



MANUFACTURING MOBILITY: IMPROVE PRODUCTIVITY AND EFFICIENCY ACROSS THE ENTERPRISE

Unlock the Full Value of Your Investments in Systems,
People and Processes

SOLUTION OVERVIEW

symbol[®]
The Enterprise Mobility Company™



Whether your employees are managing inbound or outbound goods or filling out forms for quality applications, they are the touch points for all your information and processes. Unfortunately, there is plenty of room for error.

Keeping Pace in a Changing Market

If you're running a manufacturing operation, you know that things are changing fast. And like it or not, your ability to keep pace with this changing environment largely falls on the shoulders of the staff performing various tasks throughout the warehouse, or on the plant floor. Whether they are managing inbound or outbound goods, or filling out forms for quality applications, employees are the touch point for all of your information and processes. Despite best intentions, this leaves plenty of room for human error. What's more, weaknesses in your processes can hinder the results you're expecting from the investments you've made in plant and Warehouse Management Systems.

Improving Information Quality and Worker Effectiveness

Re-examining how you currently collect information can create opportunities to unlock productivity and savings in operational expenses. When workers fill out forms — for receiving materials or for quality applications, for example — how long does it take for the information to reach your business applications? Is your manual paper-based process slowing down operations? Are you sure that the information has been captured correctly? Do you know where your receivables are, at any given moment, with confidence?

Process delays and errors may be unavoidable, but they can have huge ripple effects throughout your value chain. For instance, if miscounted or phantom pallets show up in the Warehouse Management System as available inventory, workers must then be assigned to look for them, wasting time and slowing down the production line and wrecking havoc with inventory levels. Additionally, more workers may be required to resolve the subsequent billing discrepancies, draining even more value from your enterprise .

What if you could not only prevent a situation like the one described above from happening, but also unleash the full potential your plant or Warehouse Management System? Empower your personnel with the ability to enter and access accurate, real-time data with a mobile solution and you eliminate manual paper-based processes, improve the quality of information and accelerate visibility to information — enabling faster and more accurate management decisions, positively impacting productivity and ultimately, profitability.



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Mobility Solutions Unlock Efficiencies Every Step of the Way

From your receiving docks to to your customers' doors, mobile solutions from Symbol can help you eliminate manual processes and improve the quality, accuracy and availability of information — unlocking the value of your investments and enhancing your competitive edge.

Incoming Goods – When you're analyzing your manufacturing process for efficiencies, the logical place to start is raw materials receiving.

Whether incoming materials are labeled with bar codes or RFID tags, a mobile solution streamlines the process of completing the following tasks:

- Matching incoming goods to the Bill of Lading
- Automatically updating the WMS system with new data automatically
- Delivering parts from the truck directly into inventory, a staging area or your production line without the need for manual processes such as document matching and data entry
- Returns processing of material not meeting specifications to the supplier

Your system can be set up to trigger automatic notifications to production, purchasing, inspection and accounts payable, saving time and improving warehouse worker productivity and inventory accuracy. With Symbol's enterprise mobility solutions your Warehouse Management System can reflect accurate, real-time information in minutes rather than the days or weeks required for manual updates.



Put-away and Picking – Symbol mobile computers enable the fast delivery of accurate instructions to the warehouse employee, providing designated storage locations and put-away verification — helping reduce misplaced inventory and improve worker productivity. When material is bound for the manufacturing floor, a worker can be deployed to the exact storage location and automatically verify the material against the picking order.

Shop Floor – Mobilizing key applications to capture information with Symbol devices provides increased visibility to data, including accurate Work in Process (WIP) tracking and improves the accuracy of all information gathered. Symbol's mobility solutions have a positive impact across all shop or plant floor operations resulting in:

- Line-side access to SCADA control and monitoring capabilities enabling engineers to be out on the floor where they are needed
- Streamlined machine monitoring processes and more accurate data by eliminating manual data collection, allowing quick and efficient reaction to real time, key performance indicators (KPIs)
- Improved error-proofing results by automating data collection systems and ensuring that operators use the correct parts and have completed a step in the manufacturing process correctly — eliminating defects and costly re-works
- Cost efficient compliance reporting for batch or product traceability through the automation of data collection systems — products containing a specific batch or component can be easily identified and quickly recalled
- Faster line side replenishment through mobile lean (eKanBan) solutions allows an operator to press a call button located at the workstation and wirelessly request additional material directly from the warehouse — along with the exact location of the material needed, reducing replenishment time and line side inventory

Quality – As material and sub-assemblies move through the manufacturing process, quality assurance tests must be performed and the results recorded. Symbol's mobility solutions can simplify the management of the hundreds of forms used by quality engineers to meet compliance or environmental regulations resulting in:

- Timely completion of forms and providing time/date/operator stamps if desired
- Real-time automated capture and instant transmission of data into the SPC system
- Fast and cost-efficient tracking of all activities relating to the assembly, or build of a product
- Accurate, cost efficient collection of information required to prove compliance for waste tracking, at the point of waste

Labeling each sub-assembly or component with bar codes, RFID tags or a Direct Part Mark (DPM), progress can be tracked throughout the quality assurance process. Should an assembly fail, the reason for the failure can be instantly tracked to the assembly itself. This information can be used to track yields and efficiently direct the rework efforts.



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During the order packing and shipping process, verification of the customer's order can be done automatically with a Symbol mobile solution and streamline the entire process.

Finished Goods – Managing your finished goods inventory is as critical as incoming goods: knowing exactly what is in stock and its precise location, at any given time, can significantly reduce stocking inventory requirements. Symbol's mobile solutions enable:

- Dynamic scheduling of picking, cross-docking and packing
- Efficient material tracking
- Fast, efficient and quiet recalls of any material(s) found to be faulty due to a particular batch of parts — protecting your brand equity
- Increased productivity by eliminating manual processes
- Increased inventory data accuracy
- Reduced stocking inventory requirements

Packing and Shipping – During the order packing and shipping process, verification of the customer's order can be done automatically with a Symbol mobile solution and streamline the entire process:

- Reducing packing errors and improving the accuracy of shipments and, ultimately, customer satisfaction
- Speeding the assembly of products for shipping as operators gather parts straight from the line, or from the warehouse
- Improving your cash-to-cash cycle, by triggering your accounting system to automatically generate invoices for electronic delivery



Symbol applied its own technology as part of an initiative to trim waste and inefficiencies from the manufacturing process and achieved:

- **45 percent increase in productivity**
- **97 percent improvement in end-to-end manufacturing yields**
- **Significant reduction in the cost of quality and re-work**
- **90 percent resolution of customer problems on the first call**
- **98 percent on time delivery of repair service**





Symbol, Your Manufacturing Mobility Partner

Symbol Technologies has over 25 years experience in developing, manufacturing and implementing barcode scanning, mobile computing, wireless infrastructure, RFID technology and more. Manufacturing is what we do and what we know. We understand the manufacturing value chain. We understand manufacturing operations, and all the pressures that go with it — from reducing costs, improving quality and throughput to managing and maintaining profitability. In fact, we have been honored for manufacturing excellence and innovation.



Symbol Technologies works with manufacturing companies like yours around the world everyday,

so we know from real-world experience how to unlock the hidden potential in your people and in your processes.

With our partners, including leading ERP and WMS providers, we've implemented mobility solutions across our own manufacturing operations; we're ready to help you unlock the power of your

investments. Symbol is your manufacturing mobility partner, whether you are looking to implement a single mobility application, expand an existing application, or implement mobility across your entire enterprise. Symbol, along with its global network of partners, brings the right mix of products and technology, applications, industry expertise, professional services, customer support, education and training into an enterprise mobility solution that creates a powerful business advantage.

We're always here, at your service to:

- Discuss your specific application requirements
- Introduce you to new technologies that can increase productivity
- Answer any questions you may have about data collection systems — from bar code scanning to RFID, mobile computing and wireless infrastructure
- Get you started on unlocking the power within your operations!

To learn more, visit www.Symbol.com, or call 1-800-722-6234

Symbol's Global Services can help you maximize the value of your investment with a full range of maintenance programs and services.

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About Symbol Technologies

Symbol Technologies, Inc., The Enterprise Mobility Company™, is a recognized worldwide leader in enterprise mobility, delivering products and solutions that capture, move and manage information in real time to and from the point of business activity. Symbol enterprise mobility solutions integrate advanced data capture products, radio frequency identification technology, mobile computing platforms, wireless infrastructure, mobility software and world-class services programs under the Symbol Enterprise Mobility Services brand. Symbol enterprise mobility products and solutions are proven to increase workforce productivity, reduce operating costs, drive operational efficiencies and realize competitive advantages for the world's leading companies. More information is available at www.symbol.com.

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