

**TMAC**

TEXAS MANUFACTURING  
ASSISTANCE CENTER

Success Stories from  
Across the State

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TMAC is an initiative of the Texas Department of Commerce and an affiliate of the National Institute of Standards and Technology (NIST), Manufacturing Extension Partnership Program. The TMAC partners are the Texas Engineering Extension Service at the Texas A&M University System, the University of Texas at Arlington Automation & Robotics Research Institute, the University of Texas at El Paso Institute for Manufacturing & Materials Management, Southwest Research Institute and the University of Houston Institute for Enterprise Excellence.

To maintain a competitive edge in today's business environment, manufacturers can now take advantage of expertise and assistance offered from TMAC.

Manufacturing longevity and success depends on growth and improvement. With assistance from TMAC, small manufacturers have the resources to not only strengthen existing operations, but to expand market share.

TMAC has served more than 500 manufacturers in the past year. This publication showcases a few of those successes to illustrate the different types of companies assisted across the state and the range of expertise available through TMAC.

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## Chocolate Line Runs Smoother After the Process is Sweetened

Nothing makes a candy lover's heart sink like wasted chocolate.

That's why Ferdinand Chew was dismayed when he visited Duo-Delights Inc. for a Texas Manufacturing Assistance Center (TMAC) project.

The 5-year-old Midland gourmet confectionery company lost a half-box of its white chocolate for every 16 boxes sold to the shop floor. That loss resulted in 6,725 pounds of scrapped candy each year. As a chocolate connoisseur, Chew found the loss tragic, but as an engineer, he saw it as avoidable.

The source of Duo-Delights' troubles sat squarely on—or around—a conveyor belt. Much of the company's candy is made as sheets of white chocolate, called bark because it resembles fallen layers of a candy birch tree. Workers dump the bark from a tray to the belt, which carries it underneath rollers for cracking and into a box.

The system, though, was far less smooth than the rich chocolate bark it processed. The sheets of bark were as wide as the conveyor belt, and no retainer kept pieces of chocolate from skipping off the sides of the belt when dumped. Cracked bark also dropped from the roller to the box without a guide to keep it from scattering.

"We redesigned it so there was less waste," says Lee Black, president of Duo-Delights, of the changes made after Chew's recommendations. "There was a lot that we were losing on the floor."

The processing line now has a wider conveyor belt that sports a guide plate on one side and a chute at the end to keep bark from ending up as dumpster mulch. The improvements, according to Chew's estimates, will recover \$53,800 in lost sales and \$6,800 in lost materials annually.

But Chew's work didn't stop with process improvement.

Duo-Delights has grown quickly since

Black started concocting confectionery creations in her home kitchen, so fast that meeting demand for company candy is hard during its peak season of October through November. The company's workforce swells from about 20 to roughly 70, and employees become crowded. Conditions can rapidly become dangerous, so Chew analyzed solutions to the problem.

His suggestion was an overlapping of shifts to ease floor congestion and an expanded overtime payroll, allowing more employees to produce more product at a minimal cost to the company. The payroll, Chew says, actually will make Duo-Delights more profitable because the higher volume will result in more sales.

"It was a huge surprise," Black says of the advantage in expanding her overtime payroll to yield higher profits.

She currently is considering the potential benefits and pitfalls of implementing overlapping shifts and an expanded overtime payroll for this year's peak season.

As a final candy-coated nugget for the company, Chew conducted a Predominant Utility Usage Study. Any Texas manufacturing plant that devotes more than 50 percent of its utilities in the manufacturing process is eligible for exemption from utility sales tax. Companies can save up to \$1,000 or more a year, and they can recover taxes paid for the previous four years.

Duo-Delights, eligible for exemption, will save an estimated \$1,250 a year. And Black plans to make good use of it.

"That additional savings, it was just money we were flushing down the toilet," she says.

Add to that the amount of bark saved from the shop floor and potential profits gained by a sweeter overtime payroll, and Duo-Delights will make sure more of its confections end up where they belong, in the mouths of chocolate lovers.

*For more information about Duo-Delights, call Black at 915/684-6166.*

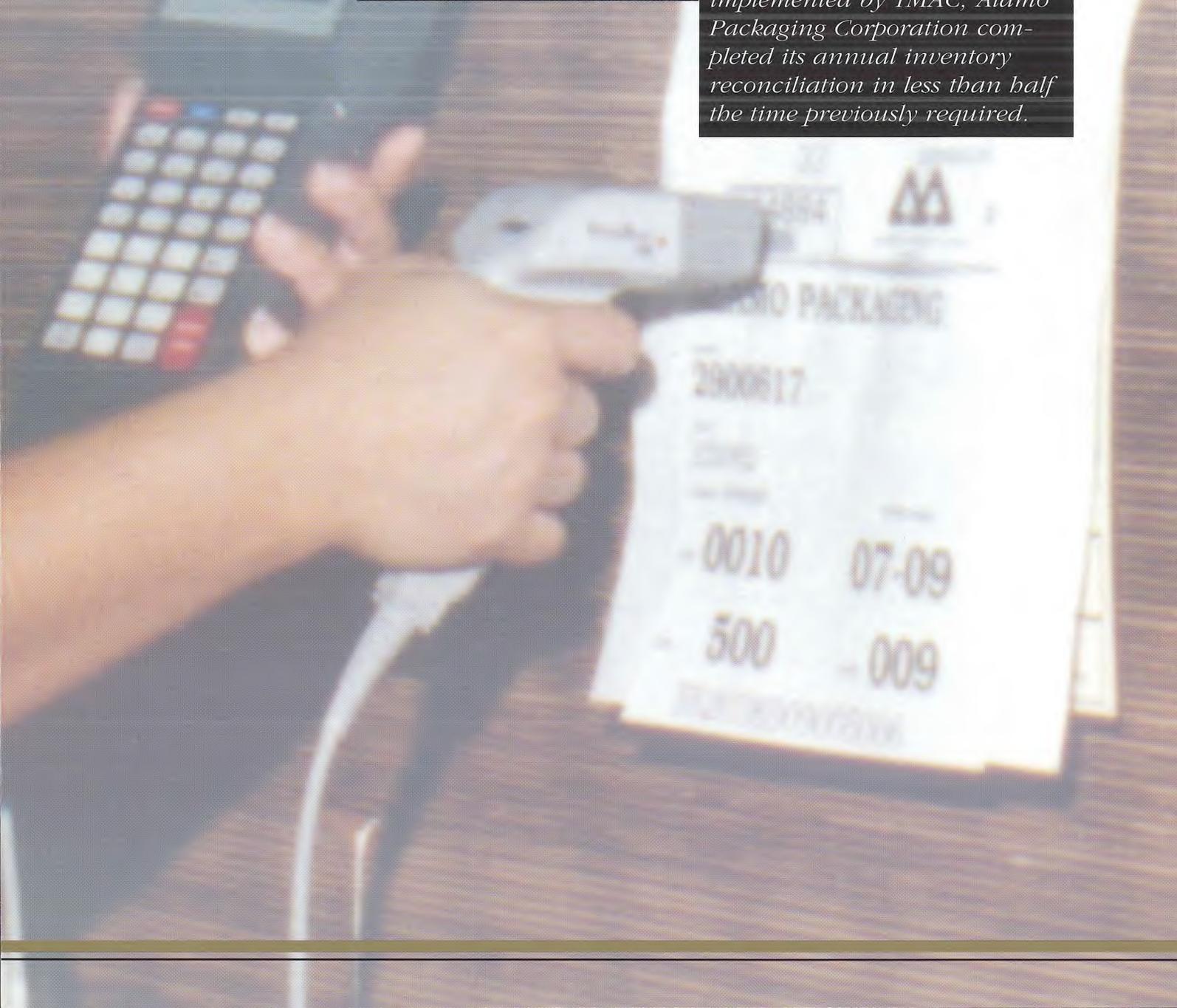


*At TMAC's recommendation, Duo-Delights redesigned its conveyor belt, resulting in a recovery of over \$53,000 in lost sales.*





*Using bar coding technology implemented by TMAC, Alamo Packaging Corporation completed its annual inventory reconciliation in less than half the time previously required.*



## TMAC Greases Wheels During Year-End Inventory

As the end of fiscal year 1995 approached, Priscilda Garza, materials manager for Alamo Packaging Corporation (APC) of San Antonio, began to dread the year-end inventory reconciliation. The previous year, it took 10 days and required the computer files to be frozen until completion. She then had 10 days worth of business to enter into the computer. She knew there had to be an easier way and called on Texas Manufacturing Assistance Center (TMAC) to help streamline the process.

TMAC Field Engineer Rod Cantu spent time with the materials manager and warehouse personnel to develop an improved approach. More than 800 different parts inventoried on the computer had to be counted to reconcile with the actual number of parts in the warehouse. The TMAC/APC team implemented the following time- and cost-saving measures for the year-end reconciliation:

- Downloaded inventory information into a spreadsheet to facilitate sorting and searching;
- Developed a user-friendly inventory form that sorted parts by aisle, allowing the staff to work more efficiently; and
- Attached bar code labels for each part to the inventory form, increasing the speed and accuracy of data entry.

Using the new system, Alamo Packaging Corporation finished its inventory process within four days. Implementing a permanent bar code inventory control system in the warehouse would further improve the process, provide remote data collection and ensure greater inventory accuracy throughout the year.

"In the three years that I have been with the company, physical inventory has never run as smoothly as it did this year," said Garza. "With Rod's future proposed bid for labels and scanners, Alamo Packaging will continue to improve inventory."

"I'm a great fan of the work that TMAC does," says APC General Manager John Taylor.

## Relocation for Remanufacturer of Toner Cartridges Leaves Room for Expansion

Curtis Morris did not plan to become a remanufacturer of toner cartridges. An investment in a new cartridge remanufacturing company that was forced to close left him with three trailer truck loads of empty cartridges and equipment. Not wanting to write off the investment as a total loss, Morris moved everything to a small warehouse. In September 1990, along with his sister and two employees, Morris founded Enhanced Laser Products in Houston.

"In the first three months, all we did was try to learn everything we could about producing a quality remanufactured cartridge," says Morris. "I didn't want to sell anything until I was sure we had it right."

That commitment to quality has served Morris well. Over the past five years, sales for his company have grown from \$300,000 in the first year of operation to \$5 million today. The company expanded its current facility to accommodate the sales growth, but became less efficient in the process. With the expiration of the facility's lease near, the timing was right for considering improvements. After receiving a letter announcing the services of the new Texas Manufacturing Assistance Center (TMAC), Morris requested a consultation with a field engineer.

TMAC's field engineer Ketul Patel visited the facility and made an assessment of operations. Patel saw excessive material handling in the production flow. When Patel learned that the lease on the existing plant would soon expire, he agreed with Morris that it

was time to consider a new facility layout at a better location.

"The TMAC field engineer showed us the potential for increasing the monthly production capacity by moving to a new facility. Since we would be starting with a clean slate, we had the luxury of designing an ideal facility to meet our needs," says Morris.

During a six-month period, the TMAC field engineer worked with a real estate broker, a contractor and an architect to help Enhanced Laser choose a site and develop a facility that would not only meet their current needs but allow for future growth. While the architect designed the outer boundary for the facility, the TMAC engineer designed the interior layout for optimal material flow. To accommodate future growth, the engineer recommended some moveable interior walls that could be rearranged to modify the space as the product line changed.

When Enhanced Laser Products moves into its new 50,000 square-foot facility, the production capacity will double and the work area will increase by 44 percent. Material flow will be streamlined so it will take fewer moves or trips to complete the manufacturing process.

"This new facility will give us a competitive advantage over other manufacturers in our industry. Having the help of a TMAC engineer saved us a ton of money, and the efficiency of the new facility should outweigh all the costs," says Morris.

*Curtis Morris, president and founder of Enhanced Laser Products, holds a toner cartridge remanufactured at his factory. Morris' company will soon move to a new location with a facility lay-out designed by TMAC.*





*Employees at H&H Foods stuff and pack chorizo for retail consumption. TMAC recently assisted H&H in improving its raw materials cost program and its efficiency of information transmission.*

## TMAC Helps H&H Foods Quench Appetite for Quality

Quality control isn't lip service at H&H Foods.

With a fully automated facility approved by the United States Department of Agriculture (USDA), implementation of one of the nation's first Hazardous Analysis Critical Control Point (HACCP) programs and recognition as one of the best Hispanic companies in the country via the Small Business Minority Award, H&H's appetite for customer service and employee safety is hearty.

And it's never sated. The food processing company, located in Mercedes, held a retreat last November for employees to identify opportunities for growth and improvement. After the retreat, Ruben Hinojosa and Rey Jaquez, H&H's president and controller, turned their attention to refining the company's management information systems (MIS) process.

For an objective opinion and seasoned insight, H&H called the Texas Manufacturing Assistance Center (TMAC), which sent Ferdinand Chew, a field engineer with computer engineering and MIS experience, to assess the company's system. After an initial visit, Chew and company representatives chose two projects: enhancement of a raw materials cost program and improved efficiency of information transmission.

An exceptional MIS system is needed by H&H not only because the company craves

excellence, but because it handles a diverse array of customers, Hinojosa says. It provides commodity processing services for other companies, prepares products for the USDA's school meal program and sells its own line of foods at grocery stores. Beef patties, breakfast tacos and tamales are among the foods it processes.

To ensure that records of raw material costs are accurate, Chew recommended an electronic data processing audit procedure for regular cost validation. He also recommended use of a MIS needs request form to keep the system running smoothly and to flag potential problems. H&H already has developed a one-page form, and it's investigating the merits of an electronic audit system.

Chew's other recommendation was designed to improve computer response time within the company's internal network. After examining H&H's setup, Chew suggested that the installation of repeaters—devices that receive a signal and retransmit a clean version of it—would increase response time. He also said response time would be quicker if old on-line data were archived. Although H&H currently is investigating the quality of several brands of repeaters, it is enjoying the results of archived data.

TMAC didn't stop H&H's appetite, but it certainly gave it some food for thought.

## The Tasty Side of Manufacturing

Manufacturing is not all nuts and bolts, and East Texas manufacturing is not all oil and gas. It's candy and gourmet foods, too.

Kennedy Gourmet and Kennedy Candy Company of Kilgore found that the Texas Manufacturing Assistance Center (TMAC) wants to help all manufacturers, even if their nuts are pecans and their oil is for cooking.

Less than two years ago, Kennedy Gourmet operated from a 10,000-square-foot facility in Longview with 75 employees. The company now is in a 30,000-square-foot facility and wants to add another 10,000 square feet. The payroll has jumped to 400 employees during peak seasons and 200 on average.

"I am a big fan of TMAC," says George Kennedy III, president of Kennedy Gourmet.

TMAC has assisted the company with a market study of the gourmet food industry and technical information on the drying of pasta products. It also is helping Kennedy locate and purchase a machine to tie ribbon around packages. Employees currently tie gift gourmet packages by hand, which can result in carpal tunnel syndrome.

After the market study, which has led to the company's increase in the gourmet foods market share, the company had to focus on its problems with making pasta. Because it makes pasta by hand, the company lacks some of the modern machinery used by other food processing plants.

The company has searched for a cure to humidity problems that affect the pasta without much luck, but TMAC field engineer Tanima Bhadra found technical information Kennedy needed to control the pasta-making climate.

"Tanima found logarithms of what the temperature and humidity should be," Kennedy says. "It (the pasta machine) went from not making pasta to not missing any orders. It is not because we are not getting orders. Our sales are now triple."

With the move and pasta problems behind him, Kennedy focused on the search for a bow-tying machine. The search has been a multi-year project for Kennedy that hasn't ended yet. Ten years ago, he located what he thought to be the machine he needed, but at a cost of \$34,000 for one machine, Kennedy decided to wait.

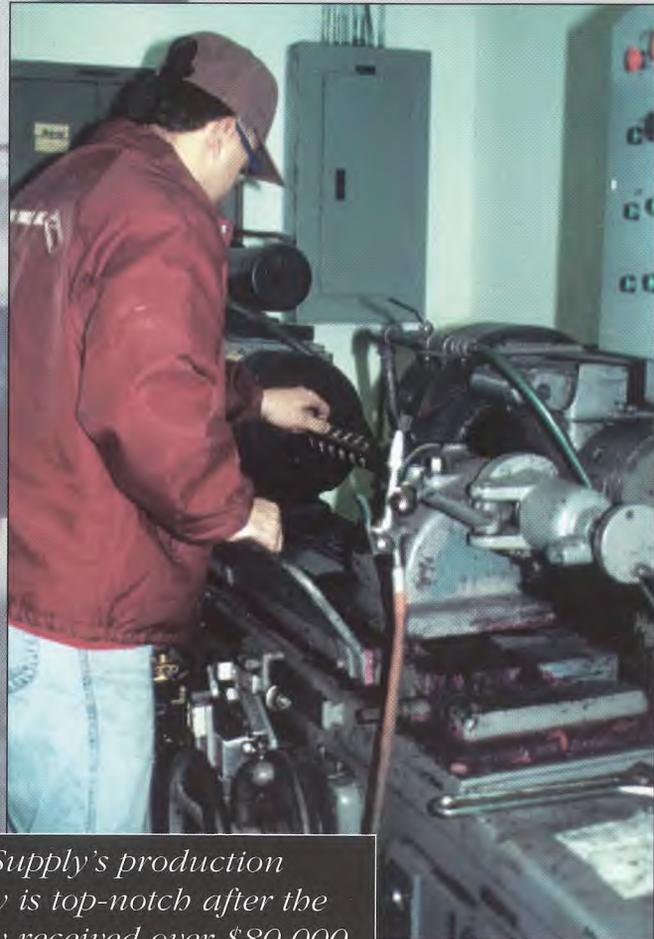
Bhadra made the search a high priority and, after surveying over 30 companies, found a bow-tying machine that apparently is what Kennedy needs. Kennedy sent the distributor of the bow-tying machine a sample of the bows used on Kennedy Gourmet packages. The distributor then sent Kennedy a sample of those bows produced by the machine.

At a cost of \$2,500 each, the bow-tying machines Kennedy may purchase would save the company over \$250,000 annually, which could lead to more money for increased production.



*After an increase in the gourmet foods market share resulting from a market study done by TMAC, Kennedy Gourmet employees are kept busy fulfilling customers' needs.*





*Tarleton Supply's production accuracy is top-notch after the company received over \$80,000 for employee training from Smart Jobs. TMAC suggested and assisted in preparing the Smart Jobs application.*

## Tarlton Supply Receives over \$80,000 for Employee Training

When Tarlton Supply, a manufacturer of oil field measurement tools, received an outsourcing contract from Sperry-Sun Industries, a need for training new and existing employees was created; however, Tarlton didn't have the capital to fund this new and improved training.

This is when Bob and Vicki Handley, owners of Tarlton Supply of Brenham, turned to the Texas Manufacturing Assistance Center (TMAC), and Melissa Vittrup, TMAC field engineer, took the job and ran.

Since production accuracy is essential to Tarlton Supply, the training had to be top-notch. Vittrup suggested that Tarlton apply for assistance from the Texas Department of Commerce's Smart Jobs Fund, a program aimed at providing funding for customized training to expand high-wage employment. The training is determined by the employer to provide maximum benefits.

Vittrup aided in the preparation of Tarlton's Smart Jobs Fund application that led to the company receiving \$80,930 to aid in the training.

"It enabled us to kick this thing off with training more people," Handley said. "Originally, we thought we would be training 14 people and now we are training 30."

Vittrup also performed a Predominant Utility Usage Study, which resulted in further savings for Tarlton. Since Tarlton devotes more than 50 percent of utilities to manufacturing use, it is exempt from utility sales tax.

"It wasn't a big deal when we were little," Handley said. "Our utility bills were around \$200 a month. Now they are \$1,000 a month. That's a big deal."

When Tarlton relocated to Brenham from Houston in 1989, they had 16 employees. Now with the support of the community and the TMAC program, 30 more skilled workers are employed in Brenham, working for a company that is proud to be there.

"It was a wonderful day when he (Bob) moved to Brenham and Washington County," Brenham Mayor Buster Apple said at the ribbon cutting for the expansion of Tarlton Supply. "Good words are not enough."

TMAC and the Smart Jobs Fund helped Tarlton Supply not only raise the skill level of its employees, but provided more jobs in Brenham, a big deal according to Handley.

"That's what makes a community grow -- to get people skills," Handley said. "If you don't have the support behind you, you have nothing. I will put my employees against any."

## TMAC Makes MRP II Software Sing and Dance

“Our business is at a crossroads,” says Jose Menendez, president of Marsal Multimedia Duplicators of San Antonio. Marsal’s market niche—short-run audio reproductions, particularly for the Hispanic music market—was becoming increasingly competitive and facing erosion from the CD market. “We had to find a way to be more competitive without sacrificing quality.”

The timing of a call from Texas Manufacturing Assistance Center (TMAC) Field Engineer Rod Cantu was fortuitous. Marsal had 30 days to evaluate a commercial manufacturing resource planning (MRP II) software package. “I asked what TMAC knew about computer systems. This software looked great, but I had no idea how to implement it,” explained Menendez. “TMAC took all the hocus pocus out of it. They came out the next day, evaluated the software and advised us to buy it. But more importantly, they were there to help us put it in place.”

To implement the system, TMAC helped Marsal develop a product structure and assign part numbers for finished items, sub-assemblies and purchased parts. TMAC engineers performed work sampling, created operations sheets to estimate labor hours

and restructured the general accounts ledger. Then TMAC trained Marsal employees on how to feed all the data into the planning software.

Menendez considers the training a distinguishing feature of TMAC. “Many consultants want to come in and set up a system for you, but they want to keep the information to themselves, so you’re a captive client,” said Menendez. “Not TMAC. They wanted to educate us.”

When the planning software is fully in place, Marsal will have a sophisticated inventory management process. Menendez now knows more about unit costs, allowing him to bid jobs, such as a Christmas cassette for Hallmark cards, more competitively. And as the business continues to branch out into CDs and videotapes, he knows that TMAC will be there when he wants help.

“When we think engineer, we think TMAC,” says Menendez. “When I got a call from a friend asking about TMAC, I told him, ‘Get them in the door as fast as you can—those folks are going to help you.’ We can now say with confidence, TMAC provides something of value that we can afford.”



*TMAC is helping Marsal Multimedia Duplicators implement a computer system which will provide sophisticated inventory management.*



*A production employee of Robroy Industries Conduit Division performs the final inspection of finished coated conduits.*

## Robroy Industries Gives TMAC Free Reign to Stop Profit Drain

"The costs were too high."

After that emphatic analysis from Dave Marshall, president of Robroy Industries Conduit Division, he decided a cradle-to-grave evaluation from the Texas Manufacturing Assistance Center (TMAC) was the best solution he could find for the Gilmer, Texas, company.

The conduit processing line generates the most sales for the division, but it also accounts for the lowest profitability. In 1995, the line dug a net loss for the company, and with a consolidation program between the Gilmer and Pennsylvania divisions underway, effective change was needed quickly. Because of several TMAC projects, Robroy will save more than \$2.5 million in process improvements and materials replacement.

Marshall learned of TMAC after consulting with a project manager from the Mid-Continent Technology Transfer Center (MCTTC), a NASA-funded technology commercialization program that shares quarters with TMAC in the Technology and Economic Development Division (TED) of the Texas Engineering Extension Service (TEEX).

TMAC took advantage of Robroy's free-reign invitation to investigate every stage of the conduit process, its methods and costs. TMAC's Alan Edwards found that product costs and production constraints caused by resource utilization and downtime were key problems. But the biggest drain on the company's profits was Work Center 12, where essential steps in the manufacturing process suffered.

TMAC's analysis showed that Work Center 12 operated 29 percent below current production standards and that 12 percent of the equipment's downtime is planned. The path to improvement, Edwards says, is improvement of the center's resource utilization and throughput.

And the greatest source for this is in reducing scheduled equipment downtime

and set-up time for materials of different sizes. By teaching workers the fundamentals of running equipment and making supervisors comfortable with moving people among work stations, production won't halt every time minor maintenance is performed or whenever a shift change occurs.

Other improvements throughout the plant can be made through simple tracking charts that identify production lags and provide the information required to correct them.

For two other projects performed for Robroy, TMAC borrowed MCTTC services. Based on NASA information, the MCTTC learned of a technology that may help Robroy improve other areas of its manufacturing process. The technology, according to TMAC estimates, could save Robroy \$2.5 million in how it coats conduit threads.

The MCTTC also found a replacement solvent for methyl iso-butyl ketone, used for washing out polyurethane from spray coating equipment. The replacement solvent, sold by DuPont, may cut Robroy's solvent volume by half, generating less waste and less cost than the current solvent. Robroy still is investigating the advantages of the replacement solvent.

Full implementation of TMAC's suggestions will take 12 to 24 months, but improvement already is evident. Efficiency and productivity are up, Marshall says, and cost variances have been reduced.

Robroy could have found someone else to conduct the sweeping assessment, he says, but at a far greater cost and longer amount of time for justification and implementation.

"Could we have done it the same way?" he asks. "No."

Nor could it have been done without higher costs. And that, after all, is what he wanted to reverse in the first place.

*For more information about Robroy, call Marshall at 903-843-5591.*

## TMAC Clears Interference for Texas Spectrum

Texas Spectrum Electronics Inc. makes a living of clearing out interference.

But when the Dallas-based manufacturer of electromagnetic interference filters (EMI) decided to clean up its own processes, it called the Texas Manufacturing Assistance Center (TMAC). TMAC conducted several process improvement projects and a comprehensive business plan for the company.

Both the process improvements and business plan will help Texas Spectrum move its products from the defense applications to commercial and industrial markets, says the company's president, Paul Zimmer. Texas Spectrum is especially interested in selling its filters, which produce a clean electrical output by removing electromagnetic interference, to the telecommunications industry.

The company asked TMAC for a substance better than isopropyl alcohol for cleaning ceramic substrates. A new cleaning process TMAC located will make the filters a better product for any industry Texas Spectrum targets.

TMAC found that acetone, a superior cleaning agent to alcohol, recently has been taken off the Environmental Protection Agency's list of ozone-depleting chemicals. Isopropyl alcohol, Zimmer says, is more time-consuming and labor intensive as a cleaner than acetone.

"It takes longer and does not clean as well," he says. "And in ceramic substrates in

the electronics industry, it has to be very clean."

Another labor-intensive process for which TMAC found a possible solution is coil winding. Included in Texas Spectrum's filters is a doughnut-shaped ferrite coil wrapped with wire, says Elvin Brown, a TMAC field engineer. Employees wound the coils by hand in a labor-intensive effort that cost valuable production time and exhausted manual dexterity. Brown found a low-cost, semi-automatic machine to alleviate exhaustion and increase employee productivity.

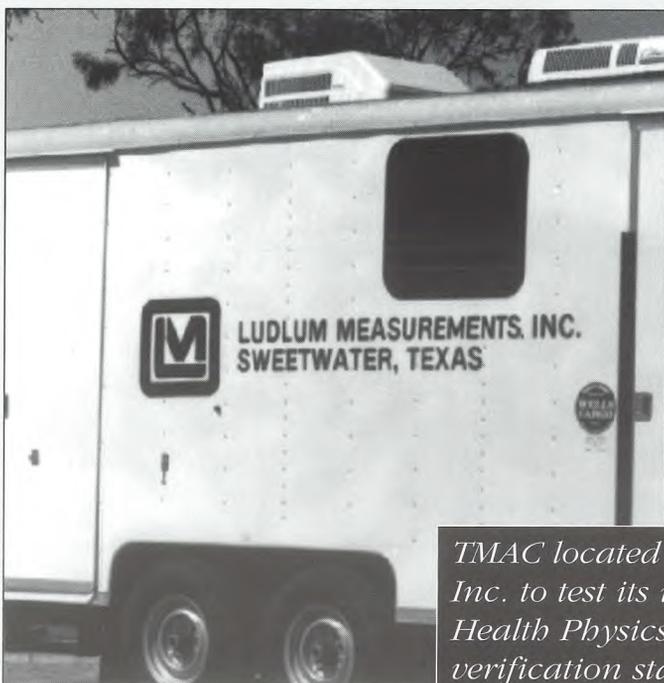
Brown also located affordable sources of automated soldering equipment for Texas Spectrum. Like the coil winding, soldering is a time-intensive effort. Employees often must use four soldering irons to seal a lid on one filter box. Without a good seal, EMI invades the box, rendering the filter ineffective. The equipment Brown found has eight tips for multiple applications.

While the process improvements may make Texas Spectrum's transition to commercial markets more effective, Zimmer believes TMAC's greatest asset to his company has been its contribution to a new marketing and business plan.

Brown worked with Texas Spectrum's vice president of marketing to develop clear strategies for boosting sales. The company plans to supplement an expected increase in sales of current products with the development of new filter and non-filter products.



*An employee of Texas Spectrum Electronics utilizes a microscope to aid in soldering a very fine wire. Texas Spectrum Electronics is a manufacturer of EMI filters.*



*TMAC located a lab for Ludlum Measurements, Inc. to test its instruments under ANSI 42-17A Health Physics Instrumentation performance verification standards at no cost to the company. Ludlum manufactures radiation detection instruments.*



LUDLUM  
SWEET

## **“I Know a Guy with a Friend” Philosophy Benefits Ludlum Measurements, Inc.**

Sometimes, the Texas Manufacturing Assistance Center (TMAC) is like a friend with connections to people with spare tickets to the big game or inside information on discounted appliances.

That's what Ludlum Measurements, Inc., a manufacturer of radiation detection instruments, found when it asked TMAC to help it determine whether its products met some of the ANSI 42-17A Health Physics Instrumentation performance verification standards. The standard is to provide basic performance requirements and verification test methods for instruments used for radiation protection of personnel.

Ludlum, located in Sweetwater, became concerned when DOE and other customers wanted instruments to comply with the ANSI Standard. Ludlum did not have the necessary equipment or the technical expertise to accomplish some of the tests, and the cost of setting up an appropriate lab was excessive.

Ludlum faced limited choices when it approached TMAC—contact an appropriate testing lab, which would be a costly venture or delay testing at some uncertain date in the future, which could affect sales. And this dilemma isn't unique to Ludlum.

ANSI certification testing is very expensive and has a significant financial impact on HP instrument manufacturers, says Paul Fritz, Ludlum's General Manager.

The ANSI Standard isn't required by all radiation instrumentation users, but the DOE community is seeking instruments that meet the performance standard or tested using the testing protocol of the standard. Other customers have also inquired about the status of Ludlum's ANSI tests. About half of the company's sales currently are affected by the

standard, according to TMAC estimates.

TMAC doesn't have the in-house expertise to perform ANSI standards assessments itself—few places do, so it borrowed resources from the Mid-Continent Technology Transfer Center (MCTTC) to locate someone who could perform the tests for a low cost. MCTTC is a NASA-funded center which provides technology transfer and commercialization assistance to companies in a 14-state region. TMAC is affiliated with the MCTTC in order to provide these services to manufacturing clients.

Through the MCTTC, TMAC discovered Pacific Northwest Lab (PNL). Because of a technical assistance grant, they could test Ludlum's instruments at no charge. Ludlum sent several instruments to PNL for testing.

Some instruments did fairly well, and some instruments failed the tests. However, the tests provided important information for analyzing the cause of failures and which type of instruments were most vulnerable.

“The assessment,” Fritz says, “has given Ludlum a touchstone from which to build a foundation for developing its own instrument testing lab for the ANSI 42.17A tests.”

But PNL offers a rosier conclusion. Results show that Ludlum's instruments passed the tests that PNL were asked to do, according to the PNL expert who conducted the tests.

Ludlum will bask in two major benefits from the TMAC friendship network: it won't have to spend money altering all of its equipment to meet certain performance requirements of the standard, which would have been nearly impossible to do, and it has important information to proceed toward eventual ANSI Standard Instrument Certification for its customers.

## Lorax Brings a Dream—and Jobs—to Athens

To the residents of Athens, it's been a nightmare; however, to Walt Sommerman, it's a symbol of the American Dream.

It is a 720,000 square-foot manufacturing facility which used to be home to the Curtis Mathes Company, a national television manufacturer. When Curtis Mathes left, Athens was left with 1,200 unemployed workers, a state Superfund site and an industrial ghost town.

Sommerman, a 30-year veteran of the plastics industry, started the Lorax Corporation, a manufacturer of above-standard garage doors made from plastic composite rather than wood or steel. He had the product, all he needed was a facility suitable for manufacturing.

Thanks to help from the Texas Manufacturing Assistance Center (TMAC) and the Texas Engineering Extension Service's Technology and Economic Development Division (TED), a part of the Texas A&M University System, Sommerman's dream is about to materialize. And the Athens nightmare began fading.

TED located the facility for Sommerman and helped him with legal issues surrounding its Superfund status. TMAC partnered with an Athens engineering firm to create new blueprints for the plant.

Originally built in 1953, the facility includes several additions that have never been properly documented, and no as-built blueprint exists for the facility. TMAC and Vanguard Medical Engineering generated AutoCAD computer drawings with help from students at Trinity Valley Community College.

The partners verified the location of electrical transformers, capacity and outlets; plumbing fixtures; and other utilities. They also verified the location of fire controls, exterior entrances, walls and doors. Creation of the AutoCAD drawings alone took more than 300 hours.

With new blueprints in hand, Sommerman was ready to lay out his plant. And since Sommerman knew the building would have lots of spare room, he wanted to devote space to the community.

"Job creation is not just economic development," Sommerman says. "It is a basic solution for several problems. The site was so large, it was reasonable to give back to the community and A&M 65,000 square feet for a manufacturing incubator."

In addition to the 65,000 square feet Sommerman plans to donate, additional space will be leased below market value, and another 20,000 square feet will be turned into a child care center.

The project was a model for the leveraging value of partnerships between TMAC, the community and local consultants, says Cindy Wall, a TMAC regional director.

"This project was a team effort that has yielded the foundation for the design work and facilities planning for the Lorax Corporation," Wall says. "Local community colleges are a tremendous asset to the TMAC program, and projects like this add value to the education and experience of the students."

According to Sommerman, though, TMAC's contribution to the project runs deeper than the partnership. The amount of crucial documentation required by the Environmental Protection Agency, Texas Natural Resources Conservation Commission, banks and investors could not have been compiled without TMAC, he says.

"TMAC not only documented the building, but it set forth the total plan for redevelopment of the site," Sommerman says.

When complete, the Athens facility will have the capacity to hold 2,000 employees, surpassing the number originally laid off by the Curtis Mathes closure. The Superfund status has been lifted and building renovations will begin soon.

*For more information about the Lorax Corporation, call Sommerman at 817/429-3136.*



*These CAD/CAM drawings, produced by TMAC, represent a dream come true for the Lorax Corporation and the city of Athens.*

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# Manufacturing Lease

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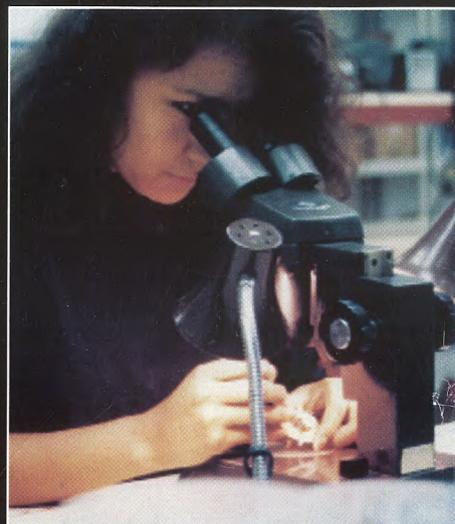
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