

# Terumo Cardiovascular Systems

Facilities Team Optimizes for Excellence



“

It's very important to have all this information on mobile devices. My technicians don't sit at computers all day - they're on the move. Time is of the essence during emergencies, incidents, or accidents. ”

— Bridget Graham, *Facilities Engineering Manager, Terumo Cardiovascular Systems, Ann Arbor, MI*



**At Terumo Cardiovascular Systems**, a facilities team of seven manages three buildings across 55 acres with a total of 300,000 square feet and 700 employees. Their expertise is diverse - with two HVAC techs, two master carpenters, a plumber, an electrician and a utilities tech. The original building - a manufacturing plant - was constructed in the 1960's and since that time, the size of the building has been expanded three times.

Terumo's corporate offices and FDA-regulated manufacturing facility are located about an hour's drive east of Detroit in Ann Arbor, Michigan. A global company, Terumo is one of three companies in the world that produces highly specialized heart and lung machines for use during surgery.

Facilities Engineering Manager Bridget Graham has been leading the team since 2016. Time spent in a role with the Quality Department at Terumo greatly influenced her strategy to modernize Facilities Management which led to reduced costs, faster response times and documentation that met strict compliance requirements.

## Emergencies Drive Change

After joining the facilities team she quickly assessed the situation for gaps in performance and where she could add value immediately. It was apparent that the current state of the paper documents and the use of paper in general was a barrier to maximum productivity of the team.

While the Terumo facilities team didn't have a dungeon filled with thousands of paper documents, Graham knew getting organized and providing easy access to the documents was key to improving responsiveness and safety.

After a few emergencies, Graham quickly discovered that locating paper documents was neither quick nor easy. Ironically, once the paper documents were found, they still had to confirm whether or not they were holding the most current set. On several occasions - either late at night or during a manufacturing shift - excessive time was wasted searching for building drawings and shut-off locations. Without quick and accurate access to information common issues like a frozen drain, leaking valve or burst water line could wreak havoc on the facility.



Mobile access results in less down time



Cloud-based storage for secure sharing



Simplified search finds any document in seconds



Scott Poling, *Facilities Manager*

Scott Poling, who has been with Terumo for eight years, is the facilities team expert in compressed air systems, plumbing, and fire control systems. Poling had this to say: “Maintenance issues or emergencies never happen when it’s convenient. We’ve had numerous situations when there’s an emergency late at night and many of us live far from the office - up to 45 minutes.” He continued: “It’s really painful to receive a call at 2 in the morning from the night security guard.”

When an emergency occurs, it’s usually the team member who lives closest to the facility who responds to after-hours situations - rather than the tech with the most relevant expertise. Typically they would start by thumbing through paper drawings to try and figure out how to solve the problem. If they were still unable to resolve the issue, they would contact the subject matter expert. When they could not quickly resolve the issue, drastic measures had to be taken until the expert arrived - including shutting down the entire manufacturing facility.

Even when situations came up during business hours, productivity was an issue. On average it could take from 1 hour to 1 day to find a drawing - depending on

whether a contractor was standing there waiting or they were doing their own troubleshooting. And then they still might not find the document.

An added dynamic of the Terumo facilities is the fact that both internal and external environmental conditions significantly impact the ability for everything to function normally - temperature, snow or rain, tornadoes, even wind and dust. Also, the fact that this manufacturing facility is FDA-regulated and ISO-certified adds even more complexity to facilities management at Terumo. For example, the temperature of the manufacturing environment cannot vary more than a couple of degrees. Any fluctuation beyond a few degrees requires immediate attention.

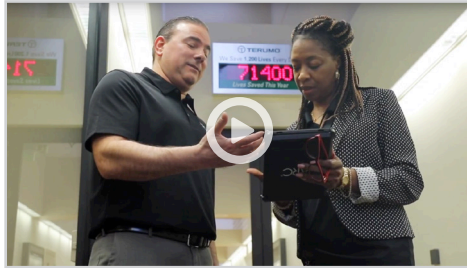
It didn’t take very many emergencies before Graham picked up the phone and started talking with ARC Document Solutions about setting up a Mobile Facilities Dashboard for Terumo. It would contain their scanned building information for all three buildings - such as Shut-off Locations, As-Builts, Warranties, and Maintenance Logs. All her team would need to do is pull up the dashboard and click through to the information they required. Graham couldn’t wait.

## Preparing for Mobile Success

Fortunately the process to get budget approval and the contract signed was a smooth one. Once the contract was signed, the ARC Professional Services team started putting implementation plans into place and executing on the first steps. Soon the ARC team was on-site labeling and coding documents to be taken away to a local ARC location for scanning and hyperlinking.

Within a few weeks documents were scanned and the setup for a Terumo Mobile Facilities Dashboard was complete. When Graham tested the dashboard she was immediately impressed with the simplicity and elegance of the dashboard solution. Information from all three buildings could be accessed with a few clicks, which is extremely valuable when a vendor or contractor is standing by ready to begin working.

The ARC Professional Services team conducted on-site training with Graham and her team. Her team was so excited about what they could do - search, highlight, and update drawings right from their tablets.



Watch the video at: [www.e-arc.com/customer-story/terumo](http://www.e-arc.com/customer-story/terumo)

## Going Mobile gets the “Thumbs Up”

ARC Facilities really has simplified work life for Graham and her team – and brought them together as a team. The dashboard is a rallying point - a common vehicle whereby people can easily access information – reducing frustration and raising morale.

The team is now actively engaged with the mobile facility dashboards and continuously discovering new features that provide unexpected benefits. Using the dashboard to mark up the drawings in real time versus carrying around rolls of paper has been a real time-saver.

The Terumo facilities team discovered they can use the dashboard’s built-in square footage calculator to determine, for example, how much carpet needs to be ordered for a specific room or floor. No physical measuring required.

Certain situations make it necessary to shut down and restart plant systems, which typically requires following specific procedures. The entire team has access to all shut-down and start-up procedures on their mobile devices so they can respond quickly – and with precision.

The Terumo senior management team is impressed with the streamlined capabilities of the dashboard – how it has improved the productivity of the team and streamlined their workflows and processes. In fact, Graham’s boss, the Plant Manager, wants them to use the solution as much as they can - including managing work orders.

## From One Facility Manager to Another

Facilities is a lot like constantly putting out fires. It’s a challenge to find the time to formalize workflows process and improvements and go digital when there’s always a fire to put out. But when it’s done, no one ever looks back.

By her own admission, Graham gets really excited when talking about the dashboard. “It’s easy-to-use and self-explanatory which makes using the tool an easy decision for everyone on the team. If a carpenter is the after-hours point person for a plumbing emergency he or she can quickly find the instructions and images they need to turn off a water shutoff valve.” She also says “having the ability to update current drawings on the dashboard rather than marking up a 36” X 24” paper drawing is awesome!”

Finally, Graham has been able to accelerate new hire onboarding. “It’s excellent when new people join the team and start using the dashboard immediately. They know where the drawings are. They know where the shutoffs are. Those things are very important.”



ARC provides technology and document solutions for every stage of the building lifecycle – from design to build to operate.

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