



**Office Locations:**  
 Danville, Harrisonburg,  
 Lynchburg, Martinsville,  
 Norfolk, Portsmouth,  
 Richmond, Roanoke,  
 Winchester, Wytheville

VIRGINIA'S A.L. PHILPOTT MANUFACTURING EXTENSION PARTNERSHIP (VPMEP) Serving the State of Virginia. Contact: Jeff Kohler, 645 Patriot Avenue, P.O. Box 5311, Martinsville, VA 24115, (276) 666-8890, Fax: (276) 666-8892, Email: jkohler@vpmep.org, Website: <http://www.vpmep.org/>

**THE  
 MANUFACTURING  
 EXTENSION  
 PARTNERSHIP  
 IN VIRGINIA**

Manufacturing Extension Partnership (MEP) is a nationwide system of services and support for smaller manufacturers to become more globally competitive. At the heart of the system is a network of affiliated, locally-based manufacturing extension centers. Each center, like VPMEP, is a partnership, typically involving federal, state, and local governments; industry; educational institutions; and other sources of expertise, information and funding support.

**COMPANY CLIPS**

**Continental Teves Puts The Brakes On Down Time**

Continental Teves, NA is a leading supplier of quality automotive systems contributing to driver safety, comfort, and convenience. The Culpeper plant is responsible for the manufacture of total brake and chassis systems and components supplied to the global automotive industry, and employs over 200 workers. Continental Teves is a publicly traded corporation with American headquarters in Michigan and world headquarters in Germany.

Continental Teves asked Virginia's A.L. Philpott Manufacturing Extension Partnership (VPMEP) to host a series of Lean 101 workshops aimed at extending the awareness and understanding of lean methodologies by the company's leadership and employees. During the workshop, VPMEP addressed real-time production issues. A previous value stream map had identified a bottleneck at the CNC machining centers, which was creating excessive downtimes at changeover. Plant management decided to strive for maximum productivity from existing operations by minimizing these set-up times at changeover. They also decided to improve plant performance to be more competitive. Continental Teves requested VPMEP's assistance to help reach its goals.

VPMEP sent in an experienced set-up reduction team to provide on-site analysis, followed by orientation, education, and implementation of a proven methodology for successful set-up reduction initiatives. Continental Teves' secondary objective was to address a human resource issue of internal leadership training. Author and VPMEP partner Emily Sterrett led a supervisory training program entitled Leadership Foundations: A Dialogue at the Front. Sterrett facilitated the 24-session program aimed at supporting a culture of increasing responsibility and teamwork among supervisors and within teams.

The lean training, set-up reduction project, and leadership training all produced excellent results for Continental Teves. Machine and line capacities increased by almost 20,000 more parts per year, and company sales capacity increased by \$367,000. An additional

*Continued*

**STATE STATS**

DATA\* COVERS JANUARY TO DECEMBER 2001

- Number of projects completed with firms  
**186**
- Number of firms served  
**272**
- Number of firms served for the first time  
**130**
- Federal cost share for current operating year  
**\$1,276,800**
- State/other cost share for current operating year  
**\$2,553,600**

*\*Data as reported from center*

DATA\*\* COVERS JANUARY TO DECEMBER 2001

- Increased sales & retained sales  
**\$26,330,000**
- Client capital investment  
**\$19,590,000**
- Total cost savings  
**\$3,075,500**
- Jobs (created & retained)  
**331**

*\*\*Source: Independent client impact survey*

**For additional information,  
 contact Dede McMahon 301-975-5020**



\$44,000 reduction in labor costs yielded a net increase in profits, and more on-time deliveries increased customer satisfaction. Most importantly, noticeable improvements in employee morale and hierarchical relationships have produced a better workplace environment for all the company's employees.

### **Lean Spells Success For Central Litho Printing**

Central Litho Printing is a medium volume commercial printer located in Lynchburg that employs 15 people. The company itself has been in operation since 1955, but was purchased six years ago.

Central Litho Printing's new owners, Victor and Robin Clarke, are continuing the firm's long relationship with Virginia's A.L. Philpott Manufacturing Extension Partnership (VPMEP), a NIST MEP network affiliate, which has been involved in Central Litho Printing's continuous improvement efforts since 1998. The most recent engagement, a value stream mapping exercise, identified non-value-added activities for elimination and discovered opportunities to improve operations by streamlining information flows. With VPMEP's assistance, the Clarkes wanted to take operations to the next level through lean implementation.

VPMEP helped Central Litho Printing improve printing operations to strengthen first-time run quality. Streamlining the information and material flows process will provide the means to reduce current lead times and resource requirements while improving quality and ability to meet demands for shorter turnaround. VPMEP led the education of Central Litho Printing's personnel in the theory and practical application of cellular flow/manufacturing and other lean manufacturing techniques. With a few changes, the company reduced its paper inventories by 60 percent and its lead times by 50 percent, thereby increasing its profits despite an overall decrease in revenues. The same personnel then participated in a project involving the design and implementation of a customer service/pre-press processing cell, for which the company made a capital investment in new digital pre-press equipment. This process lasted approximately six months, and operations have seen significant improvements since its completion. With improvements in operations, Central Litho Printing was able to retain five jobs that would have otherwise been cut to save costs.