

Because so much is riding on your business performance !

(763) 458-9387 nstarlake4@charter.net



## STRATEGIC MANUFACTURING ENGINEER AND PROJECT MANAGER



### professional summary

Results-oriented professional with proven expertise in systems and process design, cost-reduction strategies, and quality improvement. Creativity and problem-solving are the hallmarks of my career. I enthusiastically hit the ground running with my sleeves rolled up and eager to collaborate with others to address the needs of the company. Strong record of complex troubleshooting and innovative solutions. Disciplined and methodical approach for improving business performance. Powerful relationship builder with national clients and teams. Visionary leader in new product development, process development and redesign, production machine design, and equipment qualifications and process validations to enhance manufacturability and capability. Solid experience using Lean Manufacturing techniques.



### critical skillset

- Critical Analysis
- Strategic Partnerships
- Complex Problem Solving
- Process Improvement/Development
- Plans/Model Design
- Cost/Benefit Assessment
- Mathematical Reasoning
- Quality Assurance
- Product Development
- Change Management
- Process/Equip. Validation
- Lean Manufacturing



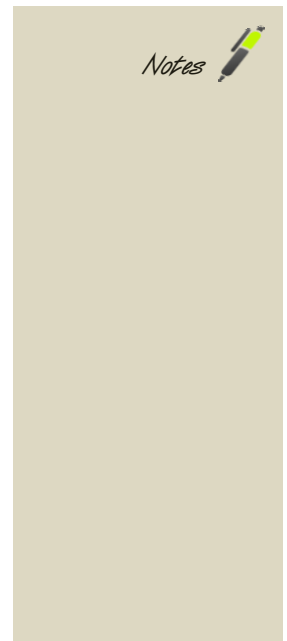
### professional employment history

#### MFG ENGINEERING CONSULTANT Customtek, Inc., Mound, MN 2009 — Present

Using *Lean Manufacturing* methods, design and develop efficient manufacturing processes that support the production of new products. Provide engineering solutions to product design to improve manufacturability. Provide root-cause critical analysis to overcome assembly equipment issues. Redesign operational processes to create greater efficiency and increase profits. Develop lab-scale models of equipment processes to create visual presentations of current conditions and proposed changes. Develop documentation of processes and intellectual property. Develop plant layout for optimization of workflow.

#### PROCESS DEVELOPMENT ENGINEER Nanocopoeia, Inc., St. Paul, MN 2004 — 2009

Provided engineering management for start-up company having the proprietary technology to formulate and apply precise nanoparticles (drugs, polymers, and other material coatings) onto a variety of surfaces for controlled therapeutic delivery. Establish the technical merits, feasibility, and potential commercialization of a spray process for coating medical devices using nanoparticles. Assisted with the preparation of a strategic plan, including capitalization requirements, capital resources, list of assumptions, and established benchmarks to provide a framework for application of a Phase I Small Business Innovation Research (SBIR) grant. As part of



the grant proposal, developed fixturing and process improvements to coat drug-eluting stents. Having received the Phase I grant award, designed and implemented improvements to enhance the next generation ElectroNanospray™ machine for a Phase II SBIR grant. Managed the equipment scale-up from bench to commercial scale, successfully overcoming scale-sensitive issues. Managed the design, fabrication, qualification, and maintenance of the first-generation ElectroNanospray™ equipment from conception to final product. Characterized and qualified fixturing and process parameters to coat a miniature (mouse) stent used in therapeutic testing with various polymer and drug coating ratios.

- Co-invented process for coating medical devices using nanoparticles. Application for patent is currently under review with the United States Patent and Trademark Office.
- Awarded Phase I and Phase II Small Business Innovation Research Grant, totaling \$750K.

#### **MANUFACTURING MANAGER** Raymedica, Inc., Bloomington, MN 1999 — 2004

Managed the engineering and support staff for the development and manufacturing of spinal disc nucleus arthroplasty non-fusion technology to treat degenerative disc disease. Directed the design, fabrication, training, maintenance, and process validation of new tooling and production equipment for weave cutting, molding, solvent exchange, wire insert, heat sealing, and flattening processes. Qualified Ransohoff Lean-Jet Rotary Basket Washer using the installation (IQ), operational (OQ), and performance (PQ) validation protocols. Served as Project Manager for the redesign and construction of a \$200,000 facilities expansion project that doubled the office space, engineering lab, and manufacturing areas.

- Increased production output volumes from 50 to 1200 units/month in three years.
- Improved production yields from less than 40% to greater than 80% in two years through long-term corrective actions.

#### **SR INDUSTRIAL/MFG. ENGINEER** American Medical Sys., Minnetonka, MN 1997 — 1999

Provided project management for the layout of the 180,000 sq. ft. manufacturing facility for medical devices that diagnose and treat impotence and incontinence. Evaluated supply chain inventory management system, including the warehouse routing method, and redesigned the layout of equipment, materials, and workspace for maximizing warehouse efficiency. A combination of optimization methods were implemented, including an automated conveyor system, to reduce picker travel distances, resulting in reduced labor costs, errors, and industrial accidents. Redesigned packaging area to improve product flow, minimize labeling errors, and reduce work injuries related to repetitive trauma.

#### **SENIOR INDUSTRIAL ENGINEER** Schneider Worldwide, Inc., Plymouth, MN 1987 — 1997

Designed and implemented improved production process lines for the manufacture of stents and angioplasty devices, converting from schedule-push manufacturing to Demand Flow, whereby flow is determined by daily customer demand. Directed the relocation, as well as the layout, of manufacturing areas, machine shop, labs, and warehouse to a new 200,000 sq. ft. facility, including a 20,000 sq. ft. controlled environment. Designed, as well as managed, the transition from design to implementation of five new diagnostic and guide catheter production lines. Designed manufacturing processes to improve quality, reduce labor costs, improve safety, and ergonomics. Developed standards, bills of material, and routings for diagnostic, guide, and balloon catheter production lines.

- Conversion to flow manufacturing increased productivity by 52% with a yield increase of 11%
- New facility relocation completed without interruption or delays in production.



## education and certifications

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North Dakota State University, Bachelor of Science, Industrial Engineering

Six Sigma Green Belt Certification

Lean Flow Certification for Manufacturing

SolidWorks CAD Training

Design of Experiments (DOE)

AutoCAD

Demand Flow Technology

Just-In-Time for America Production Strategies

*Notes*



## contact

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Telephone: (763) 458-9387

E-mail: [nstarlake4@charter.net](mailto:nstarlake4@charter.net)

Linkedin Profile: <http://www.linkedin.com/pub/john-carlson/6/7b4/5>

Business Travel: Available for domestic and international travel