

## START.

### Pandemic triggers remote diagnostics tipping point

**The adoption of ‘all-things remote’ has been amplified during the COVID-19 pandemic, especially the widespread use of remote assistance technologies. With manufacturing decision makers now focused on long term efficiency improvements, Nigel Flowers - UK Managing Director of Sumitomo (SHI) Demag - examines how moulders are eliminating inefficient tasks and benefiting from intelligent diagnostic tools to monitor and troubleshoot machine assets remotely.**

Agility has been the name of the game during these unprecedented times. An uptick in interest for remote machine monitoring has for many been the hallmark of 2020. In the last 12 months, Sumitomo (SHI) Demag’s UK technical team – many also working remotely – resolved close to 400 individual issues and assisted 35 different moulding customers to maintain business continuity via its encrypted cellular 4G activeConnect tool.

The ability to take live data from moulding machines and use this to inform operational decisions and make process improvements has induced greater trust and a change in mindset about remote access tools claim experts. From subscription remote diagnostic services to more viable innovations like activeConnect which doesn’t encroach on a company’s IT architecture and security firewall, manufacturers seek faster, slicker and more responsive remote troubleshooting solutions to improve operational efficiency summarises The Manufacturer and IBM in the recently published 2021 Digital Transformation Assessment report.<sup>1</sup>

#### Ahead of the pandemic pivot

As UK and Ireland moulders did their best to press through the COVID-19 crisis, Sumitomo (SHI) Demag customers hailed the company’s shrewd foresight to implement and retrofit activeConnect on nearly half of all machines in the UK and Ireland capable of supporting this clever piece of kit. *“Throughout this unpredictable trading environment, remote diagnostics has been a golden ticket to maintain operational efficiency and save money, while adhering to health and safety guidance and ensuring machine assets are safeguarded,”* notes Nigel.

Applying the same principle deployed by computer helpdesks, activeConnect utilises industrial 4G mobile technology. Being based on cellular connectivity is a key feature of this innovative solution. For ease, cost efficiency and speed of implementation, one system is wired into each machine control panel.

Cybersecure, activeConnect helps to ensure the customer is in full control of their machine assets. Rather than being an ‘always on technology’, connection to the service management system is only established when the customer grants access.

#### 90% first time fix

In Tyco’s case, identifying a loose sensor remotely to resolve an automatic tiebar pulling issue saved them a full day or more in lost production time. Equating to a saving of at least £650 in service costs alone compared to a site visit in addition to lost production costs. Instead the UK helpdesk logged in and observed the machine in operation.

Technical Manager Nick Stockton recaps: *“As the team operated the machine we observed and spotted a sensor on the moving tie bar platen wasn’t reading. It had simply come loose. With a quick*

adjustment they removed the tiebar, changed the tool and were back in production within several hours.

*“Rather than trying to decipher the machine settings or error messages previously relayed over the telephone, our helpdesk team can now view the machine control panel live. In many instances, we can fault find, reset the machine and resolve an issue straightaway,”* emphasises Nick.

It takes an engineer approximately 15 seconds to connect to a machine, providing the customer has switched on the router access.

Another critical feature of remote diagnostics is expediting the identification and ordering of defective parts. This has increased our first time fix rates to more than 90 percent, states Nigel. In the case of a screw calibration fault observed on an IntElect machine at Omega Plastics, a quote for replacement IPM modules was immediately issued, authorised and an engineer pre-booked to fit and set the machine up the next day, saving Omega £473.

During remote access, expert Sumitomo (SHI) Demag helpdesk service engineers can switch between screens. This enables support staff to very quickly identify the problem and decide how best to resolve it.

Nigel comments: *“By identifying the defective part using activeConnect, our support team can order the part, arrange delivery, and schedule an engineer to attend the customer site when the part is scheduled to arrive. The result; significantly less downtime for customers and consequently an increase on OEE.”*

### **Remote resets**

Because activeConnect is wired into each control panel, the Sumitomo (SHI) Demag UK and Ireland helpdesk can also be granted permission to undertake remedial work and recalibrate settings.

This feature was especially helpful for specialist cap manufacturer Guala Closures when an HMI touchscreen was unresponsive. Rather than booking a next day engineer visit, the helpdesk rebooted the touchscreen calibration remotely, enabling the Guala team to then calibrate the settings. Within minutes of the call, the machine was fully operational again. Saving Guala £430 for an engineer to visit and fix, and potentially thousands in lost production income.

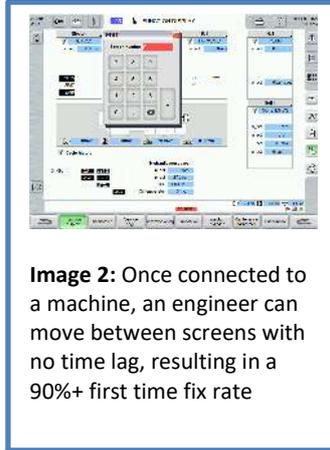
For a mass manufacturer of precision components, keeping the factory doors open and machinery fully operational has been critical to maintaining critical supply chains, note the authors of the 2021 Digital Transformation Assessment report. A full year since the pandemic shook our economy, the most significant imperative cited by 92% of manufacturing leaders participating in the survey is improving operational efficiency.

Nigel adds: *“In 2021, every decision will inevitably be driven by cost and a new term coined ‘Digital Lean’. Real time information has always been deemed important to machine availability. Yet, as we embark on the recovery, practical collaboration tools, especially remote assistance, will prove to be invaluable to productivity cost savings and waste reduction.”*

To complement this service, the Sumitomo (SHI) Demag Group will soon unveil a web-based support application offering real time diagnostics, digitalised support documentation, an interactive parts catalogue and more. Also developed in-house, the team likens the technology to pushing a help button.

ENDS.

### Images/captions



#### Notes to the editor

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Sumitomo (SHI) Demag Plastics Machinery UK Ltd. is a wholly owned subsidiary of Sumitomo (SHI) Demag, Germany, established in 1956. Sumitomo (SHI) Demag specialises in the production of electric, hybrid and servo hydraulic injection moulding machines with clamping forces between 250 kN and 20,000 kN. With over 125,000 machines installed worldwide, over 65,000 of which are full electric, we supply machines to all sectors, including automotive, packaging, electric/electronic, medical and pharmaceutical, building products and leisure, and assist injection moulders to meet their energy management, quality assurance, lean manufacturing and Total Cost of Ownership strategic and production goals. The company's UK and Ireland business delivers world-class service and support to more than 400 customers, supporting in excess of 1,800 injection moulding machines. Sumitomo (SHI) Demag won Best Technology Application of the Year two years running at the Plastic Industry Awards (2015 and 2016). Our UK-based Training Academy is a Cogent Skills Partner and delivers six structured and bespoke polymer processing and industry-led training and development courses, aimed at all operational levels, from new starters to tool setters, engineers and asset care managers. All course content has been designed to enhance precision, productivity and Overall Equipment Effectiveness (OEE).

<http://uk.sumitomo-shi-demag.eu/>

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<sup>1</sup> <https://www.themanufacturer.com/articles/two-in-three-manufacturers-say-covid-19-has-accelerated-their-digital-transformation/>