Forward Focus

Montana Manufacturing Extension Center
FALL ‘02 - WINTER ‘03

Materials Handling Improves...
Mattress Mill Moves to New Location

By Deborah Nash

The Mattress Mill, a 17-year-old Bozeman company, tripled the size of its retail showroom last spring and dramatically increased retail sales. Wholesale orders for larger buyers are up as well. But it didn’t happen overnight. Nan and Jack Thanepohn, owners of the Mattress Mill, have been working on plans to expand their business for several years.

Rather than just dreaming about it, they have been exploring properties, overseeing contractor work on a new facility, and working with a team of manufacturing specialists to help make it happen.

The company made its move last April from the East Frontage Road location where it has been since 1989, to a larger, more accessible location west of Bozeman. They now have 5,000 square feet of showroom space, nearly three times what was formerly available.

Showcased are a wide variety of mattress sets with many comfort options. Customers can choose a model from the showroom floor and then order it with their comfort specifications to be made on site. The sleep products are manufactured behind the showroom in an additional 11,000 square feet of space, an area about double that of the former location. Kruse Enterprises was the contractor for the expansion of an existing structure and new showroom, both at 8383 Huffine Lane.

"The Lord has really blessed us through this move," said Jack Thanepohn. The move has been more than satisfactory.

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Director’s Comment... PREPARATION

When news of the slashing of the Manufacturing Extension Partnership budget (a significant portion of the MMEC budget) first reached us in November, we were shocked and dismayed… but not unprepared. It’s a reciprocal story about the power of networking and a commitment to what we do.

First and foremost, we have a very strong and active Advisory Board. Half are manufacturers who deal with the unexpected and financial hurdles every day. When our board speaks, we listen. Knowing the value of what we bring to our clients but also seeing our funding struggles, they advised us to diversify our support to build our services to you, the manufacturer, or, in the event of a cut, continue our work. We are currently developing several strategic partnerships where our core competencies fit and keep us in the field with our clients.

Secondly, we stay active with a membership organization that works to convey the importance of helping small manufacturers to policy makers. They recently provided us with a tool to share with clients to communicate concerns about the budget cut quickly and seamlessly over an automated Internet service. A number of you have used the CapWiz tool to voice your support for MMEC; please accept my thanks. Your messages may be helping turn the Administration stance on MEP around. At this writing, the 2004 Omnibus Bill awaits the President’s signature, but the administration’s long-awaited manufacturing report is out and recommends “flat funding” for MEP at the House-proposed $40 million rather than previous Administration figure of $12.6 million. Still a far cry from full funding of $106 million – but considered a positive turnaround that may signal stronger MEP support from Congress for 2005. (For updates, see our website, www.mtmanufacturingcenter.com)

At the Center, we also prepare for the unexpected by measuring what we do and then using it to show that what we do matters. And we work hard to keep our own legislative delegation informed. All three, Senators Max Baucus and Conrad Burns and Congressman Denny Rehberg, have been very supportive of MMEC and the national MEP network, even signing letters of support for the expected budget outcome, we are committed to being here for you.

Steve Holland
MMEC Director

MMEC Engineer Re-certifies

Kreg Worrest, MMEC field engineer for western Montana, recently re-certified as a Quality Engineer for proficiency in the principles and practices of quality systems evaluation and control. This certification is a mark of excellence awarded every three years through the American Society of Quality (ASQ). It is awarded to those with a history of professionalism who pass an extensive standardized exam. Worrest has been certified since 1995. He is also an ASQ Certified Quality Auditor, re-certifying in December 2003. He is one of five MMEC field engineers across Montana who work to help companies with quality improvements as well as other manufacturing issues. Worrest’s office is located in the School of Business Administration at the University of Montana in Missoula.
BRANDING — THE SUM OF ALL THAT YOU DO

Guest Writer Jeff Welch

Marketing directors in Montana are somewhat of a rare breed. Because of the size of our companies, the owner or sales manager (heck, we’ve even worked with receptionists) is handling advertising, marketing materials, PR, you name it.

But, whether you have a marketing director or not, every employee, including yourself, should think like one. Because anything you do, say, or use in your day-to-day work seen or heard by customers is a form of marketing communications.

When those elements aren’t tied together in a way that customers clearly see, you are misfiring. You’re sending mixed signals that may not do you in, but they will hold you back.

From the most expensive TV campaign to the smallest Little League sponsorship, from your business card to your sales pitch, from how you are dressed to how you merchandise or decorate – every single touchpoint – says something about your company. Are they saying what you want them to say? Are they branding your company the right way?

Branding. Now there’s a marketing director’s word we’ve all heard before. Create an attractive brand, and you’ll be successful. But what exactly does that mean?

Creating a brand isn’t as simple as using a certain color or design style. And it certainly shouldn’t be restricted just to advertising. Your brand is about you. Your brand is your company’s relevant distinction.

Are you low-priced or high-end? Old fashioned or cutting edge? Corporate or funky? High energy or laid back?

Once you understand who you are, apply those traits to every aspect of your company.

That’s branding.

Once you understand who you are, apply those traits (and please, choose only a few) to every aspect of your company. That’s branding. It’s the sum of everything you do.

This is the reason it’s so important to get your staff thinking like marketing directors. Picture all those faxes sent out, those name tags, that web page, the guy with the nose ring, those quickie brochures that they really, really need right now over in the sales department. Does it all stay true to your brand?

It’s the rare employee that has absolutely no customer communication. You could keep them locked in a 5x5 room with no phone all day, and they’re still likely to communicate with a potential customer after hours. So get everyone on the same page with a real understanding of what your company is all about and how important all those customer touchpoints are.

Each element of your company reinforces the brand. Advertising hooks customers on your brand promise. You fulfill it with your merchandising, your location, your employees. When every element of your company is communicating the same brand message, you’re a train moving down the tracks that can’t be stopped.

That’s what marketing directors can do for you. Even if you don’t have one.

Reprinted in part from July 8, 2003, article in Business to Business, a business journal published by the Bozeman Daily Chronicle. Author Jeff Welch is a founder and partner of Mercury Advertising in Bozeman. www.mercuryads.com
Companies Explore Skilled Worker Resource

A group of Helena area manufacturers, along with Field Engineer Todd Daniels from the Montana Manufacturing Extension Center, recently toured the welding facilities and machine tooling classroom of the University of Montana-Helena College of Technology. They observed machining of a commemorative plaque by Art Warner, machine shop instructor for the college, and watched a welding demo by Miller Welding, a national welding equipment company and HCT training partner. Both HCT’s main Donaldson facility and the Poplar facility located at the airport were visited.

The tour was the feature event of a monthly meeting manufacturers have initiated to get to know one another and the capabilities available in the area. To learn more about the group, call Todd at his MMEC office 406-841-2745 or email to tdaniels@state.mt.us.

Founded in 1939, HCT offers associate degrees in aviation mechanics, welding, construction technology, office and computer technology, and certification programs. In addition to its historical vocational/technical education programs, it now offers courses for academic transfer in service and professional programs. The campus has forged a deal with Miller Welding to house more than $180,000 of Miller welding equipment that the company can use at the facility to train its people while providing use of the equipment for HCT students at the same time. This program enriches the experience of graduates, and Montana manufacturers can hire skilled machinist welders from the HCT program, according to Warner.

"There's lots of small manufacturing going on in Montana," he pointed out. "They are often looking for specialized machinists that have welding skills, too. Our graduates have gone to companies like Crown Parts in Billings, Semitool in Kalispell, Summit Aeronautics and Montana Hydraulics here in Helena."

HCT trains its students first in hands-on use of equipment like lathes, mills, grinders, and drill presses. The second semester, they work on projects from area manufacturers, working much like a job shop, to develop operating skills on CNC (computer-numerically controlled) equipment used in many companies today, Warner said.

"Our students aren't just learning programming, they are learning to manipulate code, measure accurately for output, and meet the specifications from blueprints. We are placing them successfully out in manufacturing."

www.hct.umontana.edu

Ag Technology Show Winners Announced

Winners of the 2004 Ag Inventors Contest at the Billings Ag Technology Show in January have been announced. Seven Ag Inventor finalists competed for two awards: The $1000 Top Inventory Award and the People's Choice Award.

The People's Choice Award, chosen by tradeshow attendees, went to Kent Granmoe, Glendive, for his patented Hydraulic Pressure Relief Tool. This invention is used for relieving hydraulic oil pressure in hoses connected to powered equipment.

The $1000 Top Inventory Award is chosen by a panel of five judges. It was awarded to Fred Davison, Highwood, for his E-Z Reach Gate Winch, which is used for easy opening and closing of wire fence gates. It enables people, especially the elderly, young, and physically handicapped, to open and close tight wire gates. It was a particular hit with ladies at the show.


For more information or entry forms, write to Cynthia Berst, Bright Cat Productions, P.O. Box 20044, Billings, MT 59104-0044.
Meet MMEC Board Members

Susan Humble, President of Anderson Steel, a structural and miscellaneous steel fabricator in Great Falls and Billings. She has been involved in operations since 1973. Anderson, with 87 employees, is the only fabricator in the northwest to supply doors, frames, and commercial hardware and building specialties. Humble is very involved in Montana and Great Falls economic development activities and serves on the Montana Heritage Legacy Campaign for the Lewis & Clark Centennial. She is active in the National Association of Women in Construction, and shares her leadership skills in a number of boards including First Interstate Bank and Great Falls Chamber of Commerce. She is a Montana Ambassador and has served the Governor on a number of committees. She was recently honored with the NAWIC Outstanding Woman in Construction award for 2003.

www.andersonsteel.com

Kenneth Green, Founder and President of Timberline Tool, a Whitefish, Mont., manufacturing company known for its innovative products with applications in the natural gas, water and firefighting industries. He has authored two international patents issued for Timberline Tool's squeeze-off products and has 25 additional patent applications pending. Prior to starting Timberline Tool in 1995, Ken was employed by Plum Creek Timber Company in Western Montana for 24 years. He is currently Chairman of the Board for Park Side Federal Credit Union in Whitefish and Columbia Falls serving on numerous committees since his election in 1998. He is currently Chairman of the Advisory Council for the Small Business Development Centers in Montana, and is a member of the American Gas Association, American Water Works Association, American Society for Testing and Materials, and Midwest Energy Association.

www.timberlinetool.com

Pete Smith, the driving force behind and President of HCR, Inc. in Lewistown. HCR specializes in engineered solutions for the frequently and constantly open doorways of high-usage freezers and coolers in grocery & food service distribution centers, refrigerated warehouses, and U.S.D.A. food plants. According to the HCR website, if you can't locate him at HCR, he might be out taking a ride on his newly restored 1951 Indian Chief motorcycle (weather permitting), or check the sky - he could be taking a cruise in his airplane! Pete has maintained FAA Aircraft Mechanics and Inspectors Licenses since 1977 and was a flight test engineer with DoD at PAX River, Maryland, for four years. An active member of the Central Montana Manufacturing Alliance, he is also on the Fergus County Port Authority board and is chairman of St. Leo's Catholic Church finance council. Pete also serves as a 4-H Aerospace Leader.

www.hcr-inc.com

Grant Writing and Contracting Workshop

A workshop entitled Grant Writing and Contracting: A Practical Guide to Securing State and Federal Funding will be held at Fairmont Hot Springs Resort Anaconda, Mont., on Wednesday, Feb. 25 from 9 a.m. to 3 p.m. It is sponsored by the Montana Aerospace Development Authority (MADA), Office of Space Commercialization, University of Montana, and Inland Northwest Space Alliance (INSA). The workshop will be led by Don Orlich, Professor Emeritus at Washington State University and author of A Guide to Successful Grant Writing, as well as other presenters. Registration is $35.00 and includes lunch. For more information, contact Amy Fisher afisher@inwspace.org, (406) 541-3130.
Retail sales are up more than 43 percent over the past year, much of it due to the highly visible, more accessible facility. Business has increased in the manufacturing plant as well, with overall sales up 34 percent compared to the same April to October figures of last year.

"We are handling the increase with about the same number of employees (11). Direct labor costs are up only about eight percent," Jack calculates, adding that he thinks employees are less stressed because Lean Manufacturing concepts have been incorporated into the new setup. The amount of materials handling has decreased significantly using Lean.

One goal of the move was to achieve one-way flow through the plant. In the former location, both receiving and shipping were handled through a single dock. When things were busy, outgoing product collided with incoming materials. At the new facility there are three incoming and multiple outgoing bays that can easily be adapted to handle traffic.

Thanepohn had the Montana Manufacturing Extension Center and University Technical Assistance Center perform a space requirements analysis of the plant as part of planning for a new facility. Together they worked out a plan to achieve improved process flow.

One of the recommendations from that analysis was to store materials closer to the work areas and not in a mezzanine or overhead storage area.

Mattress Mill materials are often very large—springs, foam and latex cushioning layers, and quilt rolls for mattresses. They don't slide on and off each other easily, must stay clean during handling, and often require several people handling them to control the bulk.

"Better access for materials during assembly was a major focus," said Mark Shyne, MMEC field engineer, who worked with UTAP engineers Nikki Erickson and Tom Davidson on the project. "We aligned the layout to Mattress Mill goals, talking with the owners and employees. We interviewed employees at all levels to ensure that what works well would be retained and what didn't would be considered for improving the processes."

When the Huffine Lane location was decided on and new space added, MMEC/UTAP continued to recommend placement of materials for easy access and evaluating frequency of use for decisions on where to stage things. They worked with Jack and Nan to help configure the best layout of large assembly tables and sewing stations, working around support walls and other structural considerations.

"They showed us the diminished return from handling materials stored up high, sometimes three and four times before they were needed," Jack said. "They really drilled into us Lean flow and helped us get outside the box. By that I mean, some of the ways you do things, you think can't change. When you've operated in a small space for so many years, you tend to think vertically."

Today, the material is stored in bays and on large moveable racks. Springs are uncrated and stored using a kanban system to refill them for assembly needs so production can continue smoothly. Productivity has increased because materials handling has decreased.

Sales and production are using color kanbans to flag the lead time needed to complete an order. Retail customers do not want to wait long for product, Thanepohn observed. This system is particularly helpful to keep customers informed and let the sales staff know how production work load will affect delivery of customer orders.

The Huffine facility has room for additional expansion, and decisions were made that will help make future expansion less intrusive on production than a full-scale move.

"A move like this is a once-in-a-lifetime event," Jack said. "You want to get it right. We were back in production and shipping product within the week.

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"I am thankful that Nikki and the MMEC/UTAP team were involved in the layout design and decision making.
After six months in the new facility, he feels that continuing process improvements will have good data behind them. The Mattress Mill is poised for continued growth.

Recognition (continued from page 8)

manufacturing firms become more productive, tech-savvy and competitive. BizBest has tracked this program for nearly 10 years and has found it to be well run and highly beneficial, making it possible for even the smallest firms to tap top-level manufacturing and business specialists with experience in manufacturing at a fraction of traditional consulting costs."

The MEP mission of helping small manufacturers become more competitive also recently received important reaffirmation by an independent review panel at the National Academy of Public Administration (NAPA), which concluded that MEP serves a critical need and fills a unique position as a provider of assistance to small manufacturers.

The NAPA report is available online at www.napawash.org/Pubs/NIST0903.pdf.

Made In Montana Show Set for April

Participants are being sought for the seventh annual Made In Montana Food & Gift Show set for April 1-3 at the Great Falls Civic Convention Center. The tradeshows is coordinated by Montana’s Department of Commerce and Department of Agriculture. This year the Montana Chamber of Commerce is also co-hosting the show which highlights over 500 distinctive Made In Montana food and gift products for buyers from all over the United States. Booth information and applications can be obtained by contacting Rebecca Baumann at Commerce, 406-841-2756. Wholesale buyers should visit www.agr.state.mt.us.

Manufacturing News

Since Billings firm Aerotronics, http://www.aerotronics.com, branched into assembling experimental-aircraft instrument panels eight years ago, the company has become one of the largest builders of instrument panels for kit airplanes in the United States with 24 employees and branches in Missoula and Redding, CA.

A partnership between S&K Technologies (SKT) and Positive Systems, Inc. continues to flourish and have a significant impact on the local Flathead Valley economy as the two Montana based technology firms were recently awarded an additional contract with the U.S. Department of Agriculture (USDA) of more than $600,000. The contract is associated with the USDA’s ongoing implementation plan to facilitate computer mapping (Geographic Information Systems) at their 3,000 field offices with work to be completed in early 2004.

Work on the $60 million barley malting plant in Great Falls is progressing according to officials of the International Malting Co., with projections for buying barley from Montana growers in 2004 in preparation for a mid-2005 opening.

Bitterroot Coffee Roasters, http://www.montanacoffee.com, has opened a storefront near the Stevensville wye on U.S. 93.

Butte-Silver Bow manufacturer, Advanced Silicon Materials Inc., has launched a new $200,000 technology development lab to develop, research and test ideas to stay ahead of the competition. The lab will also explore more efficient or less costly ways of producing ASiMi products from polysilicon to silane gas.

Since 1993, the Made In Montana Show has been a popular destination for state and out-of-state shoppers to discover the wide variety of unique, quality products made in Montana. The show has expanded and now features a comprehensive gift area.

This year’s show, to be held April 1-3 at the Great Falls Civic Convention Center, will feature over 500 products available for purchase.

For information on how to participate in this year’s event, contact Rebecca Baumann, Commerce, 406-841-2756. Wholesale buyers should visit www.agr.state.mt.us.
2004 Dates to Remember

January 27  MT Economic Outlook Seminar*  Helena  Colonial Inn
January 28  MT Economic Outlook Seminar*  Great Falls  Holiday Inn
January 30  MT Economic Outlook Seminar*  Missoula  Holiday Inn Parkside
February 3  MT Economic Outlook Seminar*  Billings  Northern Hotel
February 4  MT Economic Outlook Seminar*  Bozeman  Holiday Inn
February 5  MT Economic Outlook Seminar*  Butte  Ramada Copper King
February 10  MT Economic Outlook Seminar*  Kalispell  West Coast Kalispell Center
March (tba) MT Economic Outlook Seminar*  Havre and Lewistown
April 1-3  Made In Montana Food & Gift Show  Great Falls  Civic Convention Center
May 10  ASQ Montana Chapter  Bozeman
June 13-15  EPAC Ethanol Conference  Helena  Great Northern Hotel
October 7 & 8  COMPETE SMART  Bozeman  GranTree Inn

*Economic Outlook Seminars, 8 a.m. to 1 p.m., are presented by First Interstate Bank and UM Bureau of Business & Economic Development with co-sponsorship by local area Chambers of Commerce. Registration is $70. For details, see www.bber.umt.edu.

Manufacturing Resource Receives Recognition

The NIST Manufacturing Extension Partnership (MEP) recently received recognition as one of the 100 Best Resources for Small Business in BizBest 100's annual listing. The Montana Manufacturing Extension Center (MMEC), a statewide outreach and technical assistance center in the Montana State University College of Engineering, is an MEP affiliate, one of 60 nationwide. The Montana center regularly achieves some of the highest ratings for customer satisfaction in annual MEP client surveys.

Selection to the prestigious BizBest 100 by its editorial review board is considered recognition of "star performance" toward helping companies become more successful.

"MEP is a potential gold mine for small manufacturers," according to the listing in BizBest. "The sole purpose of this national network of 400 not-for-profit centers is to help small

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