

CASE STUDY

How STERIS Streamlined Changeovers and Reduced Downtime by 70%

RAVEN

Company Profile

STERIS is a global leading provider of products and services that support patient care with a focus on infection prevention. The manufacturer helps their clients create a healthier and safer world by providing innovative healthcare, life sciences and dental products and services. Founded in 1985, STERIS has since acquired several businesses, notably American Sterilizer Company, Cantel (Medivators), HuFreidly Group, Palmero and Key Surgical. With over 35 years of experience, STERIS has 50+ facilities and operates in over 100 countries.

 Life Sciences / MedTech  16,000+  \$4.8B



The Challenge

As a leading MedTech manufacturer focused on rapidly ramping up new production lines and products, STERIS needed a way to ensure their plants were operating as efficiently as possible while maintaining product quality. But, using manual processes for production tracking was time-consuming for operators, and prevented STERIS from gaining an accurate or real-time understanding of shift part counts and the root cause of downtime and changeover inefficiencies. With molding, extrusion and swiss machines as the bulk of their operations, STERIS suspected waiting times were one of their top production losses. Without the right data to know whether waiting times were due to inspections, material deliveries or changeovers, STERIS wasn't sure where to start when it came to optimizing their operations.

To build a sustainable OEE and continuous improvement strategy, STERIS and Cantel plants needed a digital solution that helped them:

1. Digitize their shop floor data collection and reporting processes to capture more accurate data, and account for 100% of production time
2. Break down and analyze both their changeover and waiting time processes to identify the root cause of losses
3. Empower the frontline to focus on production and quality by automating downtime tracking and providing real-time visibility into shift performance

The Solution

STERIS and Cantel plants adopted Raven's digital OEE improvement solution to do a deep analysis into existing production processes, take control of their performance and maintain high quality standards. Raven helped both STERIS and Cantel plants in the following ways:

STERIS

Implemented a changeover stepwise improvement program (SMED) from start to finish

As STERIS' digital solution partner, Raven worked alongside the STERIS operations team to build out a sustainable program that ensured changeovers were efficient and the frontline was empowered with the training and knowledge to win each shift. This was done by 1) determining changeover baselines, 2) establishing the frequency and duration of timing, 3) setting targets for changeover times and 4) reporting on opportunities for reducing waiting times.

From there, changeovers were streamlined in a step-by-step process, making it easy for maintenance teams to follow and complete each step. By using Raven's Stepwise Module, the team could easily tag target times so every worker knew what was expected and set real-time alerts to be sent to supervisors when the changeover time exceeded the target.

To help with the success of the program, real-time data reports monitored changeover distribution, trends and opportunity size for each step on an end-of-shift, 24h, weekly and monthly basis. These were reviewed regularly to identify the source of delays preventing changeover targets from being met. Raven also automatically created a visual event timeline to quickly identify how time was spent during changeovers and changeover tasks including: unit clean-out, remove mold, insert mold, test run, clean up and more.

Key metrics

- Changeover times
- Changeover reasons
- Uptime and downtime

Cantel

Introduced real-time dashboards and alerts for hitting production targets

It was important for the Cantel plant to accurately track process performance to understand the impact on parts produced and product quality, so Raven helped the team with the complete digitization of downtime reporting. With the frontline running molding, extrusion and swiss machines, Raven removed the burden and lengthy process of manually recording downtime reasons by installing Smart Assistants on each line. With an intuitive HMI, operators could tag exact downtime reasons in seconds — and only when machine sensors couldn't track them automatically. When unplanned downtime and waiting times occurred, Raven's real-time alerts were sent to the maintenance teams by text and email to resolve inefficiencies fast.

To keep the frontline and operations teams focused, Raven set up end-of-line dashboards for increased engagement and visibility into shift performance including: machine status, production speed, packing and shipping work orders, and part counts. Using Raven's Ahead or Behind Module, teams could also see actual production performance versus set targets for every hour and shift. When target times and counts weren't being met, instant notifications were sent to supervisors and frontline operators to make process improvements in an efficient and collaborative approach on the shop floor.

Key metrics

- Share of shift count, target count
- SKUs and target cycle times/parts per hour
- Good parts, scrap parts and parts produced count
- Total time for changeover on each machine

The Results

By using Raven's OEE improvement software, both STERIS and Cantel plants completely digitized their operations to collect reliable data, account for 100% of production time and identify the root cause of production losses.

Some of the keys wins they've achieved include:

STERIS

- Mapped out changeover journeys and developed a changeover stepwise improvement program (SMED)
- Determined exact downtime reasons for changeovers
- Improved changeover efficiency and reduced insert changeover duration by 9%
- Identified opportunities to reduce waiting times and improve availability
- Gained real-time visibility into key production metrics and identified top bottlenecks and losses

Cantel

- Full digitization of manual processes in just 4 months, achieving more complete and accurate downtime tracking and production data
- Strong operator engagement with a 99% downtime tagging rate – drastically reducing operator burden
- Empowered frontline teams to hit targets using end-of-line dashboards that highlight whether they're winning or losing each shift
- Reduced unplanned downtime by 70% – one of their biggest production losses
- Uncovered hidden capacity and increased asset availability by 30%

About

Raven helps manufacturers empower teams to make confident, fact-driven productivity improvements in real-time. Raven's OEE improvement software is the only solution that accounts for 100% of production time, with meaningful context for every second. With its frontline-first design, Raven empowers operators to easily tag downtime reasons – only asking questions when machines don't have the answers. Raven combines operator and machine context to create a complete timeline of events, eliminating hidden losses.

Contact

raven.ai
hello@raven.ai

[Book a Demo](#)