Digitally transformed shutdowns, turnarounds, and outages contribute to overall business objectives.





Digitally Transformed Shutdowns Turnarounds, and Outages

Shutdowns, Turnarounds, and Outages (STOs) are high-stress, highly variable, multimillion dollar endeavors. What if they could also be a key to your plant reaching Top Quartile performance?

Engage with Emerson Lifecycle Services early so we can help you create a known, quantifiable, and detailed work scope while operating safely throughout the process. Our Condition Monitoring solutions enabled by Plantweb™ digital ecosystem gain critical insights regarding the health of your equipment. This will help you prioritize and schedule work to mitigate risk, discovery work, and delays. Our proven process, combined with our personnel's expertise, ensure the work scope will be executed seamlessly, thereby mitigating unplanned risks of emergent and discovery work. This process assures scope and schedule are adhered to while decreasing costs and increasing reliability and plant uptime.

Industry Trends

Approximately 50% of planned outages fail to meet the scheduled target, and nearly 25% overrun budget.¹



Top Quartile performers are 25% faster than average peers and 20% under budget – equating to \$4.2 to \$4.5 M of lost profitability per STO.

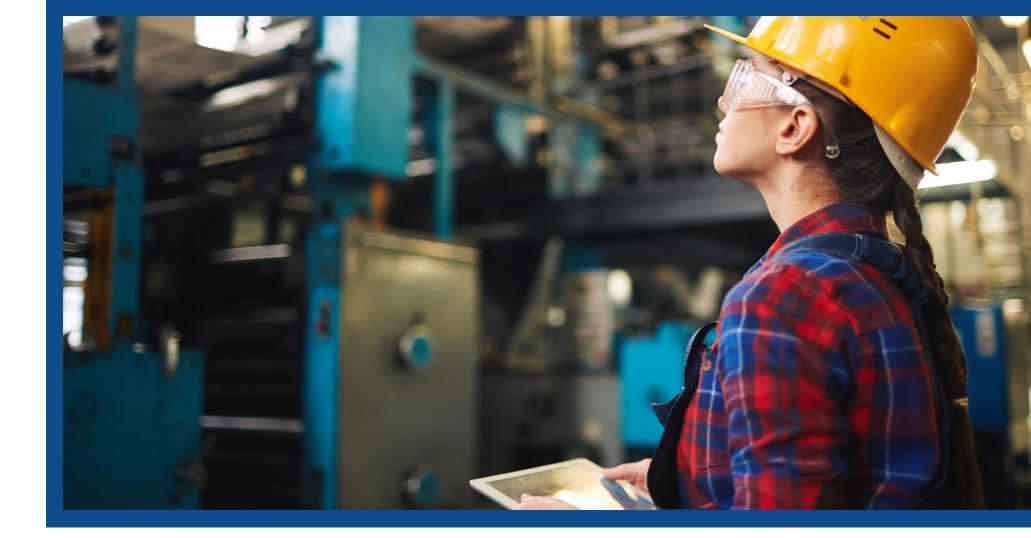


Approximately 74% of all shutdown, turnaround, and outage projects fail to satisfy performance goals. Every day an STO runs late, it can mean \$1 million in lost revenue and increased costs.²



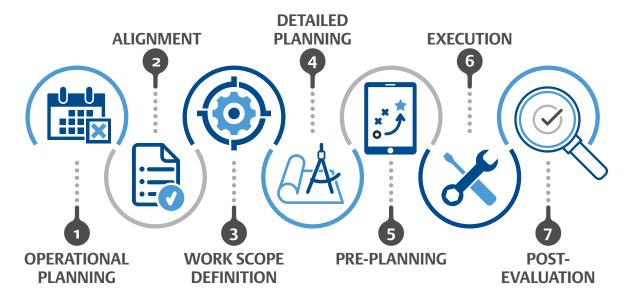
- 1. Independent Project Analysis 2015, (n=207) Refining and Petrochemical.
- 2. American Fuel and Petrochemical Manufacturers

For more information visit www.Emerson.com/RosemountLifecycleServices



Seven-step Planning Process

Properly planned STOs provide valuable opportunities to align maintenance with business goals and implement long-term reliability strategies. We can help you evaluate key performance indicators and asset health to develop a maintenance plan that can maximize your return on investment and reduce risk by using our proven process for scheduling and prioritizing services.

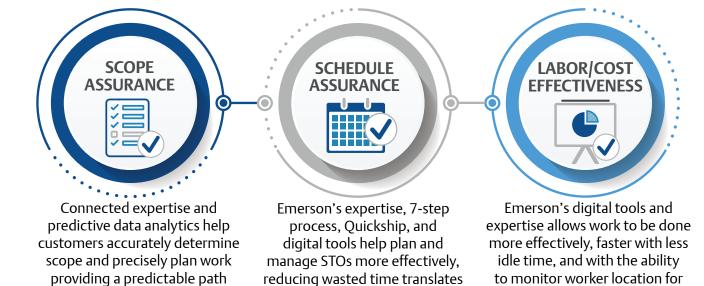


How It Works

to achieving safe and efficient

turnaround.

- **Condition Monitoring Solutions** use predictive diagnostics and data analytics technology to provide valuable information about process equipment for better planning capability of critical plant assets.
- **Mobile Walkdown App** provides immediate accessibility to electronic records of field equipment with health ratings to prioritize work scope. These digitally transformed walkdowns help mitigate unnecessary costs, while increasing scope and schedule assurance for better parts and spares management.
- Prevent sending teams into dangerous settings unnecessarily with Emerson Location
 Awareness, to monitor workers, safety, and performance throughout the facility.
- During STO execution, a **Mobile Service Center** can be delivered on-site and staffed with a team of factory-certified experts who not only provide turnaround management but also leverage customized service capabilities to address all the planned and unplanned needs during the execution and critical start-up phases.
- **Mobile Service Centers** serve as an **inventory warehouse**, stocked with parts to complete the planned and unplanned work. An on-site procurement center ensures the right parts are custom stocked or expedited through **QuickShip** to meet unplanned needs.
- The Command Center acts as a central point where **all turnaround asset data and analytics** are visualized and experts are able to make actionable recommendations.



to shorter STOs and lower risk.

safety and performance.

Let Emerson show you how digitally transformed shutdowns, turnarounds, and outages can contribute to your overall business objectives so you can reach - and stay in - Top Quartile performance.

Digital Walkdown



Transform site evaluation by abandoning traditional methods of manual data collection by leveraging cutting-edge, mobile technology to improve the reliability, safety, and performance of your assets.

Digital data collection of your site enables your walkdown team to acquire, analyze, and organize process and equipment health data. Better data means better planning. Accurately determine work scope, precisely plan work, and streamline execution with a walkdown from Emerson.

Transform Installed Base Management



Visual Health Rating

Assign an equipment health rating of green, yellow, or red to prioritize maintenance.



Walkdown Report

Walkdown reports include the equipment health rating, tag, serial and model numbers, asset observations, and recommendations.



Prioritize Work

Receive a prioritized work scope after the installed base has been analyzed to help make strategic, data-driven decisions, saving time and increasing plant profitability.

Your Trusted Service Partner



ROSEMOUNT

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Emerson Automation Solutions 6021 Innovation Blvd. Shakopee, MN 55379, USA T +1 800 999 9307 or +1 952 906 8888 F +1 952 949 7001 RFO.RMD-RCC@Emerson.com We have developed industry-defining, end-to-end digital STO solutions and services that can scale to meet your needs and help you transform both your workflow and workforce effectiveness. Our combination of expertise, change management, IIoT-based solutions, and outcome-driven strategies incorporate your carefully selected business goals to impact your bottom line for years to come.





