

Nick Siefers

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Director of Operations | Engineering Manager

EXECUTIVE SUMMARY

CORE COMPETENCIES

- Operations Optimization
- Engineering Management
- R&D Management
- Process Improvement
- Leadership
- Technical Sales
- Product Development

Action-oriented, hands-on Chemical Engineer with extensive experience in research, engineering management, and operations leadership along with deep technical expertise. Demonstrated ability to optimize operations, reduce costs, improve processes, design new products, and lead technical development. Specialized in strategic priorities and day-to-day management of projects.

Improving Processes & Optimizing Plant Operations

A leader with exceptional interpersonal skills to forge long-term relationships and collaboration among engineering teams of **75**. Background in thermodynamics, chemical reaction kinetics, fluid flow, heat / mass transfer with knowledge of lean six sigma, process control plans, FMEAs, ISO regulations, AFM, SEM, JMP DOE, **PFDs, P&IDs** and chemical formula substrate manipulations.

PROFESSIONAL EXPERIENCE

TAYLOR TECHNICAL / VALERO ENERGY

San Antonio, TX

The largest independent petroleum refiner in the world and the world's second largest renewable fuels producer operating 14 refineries worldwide including the United States, Canada and United Kingdom.

ENGINEERING MANAGER

2020 – Present

Implementation of an engineering management system to standardize > 100K refinery process flow, piping & instrumentation, and PSM documents. Manage cross-functional teams totaling 75 employees across the 14 refineries.

Leadership | Engineering Management

- **\$116,000 in yearly labor cost savings** by streamlining the processing and analysis of refinery process flow and piping & instrumentation diagrams using efficient Java and CAD based software.

Process Improvement

- **4X increase in operator speed** to access refinery process safety information by optimizing system metadata and analyzing database records for root cause assessment in case of observed access failure.
- **Site-to-site consistency and global performance** by designing regular audits on system accuracy, completeness, usage and maintainability.
- **\$272,000 reduction in annual costs** by designing and presenting interactive training sessions via Skype to ensure operator and end user compliance.

GLOBAL MANUFACTURING

San Antonio, TX

Formerly 900 Global LLC, a polyester resin and urethane elastomer chemical plant with 45 employees producing catalyzed spherical products generating \$8 million in worldwide sales.

DIRECTOR OF OPERATIONS & ENGINEERING

2015 – 2020

Responsible for the \$8 million design and manufacturing operation. Oversaw and optimized in-house production, research and development, quality, shipping/receiving, and maintenance. Managed a team of 27 and served as the HR manager.

Operations Optimization

- **\$2.9 million in additional sales revenue** and a 25% escalation in plant productivity achieved by devising and introducing an operations productivity metric system that minimized hours to produce each part.
- **\$100,000 in annual bottom-line savings** accomplished by designing and implementing a labor metric accountability system that streamlined the number of employees working in each area to cut cost-per-part 22% and improved equipment uptime.
- **\$58,000 saved annually** by conceiving, executing, and maintaining a master production schedule database and methodology based on targeted product launches and deadlines.
- **\$48,000 in yearly labor cost savings** obtained by originating and installing the first preventative maintenance system for the startup helping to grow the program across the manufacturing facility and reduce equipment downtime 37%.
- **50% ROI realized in the first year** on R&D testing by conceiving and installing new \$70,000 urethane chemical processing equipment.

- **12%+ reduction in the capital budget** gleaned by strategically evaluating budget line items for four manufacturing R&D departments and eliminating inefficient items.

Leadership | Engineering Management

- **\$972,000 in yearly sales** attained by presenting technical seminars, lectures, and training across the U.S. as well as in China, Japan, and Korea to broaden customer product knowledge.
- **\$203,000 saved by sourcing multiple bids per project** to minimize cost and negotiating the largest equipment bid and installation project.
- **\$45,000 in annual savings** reached by serving as the HR manager for the 27-member production team to conduct staff enrollments, audits, performance evaluations, and communicate with the staffing agency to optimize plant employee levels.
- **\$30,000 yearly savings generated** by creating and promoting employees into five new team leader positions to support team members and assess production schedules, quality, labor per part, and part-per employee hourly goals.
- **\$20,000 saved in annual lost productivity** by instituting weekly cross-functional team meetings between sales, marketing, R&D, and manufacturing to review projects, current designs, and upcoming schedules to keep 50+ new SKUs on pace for production building and release.
- **5X ROI gained** by designing and establishing the company's first shipping / receiving productivity goals with an initial investment of \$500 for tracking software and hardware.

900 GLOBAL

San Antonio, TX

A \$6 million chemical plant acquired by Global Manufacturing. Previously Columbia Industries.

SENIOR CHEMICAL DESIGN ENGINEER & ENGINEERING MANAGER

2008 – 2015

Led design, R&D, and manufacturing operations. Supervised a team of 21. Applied lean six sigma data analysis techniques to design cutting-edge materials, parts, and processes.

Process Improvement

- **\$250,000 in annual savings** cultivated by applying DFSS and lean concepts such as DMAIC, gage R/R, control charts, DOE, histograms, process capability, multiple linear regression analysis to reduce process part-to-part variation 20%.
- **\$140,000 in yearly savings** garnered against price gouging as the onsite purchasing manager to solicit bids for raw materials used in production, conduct lab tests and pilot plant testing, then scale up to larger production batches.
- **\$105,000 in additional annual revenue** found via optimization of processing parameters to minimize 2nd line quality products 2.5% by maximizing chemical reaction kinetics / thermodynamic properties for chemical reactors through unit calculation of ideal urethane fluid flow and heat / mass transfer.
- **10% to 15% decline in downtime** fostered to increase identification of possible failure mechanisms by crafting process control plans (PCPs) and failure modes / effects analyses (FMEAs) for critical chemical facility equipment and processes per ISO 9000/9001 regulations.

Product Development | R&D

- **\$70,000 in savings** grasped by fabricating manufacturing parts and CNC / plastic injection modeling with 3D CAD using flexible behavior modeling, advanced assembly, and Visual Basic to temper costs.
- **40% total growth rate of units sold** in five years achieved by optimizing material performance with analytical techniques using atomic force microscopy, scanning electron microscope, frictional analysis, JMP design of experiments, and chemical formula substrate manipulations that resulted in new technology.
- **24% boost in the percentage of acceptable first-line product** reaped within two years by performing gage R&R studies on equipment to qualify for use.

USBC

Milwaukee, WI

The governing body of certified bowling competition in the U.S.

SENIOR RESEARCH ENGINEER

2007 – 2008

Conducted research tests and analyzed data to recommend possible specification changes.

- **Co-authored the ball motion study industry research publication** through the application of six sigma statistical analysis techniques and multiple manufacturer cooperation that standardized measurement of the rotational kinetics of a bowling ball to reduce manufacturing product testing 20%.

COLUMBIA INDUSTRIES

San Antonio, TX

A \$50 million chemical plant with 300+ employees; later acquired by 900 Global.

RESEARCH & DEVELOPMENT ENGINEER

2003 – 2006

Designed cost-effective geometric shaped parts via 3D CAD modeling. Test rotational kinetics of designs using sensor telemetry technology to achieved performance targets.

- **\$38,000 in YOY sales revenues** secured by creating a chemically synthesized polymer to enhance frictional aspects of ball motion performance as part of the R&D, testing, packaging, and marketing to launch a revolutionary product to market in less than two years.

PREVIOUS EXPERIENCE

ENGINEERING INTERN | DUPONT PHOTOMASK / TOPPAN | Kokomo, IN

EDUCATION & DEVELOPMENT

Bachelor of Science in Chemical Engineering, Purdue University

Project Evaluation: Operating Cost Estimating & Financial Analysis, American Institute of Chemical Engineers
Creo/Pro-Engineer Modeling Software (3D CAD) / Aspen Process Modeling Software / Microsoft Dynamics Navision /
SAP / Autocad / Capture Flow / Power Bi
American Institute of Chemical Engineers, Member