



Meet the Changing Demands of Ethylene Production

Worldwide demand for ethylene is estimated at more than 130 million tons per year and growing 3.5-4.5 percent annually.

Headwaters MB; Technip

What if...

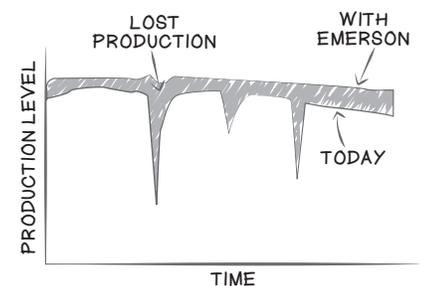
- ...you had a better picture of your equipment health?
- ...your operators had confidence in their data?
- ...when a critical unit trips, you can avoid additional trips shutting down your plant?
- ...you could affordably modernize your safety system to fit your plant's needs?
- ...you could run closer to constraints with confidence?

As the person responsible for everything in your ethylene plant from production to health and safety, you probably experience the same moment every day on your way to work. As your plant comes into view, you impulsively check the sky above looking for a flare—and hoping not to find one. On those rare days when the sky is filled with black smoke, your mission is urgent and clear: make sure your people are safe, find out what went wrong, and get it fixed.

Most days aren't so bad, but even typical days have their own challenges. You must meet a production plan that may not seem anchored in reality. Your most experienced employees are nearing retirement. You have to maintain a safe workplace that also meets environmental standards. And a shifting landscape for ethylene production forces you to constantly re-evaluate how to best support your plant's long-term future. You juggle all of these demands—and more—to do what's best for your people and production, and you must address the issues holding your plant back ... or risk being left behind.

UNPLANNED SHUTDOWNS ARE EATING INTO PRODUCTION CAPACITY

No matter the cause, unplanned shutdowns can cost you millions. You know your equipment can fail in any number of ways, but you're unable to catch potential problems outside of routine maintenance. What's more, even working equipment can be complicated. Cracking furnaces are difficult to operate at nameplate capacity, compressors are nearly impossible to replace or fix without major delays, and your operators are hungry for data that can help them make better decisions in tense situations.



Emerson's predictive technologies help you better plan the maintenance of deteriorating assets, minimizing unplanned shutdowns, slowdowns, and other threats to your production.

AVOIDING HSE INCIDENTS AND IMPROVING YOUR ENVIRONMENTAL FOOTPRINT IS CHALLENGING

Right at the top of your everyday concerns is your plant environment. Are your people working in safe, healthy conditions? Are you meeting environmental regulations? Making your job more difficult is the need to constantly improve your environmental performance—year-to-year and even month-to-month. It's not just meeting the standards anymore, it's showing constant improvement.

PRODUCTION PLANS ARE DIFFICULT TO MEET CONSISTENTLY

Your production plan is a moving target. Despite the sophisticated models used to build your daily plan, reality often gets in the way. Your operators need to make quick decisions and judgment calls, leading them to ignore or downplay data they have little confidence in. And even when they do trust the data, factors as fickle as the weather or as typical as equipment trips, degradation, and necessary maintenance can keep them from executing against the plan. You do everything you can to account for these variables, but when it comes down to it, the plan rarely goes according to plan.

ETHYLENE PRODUCTION

With Emerson tools, monitoring, and diagnostics you'll keep your plant running at its peak performance across all shifts. You'll maximize your throughput while minimizing upsets and other disruptions.

DETECT POTENTIAL FAILURES BEFORE THEY HAPPEN

To prevent unplanned shutdowns, your people and your equipment both need to be performing at their peak, and the best way to ensure peak performance is to provide your operators with the best, most insightful data. It's not enough that the information is available; it also has to be relevant, useful, and timely.

With Emerson's wireless monitoring, diagnostic, and electronic procedure tools, your employees will have access to the information they need as well as the automated assistance that can help keep your plant up and running. Better, more useful information provided by Emerson's wireless network coupled with automation will keep your operators one step ahead of trips, failures, and unplanned shutdowns.

IMPROVE THE PERFORMANCE OF YOUR EQUIPMENT AND EMPLOYEES

Keeping your plant safe and continually improving your environmental compliance is a tall task. To do so, you must maintain your equipment efficiently, keep your process running smoothly, and minimize mistakes. It's a balancing act that doesn't always line up with production goals, but it is certainly no less important to your operation.

By turning to Emerson's intelligent, automated solutions, you can consistently improve the safety and environmental compliance of your plant without sacrificing production. You'll optimize your process with our integrated automation solutions, cut down on leak points with direct-mount measurement technology, and keep leaks in check—without hindering your production—with Emerson valve packing.

MINIMIZE PROCESS UPSETS

In order to consistently meet your production plan, you have to keep track of and constantly improve the performance of your equipment, your operators, and your data. If any one aspect isn't performing at its highest level, you're likely wasting resources, time, and, above all, money.

With Emerson's wireless solutions, you can cost-effectively minimize the effects of process upsets with monitoring and diagnostic networks that help you stay up and running. Utilizing the best data and most intelligent technology on hand, you can ensure peak performances from both your operators and your equipment. You'll improve production and operate closer to plan than you thought possible.



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"We can see and quantify the results of our automation investment. The technology brings fantastic results. It brings us process security, operational reliability, cost reduction, variability reduction, it brings a complete knowledge of your plant. In other words, PlantWeb really improves our competitiveness."

Adalberto Giovanelli Filho
Production Manager
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