*Line of Wire EDM Machinery in the MC Machinery headquarters' EDM showroom*

# #1 IN EDM SALES, SUPPORT AND INNOVATION

Since it's humble beginnings in the late nineteen seventies, MC Machinery Systems (a subsidiary of Mitsubishi Corporation) has become a powerhouse in EDM and is the EDM sales leader in the USA market. In early April, I visited their stunning new 176,000 square foot headquarters, located in Elk Grove Village, Illinois, to learn more about this industry leader and the investments they're making to sustain and advance their leadership position.

MC Machinery Systems offers a complete line of Wire and Sinker EDM's covering the full gamut from ultra-precision to large capacity machines.

It is important to note that, in addition to its EDM and EDM related products, MC Machinery Systems is also a leading supplier of Laser, Milling, Turning and Press Brake technologies, the activities for which are also supported at their new facility.

## MC Machinery Systems' massive investment has resulted in a state-of-the-art facility which accommodates:

### First Floor:

- A pristine 20,000 square foot EDM, Milling and Turning showroom and application area.
- A fully equipped inspection room.
- A pristine 30,000 square foot Fabrication showroom and application area for Laser and Press Brake products.
- A dedicated EDM research and development area which develops virtually all of the cutting technology for all of MC Machinery's EDM's sold in North America.
- Customer support group including service, parts and applications. This area contains numerous large wall mounted displays which monitor real time performance metrics of the customer support group.
- A "museum" area which houses examples of fully functioning older generation machines which are used to train service technicians to effectively service legacy equipment, allow for applications engineers to support customers with legacy equipment and serve as a test bed for repaired legacy electronic components.
- A machinery refurbishing area housing the Encore division that sells refurbished, pre-owned equipment.
- A laboratory where electronic components are evaluated and repaired.
- An in-house software development department.
- Shipping and receiving department.

### Second Floor:

- Consumable Products Group (CPG).
- Accounting department.
- MAC Funding Group.
- Executive offices.

*Birds-eye-view of the EDM showroom*

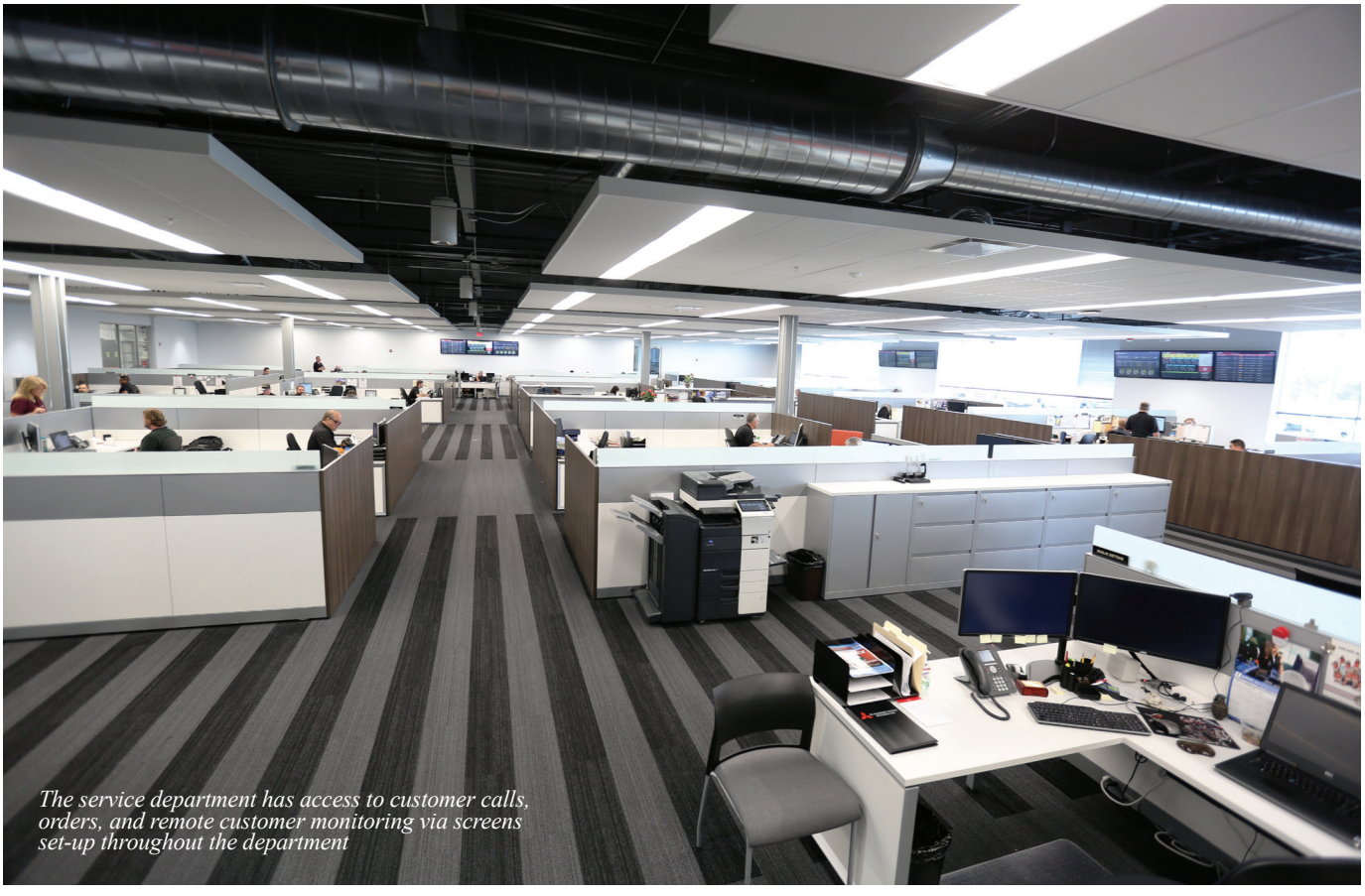
**Customer Support: A Key to Success**

MC Machinery devotes extraordinary resources to assure timely and comprehensive support for its customers. Because of MC Machinery's dedication to top quality service, among its 435 North American employees, 220 are within the service department and an additional forty are devoted to training and applications. At the service desk, the Americas are divided into five regions with at least seven people dedicated to serve each region. The company maintains approximately forty-five service vans to support its local service operations.

And…..that support is not just for current generation machines. Unlike some machine builders, MC Machinery is committed to support every machine they've ever sold!

Experience is the key to successful applications support, and the applications staff at MC Machinery includes a number of folks with thirty or more years of EDM experience. They combine that invaluable experience with the latest technology to provide timely and proficient assistance to customers.

*(continued on page 6)*

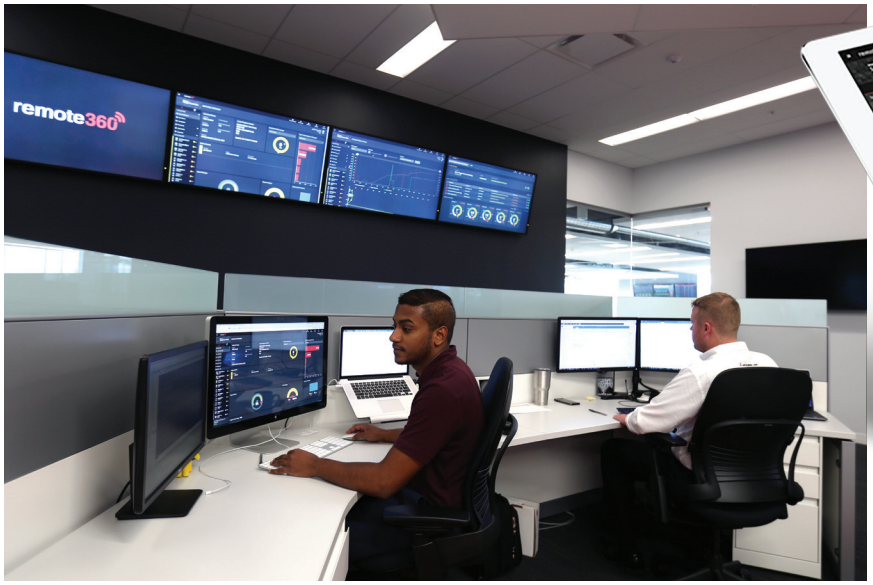

*The service department has access to customer calls, orders, and remote customer monitoring via screens set-up throughout the department*

# remote360®

## The Future Has Arrived

MC Machinery has developed a remarkable system to bring the Industrial Internet of Things (IIoT) to your shop! MC Machinery's **remote360®** is a robust production monitoring and support solution that employs sophisticated data analytics, designed to provide transparency to your machining processes. Their web-based application provides real-time data and analysis to increase productivity, improve efficiency and reduce down time. Let's learn more about this amazing technology by exploring some of its remarkable capabilities.

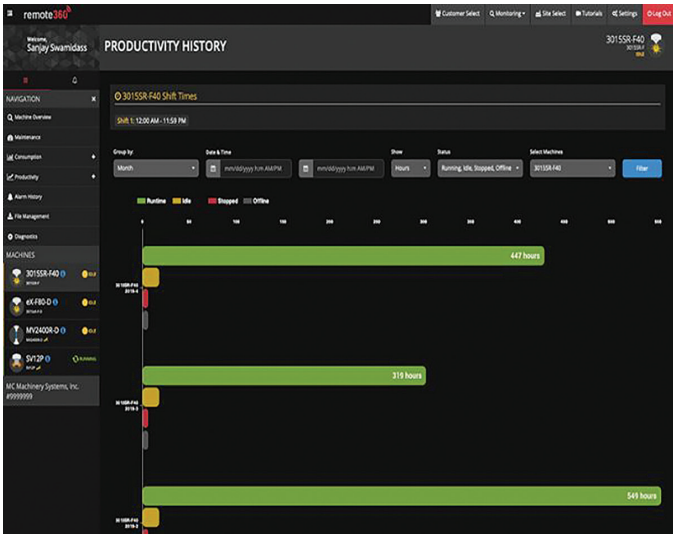
**Machine Overview**
This function allows customers to monitor real time machine status for a single machine, department, facility or entire organization anywhere in the world. The customer can then zoom in to see the status of individual machines to learn whether the machine is cutting, what job is running and, if it is not cutting, why.




*MC Machinery's software developers are constantly working on building upon* **remote360®**.

**Productivity History**
Similarly, for any period of time (be it a shift, a week, a month or even a year) **remote360®** allows the customer to view and analyze production time and down time.

**remote360®** is a unique combination of hardware and software that connects the machine to a secure, remote cloud database to continually transmit and save key data metrics of machine operations. This data is then available for subsequent analysis to enable customers to better utilize and control their investment in their equipment. Customers can access highly sophisticated reporting modules from either a PC or mobile device by a web application. MC Machinery has invested years of in-house development to create a system totally dedicated to the support and optimization of its equipment. **remote360®** is not some universal application that was modified for machine monitoring. **remote360®** was designed and developed from the ground up by MC Machinery staff and is supported by an entire department dedicated to maintaining and continually upgrading the system capabilities.



**Alarm History**
For any period of time (be it a shift, a week, a month or even a year) remote360® allows the customer to view and analyze alarms that have been logged to determine patterns of inactivity caused by alarms and direct staff to address these productivity-robbing instances.

**Maintenance**
remote360® also monitors the maintenance timers for every machine and allows the customer to view them remotely. It can also send emails or notifications of overdue maintenance timers, upcoming maintenance and alarms. This allows the customer to be proactive with maintenance to avoid unplanned down time.

**Consumption**
The remote360® database also contains valuable consumables consumption data that can help customers analyze their consumables consumption by job, by department, facility or company-wide.

**Monitoring**
remote360® allows the customer to monitor an individual machine remotely, just as if the customer was standing in front of the machine as shown in Fig #1.

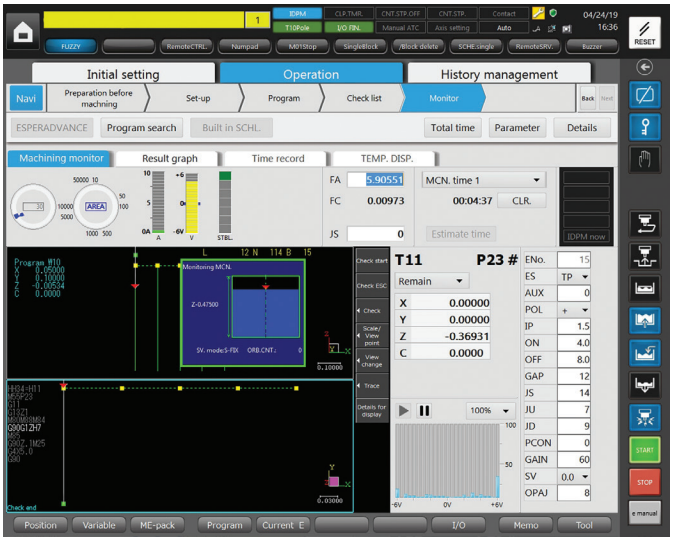



*Fig #1*

**Remote Support**
In many instances, application or service support can be immeasurably improved if the technician has access to the machine control while the job is running. In days past, this required a costly on-site visit. However, with remote360®, and with a customer's specific permission, MC Machinery staff can take remote control of the machine to either optimize its operation or diagnose a problem. remote360® also has the capability to upload/download customer machine programs and download software updates.

*L-R Isabel Florence (Marketing Manager), Greg Langenhorst (Technical Marketing Manager), Alan Hallman (North American Sales Manager), Roger Kern (Editor, EDM Today), Bill Isaac (Sr. Vice President, Sales & Marketing), Mike Bystrek (Senior Product Manager – Applications Development EDM and Machining Technologies)*

I'd like to express my sincere appreciation for the attention and hospitality afforded me by the MC Machinery team during my visit to their remarkable facility.

**MC Machinery Systems, Inc. | www.mcmachinery.com**

**There's More…**
This necessarily brief tour of remote360® has touched on only the highlights of its extraordinary capabilities. For each of the screens shown above, the customer can filter and drill down to incredibly detailed information, often necessary to address otherwise hidden problems.

***Last, but Not Least***
remote360® comes *standard* with every Mitsubishi EDM and continues at no charge throughout the manufacturer warranty period. Upon expiration of the manufacturer warranty, this extremely valuable capability can be continued at a modest cost.