

MICHAEL R. MOON

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PROFESSIONAL PROFILE

Technically sophisticated, market-focused Michigan engineer with consistent, career-long track record of product and process design with dramatic bottom line impact. Brings outstanding mechanical and materials engineering skills combined with superior awareness of shop floor and marketplace realities grounded in extensive experience in entrepreneurial settings. Thorough understanding of a broad spectrum of composite materials, such as carbon fiber, glass, aramid, thermoset and thermoplastic matrices.

Key competencies include:

- Engineering Management
- Plastic Injection Molding
- R&D/Project Management
- Rubber Molding/Extrusion
- Supplier Evaluation/Development
- Composites

CAREER HIGHLIGHTS

Product Engineering

Invented world's first airless tire for highway speeds and standard rims. This project is ongoing, needs additional financing.

Developed revolutionary Triad two-piece cushioned racquet, world's #1 seller for two years, generating over \$70 million in gross revenue to date. Developed the rubber component and bonding process. Designed Series H racquet line, generating over \$50 million in revenue.

Won (only winner out of more than 2,000 entries) Point-of-Purchase Association Best of Industry Technical Achievement Permanent Award by developing equipment that accurately measures and vividly displays tennis racquet shock absorption.

Developed world's first liquid-proof cut-resistant glove for Mapa-Pioneer, generating millions in revenue.

Process Engineering

Developed new rotationally dip-molded full-face respirator, generating \$20 million in revenue and growing the company 300%.

Corrected flawed molding process for defective helmet shells, rescuing sales of over \$10 million annually, preventing liability lawsuits and bankruptcy.

Corrected Neoprene crystallization problem, restoring product form and functionality in the field and retaining \$5 million in recurring annual sales.

PROFESSIONAL EXPERIENCE

NEW TECH TIRE, Boca Raton, FL

2005-present

Engineering manager for this venture-capital start-up. Developed and patented world's first airless tire for highway speed and standard rims. Samples are being produced for further testing.

WILSON SPORTING GOODS, Chicago, IL

2000 C June, 2005

Design work on racquets for this \$700 million leading producer. Project management with Far East suppliers. Carbon fiber, fiberglass, and aluminum racquets.

Principal Engineer

Developed world's first shock-absorbing tennis racquet, Wilson Triad, #1 seller for two years. Designed rubber component and bonding process. Designed Series H line, junior line, and commercial line.

MOSA SPORTS, Champaign, IL

1999 C 2000

Engineering management and quality control program development for this \$10 million manufacturer of protective equipment for athletes. Managed a professional staff of five with full responsibility for staffing, work assignments, performance management and compensation.

R&D Manager

Corrected major helmet shell molding flaws which had made the product vulnerable to potential shattering on impact. This correction dramatically reduced risk of serious injury and potentially catastrophic product liability.

Within one year, introduced seven new lines of protective gear for skateboarding and wakeboarding, including helmets and protection for knees, elbows and wrists.

Generated approximately \$2 million in annual sales by partnering with Chinese supplier to develop and introduce fiberglass BMX helmet at low cost.

AMERICAN RUBBER PRODUCTS, Laporte, IN

1997 C 1999

\$30 million QS-9000 certified automotive rubber molder.

Product Engineer

Developed tooling and manufacturing procedures.

Rescued key \$6 million contract with General Motors by finding and correcting die-cut width control flaw for extruded products within 3 days, avoiding line shutdowns at GM plant.

Developed steel-rule dies, matched-set dies, and extrusion dies for various rubber closeouts.

Obtained tooling for ARPs first injection-molded automotive rubber (Santoprene) part.

Corrected a flaw in an extruder oven, increasing productivity 35%.

MAPA/PIONEER, Willard, Ohio

1996 C 1997

\$30 million industrial rubber glove manufacturer.

Development Manager

Full responsibility for all facets of both product development and product management, including engineering and marketing.

Utilized combination of Nitrile shell and Kevlar liner to produce world's first liquidproof and cut-resistant protective glove.

Developed innovative anthropometric glove former.

Optimized tooling to increase productivity on new product line, alleviating a 6-month

back-order situation.

Designed pictures, wrote copy and managed print production to prepare all-new catalog and product literature.

Providing engineering leadership for transfer of manufacturing to new Mexican plant.

COMPETITIVE GOLF, Orlando, FL

1994 C 1996

Founder & President

As an engineer-entrepreneur, designed, developed, manufactured and marketed golf equipment.

Provided engineering and marketing leadership driving the company's 325% growth from \$2 million to \$6.5 million.

Designed and purchased injection tooling, jigs and fixtures for zero-maintenance SCBA (self-contained breathing apparatus), an industry first.

Generated \$8 million in sales by introducing innovative powered respirator for the asbestos abatement market with molded Celcon blower.

Obtained government certifications for five new product lines.

Engineering / Marketing Manager (continued)

Managed QC program to maintain NIOSH certification to MIL-STD 105D.

Marketing manager for in-house advertising agency, supervising two.

Product literature, advertisements, training materials.

Pro-Tech grew from \$2 million in sales to more than \$6.5 million.

Product Engineer/Product Manager (1982 C 1989)

Developed new dip-molded full-face respirator, saving over 50% in manufacturing cost compared to competitive models.

Developed patented insert injection-molded headband for half-mask respirator.

Developed patterns for a cast mold to manufacture soft PVC facepieces for half-mask respirators.

Developed unique self-tensioning headband.

Provided applications engineering and technical service engineering support to customers.

Wrote QC plans, gained government certifications.

Designed, developed and delivered product training to large customer audiences, including convention and conference sessions with up to 400 participants.

As leader of the distributor sales team, made approximately 2000 distributor sales calls.

Delivered product training to 35 manufacturers representatives.

Provided key-account sales training to sales representatives.

GULF STATES UTILITIES, Beaumont, TX

1981 C 1982

Project Engineer

Project engineer on a DOE-funded feasibility study for an innovative coal gasifier/combined cycle gas turbine.

Plant test work, studies on fuel cells, photovoltaics, and biomass.

EDUCATION

THE UNIVERSITY OF MICHIGAN, Ann Arbor, MI 1981

Bachelor of Science in Engineering (BSE), Mechanical Engineering

PROFESSIONAL DEVELOPMENT

AMERICAN MANAGEMENT ASSOCIATION, Washington, DC 1989

The Management Course Completed 4-week mini-MBA for senior managers. Program covered all core business disciplines, including:

Financial Analysis

Marketing

Strategy

Accounting