

During **UNPLANNED DOWNTIME**, **NO VALUE IS BEING PRODUCED** but the **cost of overhead continues to grow**.

82% of companies have experienced unplanned downtime over the past three years<sup>1</sup>.

Unplanned downtime can cost a company as much as **\$260,000 per hour**

Of the **82% of companies** that have experienced unplanned downtime over the past three years:

**4 hours**  
Average length of outage

**\$2 million**  
Average cost of an outage



couldn't deliver services to customers



lost production time on a critical asset



were totally unable to service or support specific equipment or assets

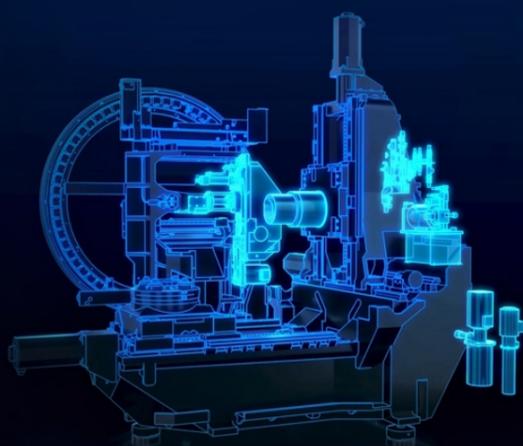
<sup>1</sup>Source: www.iiot-world.com 2017

IoT technologies have offered the promise to use condition monitoring to predict equipment problems before an actual failure occurs. They commonly use a mixture of sound and vibration analysis to detect when a machine may be running outside of normal conditions relative to a known set of baseline conditions, but until recently have still required a continuation of technical development to be truly effective for reliably performing this challenging set of tasks. With the introduction of Makino's MHmax™ Machine Health Maximizer, predicting is now a real deliverable solution.



**MAKINO**  
**MH+max**  
Makino Health Maximizer

MHmax is a game-changing predictive technology specifically designed to reduce your unplanned downtime. Only MHmax offers a tailored high-value sensor package paired with Makino's proprietary machine learning software to monitor key machine functional areas that are critical to the health of the machine.



**Levels of Connectivity**

Control access to your data

Since Makino highly values your privacy and data ownership, MHmax doesn't require any data streaming—even with Level 3 connectivity. Makino only receive alerts from MHmax that your machine needs attention.



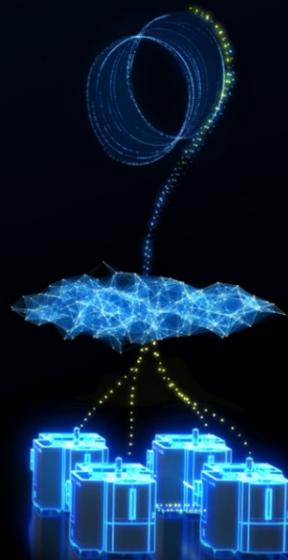
**LEVEL 1**  
Pro6 Control Interface

Level 1 connectivity lives on the machine's Pro6 Control interface, with easy-to-understand, information-rich displays showing monitored system's status on the control screen.



**LEVEL 2**  
Private Internal Network

Level 2 connectivity adds to Level 1 capabilities. Living on your private internal network, it allows select employees to log in to a summary page and instantly see the health status of all connected machines. It also provides in-shop notifications (via email).



**LEVEL 3**  
Makino Cloud Service

Level 3 connectivity includes the benefits of all three levels and transmits coded alarm messages or support requests through the cloud to Makino's technical support team. We'll then contact you right away to proactively decide a recommended course of action.

**LEARN MORE**

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