



“Material movement is challenging.”

Terminal automation is no longer an option in an increasingly complex business and regulatory environment.

Terminal Automation Systems Worldwide Outlook, Market Analyst and Forecast through 2014, ARC Advisory Group, 2010

What if...

- You could improve your loss/gain balance while simultaneously reducing maintenance requirements and downtime?
- Your own staff could easily diagnose and repair your field devices?
- You didn't have to recalibrate your meters when changes in operations or conditions occur?

How will you improve material movement management?

The ability to efficiently manage material movement is critical to your terminal's operational success. To do this well, you have to know where all the fluids are located in your terminal—and why they are there—so you can make intelligent decisions on how to move products in and out of your terminal. You also have to monitor system performance and inventory so you can be sure the processes you have in place are working efficiently. Finally, you have to make sure your staff is operating according to schedule so you don't experience any bottlenecks in your operations.

But there are many factors that make it difficult to manage material movement. Because you have multiple products going through the same pipeline, there's a level of uncertainty associated with what's being measured throughout your terminal. Operational inefficiencies and other asset constraints—such as using manual processes and traditional measurement equipment, working with instruments that are out of calibration or require excessive amounts of calibration, and others—can also slow down operations and prevent you from moving product in and out of your terminal efficiently.

Operations managers we talk to tell us about challenges like these:

“There is too much uncertainty associated with my measurements.”

Your terminal is a dynamic system that operates under constantly changing conditions. Because you are moving multiple products, this variation – combined with differences in batch size, blend ratios, process conditions, and other factors – makes it very difficult to measure what's going in and out of your terminal. This uncertainty can introduce errors into your material movement processes, and impair your terminal's profitability.

“It's hard to ensure operational responsiveness and consistency across my terminal's process.”

Manual processes introduce inconsistencies, errors, and delays into your terminal's operations. They also make you overly-dependent on your employees. When an employee leaves your organization, they often take this operational knowledge with them, and training new employees to compensate for that loss can be a difficult, lengthy process.

“Asset constraints and reliability limit my ability to operate more efficiently.”

The very assets you use to operate your terminal can contribute to the challenges associated with material movement management. Operations are impaired anytime your instruments are out of calibration, or not functioning due to wear or other factors. The continued use of traditional and conventional equipment can limit your ability to effectively handle turndown or manage multiple fluids moving through your terminal efficiently. Even interruptions resulting from scheduled (or worse, unscheduled) maintenance can limit the availability of your terminal and delay operations.

Working with Emerson will help you overcome challenges related to materials movement. Our products and solutions can help you reduce measurement uncertainty and automate your processes so you can improve adaptability—and increase the accuracy and reliability—in your processes. All of this will help you improve material movement management in your terminal so you can move closer to your operational efficiency goal.



HAVE CONFIDENCE IN YOUR MEASUREMENTS

You can greatly reduce measurement uncertainty when you work with Emerson. Our Micro Motion Coriolis flow and density meters allow you to take more accurate measurements in real-world process conditions. You'll also have access to technology and diagnostics that will give you an accurate assessment of meter performance, so you can be sure you are taking accurate measurements in your terminal at all times.

IMPLEMENT CONSISTENT, AUTOMATED PROCESSES AND EQUIPMENT WHEREVER POSSIBLE

With Emerson, you'll have access to tools, solutions, and expertise that will help you streamline and automate your processes. By working with us, you'll introduce efficiencies and other best practices that will help you standardize operations and improve response times across your terminal.

OVERCOME EQUIPMENT LIMITATIONS

You'll overcome limitations associated with conventional and traditional equipment—and be able to manage complex processes with ease—when you partner with Emerson. Our Micro Motion Coriolis flow and density meters offer the broadest and most accurate operating range of any metering technology available. Free yourself from the operating restrictions and excessive maintenance of traditional metering and gain operating flexibility and the ability to continually assess the health of your meters and processes, while reducing maintenance and downtime in your operations.

The highest levels of flow measurement accuracy and reliability are essential for the demanding fiscal applications that our systems support. Emerson's Coriolis flowmeters are proven within tough environments and ensure a world-class solution to our customers."

*- Peter Mouler PhD,
President, Argosy
Technologies*

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