



SINCE 1995

Vermont's Trusted  
Advisor and Go-To Resource  
for Manufacturing

# 2019 IMPACT REPORT



[www.vmec.org](http://www.vmec.org)  
802.728.1432

**VERMONT  
TECH**

Small college. Big outcomes.  
VMC HOST SINCE 1995



MEP  
National  
Network™

OFFICIAL REPRESENTATIVE

*Providing Systems and Solutions  
to Help Vermont Manufacturers  
Innovate, Plan, Perform and Grow*

# OUR MISSION

## To Strengthen and Empower Vermont Manufacturers

VERMONT MANUFACTURING EXTENSION CENTER (VMEC) has operated statewide as a not-for-profit Center since 1995, collaborating with public and private partners in business, government and education to bring world-class assistance and resources to Vermont manufacturers and other enterprises of all sizes, helping them overcome ever-changing challenges, become more competitive and grow their profitability. A valuable local Resource and Trusted Advisor, VMEC has a 25-year track record of achieving measured results and quantified impact for its clients, with a high average Return on Investment (ROI) reported by clients as a direct result of VMEC assistance.

The VMEC Team is Vermont's go-to trusted resource for expertise in manufacturing consulting, coaching, hands-on implementation, continuing support, and training and education for leaders and workers. We help clients to innovate, plan, perform and accelerate profitable growth in ways that drive increasing enterprise value. The VMEC Team provides proven systems and solutions focused on Strategies, Processes, Products, Technologies and People.

### Multiplier Impacts of Manufacturing



#### Economic Multiplier

Every \$1 in manufactured goods generates an estimated **\$1.82** worth of additional economic activity, the highest of any other economic sector.

Source: National Association of Manufacturers



#### Employment Multiplier

Each manufacturing job supports an additional **four jobs** elsewhere.

## VMEC IMPACTS

### Partial Impact of VMEC in Vermont

- Jobs created that otherwise would not have existed: **153\*** / Last three years: **331**
- Jobs retained: **298\*** / Last three years: **815**
- Total jobs created – direct, indirect and induced: **1,709\*\***  
These jobs paid a total of **\$66.5 million\*\*** in employer wages and benefits
- Client investment in modernization: **\$43,088,000\*** / Last three years: **\$57,076,000**
- Cost savings: **\$18,720,000\*** / Last three years: **\$48,651,000**
- Increased and retained sales: **\$63,901,000\*** / Last three years: **\$200,603,000**
- Additional labor compensation: **\$106,405,000\*\***
- Total value added (gross state product): **\$129,392,000\*\***

\*This data reflects the results of VMEC client projects from July 2018 through June 2019. The data is from formal surveys conducted by a third party under contract to the National Institute of Standards and Technology (NIST), Hollings Manufacturing Extension Partnership (MEP). Clients surveyed represent 57% of all Vermont clients served by VMEC during the period. \*\*Client-reported impact as a direct result of VMEC assistance. \*\*Results of input-output analysis (IMPLAN modeling) based on results from VMEC clients surveyed.

## CLIENT PROFILE: VERMONT PRECISION TOOLS

### Lean Management, Increased Profitability

From its headquarters in Swanton, Vt., Vermont Precision Tools has been manufacturing cutting tool blanks for various metalworking industries since 1968. The company's relationship with VMEC began nearly 20 years ago, and over the years they've taken advantage of a variety of trainings in Lean, Leadership Building, and Innovation Engineering topics.

Recently, when the senior management team found that VPT's profitability wasn't keeping pace with increased revenues, they engaged VMEC to conduct an assessment and, ultimately, help them implement a Lean Management System. "VMEC has always supported us, from the classroom to implementation on the manufacturing floor," said President Monica Greene. VMEC trained both the Executive and Senior Management teams to develop and deploy a Lean Management System to support company growth.



"I view VMEC as one of our top business and training resources. Leveraging their services and training opportunities has changed our company for the better." –**MONICA GREENE,** PRESIDENT, VERMONT PRECISION TOOLS, INC.

### PROJECT IMPACTS



**\$1 Million**

In retained sales



**\$100K**

Investment and plant equipment savings



**\$950K**

Investment in software and information systems



**\$90K**

Investment in workforce practices and employee skills

# HOW VMEC ASSISTS ENTERPRISES

## Operational Excellence and Continuous Improvement

Ongoing continuous improvement, cost reduction strategies and operational excellence remain among the top needs we hear from manufacturers. VMEC can recommend and support systems and solutions to identify and systematically drive out waste in all of its forms, transform office/administrative and plant processes, solve problems, lower costs, improve quality, increase customer and employee satisfaction, manage talent and train employees, and grow a culture of continuous improvement.

- **Trusted Advising and Executive Coaching**
- **Lean Manufacturing**
- **Administrative Lean**
- **Cost Reduction**
- **Quality Management Systems**
- **Six Sigma**
- **Strategy Development and Deployment**

## Innovation, Growth and Technology Acceleration

Vermont Manufacturers are asking for help to develop new products and increase sales to new markets. Spanning the innovation continuum, VMEC can help plan, accelerate and implement strategies to integrate advanced manufacturing technologies into profitable new Products & Services, Processes and Business Models for systemic excellence and sustainable growth. VMEC is a licensed member of the growing global Innovation Engineering Network™ of practitioners.

- **Innovation Engineering™**
- **Marketing / Branding**
- **Product Development**
- **Supply Chain**
- **Industry 4.0 and 5.0**
- **Cybersecurity**
- **Export Planning and Growth**

## Resources for Vermont Manufacturers

Manufacturers need quick access to information and resources for wide-ranging needs. The VMEC team is comprised of a highly experienced group of professionals with many years of combined experience in all aspects of manufacturing and enterprise growth.

We have ready access and established relationships with State of Vermont and private resources, plus MEP National Network™ consultants and numerous other resources across the nation through VMEC's longstanding affiliation with federal stakeholder partner, the Hollings National Institute of Standards & Technology (NIST) Manufacturing Extension Partnership (MEP).

- **Representative of the MEP National Network™ in Vermont**
- **Value-added Partnerships and Experts**
- **Member and Licensee of the Innovation Engineering Network™**
- **A Founding Partner of the Vermont Manufacturing Collaborative (VT-MC)**

## Workforce Strategies and Talent Development

Developing a highly skilled workforce is critical to Vermont's manufacturers. VMEC offers a variety of networking and training opportunities through its basic and advanced public and on-site Workshops, Vermont Manufacturing Forums held at local plants, and focused Special Events.

- **Workshops and Training**
- **Forums and Networking**
- **Workforce and Leader Development**
- **Online Innovation Engineering™ Courses**

## CLIENT PROFILE: TROW & HOLDEN COMPANY



### Focusing on Quality Management

Trow & Holden has been a leader in stonecutting and masonry tools since 1890. The Barre-based manufacturer has a long-standing relationship with VMEC, so when their leadership team decided to implement a Quality Management System (QMS), they turned to VMEC for support. "Having worked with VMEC on several occasions in the past, we knew their approach and offerings would work well for us," said President Gina Akley.

The company took part in the ISO 9001:2015 Collaborative Program, which allows small- and medium-size companies to prepare for certification with the support of a team of experts. The program included six workshops with other companies, plus another six on-site days to implement the QMS and prepare for the registration audit.

"VMEC offers such a wide variety of courses and resources that they really have something for everyone."

—GINA AKLEY, PRESIDENT, TROW & HOLDEN COMPANY

### PROJECT IMPACTS



**\$70K**

Cost savings in labor and materials



**\$50K**

Avoiding unnecessary investments



**\$60K**

Investment in new products or processes



**\$100K**

Investment in plant and equipment

### Client Return on Investment » 194:1



Over the past 3 years, every \$1 spent by clients on VMEC assistance returned an average of \$194.

Based on company-reported data, April 2016 through March 2019.

### Size of Firms Served by VMEC by Number of Employees\*



1-9	»	8%
10-50	»	41%
51-100	»	13%
101-500	»	36%
500+	»	2%

\* July 2018 – June 2019



“We always look to VMEC for their expertise in systems development and manufacturing best practices. VMEC is a valued partner in our quest for continuous improvement.”  
 – **ASHLEY ADAMS**, CEO, P.G. ADAMS, INC.

## CLIENT PROFILE: P.G. ADAMS, INC.

### Building Revenues, Maintaining Quality and Workflow

P.G. Adams, Inc., is known for some of the largest metal forming equipment in the Northeastern United States. The South Burlington manufacturer has been fabricating truck frames for the heavy duty trucking industry since 1968.

In recent years, P.G. Adams made investments in equipment to increase manufacturing capabilities. With this extra capacity, the company sought help from VMEC to boost revenues and improve operations. The goal: handle the added volume without increasing costs, compromising quality or increasing lead times.

VMEC has provided ongoing consulting services to P.G. Adams in everything from marketing to front office process improvement to workplace organization. As a result, the company has increased sales while maintaining quality and shop lead times.

#### PROJECT IMPACTS



**\$82,500**  
Investment and plant equipment savings



**1 + 2**  
Created one new job and retained two



**\$6,160**  
in cost savings

## 2020 VMEC Advisory Board

**David Blittersdorf**, CEO  
AllEarth Renewables, Inc.

**Ben Clark**, CEO, Ann Clark Ltd.

**Jeff Couture**, Executive Director  
Vermont Technology Alliance

**Bob Flint**, Executive Director  
Springfield Regional Development Corporation

**Rob Green**, Operations Director  
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**Lisa Groeneveld**, COO & Co-owner  
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**Bob Zider**, Director/CEO, VMEC

The VMEC Board is an elected board of experienced manufacturers and other leaders with manufacturing interests who serve without compensation for a minimum of two years. The board works with the center's director to help set basic policies and directions to enable VMEC to fulfill its mission.



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### Vermont Manufacturing Facts

**9%** Vermont GDP contribution by manufacturing (2017)

**10%** Vermont workers employed by manufacturers (2017)

**\$59K** Average annual compensation for Vermont manufacturing employees (2018) / Compared to the average Vermont compensation of \$48K

**Manufacturers Served** → VMEC served 213 manufacturing clients over the last five years, with 91 served in the last year. Our percent of repeat clients over the past five years is over 88%.

**Employees Trained** → More than 1,045 manufacturing employees from 91 companies participated in public workshops and onsite manufacturing training in Vermont from July 1, 2018 through June 30, 2019.

➤ For additional facts about manufacturing, visit [www.vmec.org/resources/manufacturing-facts](http://www.vmec.org/resources/manufacturing-facts).

### VMEC Impact on Vermont's Economy\*

**\$2.74 Billion**  
Jan. 1996 – June 2019

**\$440 Million**  
July 2018 – June 2019

Includes the direct client impact reported by clients via third-party survey, the indirect impact generated when clients' firms increase their purchases from suppliers, and the induced impact caused by increased household expenditures generated by direct and indirect effects. \*Reported impacts are modeled using IMPLAN 3.1 Software and Vermont 2016 State data package.

### Challenges to Manufacturing Growth

The five highest-ranking strategic challenges reported by VMEC clients include the following (based on client surveys completed October 2018-September 2019 by an independent third party under contract to NIST MEP):

- 65%** → Employee Recruitment and Retention
- 61%** → Continuous Improvement and Cost Reduction
- 46%** → Growth Opportunities
- 44%** → Product Innovation and Development
- 23%** → Managing Partners and Suppliers