

# FUTURE-PROOF YOUR FOOD & BEVERAGE PRODUCTION PROCESS

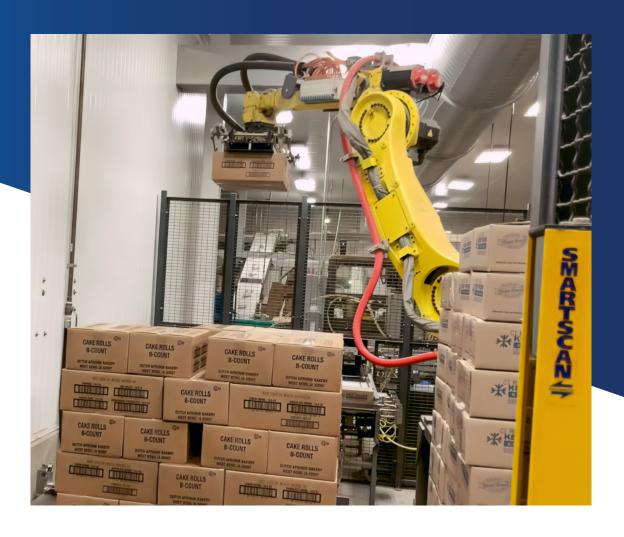
A guide to efficiently increasing your plant's scalability and sustainability.



# THE POWER OF PLANT AUTOMATION

Plant floor automation represents a transformative leap in the food and beverage industry, utilizing technology and control systems to automate and optimize various processes and types of equipment. This advancement is not just about embracing modern technology. In the context of plant floor automation, it's a strategic move toward enhanced productivity, quality control, and efficiency leading to an improved time to market.

Why is plant automation such a hot topic? It's about staying ahead in a competitive market. With automation, you can achieve improved quality control, product accuracy, and reduced material waste, leading to significant cost savings in the long run. Automation also lets you achieve higher production volumes in shorter timeframes, addressing pressing issues like the current labor shortage and providing comprehensive insights into plant operations. Our introductory guide on plant automation will show you why automation is crucial for today's plant floors and how, with the help of a skilled integrator like Interstates, tailored automation solutions can revolutionize your production process.



# WHY AUTOMATE?

Automation in food and beverage facilities is not a luxury; it's a necessity. Consider the case of Country Maid, a food and beverage manufacturer facing escalating product demand. Country Maid wanted to increase its production and efficiency without having to expand its facility. Before partnering with Interstates, Country Maid's production lacked automation and operated with standalone equipment. After thorough consulting and collaboration, Interstates led Country Maid through a digital transformation, automating its production by integrating software from Rockwell Automation. Without ever expanding the facility's footprint, Country Maid achieved a 23% reduction in mixing time and a doubling of output, along with enhanced data visibility critical for maintaining product quality.





### **Process Automation**

Each area of a food and beverage plant, from ingredient handling to packaging, presents unique automation opportunities. Effective inventory management and up-to-date record-keeping are crucial in ingredient handling, while packaging processes are essential for gauging daily yield and meeting market demands.



### **Quality Assurance**

Automation in quality assurance and product consistency involves smart manufacturing techniques. Collecting and analyzing data from the plant floor enables smarter operations-level decisions that ensure consistent product quality.



### **Logistics**

Automating warehousing and material handling provides a clearer view of product inventory, facilitating market responsiveness and streamlined order fulfillment in the face of increasing demand.

# IMPLEMENTATION ROADMAP

Understanding the areas automation can impact is crucial when you're ready to implement this technology at your food and beverage facility. Equally important is having a thoughtful, comprehensive plan in place for integrating automation into your plant floor.

### **Evaluation and Planning**

This stage involves a deep dive into your current processes, identifying areas where automation would be most beneficial and improvements are wanted. This step is where we really get to know your plant and evaluate your needs; it is fundamental to developing a tailored automation strategy. When you assess your current processes in order to identify opportunities for automation, make sure you're taking a look at downtime records, reviewing information about quality, and comparing your shrinkage yield versus raw materials.

### **Integration Strategies**

Once improvement areas are identified, the next step is developing a strategy to integrate the solutions that will help you meet your automation goals. This includes implementing analytics, inventory systems, and preventative maintenance programs that collectively enhance efficiency and productivity. Equipment monitoring and batching are other automation solutions to include in your integration strategy.

Ultimately, successfully integrating automation solutions at your food and beverage facility will depend on the company you choose to handle your implementation. The next section of the guide will talk about the importance of partnering with an experienced integrator you can trust.



# **YOUR JOURNEY WITH US**

Now that you understand how to identify the challenges of implementing automation at your food and beverage plant, you need an integrator who won't just sell you a solution but will walk alongside you to solve problems and get your plant running more efficiently. Interstates is not just a provider but a partner in your automation journey. Our automation solutions will enhance your facility and can be installed and maintained by one of our many regional locations across the Midwest and beyond. We offer a comprehensive support network that can be your eyes and ears on site, troubleshooting issues, getting you up and running, and providing dedicated 24/7 support.

### **Consultation & Customization**

Our approach begins with a thorough assessment and detailed blueprint development, ensuring our solutions are custom-fit to your specific needs and there are no gaps in our plan. Whether you need electrical installation for your automation system or require skilled work on programmable logic controller (PLC) cabinets or existing devices and panels, our regional teams are ready and equipped to tailor solutions for your plant.



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### **Project Execution & Support**

Our solutions span from design to implementation, offering hands-on support, operator and maintenance training for plant personnel, user acceptance testing, and factory acceptance testing. Unlike our competitors, we provide turnkey solutions encompassing consulting, construction, modular and prefabrication, instrumentation, Operational Technology cybersecurity, data analytics, and more.

### **Regional Support**

Our regional offices aren't just support hubs; they're integral to delivering high-quality project work on-site for industrial clients of all sizes, offering solutions such as electrical installation and troubleshooting as well as ongoing maintenance and support. We are equipped to support you from strategic locations across the country, including South Dakota, Minnesota, Ohio, Iowa, Colorado, Texas, Kansas, Nebraska, and Oklahoma. Learn more about our regional offices here.



# **BEYOND THE BUILD**



Interstates is ready to be your partner in plant automation. Our local teams also have the resources and skills to meet your electrical construction, prefabrication, and instrumentation needs. We're committed to ongoing optimization and training, no matter how large or small the project, ensuring your plant remains at the forefront of efficiency and technology.

If you're ready to see how Interstates can transform your food and beverage operations with automation, contact us for a detailed consultation and start building your future-proof production facility today.

