



Essential Statistical Quality Improvement Techniques for the Chemical Industry

Upcoming Seminar Date
May 1-4, 2018
Knoxville, Tennessee

REGISTER NOW

(865) 927-0491, Ext. 307 • www.qualproinc.com

About Us

At QualPro's core is a relentless passion for continuous learning and growth. For the past 30 years, QualPro consultants have partnered with hundreds of leading companies on thousands of successful improvement projects to achieve operational excellence and maximize profitability. We pride ourselves on leveraging a powerful mix of traditional process improvement principles, including those of Dr. W. Edwards Deming, in combination with cutting-edge analytical tools and advanced statistical methodologies to help our clients realize opportunities for significant savings and improvement.

QualPro's ability to help clients achieve success has made us a world leader in the implementation of quality improvement programs and has solidified our reputation as the process improvement expert. Our vast experience includes partnerships with clients in a wide variety of fields, helping those in financial services, manufacturing, education, and healthcare to maximize profitability and achieve operational excellence. Our training courses have been a pillar of our company since our beginning, arming companies with the ability to identify, prioritize, monitor, and control processes to achieve breakthrough results.

Our Expertise

Operational Excellence

- Improve Plant Maintenance & Reliability
- Increase Production Throughput
- Boost Product Yield
- Decrease Cycle Time
- Reduce Variation
- Improve Product Quality
- Decrease Changeover Time
- Reduce Shipping Delays

Environment, Health & Safety

- Increase Energy Efficiency
- Minimize Waste
- Reduce Emissions
- Lower Energy Costs
- Reduce Inventory

"Because the QualPro Process is extremely versatile, it works equally well on batch or continuous processes. Its use can range from a single operator or laboratory technician doing a small experiment to an experiment that involves several different plants. The technique scales beautifully."

-DynoNobel, Vice President,

"The MVT" Process is the way that we improve the things that we do through testing and letting the process tell us the way it behaves – as opposed to the way we think it behaves. We're a commodity chemical company, so we use it in our manufacturing operation and it improves the way we run. It improves the quality of our products. It improves the cost. It helps us make more stuff, so we can sell more stuff. All those bring financial benefits for us."

-Olin Chlor Alkali, Director of Operational Excellence

The seminar will take place on May 1-4, 2018

Knoxville, Tennessee

To request more information about the seminar, please contact QualPro by phone at (865) 927-0491, Ext. 307 or by email at seminars@qualproinc.com.

**REGISTER
NOW**



Essential Statistical Quality Improvement Techniques for the Chemical Industry Seminar

This four-day seminar teaches the basic techniques of statistical quality control and provides training in QualPro's continuous improvement philosophy. Our seminar content is presented in a simple, step-by-step approach with minimal technical detail and emphasizes the use of basic statistical techniques to uncover opportunities for breakthrough improvement. The course includes applications specific to the chemical industry and examples based off real-world process improvement projects. This seminar will be beneficial to employees from all levels of your organization.

In This Seminar You Will Learn

- Status of quality improvement practices
- How to monitor and control key chemical product characteristics
- How to identify major causes of out-of-specification product
- How to sample product from multiple-stage processes
- Special techniques for monitoring and controlling batch processes
- Measurement assessment for destructive tests and visual tests
- Charting aesthetic and subjective measurements

Course Outline

Introduction

Targeting Business Results

- QualPro's Four Cornerstones
- Getting Started

Measuring and Assessing Performance

- Measures of Success
- Operational Definitions
- Basic Tools
- Capability Analysis

Validating Measurement Systems

- Measurement as a Process
- Measurement Capability Study
- Measurement Indices
- Measurement Study Tips

Monitoring and Controlling Processes

- Control Chart Theory
- Nonrandomness Tests
- Rational Subgrouping
- Variables Control Charts
- Attribute Control Charts
- Using the Control Chart for Process Improvement

Seeking Continuous Improvement of Results

- Special Cause Analysis
- Gimmes

Achieving Breakthrough Improvement

- Introduction to MVT® Methodology
- Qualpro's 12-Step MVT® Process

Summarizing Basic Concepts

- Case Study
- Finalizing the Initial Action Plan
- The Process Improvement Tracking Matrix®
- What's Next?

"We brought QualPro in and in less than six months, zero capital dollars, zero cost dollars expended, \$23M in terms of additional capacity and increased sales in a sold out business."

-E.I. DuPont, Global Director

Industry Expertise

With more than three decades of experience, QualPro is uniquely qualified to help you dramatically improve your chemical processes through the power of experimental design. Our 12-step MVT[®] Process has been proven effective time and again in industries as diverse as healthcare, manufacturing, and retail sales. We have worked with more than a thousand clients over the years, and together they have saved billions.

Still not convinced? Hear from just a few of our chemical industry clients on how the MVT Process changed their businesses for the better.

Client Testimonials:



"We were able to decrease our heavies recycle to the plant by 75%. . . We have increased our production by about 10% in the past year, and we did this without any capital investment."

-Greg Brooks

"Because the [MVT] process is extremely versatile, it works equally well on batch or continuous processes. Its use can range from a single operator or laboratory technician doing a small MVT, to an MVT that involves several different plants. . . The technique scales beautifully."

-Dave Pruett, Vice President



"QualPro worked with us to identify and structure the opportunities and show us how they would work."

-Andy Viens, President of Global Marketing

"Companies that have started MVT, several years down the road, they'll still be conducting MVTs. They're still using MVT tools, and it's making big bucks. . . When you look in hindsight, the cost is minuscule compared to the savings. [It is so] minuscule [that it represents] one-tenth to one percent of the savings that you incur."

-John Harrelson



"We've set our vision as being the low-cost player. . . and we collectively all believe that MVT is the right way to go to help us get to our vision."

-Dan Jaffee, CEO



Client Profile: DuPont

Background:

DuPont is the ninth largest chemical company in the world. The company generates over \$34 billion in revenue from hundreds of plant sites located in more than 90 countries.

One of DuPont's divisions was facing difficulties due to a buildup in the process pipes, which eventually caused failures. Each year, this problem caused millions of dollars in direct costs of cleanout and substantially lowered production. For over two years, the company had expended considerable resources trying to solve this problem. DuPont partnered with QualPro to improve the facility's run life and create a more stable process.

Approach:

QualPro consultants assembled a team consisting of DuPont management, engineers, and workforce personnel. Together, the team brainstormed improvement ideas designed to optimize production rates and recycling processes. Our consultants helped the team narrow the list to 10 ideas deemed practical, fast, and cost-free. Some of these ideas included different fill levels, pot temperatures, and startup procedures.

QualPro designed experiments for DuPont personnel to perform. A screening experiment revealed that two of the ideas were effective and worthy of further exploration. These ideas included changing the catalyst split and pot temperature. A refining experiment revealed that there was a significant interaction between the catalyst split and the fill level. After analyzing the results, our consultants created recommendations for DuPont to implement in order to stabilize the facility's process.

In accordance with our commitment to driving continuous improvement, our consultants worked closely with operators to guide the process changes and motivate project team members to exceed goals.

Results:

After implementing the recommendations, DuPont nearly doubled the facility's run life to 139 hours. As a result of this 93% increase in run life, DuPont achieved an annual gain of \$18 million in increased production and an annual savings of \$8 million in reduced downtime.

"[MVT was] a big tool to get our operators really involved in the process . . . People got involved, and they were able to see results quickly."

-Oil-Dri Corporation, Michel Bastien

Contact

To learn more about QualPro's
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number below.

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“I’m glad to know that QualPro continues to
thrive and prosper. [QualPro] training got rave
reviews from our participants.”

–Charlotte Pipe, SVP