooperation of **about 3,000 employees** that Datalogic can boast some of the most remarkable automatic data capture and factory automation solutions available today in the market.

## DATALOGIC TARGET INDUSTRIES



RETAIL



MANUFACTURING



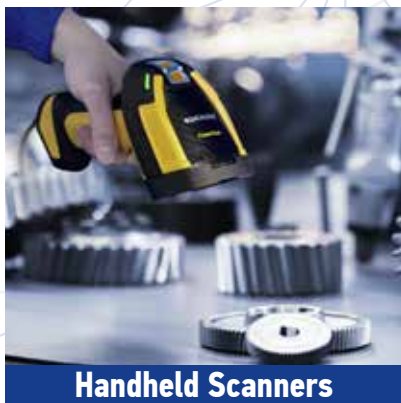
TRANSPORTATION  
& LOGISTICS



HEALTHCARE



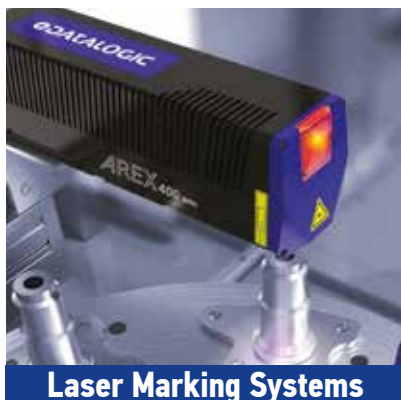
# DATALOGIC PRODUCT RANGE



**Handheld Scanners**



**Mobile Computers**



**Laser Marking Systems**



**Fixed Retail Scanners**



**Stationary Industrial Scanners**



**OEM Barcode Readers**



**RFID Systems**



## CUSTOMER SERVICE

Datalogic's Customer Service offers a wide and complete range of post-sales services. It is organized in three levels of support, in order to guarantee the most appropriate professional assistance based on the specific problem. Datalogic's Customer Service can deploy in each territory a team of multi-lingual professionals, with a broad technical expertise across the whole product range.

Our standard service portfolio includes: warranty extension, fast turnaround time for repairs, 24/7/365 phone support, next day on-site intervention and site audits. Datalogic can tailor the service offering to your specific needs.

Our experts will support every stage of your projects, from feasibility study to extended post-sales support, performing, when necessary, root cause analysis and remediation.



## EASEOFCARE Service Programs

Datalogic's EASEOFCARE Service Programs provide superior life-cycle support to ensure that products are always operating at peak performance. A variety of Service Programs are available to match your business requirements:



**FAST REPAIR TURNAROUND  
(OVERNIGHT/2 DAYS)**



**ACCIDENTAL DAMAGE  
COVERAGE**



**BOTH WAYS FREIGHT PAID  
BY DATALOGIC**



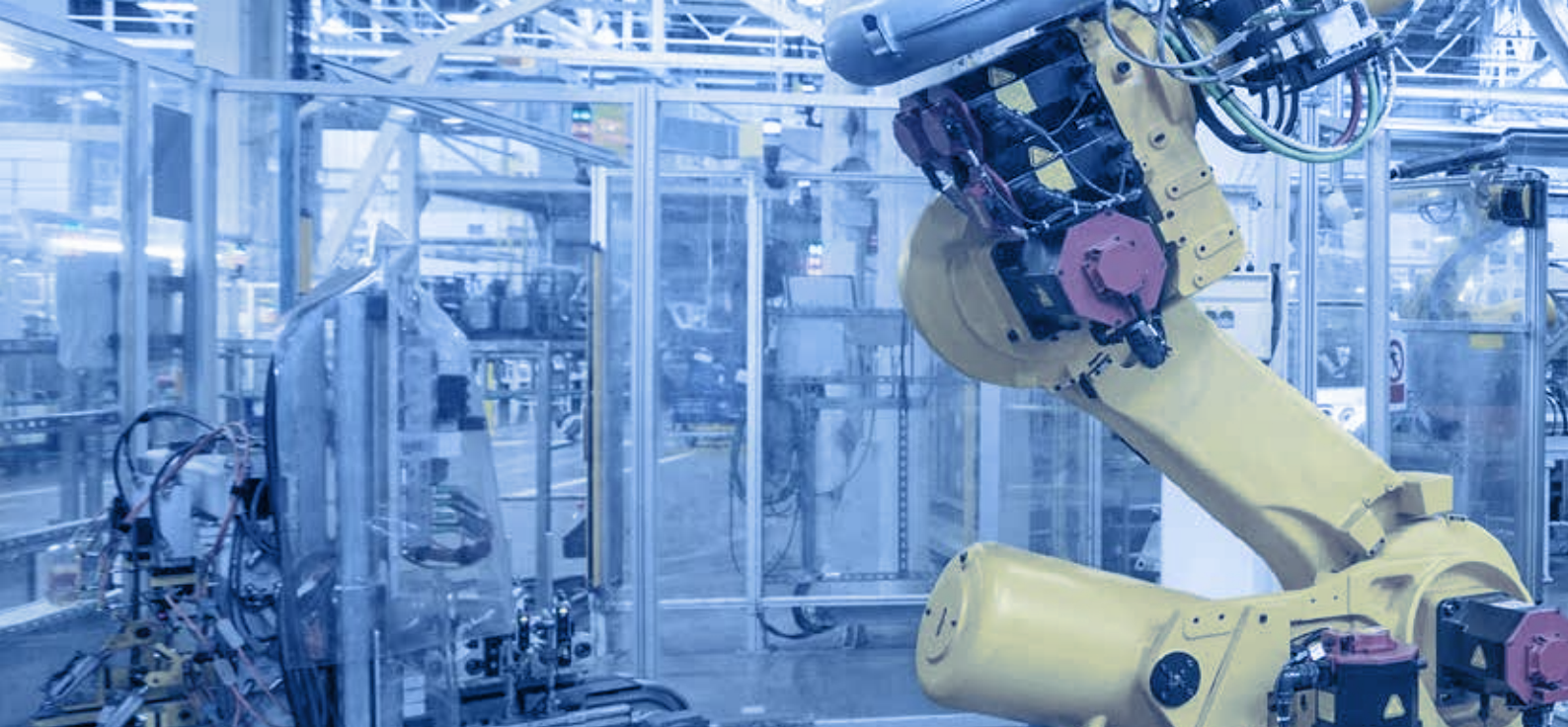
**DATALOGIC SHIELD  
FOR MOBILE PRODUCTS  
INCLUDED**



**3-5 YEARS CONTRACT  
SERVICE OPTIONS**

Please contact your sales representative to find out what type of services are available in your region.

[www.datalogic.com](http://www.datalogic.com)



# Manufacturing

## AUTOMOTIVE

Automotive manufacturing relies on a coordinated effort of manual and automated systems to deliver efficient productivity, total quality and traceability. Datalogic delivers parts identification, tracking and laser marking systems that keep production moving.

- PowerTrain assembly
- Interiors (texturing) assembly
- Suspensions & braking system assembly
- Exteriors assembly
- WIP traceability
- Direct Part Marking (marking and reading)
- Supplier components tracking



## TIRES

Automated sorting and shipping systems in tire manufacturing are necessary to manage high-volume production, keep it on-schedule, well tracked, and properly stored. Datalogic industrial barcode readers, high-resolution imagers, and mobile computers collect and transmit data to enterprise systems seamlessly maximizing efficiency.

- Tire assembly tracking
- Tire traceability and sorting on conveyor
- Tire traceability in process machine
- Quality inspection



## ELECTRONICS

Electronics depends on effective board identification, PCB traceability, and item branding for proper operation throughout the manufacturing process for component placement, board marking and identification, line traceability and more. Datalogic solutions keeps electronics manufacturers moving at peak performance.

- Board assembling and testing
- Device assembling and testing
- Personalization and branding
- Device packaging and warehousing
- Labeling and DPM verification and tracking
- Wafer marking
- Machine set-up - component reel identification







**Value Proposition**

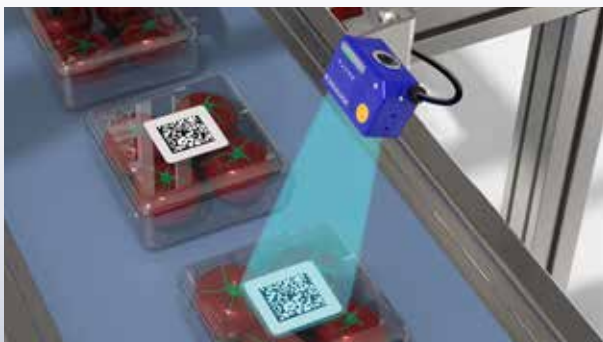
*We provide a unique portfolio of smart, interconnected devices able to protect, identify, sense, check and mark.*

# Industry

## PACKAGING

Food, beverage, pharma and consumer packaged goods move through the manufacturing process under the watchful eyes of Datalogic imagers. Datalogic technology detects barcode type, position, orientation, printing quality and encoded data assuring efficiency and error-free flawless production. Food and product safety are assured by stationary industrial and handheld barcode readers, mobile computers, and laser marking systems that identify and track items through the manufacturing process and on to distribution.

- Primary packaging tracking
- Cartoning traceability
- Bundling/Tray packing/Shrink wrapping traceability
- Case packing traceability
- End-of-Line/Palletizing/Wrapping/Robotics traceability
- Printed label verification



## INTRALOGISTICS

The Manufacturing process ends with intralogistics applications requiring specific identification solutions to prepare incoming material, components, and goods for internal plant handling. This includes operations from inbound logistics to warehousing and from warehousing to outbound logistics, before entering the distribution and retail supply chain segments.

- Label reading and verification
- Parts/boxes identification/traceability
- Palletizing
- Warehouse management
- Sorting and shipping



# AUTOMOTIVE



## DIRECT PART MARKING AND READ

Datalogic delivers solutions for Direct Part Marking (DPM) with laser marking systems that permanently mark barcodes directly on parts. Machine vision, handheld and fixed scanners are used for DPM code identification for verification and item traceability purposes.



## WORK IN PROGRESS TRACEABILITY

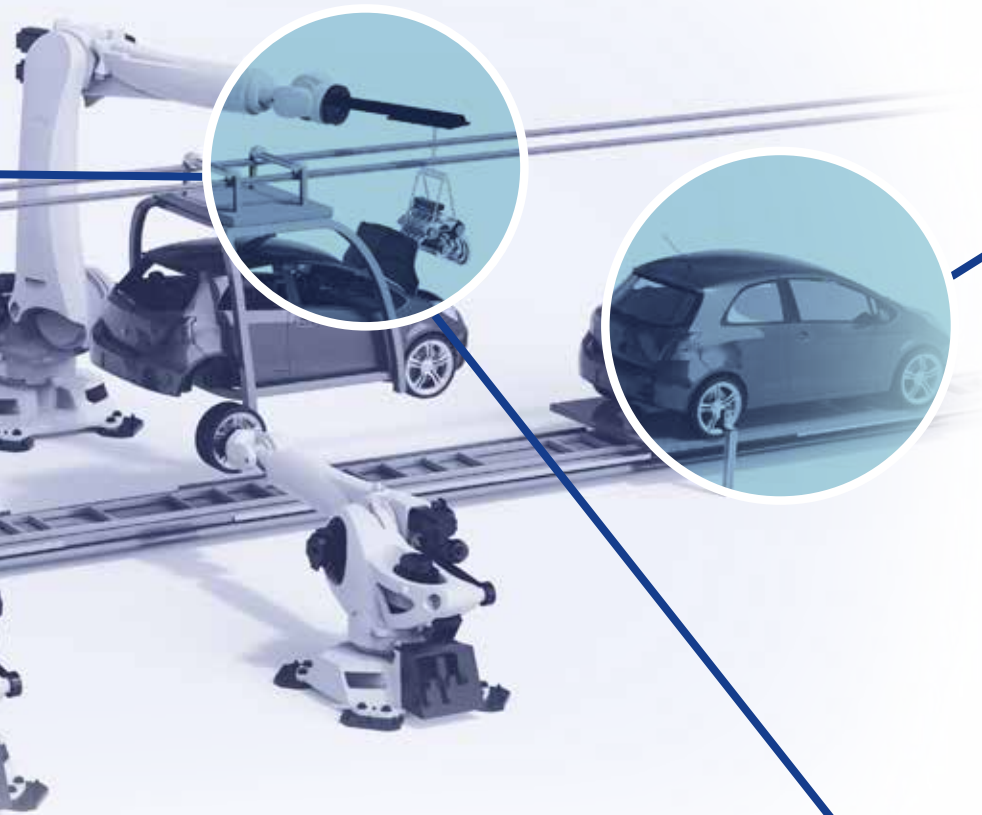
Automotive parts require end-to-end traceability. Datalogic industrial handheld scanners and fixed readers identify and track parts and components during vehicle assembly.





## FINAL PRODUCT QUALITY INSPECTION

A variety of Datalogic's barcode imager types and models ensure effective code reading granting correct parts and components presence and compliance to all final product quality inspection specifications.



## ASSEMBLY VERIFICATION

Verification of proper product assembly entails reading barcodes on labels and DPM created with multiple printing and marking technologies. Datalogic's image processing algorithms, embedded lighting systems and optical features ensure high read rates even in the most demanding manufacturing environments.

## COMPONENT IDENTIFICATION

Work In Progress (WIP) is traced using Datalogic stationary readers and industrial handheld scanners along the entire production process.

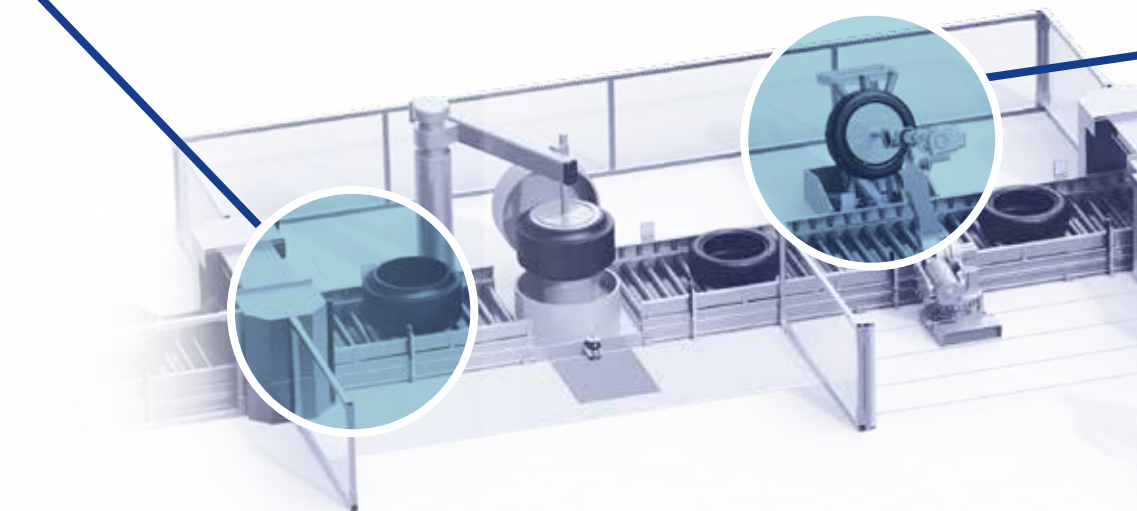


# TIRES



## GREEN TIRE IDENTIFICATION

Barcode labels are placed on bulgy green tire's bead granting traceability in all manufacturing phases. Efficient barcode reading is a challenge due to high pitch angles, dynamic conditions, and omnidirectional label orientation. Datalogic's array imaging solutions address all application's requirements providing outstanding read rates.



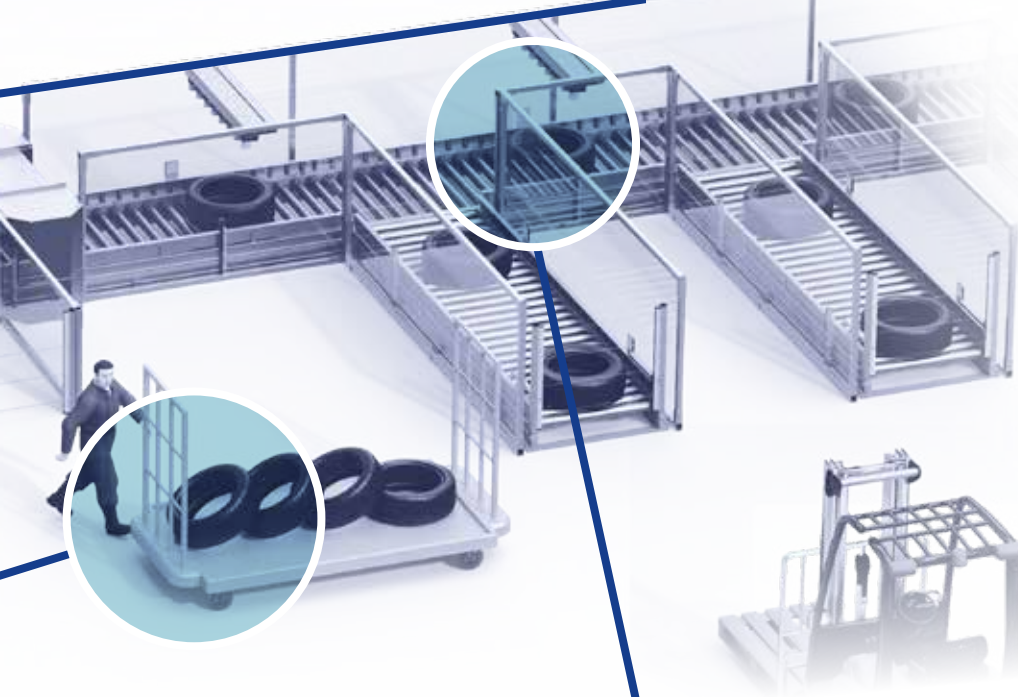
## MANUAL HANDLING

Tires are manually identified by operators in specific production steps using rugged handheld bar code readers.



## QUALITY INSPECTION

Tires are identified and tracked as they progress through rough manufacturing phases and into final finishing and inspection stations.

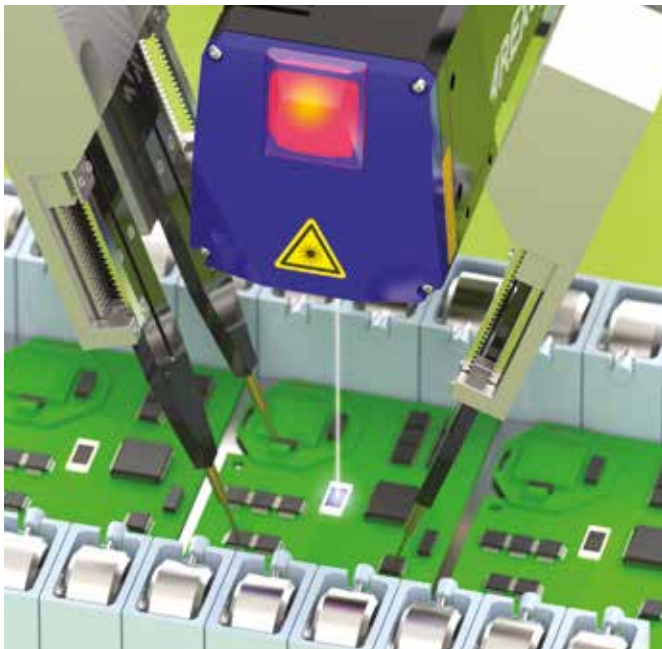


## SORTING ON CONVEYOR

Tire barcodes are read on conveyors to sort them to the proper destination (an internal warehouse section, a specific shipping dock, or a distribution network).



# ELECTRONICS



## LASER MARKING

A wide variety of materials including plastic, aluminum, stainless steel and titanium are permanently marked by Datalogic laser marking systems.

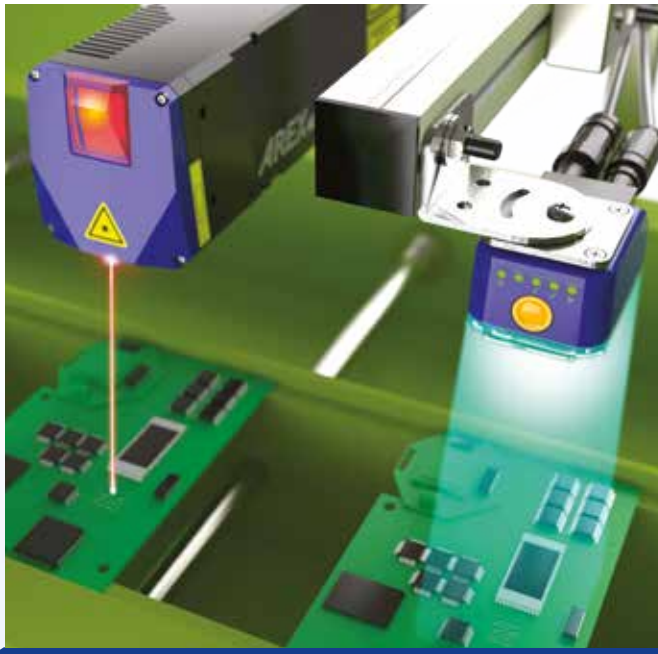


## COMPONENT IDENTIFICATION

Handheld Datalogic scanners identify the right cartridge or reel for correct positioning in the appropriate pick & place machine slot thus ensuring proper setup.

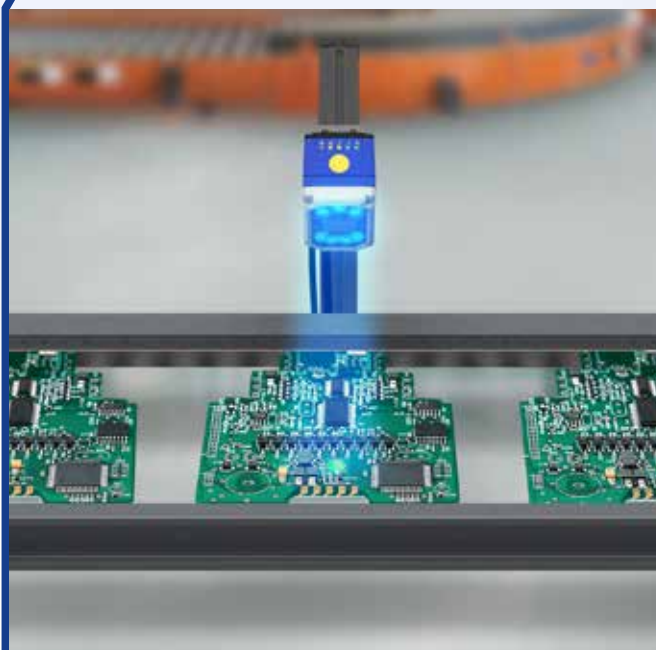
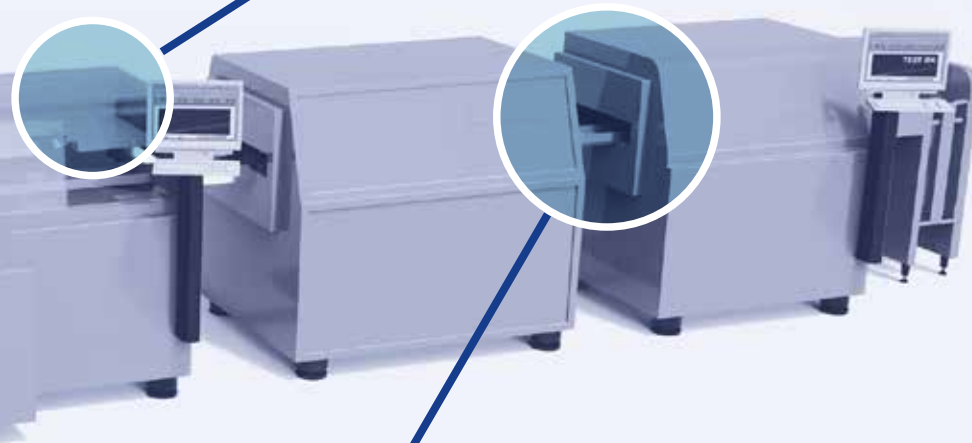






## MARK & READ DPM CODE

Direct Part Marking (DPM) of barcodes, logos, and written text directly on parts of various materials is validated by Datalogic imagers ensuring marking quality, code readability, and overall assembly traceability.



## PCB AND COMPONENTS TRACEABILITY

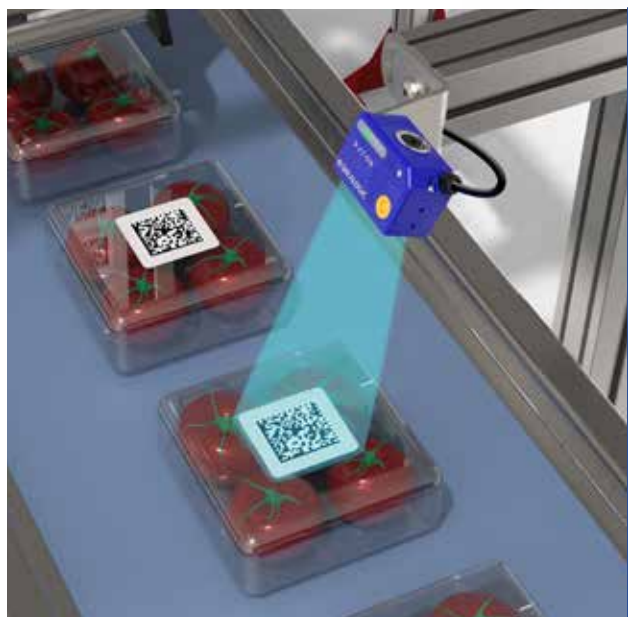
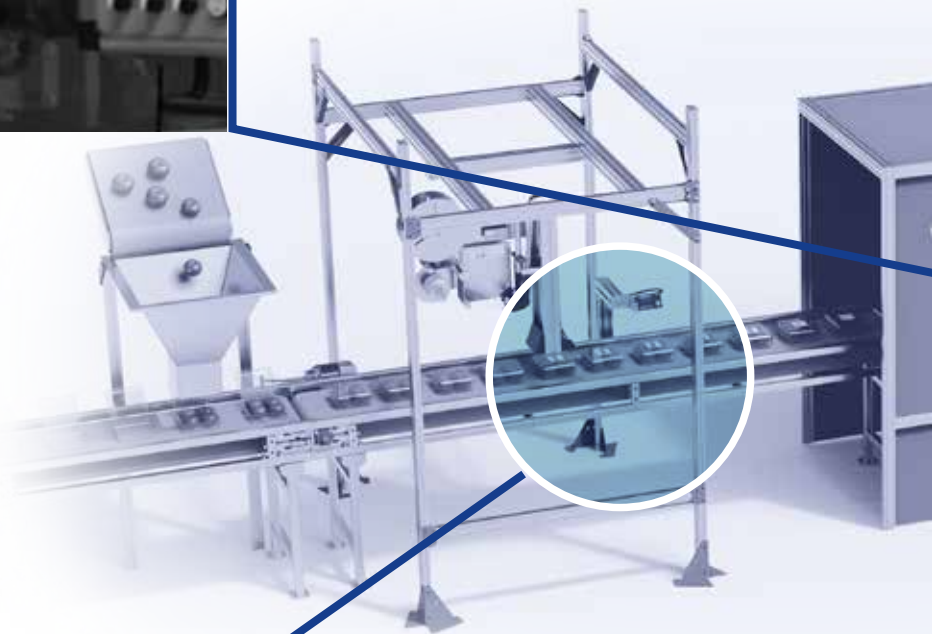
Parts, components, and subassemblies are continuously tracked by fixed industrial imagers from Datalogic throughout the entire production process.

# PACKAGING



## PACKAGING LINE CONFIGURATION

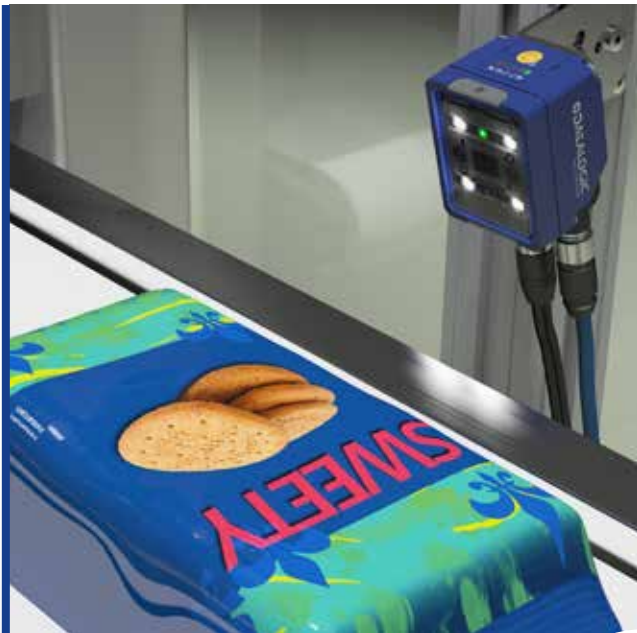
Specific sequential reading of dedicated barcodes allows for quick and easy packaging machine configuration responding to immediate production requirements. Datalogic handheld readers, connected to the machine's control logic, are the ideal barcode reading solution for real-time parameters adjustment or for a new configuration upload.



## PRINTED LABEL READING

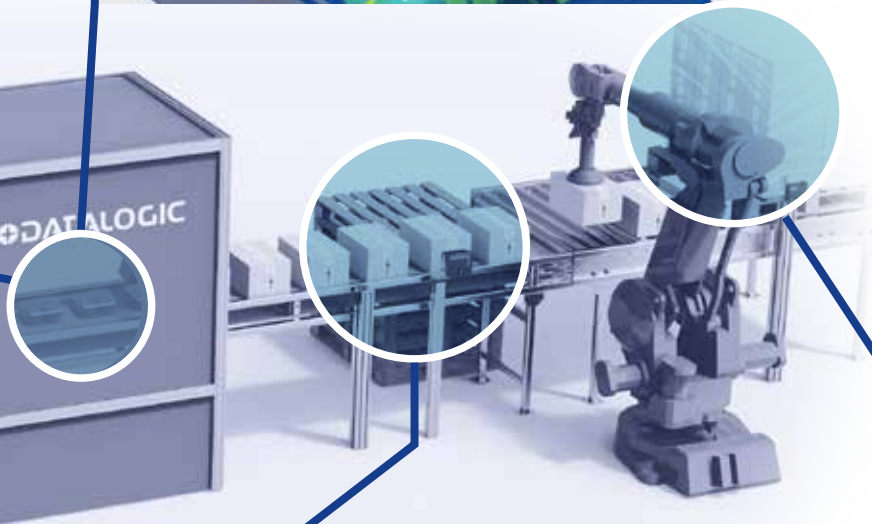
Automatic application of barcode labels is extensively verified by Datalogic fixed imagers checking actual label application, code readability, printing quality, and data consistency.





## PRODUCT IDENTIFICATION WITH BARCODE

Barcoded labels and pre-printed codes on outer wrappings are read by Datalogic stationary imagers ensuring correct positioning, code compliance and printing quality.



## PALLET TRACEABILITY

With the proper label, a pallet can be traced throughout the entire supply chain from manufacturing to final customer. Datalogic's fixed, handheld and mobile imagers efficiently read pallet barcode labels in all reading conditions and even under plastic film wrapping.



## CARTON TRACEABILITY

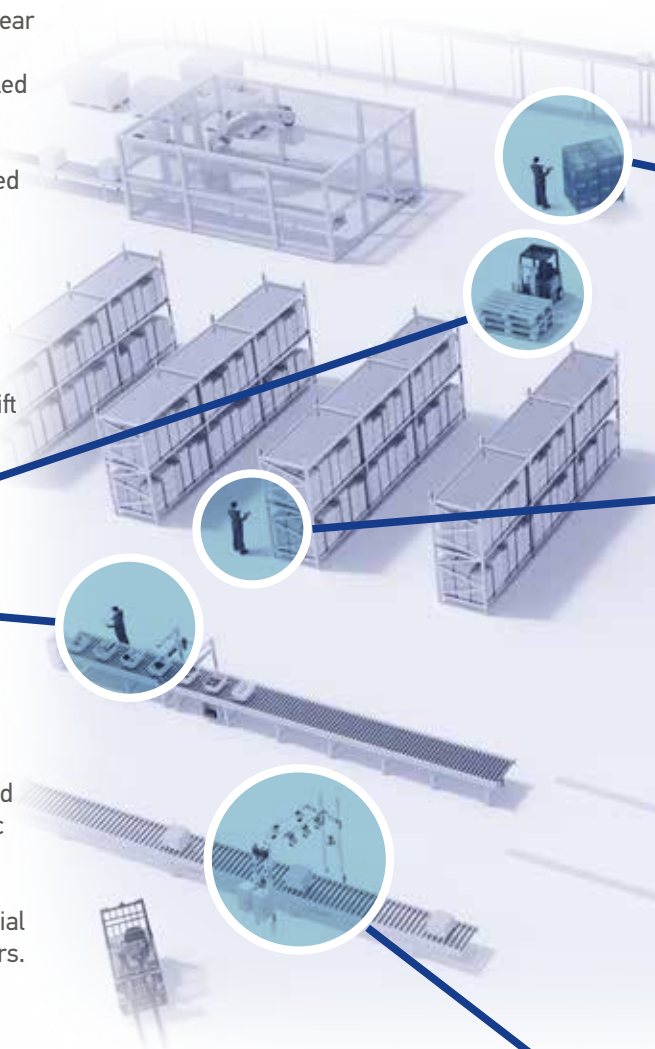
Throughout production Datalogic fixed scanners track items to guarantee integrity, user safety, and efficient management of recalls.

# INTRALOGISTICS



## FORKLIFT SOLUTION

Long distance linear and 2D barcode scanning is enabled by PowerScan™ AR handheld readers. Combined with wireless connection and Rhino II™ vehicle mount computer, it represents a complete solution for forklift applications.



## MANUAL INDUCTION

Totes and packages are manually induced into an automatic warehousing system using Datalogic industrial handheld scanners.

## AUTOMATED INBOUND/OUTBOUND MATERIAL IDENTIFICATION

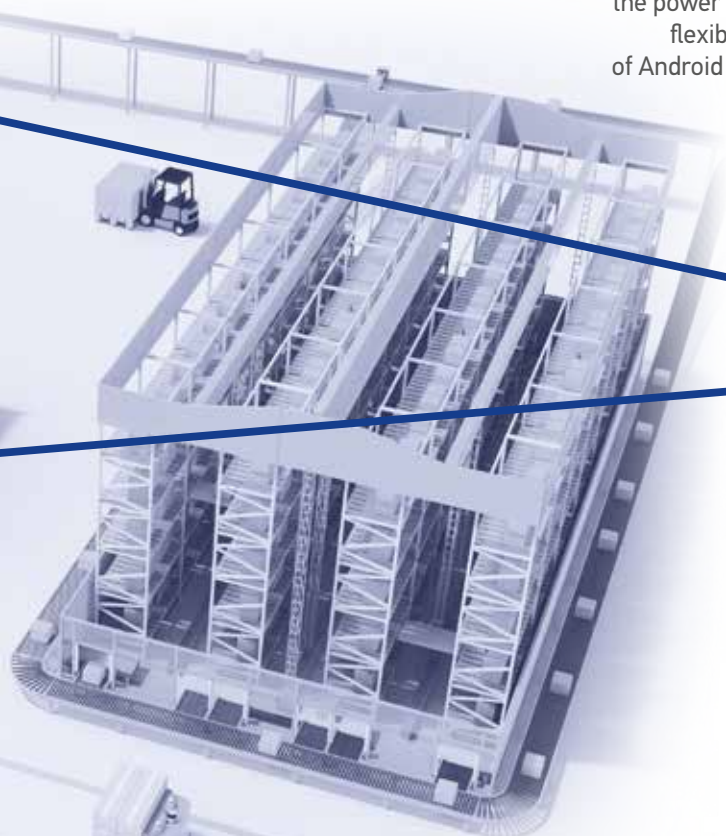
Totes and packages are automatically identified for storage into/retrieval from an automatic warehousing system using Datalogic stationary industrial reading solutions.





## INBOUND QUALITY CONTROL

Datalogic PDAs is the ideal operator companion enabling a wide range of different applications exploiting the power and flexibility of Android OS.



## INBOUND/OUTBOUND WAREHOUSE MATERIAL HANDLING

In warehouse operations, workers have to track and report the picked parts in real-time through rugged and ergonomic mobile computers like Skorpion X5 and Falcon X4 or the smallest wearable HandScanner.



# PRODUCT PORTFOLIO



MATRIX 120™



- Ultra compact dimensions for easy integration
- Smart user selectable focus for high application flexibility
- ESD and Polarized Versions



MATRIX 220™



- All-In-One DPM illuminator for strong
- DPM reading performance
- Smart electronic focus control for high reading flexibility
- New multicore image processing platform excellent for high speed applications

## STATIONARY INDUSTRIAL SCANNERS



AV500/AV900



- High performance camera (5MPx AV500, 9MPx AV900) with integrated image processing system
- Image saving to external locations through the dedicated high-speed Gigabit Ethernet port
- White and Red lighting options



DS5100



- Medium, Long Range, Linear and Oscillating Mirror models, selectable focus for high application flexibility
- Selectable focus system
- Display and multi-language messages

## STATIONARY INDUSTRIAL SCANNERS



MEMOR™ K



- Ergonomic, very light weight and pocketable size to read 1D and 2D codes in any direction, and on any surface, including mobile screens
- Easy-swappable battery for a quick replacement
- Enhance productivity all over the store: run simultaneous applications smoothly



MEMOR™ 10



- Slim and ergonomic in a rugged enclosure to endure in demanding environments
- Maximum efficiency with fast-charging wireless technology + SafeSwap™ Technology and Smart Battery Management
- High-res 1D/2D slim megapixel imager (GreenSpot Technology + Dotcode + Digimarc)
- Robust design sustains 1.5m drops / IP65 rating
- 'Android Enterprise Recommended' for rugged devices



MEMOR™ 20



- Largest display in the PDA market at 5.7in FHD for top readability in any environment
- Maximum efficiency with fast-charging wireless technology + SafeSwap™ Technology + Smart Battery Management
- High-res 1D/2D slim megapixel imager (GreenSpot Technology + Dotcode + Digimarc)
- Increased ruggedness sustains 1.8m drops and IP65/67 ratings
- Seamless connectivity with dual SIM over 4G+ network and latest Wi-Fi protocols

## MOBILE COMPUTERS



POWERSCAN 9100 SERIES



- Datalogic's new linear imaging technology
- Supports Bluetooth wireless technology SPP and HID profiles
- Ethernet Connectivity (Standard and Industrial)



POWERSCAN 9501 SERIES



- New Datalogic proprietary scan engine with extra-long range capabilities
- Fast autofocus system
- Optimized for dark environments
- Ability to scan from LCD screens
- Decodes up to 3 mils



POWERSCAN 9600 SERIES



- Ultra-rugged design, IP65 and IP67
- Embedded industrial connectivity, modular
- Wireless charging reducing TCO
- Doubled radio range and OLED display
- Smart batteries and diagnostics

## HANDHELD SCANNERS





MATRIX 320



- Innovative platform and sensor with outstanding Field of View (FoV) and Depth of Field (DoF)
- Smart configurable lighting solutions with more color options in three power versions
- Configurable 360 degree multicolor visual feedback
- Liquid lens remote focus control for extreme flexibility in production



MATRIX 300N™



- High power illuminators for long range reading distances
- High performance DPM reading
- Both manual and electronic focus control options



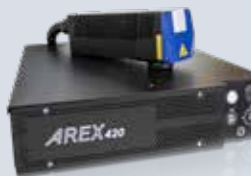
WEBSENTINEL PLUS



- Very advanced monitor
- Offers key features, benefits, and insights to end-users and System Integrators specializing in Factory Automation and Transportation and Logistics.



AREX 400



- Ultra compact Scanhead with high protection grade
- High performance embedded controller
- Robotic grade robust flexible conduit, green spot marking confirmation, built-in SLO (Safe Laser Off)
- Full Lighter Software Suite with MARVIS (Mark & Verify) support



VLASE



- High performance Solid State laser source
- High Peak Power up to 60 kW
- Infrared, Green and UV on same platform
- Full Lighter Software Suite with MARVIS (Mark & Verify) support

## LASER MARKING SYSTEMS



SKORPIO™ X5



- Largest 4.3" high visibility display in its class
- Scan engine: 1D Imager, 2D Imager Standard Range, Mid-Range and near/far Extra-Long-Range Imager
- Handheld and Pistol-grip form with 3 keyboard layouts
- Fully rugged 1.8 m drop and IP65 rating
- Choice between Wireless Charging or Wired versions with dedicated docks



FALCON™ X4



- Choice of windows embedded or Android™ operating systems
- Full-shift hot swappable battery
- Choice of 1D or 2D imagers featuring
- Datalogic's green spot technology, plus new 2D Auto Range option



RHINO II™ and SH15/SH21



- 10 ,12, 15, 21 inch high resolution color display
- Operating System: WEC7, Windows 7 Emb, Windows 10 IoT or Android 7.1
- Capacitive multi-touch screen with gloves support or resistive touch screen for cold/freezer environments



HANDSCANNER



- Improves productivity saving 4 seconds per scan
- Improves accuracy: up to 33% less errors
- Improves worker ergonomics: weight savings of up to 1.5 tons per shift
- Best performance: megapixel resolution and ability to capture 1D/2D barcodes



GRYPHON™ 4200 SERIES



- Enhanced reading technology for superior scanning and depth of field
- Intuitive highly visible aimer to easily target the code to be read
- Disinfectant Ready enclosures resistant to harsh chemical cleaning
- Wireless charging (no need for contact cleaning or maintenance procedures)



GRYPHON™ 4500 SERIES



- Ultimate design and undisputed ergonomics
- High-res megapixel sensor for outstanding results
- Wireless charging (no need for contact cleaning or maintenance procedures)

