

TMEP FOCUS ON MANUFACTURING

Helping Tennessee companies achieve a sustainable competitive advantage

Spring 2002

From Lost to Found

Storm Copper Components discovers the value of search engine marketing

Storm Copper Components of Decatur, Tenn., has joined “the game” as a result of a search engine marketing project led by the Tennessee Manufacturing Extension Program (TMEP).

Storm Copper decided in the summer of 2001 to emphasize the Internet to increase sales in a down economy. Internet marketing is the “game” but who is Storm Copper Components?

Storm Copper is a fairly young company founded only 14 years ago. It manufactures custom copper components used in OEM interconnectivity applications in major industries such as telecommunications, printed circuits, power conversion and transportation. Sales revenue in 2000 was about \$12 million. In 2001, revenue decreased to about \$10 million; however, this was actually a strong performance given that 75 percent of the business was in the telecommunications industry, which declined last year by about 50 percent.

Storm Copper’s traditional marketing strategy was directed to OEM purchasing and engineering personnel. Storm had been receiving about three quotation inquiries per week with approximately 75 percent coming from the Thomas Register, 20 percent from Storm Copper’s web site, and five percent from direct mail. The web site was published in 1998 and is basically a static site in that the fundamental purpose is advertising, marketing and providing product information.

Storm Copper’s web site becomes interactive only when users take advantage of the “send prints,” or ePrint, function, which lets prospective customers e-mail drawings to Storm for quotations. The site typically performs as a static site since, according to Dan Kitts, Vice President of Sales and Marketing, the vast majority of inquiries are by telephone rather than e-mail or Storm Copper’s ePrint capability.

In a mid-summer 2001 meeting with TMEP eCommerce Consultant Walt Williams, Storm Copper executives expressed interest in significantly improving their Internet marketing results. They stated, “Storm wants to be in the game.” They needed more

LOOK INSIDE FOR MORE:



“Lights, camera, action!” See how CIS Video Production Services are making life – and training – easier and better for Tennessee manufacturers.

Are you ready to meet the new demands of homeland security? Learn what UT can do to help you prepare.



A partnership between the UT Center for Industrial Services and Jackson State Community College is bringing new learning opportunities and professional resources to the businesses of West Tennessee. Read about what’s available to you.



Nashville Wire Products’ Springfield plant has honed one of its equipment changeovers to a fine point and found huge cost savings in the process. Find out how they did it – and how you can too.

quotation opportunities and wanted to broaden, as well as diversify, their customer base. Their Thomas Register annual investment was about \$13,000, and the web site was already developed, leaving only the annual costs associated with an outsourced host server.

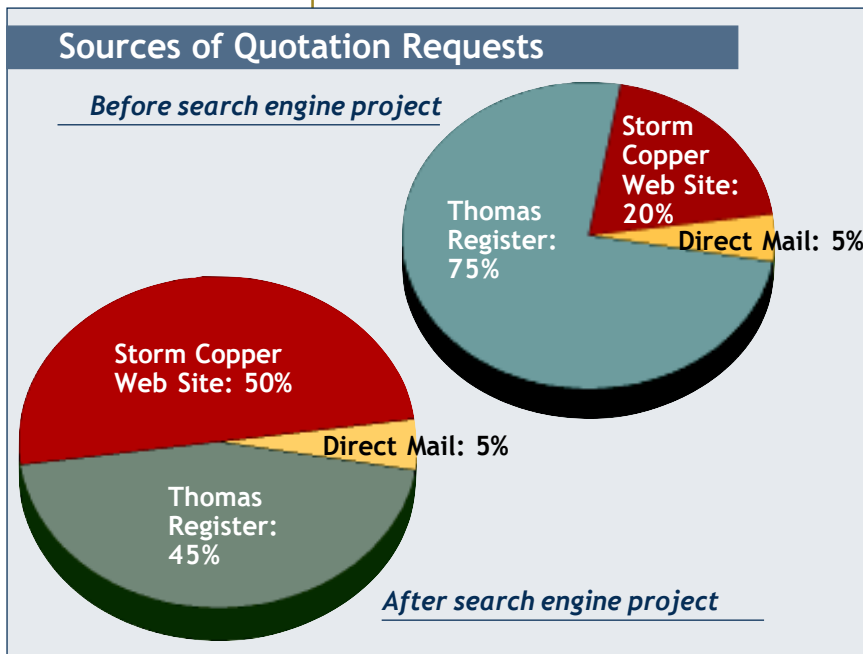
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Storm Copper, continued from page 1



“Internet marketing is really search engine marketing. The best web site, regardless of cost, is of little value if no one can find it.”

Analyzing the competition

The first step was a review of the present situation, commonly called a “gap analysis.” Storm staff provided Williams with keywords that described their products, along with the names of four major competitors. The gap analysis uncovered a situation similar to that of many small businesses. Storm Copper had a very presentable web site that had little chance of being found by prospective customers, whereas a major competitor was

most easily found. Storm’s site had not been optimized for search engines.

Why search engine marketing matters

Internet marketing is really Search Engine marketing. The best web site, regardless of cost, is of little value if no one can find it.

Search engine positioning is the single most critical factor in internet marketing. Statistics show that search engines are the primary tools for 50 to 80 percent of searches.

In addition to search engines being the major vehicle for internet marketing, it is believed that search engine traffic is highly targeted. Buyers who find a site via a search engine are truly

prospects who want information about your products. These new prospects are coming to you without solicitation or sales call investments and have prequalified themselves. In this new digital world, any such inquiry is a cost-effective, high quality lead. According to Statistical Research, Inc., more than 57 percent of web users find sites via search engines every day. Search engine marketing also is very cost effective, as there is little or no additional cost beyond that of running your web site.

Search engine position ranking is simply the ranked order of web site listings for specific keyword phrases used in a search engine. Though easily measured, the results of effective search engine marketing are not immediate and may take at least six months. Search engines and the technology that runs them are changing, and the interrelationships and interdependencies of search engines are overwhelming. Additionally, spider indexing is a constant activity.

Your web site may be top-ranked today but ranked lower tomorrow. Search engine optimization is a journey, not a destination. The objective is to be **continuously positioned** at the top of search results for your major keyword phrases by the major search engines. Rank position is critical because most people will not look very deep in a search result list. Page two seems to be the accepted limit of review, which means your rank position should be approximately in the top 20.

From lost to found

Storm Copper Components’ search engine marketing project produced extraordinary results. The site is now in the top 10 of the targeted search engines. Low numbers are great, but zero and high numbers represent ineffective marketing.

What does the revised search engine positioning mean to Storm Copper? According to Kitts, in January 2002 Storm was receiving about 15 quotation inquiries per week, a fivefold increase in opportunity. Now, approximately 45 percent of requests are from the Thomas Register, 50 percent are through the Storm web site, and five percent remain from direct mail, a substantial shift in sourcing. Amazingly, Storm’s customer base has increased by 67 percent.

More important than the increased quote opportunity is the number of inquiries converted

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For more information about the Storm Copper Components search engine marketing project, or to learn how you can strengthen your own web site capabilities, contact your local TMEP field consultant (see page 5 for contact information).

How the TMEP Works for You

The TMEP helps Tennessee's manufacturers become more productive, more profitable and more competitive.

Any Tennessee industrial firm that needs help adopting technologies and methods that might not otherwise be feasible due to time, personnel or cost constraints can receive affordable, expert technical assistance from the TMEP.

TMEP field consultants and manufacturing specialists bring directly to plant floors throughout the state not only their own considerable expertise, but also that of faculty of Tennessee universities, scientists from federal laboratories, partners in many departments of state government and professionals with specialized areas of knowledge. These partners allow the TMEP to deliver practical, leading-edge assistance — quickly and affordably.

In just the three years 1998 - 2000, clients report that TMEP services provided them with economic benefits totalling more than \$200 million, including increased sales revenue, greater capital investment and decreased material costs.

Every day the TMEP helps Tennessee's small and mid-size companies join the ranks of world-class manufacturers. Our methods are borne of years of practical experience; our results are measureable and substantial; and our clients are among the strongest manufacturing firms in the world.

If your company can use advice, guidance or hands-on assistance in any of these areas, a no-obligation visit with a TMEP field consultant could pay off big:

- Lean manufacturing operations
- Manufacturing management
- Quality management, ISO/QS 9000
- Business, financial and information systems
- Human Performance Technology/Employee training
- Environmental, health and safety management

Give us a call toll-free at (888) 763-7439. We're ready to work. ■

Visit the Storm Copper Components web site at www.stormcopper.com

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to new business. Search engine marketing resulted in a new customer in December 2001, which has placed orders equivalent to about eight percent of last year's annual revenue. In January 2002, Storm received the opportunity for business quotations with another new customer as a result of its search engine marketing valued at 50 percent of last year's total volume. The "hits" to Storm Copper's web site have increased from a pre-project level of 650 per month to a steadily increasing level of 1400 per month. This represents a huge increase of 115 percent.

The return on investment for the TMEP search engine optimization project is so extraordinary that Kitts said, "It is unbelievable. The obvious question is why didn't we do this sooner?"

Storm Copper Components has progressed in six short months from lost to found on the web.

Search Engine Rank Positions for Keyword "busbar"

Search Engine	Rank 6/15/01	Rank 8/8/01	Rank 10/4/01	Rank 11/30/01	Rank 1/3/02
Yahoo	2	2	2	2	1
Google	20	13	65	56	9
Inktomi	0	0	85	42	5
MSN	0	0	113	48	3
Netscape	0	0	90	3	3
DMOZ	0	0	3	3	3
DirectHit	0	0	0	5	3
LookSmart	0	0	0	49	1

Storm Copper staff are now designing new sites for additional product lines and designing those sites with a strong commitment to search engine marketing. They have progressed from being a spectator to being "in the game." ■

Storm Copper's search engine project took its site from being not ranked at all or generally ranked very low to being in the top 10 of sites found in searches on its primary keyword "busbar." As a result, requests for quotations have increased 400 percent.

Video Production Team Takes a Load Off Manufacturers Across the State

What do you get when you combine technical manufacturing expertise, video production talent, and facilities that equal ESPN? You get the Center for Industrial Services (CIS) Video Production Service, created specifically to enhance the training programs of Tennessee's manufacturers.

In the fall of 1999, CIS began producing training videos for manufacturing customers using the broadcast quality video production facilities and capabilities of The University of Tennessee, combined with the engineering, environmental and safety expertise of CIS consultants. According to Albert Tieche, Manager of Video Production, "There are a lot of generic video training options available in the market. But no one else that I know of has the expertise and technical abilities to create customized on-site videos specific to the needs and employees of an individual manufacturing plant. That is the unique service we provide."

To learn more about how CIS video production expertise can work for your company, contact Albert Tieche at (615) 532-4926 or by e-mail at tieche@tennessee.edu.

In 2001, Tieche and his video team produced and delivered 25 videos for industrial customers across Tennessee. Videos typically are produced in a 90- to 120-day timeframe, from initial client meetings to delivered product. CIS provides the script, narration, on-site filming and editing, but the customer has final say on every aspect of the project. "We take all the hard work off the customer," says Tieche. "That way they can keep their business running while we manage the details of video production."

Among the most requested topics are new employee orientation, plant safety, environmental compliance, job-specific procedure training, and contractor safety requirements. Videos are available in Spanish as well, serving the growing number of manufacturers who employ a bilingual workforce. Video productions are available on videotape as well as CD.

While the value of video training has long been recognized, it often has not been economical for manufacturers to hire a video company and commit the time and expertise necessary to help create the script and organize the production.

According to Edith Carmack, Human Resource Director for Poly One in Greeneville, Tenn., "This was a new concept for us, but the videos have saved us tremendous time. We use them to show actual job duties to candidates before we even conduct interviews. The videos were very professionally done."

Uses for industrial videos are widespread. From augmenting the interview and hiring process, as with Poly One, to delivering job training, safety training and new employee orientation, the list is as varied as the needs of Tennessee's manufacturers. "Our customers realize time is money. This concept lets them implement consistent training programs regardless of staff turnover," says Tieche. ■



Albert Tieche, Manager of Video Production, directs videographer Russ Hollingsworth during a recent CIS video shoot.

Homeland Security Training Comes Home to Tennessee

The Center for Industrial Services (CIS) has joined forces with another UT agency, the Law Enforcement Innovation Center (LEIC), to help manufacturers and emergency response professionals deal with weapons of mass destruction preparedness.

Emergency responder courses have long been a staple of the CIS training curriculum, but the events of September 11, 2001, drastically changed the needs of the nation and of the state. Manufacturers and emergency response professionals now need additional information and training to handle events that were previously unimaginable. Training specialists at The University of Tennessee felt a joint venture that takes advantage of the strengths of CIS and LEIC could best address the new demands of homeland security.

Existing CIS/TMEP Emergency Responder courses are being enhanced to address weapons of mass destruction, as well as hazardous materials. The 40-Hour Emergency Response Technician course, for instance, has already been conducted for three emergency response groups. Other hands-on classes are being adapted now, and on-line courses are being developed with launch projected for this spring. Courses for law enforcement personnel will be offered separately in order to address their unique training requirements.

According to Steve Street, CIS Environmental, Health and Safety Training Manager, "This program



will continue to evolve and grow to address the needs of Tennessee emergency responders, in both the public sector and in manufacturing. We will be joining with other state and federal agencies to develop the most timely, relevant courses available."

For more information on the UT Homeland Security Training Program, contact:

- Steve Street at (865) 974-6621 or by e-mail at ssstreet@tennessee.edu for industrial and fire service training.
- Jarrett Hallcox at (865) 215-1342 or by e-mail at jhallcox@tennessee.edu for law enforcement training. ■

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Editor: Beverly Shadden

For more information about services and assistance available to Tennessee manufacturers, contact:

UT Center for Industrial Services
Suite 606
226 Capitol Boulevard
Nashville, Tennessee
37219-1804
Phone: (615) 532-8657
Fax: (615) 532-4937

www.tmep.utk.edu

Just Pick Up the Phone!

TMEP field consultants are your gateway to the many TMEP services and technical experts that can help you keep your company humming. These representatives are located in cities across the state and are available to visit with you at your convenience.

If you're not sure who your representative is, just call us toll-free at (888) 763-7439, and we'll put you in touch with the right person.

Keep these numbers handy; you never know when you'll need us!

West Tennessee:

Al Cash (901) 387-1648

Jackson Area:

Russell Toone (731) 423-3710

Northern Middle Tennessee:

Norma Wilcox (615) 532-4914

Southern Middle Tennessee:

Bryan Lane (615) 532-4590

Chattanooga Area:

Paul Middlebrooks... (423) 755-5319

Knoxville Area:

Jim Slizewski (865) 974-2249

Upper East Tennessee:

Ron Rader (865) 974-1540

West Tennessee Partnership Brings New Learning Opportunities to Area Manufacturers

A new educational and consulting resource is now available to west Tennessee companies through a partnership of the Tennessee Manufacturing Extension Program (TMEP) and Jackson State Community College (JSCC). Called the Industrial Development Center, the new venture's first offering is Six Sigma training.



TMEP Field Consultant Russell Toone and JSCC Dean of Continuing Education Mike Simmons announce the partnership between the two organizations.

“Our goal is to enhance the educational opportunities for area manufacturers in the form of certificate programs, CEUs and short courses,” explained TMEP field consultant Russell Toone. Technical consulting services also are available to help participants implement the new skills they learn in the classroom.

With an initial focus on lean manufacturing and Six Sigma, the Center provides local industrial firms with alternatives to strengthen their quality programs and lower costs.

Six Sigma inaugurates new Center

The first programs to be offered, a one-day Six Sigma “Champion” course and a Six Sigma “Black Belt” course, which is meeting one week per month for four consecutive months, have been well received, with 24 participants from the manufacturing community.

Both courses are led by Master Black Belt-certified instructor, Steve Sweimler. Sweimler holds an M.B.A. from the Massey School of Business at Belmont University and has nearly 20 years experience in quality improvement resulting from leadership initiatives, team building, strategic planning and problem solving. His accomplishments include cost savings of \$2.5 million in Black Belt projects.

The Six Sigma Champion awareness course gives manufacturing managers an overview of the Six Sigma process and the role of the Champion. The Champion is vital to the success of any Six Sigma project, with responsibility for identifying appropriate projects, selecting the right people to work on those projects, and ensuring that Black Belts have the resources and support they need to achieve results.

The intensive Black Belt program leads students in-depth through the four phases of Six Sigma problem solving: measure, analyze, improve and control. Through classroom study and practical experience with projects in their own plants, Black Belts master skills including process mapping, measurement systems analysis, hypothesis testing, sampling, mistake proofing and statistical process control to reduce defects, improve cycle times and strengthen customer service.

“The course is moving at a good pace, and the instructor is quite knowledgeable,” said Black Belt student John Nelson, Quality Manager at Diversified Refrigeration, Inc., in Selmer, Tenn. Nelson is one of nine current Black Belt students, eight of whom are responsible for their companies’ quality programs.

After learning Six Sigma “on the job” for two years, Nelson is finding great value in the more formal instruction. “Companies that don’t use this type of methodology will have a much harder time staying competitive,” he said.

The Black Belt course is offered at a cost of only \$8,000 per person whereas the cost of similar programs from other sources ranges from \$30,000 to \$50,000. The next Black Belt course begins in July.

If you would like more information about learning opportunities available through the Industrial Development Center or the Six Sigma courses specifically, please contact Russell Toone at (731) 423-3710 or Mike Simmons at (731) 425-2646. ■

Nashville Wire Finds Big Cost Savings in Quick(er) Changeover

Nashville Wire Products is always looking for ways to improve its competitive position. That's why it's been a successful and growing company for almost 70 years. Now, more than ever, though, competition is driving down prices, and customers are demanding faster response. Last September, Nashville Wire's Springfield, Tenn., plant addressed these challenges by bringing in the TMEP's Quick Changeover course.

As one of three plants in the company's Material Handling Division, the Springfield location manufactures industrial wire containers and warehouse racks. But each different size product demands a new setup of the critical wire mesh welder, and those changeovers were eating valuable time.

In-plant course brings immediate results

The TMEP's Quick Changeover course, led by Manufacturing Consultants Chuck Beasley and Richard Haynie, is a two-day, in-plant session that puts a single changeover under the microscope. The first day is a classroom session in which participants review the concepts and benefits of faster changeover and learn how to use valuable tools such as process flow charting and how to standardize the setup method.

On the second day, an actual changeover—in this case, of the wire mesh welder—is videotaped, then participants analyze the process and use what they learned in the classroom to make it more efficient.

Springfield Plant Manager Jerry Long says his plant already has recognized annual cost savings in excess of \$100,000 from the two-day course. His team has brought better organization to the changeover, including keeping the proper tools in the right locations and assigning specific duties. "Now, we have a changeover team that operates like a NASCAR pit crew instead of having one person doing the entire thing," Long says.

Perhaps even more important than cost savings, the faster changeover has given Nashville Wire that competitive boost they were looking for.

"Our customers definitely see the benefits of this effort," Long says. "We have among the shortest lead times in the industry, and often this helps us secure orders. Product availability and on-time delivery are sometimes more important than price."

With less downtime and the ability now to run smaller lots, Long's plant can respond more quickly to customer requests, while keeping a tighter handle on inventory.

Shared success

In addition to the team at the Springfield plant, plant managers and their teams from the two other Nashville Wire Material Handling Division plants attended the session and took what they learned back to their locations. As a result, Long says, the Clarksville, Tenn., plant has instituted an ongoing process team that already has completed two projects that will save about \$300,000 per year.

In fact, the results of this training are so impressive that, according to Long, it has been one of the "big topics" at monthly corporate plant manager meetings, and other Nashville Wire divisions are scheduling similar courses for their teams.

Why it works

Nashville Wire Products has taken advantage of several TMEP in-plant training programs, and, Long says, they all have one thing in common: "the lessons learned can be put to work on the plant floor immediately."

"The TMEP instructors are very practical; the courses aren't just concepts and theory," Long adds. "Our people can actually make things happen once they get back to work."

And, according to instructor Haynie, this training worked because the Nashville Wire team was "eager to learn and had a strong desire to improve their company. However," he adds, "the bottom line is that everyone discovered the **real benefits of quick changeover reduction, including shorter lead times, fewer defects, lower inventory and higher productivity.**" ■



"Now, we have a changeover team that operates like a NASCAR pit crew ..."

TMEP WORKSHOP CALENDAR

For information about these and other TMEP courses, please call (888) 763-7439, or visit our web site at www.tmep.utk.edu.


The TMEP also offers numerous on-site and off-site training programs on topics such as lean manufacturing, quality management, human performance technology, manufacturing operations, eBusiness, and environmental, health and safety operations.

You can find more information and request course catalogs at our web site.

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- **EMS/ISO 14001 Implementation – \$150**
Jackson • June 18
Knoxville • June 20
Nashville • June 19
- **ISO 14001 Internal Auditor – \$275**
Jackson • July 16-17
Knoxville • July 9-10
Nashville • July 18-19
- **16-Hour DOT – \$275**
Knoxville • August 7-8
- **8-Hour DOT Refresher – \$150**
Nashville • May 31
- **8-Hour Emergency Response Refresher – \$150**
Memphis • August 14
- **40-Hour Site Worker – \$750**
Gatlinburg • June 10-14
Nashville • May 20-24
- **8-Hour Site Worker Refresher – \$175**
Knoxville • July 11
Memphis • August 13
Nashville • May 30
- **24-Hour Emergency Response Technician – \$450**
Nashville • July 16-18
- **24-Hour HazMat Chemistry – \$450**
Gatlinburg • August 27-29
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Gatlinburg • June 19-20
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Nashville • May 28
- **How to Effectively Use Safety Teams – \$150**
Jackson • June 25
Knoxville • June 4
Nashville • June 18
- **Tennessee Environmental Regulatory Overview – \$150**
Knoxville • August 28
Memphis • August 14
Nashville • August 21

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