

CASE STUDY

How Stanley Black & Decker Warrington Drove Productivity Improvements and Operator Engagement

Company Profile

A human-centered, global industrial company helping to make the world a better place. #1 in tools and storage category, #2 in security services and a leader in engineered fastening, Stanley Black & Decker empowers people worldwide to do safer and more significant work. SBD's success comes down to their focus on innovation, digital excellence, infrastructure and social responsibility. The organization launches 1000+ new products with 45 of the "world's firsts" every single year.









The Challenge

As a human-centered, global industrial company striving to make the world a better place through innovation, excellence and social responsibility, Stanley Black & Decker Warrington needed a digital solution that facilitated continuous improvement across their plant and empowered the frontline in their day-to-day work.

To put their frontline first and boost productivity on the lines, Stanley Black & Decker needed OEE technology that provided four things:

- An intuitive, automated system that engages operators to track downtime reasons
- 2. Standardization of displaying production targets to increase shop floor awareness
- 3. Real-time visualization of machine and people performance to understand downtime reasons and production losses
- Reports that identify key opportunities for daily operational improvement activities and continuous improvement initiatives

The Solution

In 2021, Stanley Black & Decker Warrington ditched spreadsheets and teamed up with Raven to implement a digital OEE improvement solution and take their operational performance and shop floor productivity to the next level.

Using Raven's Operator Smart Assistant, SBD operators can now easily tag the exact reason for downtime by simply tapping a button on iPads stationed on the line. When breaks, end of shift and minor stops occur, downtime reasons are automatically applied - without any input required from the operator. If issues arise, supervisors can take action to alleviate bottlenecks immediately, with the help of automated alerts that are sent straight to the supervisor's phone.

To boost focus and awareness on the shop floor, SBD and Raven setup real-time, end-of-line data dashboards on iPads and TVs to display progress towards production targets and create some friendly competition for achieving individual performance goals. With full digitization of data and no more pen-and-paper processes, the shop floor had one source of truth to keep them on track during standups, shift handover meetings and throughout their day-to-day.

To gain more visibility into machine performance, organizational awareness of downtime and identify daily operational improvement activities SBD Warrington uses Raven's Supervisor Assistant. Supervisor Assistant is powered by Automated Contextualization Technology (ACT), which uses Al to analyze operator input and data from machines, sensors and information systems to compile a real-time, meaningful timeline of events accounting for 100% of production time and OEE losses. With a live overview of their production lines, the Warrington operations team is able to make confident, data-led decisions to drive continuous improvements and hit productivity targets.

SBD also works closely with Raven's customer success team to focus on identifying opportunities for continuous improvement in the frontline's work and for planned and unplanned downtime. Raven's customer success team developed a custom "Key Takeaways" monthly reports which allows Warrington to drill into focus areas based on the month in review and their contextualized data analytics.



The Results

By using Raven's automated contextualization and OEE software, Stanley Black & Decker has been able to:

- Identify 3 improvement projects during pilot cell roll out on 4 assets:
 - Machine speed increase @circa 7% x 2 machines (6mm-10mm)
 - Diverter flap remodeled after learning it was the largest single downtime reason
 - Hold up flap fitted to PA22/PA23 to allow machine not to stop (1,000,000/year additional)
- Gain real-time visibility into contextualized data by machine groups and people to allow for organizational awareness into shop floor operations
- · Automate "winners & losers" performance reporting including: integration of part counts by shift and by machine into existing dashboards

Number of SBD Machines with Rayen to Date

Total Machines: 188

The Breakdown

Assembly area: 59 machines | Heading area: 81 machines | Rolling area: 40 machines | Screening area: 8 machines

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

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