



Tobacco Manufacturing Solutions



GE Fanuc
Intelligent Platforms

Build manufacturing into a strategic advantage

GE Fanuc Intelligent Platforms' best-in-class technologies for process automation and production operations management can help your tobacco operations achieve sustainable productivity and profitability while leveraging flexibility and innovation.

No other industry confronts the challenges that tobacco producers face: Major geographic shifts in purchasing and manufacturing power; the rise of new production giants to compete with established global brand owners; and increasing regulations on manufacturing and marketing.

To maintain profits and market share, manufacturing operations and assets must be reliable, flexible and fast to keep up with the consolidation of production, new product development, the explosion of supply chains and the constant hunt for cost efficiencies.

GE Fanuc Intelligent Platforms understands the road you're traveling. We've partnered with tobacco producers around the world, tackling challenges like factory modernization, process tuning and streamlining and cost reduction initiatives. And we have successfully worked with a broad range of global consumer packaged goods companies, so you can leverage our experience and lessons learned as you implement technology solutions that will sustain your competitiveness over the long run.

Experience, expertise and commitment

→ Product portfolio

Our suite of solutions—from our PACSystems* family of automation and motion controllers, through the Proficy* software suite of industry-leading HMI/SCADA and Manufacturing Execution Systems (MES)—can help address your needs for local optimization and automation through enterprise-wide integration of manufacturing data.

Built on an “open and layered” approach, our solutions allow you to integrate capabilities from our modular and scalable technologies to your existing manufacturing technology base.

→ Global customer support

From the moment we engage with you to the completion of a successful implementation, we are committed to addressing your needs. With a global presence, we can provide prompt, local support for your operations.

→ Trusted GE brand

As a GE company, we are bound to the same ideals that have made GE one of the most trusted names in the world.

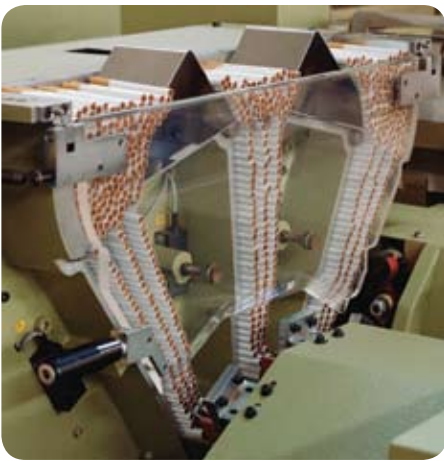
→ Partnerships around the world

Ensuring repeatable success—whether it's for one plant or through a global manufacturing organization—requires consistently delivering common systems and tools and sustaining the work processes that they support. That's why we actively work with technology and service partners around the world.

From equipment manufacturers to other enterprise software vendors, to leading engineering and IT services companies, we build and sustain relationships to ensure that you have local access to the expertise you need—globally!

A foundation for your success

You can rely on our in-depth tobacco industry expertise, built on more than 20 years of consumer packaged goods experience. Combined with our full range of processing and packaging operations know-how, you have the pillars for long-term growth.



Recognizing that the process and packaging expertise that comes from equipment vendors and engineering firms is important to your virtual team, we offer special programs for Original Equipment Manufacturers to help them adapt their process and industry know-how to run on our technologies. It's another example of how we're committed to improving your factory and equipment.

Operational Excellence

Continuous improvement programs come in many "flavors" such as Lean for throughput and Six Sigma for quality. A critical step is implementing a flexible, permanent measurement system to gather performance, process, quality and other data to track improvements over time, and to use the resulting information to design assets and work processes that improve quality and productivity.

Wherever you are in your Operational Excellence Journey, GE Fanuc Intelligent Platforms can help map the next steps and share how best-in-class manufacturers support their programs with the appropriate technology. Tap into our experience and solutions to address your needs—from local improvements in uptime and efficiency, to global production reporting and analytics, to integration of shop floor and maintenance practices.

The profitable, quality-driven supply chain

As manufacturing and sourcing shifts increasingly further away from headquarters, understanding and controlling factors that affect profits and quality can seem more challenging; differences in local processes, equipment and supporting systems can complicate matters further. Yet solving this problem is critical to ensure a successful

strategy that blends product innovation, geographic expansion and cost-effective manufacturing.

Our approach is to leverage the strengths of your different technology bases in alignment with a manufacturing systems backbone, supporting critical capabilities in the areas of manufacturing cost management and product quality management. So instead of investing in initiatives for quality, efficiency or execution separately, you can reap rewards on many fronts by investing in a platform that integrates enterprise systems and manufacturing systems to support your evolving supply chain.

Building your innovation capacity

At GE Fanuc, we understand the importance of invention as part of your product strategy. Concurrently, we know that your plants and suppliers have to deliver on the vision of your brand managers. That's why we place particular emphasis on providing the tools you need to create flexibility and room for growth in your factories and supply chains.

Whether designing next-generation equipment to handle more complex processing and blending operations, or ensuring that your packaging equipment is ready for the next demands for speed or complexity of packaging style, we've invested in our automation offerings so you can successfully invest in your products.

Maximize the power of your information

Through our suite of solutions, you can gain the insight you need to make better decisions for improved production operations.

Proficy HMI/SCADA – iFIX*

Tobacco producers around the world rely on the superior process visualization, data acquisition and analytics provided by Proficy HMI/SCADA–iFIX. Bringing precise monitoring of complex batching and blending processes, and instant responsiveness in high speed cigarette-making and packaging lines, iFIX empowers line workers and supervisors with intuitively-presented information that improves their decision-making—and your bottom line.

Proficy Historian

The first step in driving performance improvements in complex, high-speed operations is to establish a data repository that allows critical process, quality and event data to be captured at a pace that matches production speeds. Proficy Historian is a true process historian, with

advanced technology to keep up with high process speeds and data volumes that are part of tobacco production operations. Tightly integrated with the rest of the Proficy suite, Historian provides a window into your production environment, powering process analytics and operational metrics with objective, detailed data.

Proficy Real-Time Information Portal

Proficy Real-Time Information Portal delivers contextualized real-time information through a common web client and reporting environment—providing comprehensive visibility into your plant operations. By applying sophisticated trending, graphical presentation and statistical analysis to all of your online data, it provides insight into how your plant is operating and how to improve it.

PACSystems

PACSystems is a programmable automation controller that offers multi-domain functionality, including logic, motion, HMI, and process control on a single, portable engine. Its flexibility and openness can protect your existing investments while enabling you to add new technologies for improved productivity and performance.

Proficy Workflow

Proficy Workflow digitizes and streamlines production processes—from work instructions and SOPs to corrective action and HACCP monitoring. Built on an SOA platform, Workflow is a user-configurable, dynamic decision-making engine for integrating automated and manual business and production processes across system and departmental boundaries—ensuring reliable, repeatable process execution.



Our modular suite of products provides the building blocks for infinitely scalable and diversely configurable solutions that seamlessly integrate your data — from the plant to the enterprise — and provide a window into your entire operation.



Proficy Plant Applications

Proficy Plant Applications is a suite of Manufacturing Execution Systems software that is uniquely tailored to manage operations that combine process with discrete and/or packaging operations. Leveraging our Proficy Historian and functional modules that address Efficiency, Quality and Production, Plant Applications allows you to easily integrate automation data into detailed production models.

As a result, your production management system can track key information like progress to completion of an order or material genealogy, and allow for easy correlation of detailed process and machine event data. In addition, with certified integration with leading ERP vendors, Plant Applications can align with your enterprise systems investments for increased ROI.

Proficy Process Systems*

Proficy Process Systems is a state-of-the-art, scalable, fully integrated system for process automation and control that leverages the latest hardware and software technologies. It combines the power of traditional DCS systems with the flexibility, freedom and affordability of a PLC-based approach to help you improve quality and productivity.

Proficy Batch

A repeatable process is key to maintaining consistent quality and maximizing the output from your primary operations. Based on the ISA-S88 standard for batch execution, Proficy Batch ensures that blending, casing flavoring, and other primary operations are executed consistently from batch to batch, and that critical quality and process data can be directly linked to specific phases of each batch cycle. This is critical to fine-tuning of recipes and setpoints, as well as simplifying reporting on quality and productivity.

GE Enterprise Solutions

Your operations may need additional value-added solutions, in which case you can tap into an entire suite of capabilities from GE that leverages our technology and domain expertise in the tobacco industry:

- Wireless technologies
- Site security solutions
- Digital energy solutions
- Sensing and inspection solutions

We're committed to your success

We understand the challenges you face, and our portfolio of proven solutions is a solid foundation for tobacco manufacturers to build and sustain a competitive advantage—in one plant or across the globe.

It's about results

We understand that your success is based on improvements in market share and profits, and we're committed to helping you get there. Every day, tobacco companies around the world rely on GE Fanuc Intelligent Platforms in their operations, realizing benefits such as:

- Increased quality control in new blending processes
- Double-digit quality improvements in secondary processes
- Increased capacity and throughput from equipment modernization
- Reduced cost of systems maintenance through HMI/SCADA standardization

Tobacco Capabilities

One Production Management Solution for All Areas

Proficiency Plant Applications is architected to manage production and quality, and increase efficiency in both batch and packaging operations.

Making and Packaging Demand Speed – PACSystems Platform Delivers

Our PACSystems platform, featuring PACMotion* for complex, coordinated motion control, delivers an outstanding ratio of price to performance.



Simplify Operations

Proficiency WorkFlow leverages the power of the Proficiency Service Oriented Architecture (SOA) to combine information from plant and enterprise sources into role-based processes that support the natural flow of production.

Beyond Basic Automation for Primary Operations

Deliver metrics and analytics for critical blending, casing and flavoring processes.

Advanced Batch Control Options for New and Existing Lines

Layer Proficy Batch software over existing control systems to improve batch consistency and productivity – or build new lines with Proficy Process Systems as the automation platform.

Manage and Respond in Real Time

Proficy HMI/SCADA-iFIX is ideal for complex processes, providing access to rich information and event management—and more economical QuickPanel®-based interfaces provide a range of choices to fit your needs.

Measure and Improve Quality and Productivity With Proficy Software Solutions

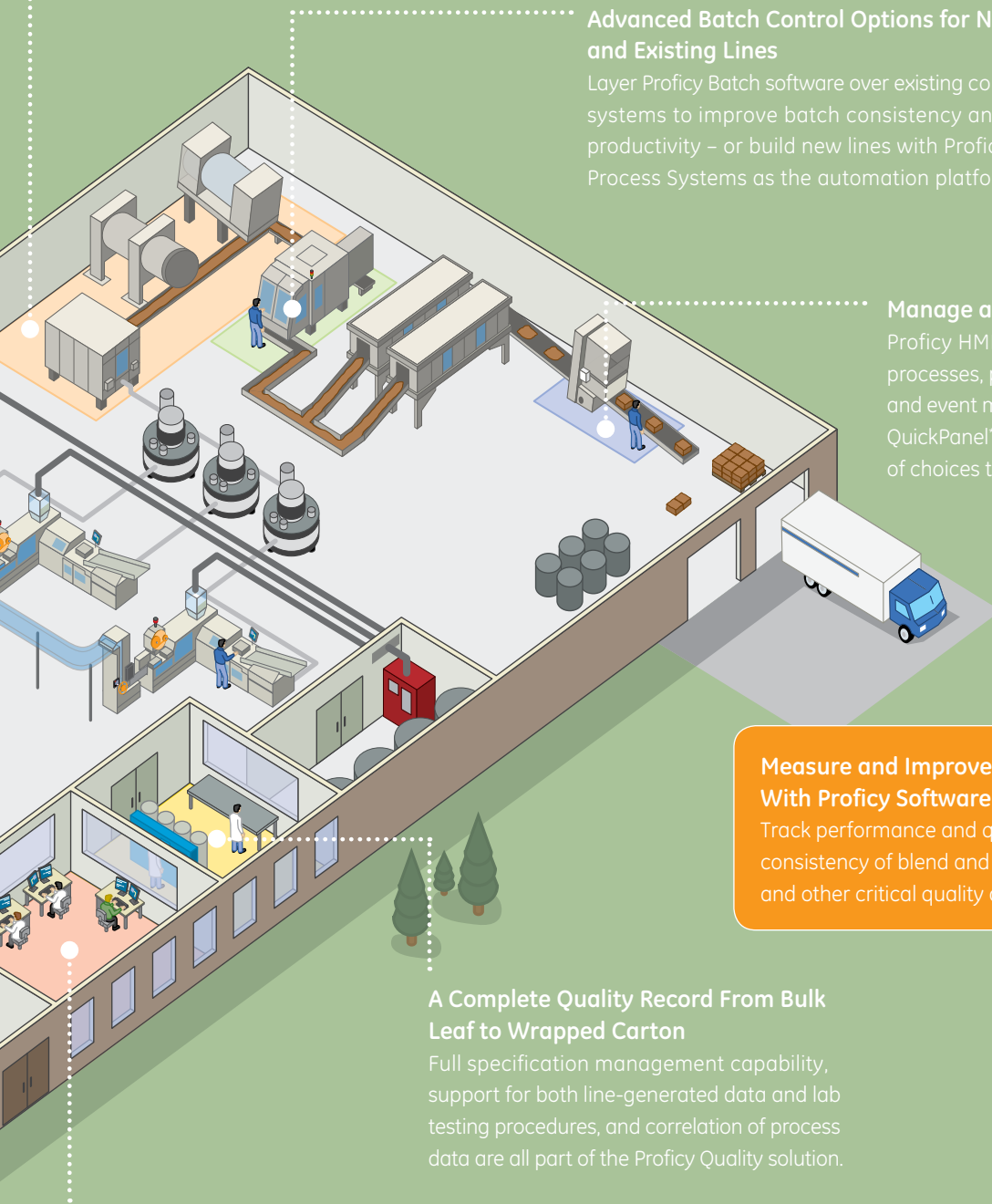
Track performance and quality data in real time to ensure consistency of blend and casing, correct moisture content and other critical quality attributes.

A Complete Quality Record From Bulk Leaf to Wrapped Carton

Full specification management capability, support for both line-generated data and lab testing procedures, and correlation of process data are all part of the Proficy Quality solution.

Complete Data Foundation for Maximizing Packaging Productivity

Proficy Efficiency is uniquely architected to capture data that enables analysis of micro-events as well as major faults – a powerful advantage when every second counts.





GE Fanuc Intelligent Platforms Information Center

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Global Regional phone numbers are available on
our web site www.gefanuc.com

Additional Resources

For more information, please visit the
GE Fanuc Intelligent Platforms web site at:

www.gefanuc.com

