CASE STUDY

How ECCO Manufacturing Uncovered Opportunities to Reduce Losses and Increase Availability in 3 Months

Company Profile

Built on precision, quality and service excellence in 1960, ECCO Manufacturing has established itself as one of the largest manufacturers and suppliers of sheet metal products in North America. ECCO products are distributed through factory-authorized distributors in Canada, the United States and internationally. With half a million square feet of manufacturing and distribution facilities and growing, ECCO designs and produces highly-engineered mass and custom OEM products in rectangular, round, flat oval and flat shapes. Plants are located in Langley BC, Calgary AB and Kent WA.

Industrial, Discrete 51-200 $13.2M

The Challenge

To drive a sustainable continuous improvement strategy, ECCO Manufacturing was looking for a digital OEE improvement solution that gave them a live, bird's-eye view of their factories to 1) easily track uptime, downtime and asset availability and 2) determine the top opportunities for productivity improvements. ECCO's management and frontline teams were faced with using time-consuming manual processes – including pen-and-paper and spreadsheets – for tracking machine breakdowns, production counts and target rates. This required a ton of effort from the team and wasn't providing them reliable information to make data-driven decisions. Without real-time visibility into the performance of their production lines, knowing where to make OEE improvements across their shop floor was a guessing game.

ECCO needed a digital solution to help them:

- Digitize their shop floor data collection and reporting processes to capture accurate and complete data more efficiently
- Understand their production and OEE metrics by analyzing: uptime, downtime, production quality, counts, rejects, net output and target rates
- Maximize machine and people performance across the shop floor by understanding process bottlenecks
- Empower frontline teams to increase productivity on the shop floor by making performance metrics available in real-time

The Solution

ECCO Manufacturing chose Raven as their OEE improvement software and partner to help them achieve their objectives by gaining real-time visibility into their key metrics, optimizing shop floor processes and identifying key improvement opportunities that were previously mysteries. ECCO implemented Raven across two of their sites (Calgary, Alberta and Langley, British Columbia in Canada).

In less than 3 months, ECCO Manufacturing successfully adopted Raven, tracking and monitoring OEE and production on 5 assets in four key lines. The digital implementation included:

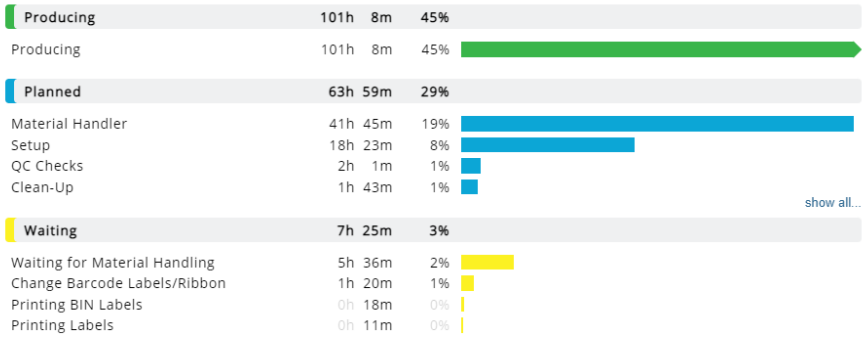
- Connecting to pipeline, roll former, pipe end form and pipe curl machines to automatically pull uptime and downtime data
- User-friendly Smart Assistant HMIs placed on the lines for operators to easily provide human context about downtime reasons when machine data lacked actionable information
- Real-time data reports and analytics to help supervisors and management teams successfully track OEE, uptime, downtime, production quality, counts, rejects, net output, tagging and target rates for multiple time periods including: End of Shift, 24-Hour, Weekly and Monthly
- A fully-contextualized event timeline identifying root causes of losses and highlighting opportunities for continuous improvement by asset, shift and SKU
- Ongoing training and coaching from the Raven team to ensure both shop floor and management adoption and engagement

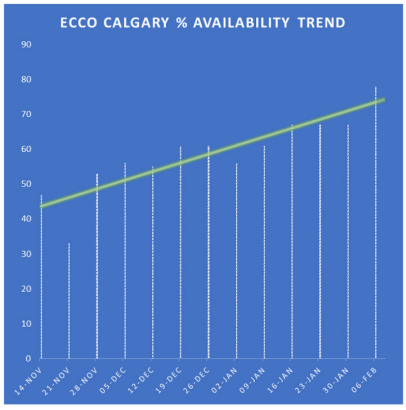
The Results

With Raven's OEE improvement software, ECCO Manufacturing was able to account for 100% of production time and drove continuous improvement across the shop floor, by understanding the root causes of production losses.

Some of the keys wins they achieved in just 3 months include:

- Strong operator engagement with a 95%+ downtime tagging rate at both factories – drastically reducing operator burden. In less than 3 clicks, operators recorded downtime reasons with Raven Smart Assistants on their lines, only when machines didn't have the answers.
- Identifying the top two biggest downtime opportunities, including: material handling and waiting for material handling. Raven then helped ECCO drive the action to invest in an electric power jack to resolve the issue, which will increase their production potential by 18% per month.
- Pinpointing a key bottleneck at the in-feed of the pipeline at the Langley, BC plant which was causing up to a 5% rework loss. Raven guided the action for the site to upgrade the feeding system, eliminating the loss.
- Increasing availability by 15% for the Calgary, Alberta plant through real-time monitoring and stronger operator engagement
- Reviewing machine actual performance to allow sites to modify target rates, optimize processes and unlock untapped production capacity





"Raven helped us know when our operators needed support in real-time. Our frontline knows that the management team cares about improving issues on the shop floor, and we now understand the root cause of problems. It's created a sense of urgency and ownership for everyone on the floor."

David O, Process Engineering Lead, ECCO Manufacturing

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

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