

## RESULTS YOU CAN MEASURE

New Product Assessment - MinoTech Engineering was engaged to provide an assessment of new product opportunities on behalf of a client wanting to evaluate applications for excess MEMS foundry capacity. Our client is a leading provider of photonic switching systems and software.

Product Development, Life Sciences - New patent pending life sciences applications are being developed that will open new markets and opportunity for top and bottom line corporate growth.

Vendor Process Improvement - MinoTech Engineering collaborated with vendors to develop an improved fiber optic interrogated biochip product that met specifications, enabling the firms core technology.

Patent Mining - Over 92 patents were reviewed by MinoTech Engineering to determine potential for licensing value and identify possible infringement.



Fuel Cell Analysis - A manufacturing strategy analysis was undertaken to determine feasibility and costs to produce an innovative fuel cell product. The study enabled the next round of VC investment.

New Product Development Photonics - A low cost automated manufacturing process for fused biconic taper (FBT) couplers and WDM's was developed and implemented for deployment in Passive Optical Networks. Fiber stripping, fusion heat treatment, assembly, epoxy bonding, packaging and process optimization issues were addressed.



Business Process Optimization - Organization was restructured to focus efforts on enhancing world wide sales and technical support for existing products, generating cash flow needed to fund development of highly anticipated new product line.

## MinoTech Engineering Inc.

**Our team include chemists, physicists, material scientists, metallurgists, ceramists, statisticians, mechanical and electrical engineers, as well as IP experts. Many have advanced degrees, all have extensive commercial product development experience. We can assist you with your technical development, commercialization and IP issues.**

**Dr. Michael J. Minot**, Senior Consultant and Founder of MinoTech Engineering. He consults on all facets of technical and business development and commercialization including technology assessment, R&D, intellectual property management, product and process development, as well as manufacturing and engineering operations.

**Dr. Arnon M. Hurwitz**, Senior Consultant, Industrial Statistics,

**Dr. Svetlana Ivanova**, Consultant mechanical properties and processing of aerospace alloys, ceramics and composite materials.

**Dr. G. Alex Newburgh**, Consultant, optical physics, lasers for free space and fiber optic instruments.

**Mr. Edward W. Perry III**, Consultant, SPC, DOE, 6-Sigma, Pareto, Root Cause Problem Solving and Project Management.

**Dr. Ronald E. Pyle, E.J.D.** Consultant and patent attorney specializing in infringement analysis, reverse engineering and licensing.

**Roger S. Reiss**, Consultant, optomechanical design for medical and biomedical instrumentation.

**Joseph Stecewycz, Esq.** Consultant and patent attorney specializing in the electronic, photonic, laser, optical, and computer arts.

**Dr. David W. Stowe**, Senior Consultant, photonic components & sensors.

**Mr. William R. Tamm**, Consultant, telecommunication and specialty optical fibers, components and applications.

**Dr. Dau Wu**, Consultant, product and process development and manufacturing Improvement.

**Dr. Qing Ye**, Consultant, product and process development and Manufacturing Improvement.



# MinoTech Engineering

SCIENTIFIC  
TECHNICAL  
DEVELOPMENT

RESULTS YOU  
CAN MEASURE

Phone: 978-474-8034

Fax: 978-475-4047

<http://www.minotechengineering.com>

### SCIENTIFIC TECHNICAL DEVELOPMENT

provides your organization with a competitive edge. You will work with an experienced technical team that has a track record of success doing technical development. Our consultants work with your organization, develop innovative products and processes, and insure that they are successfully commercialized.



Through our '**INSOURCE**' program, companies leverage their existing resources without hiring additional personnel. **We pride ourselves in our ability to provide outstanding process and equipment engineering services to technology based manufacturing firms.** Our consultants work 'hands on' at your facility, providing leadership to help your personnel develop new products and improve your manufacturing process. **This approach is particularly attractive as companies, hurt in the technology downturn, begin to see signs that their markets are slowly coming back.**

MinoTech Engineering™ Inc. provides comprehensive **DESIGN & FABRICATION SERVICES**, coordinating the commercialization process from initial concept, process development, prototype, pilot production, through full manufacturing. Our affiliates include:



- RenTec Process Piping Systems
- Connor Engineering Solutions

### MinoTech Engineering™ Inc.

We provide R&D consulting services to technology based manufacturing firms. We provide scientific technical development, product development, and technology transfer commercialization services.

### OUR SERVICES

- Product & Process Development
- Process Optimization
- Technical Problem Solving
- Analytical Services
- Experimental Design
- Design & Prototype Fabrication
- Technology Transfer & Commercial Development
- Project Management
- IP Management & Licensing
- SBIR Funding
- Business Process Optimization

### TECHNOLOGIES SERVED

- Life Sciences
- Fiber Optics Manufacturing
- Specialty Fiber
- Passive Components, Sensors
- Fused Silica Glass Manufacture
- Optical Coatings, Large Optical Mirrors
- Portable Energy, Advanced Batteries & Fuel Cells
- Advanced & Electronic Materials
- Semiconductor Manufacturing, DOE, Process Control

### Product Development, Tech Transfer & Commercialization

We work with technology based manufacturing firms, VC's and university licensing offices to identify likely opportunities to commercialize new, innovative technology:

- Identify potential markets
- Facilitate technology transfer
- Create a Technology Road Map

### Research & Development

We establish the foundation of technical knowledge that enables new product development.

### Product & Process Development

We transform technical knowledge and market opportunity into innovative new products that will enable your company to grow market share, meet customer needs, and enhance profit.

### We Provide Technical Problem Solving

- Analytical Services & Product Testing
- Data Collection & Statistical Analysis
- Project Management

### Manufacturing Process Optimization

We Implement:

- Engineering Improvement Programs
- Process Control & Automation
- Customer-Vendor Interface
- Contract Manufacturing

### Intellectual Property Management

We work with your technical and management team to establish an intellectual property strategy and insure that it is properly aligned with your technical and business development needs:

- Establish Intellectual Property Position
- Identify patent and licensing opportunities

### We Give 'Results You Can Measure'

- New & Improved Products
- Cost Reduction
- Access to new technology and markets
- Proprietary market advantage
- Bottom line profits

**Our goal is commercial success!**