

TYPE
CASE STUDY

INDUSTRY
FOOD AND BEVERAGE

LOCATION
MADISON, WISCONSIN



CHOCOLATE SHOPPE ICE CREAM SWEETENS PRODUCTION WITH PLEX SMART MANUFACTURING PLATFORM

Plex MES and QMS position the company for continued manufacturing growth and improvement.

INTRODUCTION

Chocolate Shoppe Ice Cream is a family-owned and operated super-premium ice cream manufacturer, wholesaler and retailer that's operated with the core values of quality, innovation and community happiness for over 60 years. The company encompasses four ice cream parlors and a manufacturing

plant in Madison, Wisconsin. The manufacturing facility produces more than 100 super-premium, award-winning ice cream flavors, and supplies more than 800 small, independent restaurants and scoop shops nationwide.



CHALLENGE

- Operated off multiple systems that could not support company growth.
- Lacked streamlined production data that employees could trust.
- Tracked production manually and on-paper, causing delayed production insights and inaccurate inventory counts.



SOLUTION

- Plex Enterprise Resource Planning (ERP)
- Plex Manufacturing Execution System (MES)
- Plex Quality Management System (QMS)



RESULTS

- Achieved 95% inventory accuracy
- Improved inventory accuracy by 27%
- Reduced raw material inventory by 18%
- Achieved a 1.1% outage rate
- Improved outage rate by 83%
- Reduced on-hand inventory management by 3-4 hours

MULTI-SYSTEM & MANUAL

With four company-owned stores, distribution in 37 states, and private label manufacturing, Chocolate Shoppe Ice Cream has experienced impressive growth since its founding. The company's previous manufacturing infrastructure relied on two separate systems to track production—despite being integrated, the two systems did not always properly communicate. Information often failed to match between the two systems, resulting in wasted time as employees attempted to gather accurate data. Additionally, production data was captured manually and entered into the computer after the fact. Inventory insights, including

on-hand ingredients and finished goods, lagged by a few days and negatively impacted shipping. Chocolate Shoppe Ice Cream knew it was time to find an ERP and MES system that could support the company's growth and multi-faceted operations.

"The [prior] system [would say] you have 200 pounds of brownies... [the brownies] were actually used yesterday, but nobody remembers that. So, we had a lot of issues with that,"

SARAH DEADMAN

Chief Operating Officer
Chocolate Shoppe Ice Cream



THE SEARCH FOR A SCALABLE SOLUTION

Plex Smart Manufacturing Platform was put on Chocolate Shoppe's radar by a private label client who utilized the technology within their own facilities. Empowered with a recommendation in hand, the ice cream manufacturer identified several Plex products that would meet the company's production needs: Plex ERP, Plex MES, and Plex QMS. While searching for a new ERP system, Chocolate Shoppe knew a robust MES system was needed as well. The Chocolate

Shoppe team recognized operations would benefit not only from the holistic business management offered by Plex ERP, but also appreciated the manufacturing focus Plex MES provided.

Reflecting on the search for a new manufacturing solution, Deadman shares, "[Plex] felt like it was a perfect fit for what we needed and what we do."



For document control, now we have all our SOPs and programs right in Plex. It tells us if something is needing to be approved or reviewed... A big one, for me, for quality, is just that centralization so that we're not relying on a million different places to find our information.



ALYSSA ROESING

Food & Safety Quality Manager
Chocolate Shoppe Ice Cream.

IMPROVING OPERATIONALLY WITH MES

One of the biggest improvements Chocolate Shoppe has experienced is the availability and the use of production data. The ability to dive into data—from production, to inventory, to finance—has changed the game for the ice cream manufacturer. The company has been amazed not only by the sheer amount of information that is available via Plex technology, but also how readily available the data can be accessed—it's instant and cloud-based.

Plex's Batch Management functionality organizes and tracks groups of products with shared characteristics, a feature attractive to food and beverage manufacturers due to the consistency and product standard maintenance it offers. With Batch Management, Chocolate Shoppe can now see product loss and waste factors. As a result of this newfound insight, the company has increased its production yield.

"We've got now eyes on [production] throughout the building at any time of day to notice if an operator is running or if a machine

is down. It can trigger somebody immediately to be like, 'Let's get down there, let's fix this problem,'"

KHATHY THACH

SQF Internal Auditor & Facility Manager
Chocolate Shoppe Ice Cream.

A CULTURE OF QUALITY

Leveraging Plex QMS has allowed Chocolate Shoppe to better comply with industry regulations, meet customer-specific needs, and prepare for audits. Previously, quality was tracked manually and on paper. With Plex, quality documentation is stored digitally and accessed in one place—operating from a single source of truth has given Chocolate Shoppe peace of mind when audited. Additionally, the ice cream manufacturer can better communicate with customers about quality checks during product runs. The switch to Plex has also impacted traceability, which once took hours but is now able to be done instantly.



ACHIEVING INVENTORY ACCURACY

Chocolate Shoppe points to inventory management as one of the most impactful areas of improvement since implementing Plex. With Plex, Chocolate Shoppe has achieved 95% inventory accuracy, marking a 27% improvement. Previously, inventory was tracked on multiple systems and relied on inherent knowledge among employees. Time would be spent searching the building for materials, causing production delays. Now that process is digitized and readily available in the Plex system, saving the Chocolate Shoppe team over three hours daily. With quality management under control, shipping has improved and customer satisfaction has increased.

“Plex has just helped us with having everything on the computer and digitized. Because it’s always up to date or as live as can be and we can easily access it for any information that we need.

Now everyone in the building has access to know where product is at any point in time. Which is huge... as you’re growing into a bigger and bigger company,”

JEREMY PEER

Vice President of Warehouse Logistics
Chocolate Shoppe Ice Cream.

AN AUTOMATED FUTURE

Chocolate Shoppe is excited about the different Plex features they can continue leveraging for manufacturing success, recognizing that there are still implementation possibilities ahead. The ice cream manufacturer has many Plex-related goals, including increasing automation on the plant floor. **“With Plex, we have really moved into the big leagues,”** states Sarah Deadman.

ABOUT PLEX

Plex, by Rockwell Automation, is a leader in cloud-delivered smart manufacturing solutions, empowering the world's manufacturers to make awesome products. Our platform gives manufacturers the ability to connect, automate, track, and analyze every aspect of their business to drive transformation. The Plex Smart Manufacturing Platform™ includes solutions for manufacturing execution (MES), ERP, quality, supply

chain planning and management, asset performance management, production monitoring, process automation and analytics to connect people, systems, machines and supply chains, enabling them to lead with precision, efficiency and agility. To learn more, visit www.plex.com