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Machines Italia
magazine

Italian Solutions Power Up North American Manufacturing Growth

Spurring Growth and Competitiveness

Italian machinery manufacturers are helping North American companies get back on the growth track with innovative solutions to improve competitiveness.

In my role as the Italian Trade Commissioner in Canada and Chicago, every day I see how American manufacturers are responding to the challenge of globalization.

As the North American economy continues to mount a recovery and sales begin to show steady growth, manufacturers are investing once again in new plants and equipment. Although millions of manufacturing jobs were lost over the past dozen years, we see companies starting to hire again to meet renewed demand.

In this new post-recession era, the bywords of manufacturing success are innovation, cost reduction, greater throughput, and improved quality. North American manufacturers are looking to Italian machinery firms to help them hone their competitive edge.

Due to pricing pressures, the trend for at least a decade has been to outsource manufacturing and build plants overseas to take advantage of cheaper labor. Today, we are seeing a reverse shift, as North American manufacturers in industries such as the automotive sector establish new plants closer to home and invest in retraining and retooling on the home front. In fact, state-of-the-art Italian machinery is being utilized to train thousands of U.S. workers from various companies. Learn more about this innovative training effort on page 21.

In this edition of Machines Italia, we examine these issues with the aim of learning how companies are responding to competitive challenges. We take a close look at some of the innovative solutions that Italian machinery manufacturers are providing to their North American manufacturing customers. These articles are proof positive of the win-win partnership that has been forged between Italian machinery firms and North American manufacturers.

We trust you will find these articles both informative and enlightening—concrete examples and case studies demonstrating the commitment of Italian companies to supporting their North American customers. From aerospace to agriculture, from automotive to paper and textiles and many other key industries, Italian machinery firms are pointing the way with flexible solutions that reduce costs, introduce new functionality, and ensure reliability.

Sincerely,

Pasquale Bova
Italian Trade Commissioner

The latest issue of *Machines Italia* examines how North American companies are using Italian Machinery to overcome 21st century challenges by using great design and creative problem solving.

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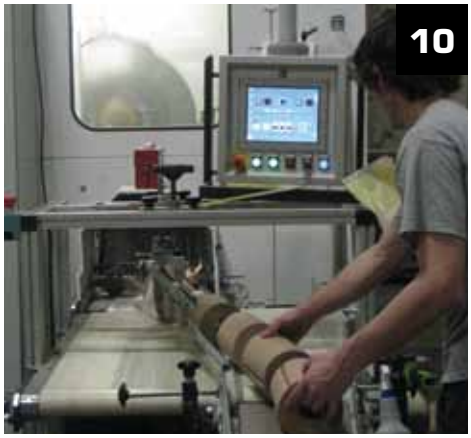

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The Italian Trade Commission's North American offices in Chicago, Atlanta, Los Angeles, Toronto and Mexico City are principally responsible for the machinery and technology sectors covered in this publication.

ITALIAN SOLUTIONS DRIVE MANUFACTURING RENAISSANCE

North American manufacturers, aided by their Italian partners in machinery and equipment, are finding ways to boost production and stay competitive.

Lockheed Martin Aeronautics

At Lockheed Martin Aeronautics' Fort Worth, Texas assembly line for the F35 Strike Fighter aircraft, the forward fuselage structure is precision-machined using sophisticated Italian-built equipment.

As America gears up for a resurgence in manufacturing, renewed growth in exports are expected to drive the economy in the coming years, according to a September 2012 report by the Boston Consulting Group, a global management consulting firm. The report states that the anticipated surge in U.S. exports will help create a total of 2.5 million to 5 million new jobs by 2020.

At the same time, another trend—the "re-shoring" of manufacturing jobs to the U.S. from overseas—continues to return jobs that had been sent offshore. Among the North American manufacturers that have announced plans to re-shore jobs are GE, Master-Lock, Caterpillar, NCR, and Ford.

"We believe that a combination of re-shored production from China as well as increased production for exports will drive manufacturing job creation in the U.S. over the balance of the decade," says Michael Zinser, Partner and co-author of the report who heads BCG's manufacturing practice in the Americas. "We estimate that this increased production could support 700,000 to 1.3 million direct manufacturing jobs."

This is the reversal of the trend to offshore jobs that accelerated during the past decade. America lost an estimated five million manufacturing jobs in the dozen years from 2000 to 2012. Of course, manufacturing wasn't the only sector to suffer over that time frame. Most notably, the nation's financial infrastructure and the housing industry suffered deeply. Since the collapse of the housing market and the ensuing financial crisis that began in 2007, the nation has struggled through the worst economic downturn since the Great Depression.

But there are signs the tide may be shifting—if ever so gradually, and with occasional fits and starts. In one upside indicator, the market for new homebuilding is picking up steam. Sales of new automobiles continue to show steady improvement. In the third quarter, U.S. auto sales continued to exceed expectations, with sales in September near 15 million vehicles on an annualized basis—the best since 2008. The unemployment rate nationwide has begun to shrink. And the economy in the third quarter of 2012 grew at a healthy 2% rate—not exactly a torrid pace, but a sign of steady growth nonetheless.

Against this challenging backdrop, manufacturers throughout North America—from Canadian paper producers to Detroit automotive suppliers to Mexican steel mills—have had to find ways to shed operating costs while boosting throughput and improving quality. Continually under pressure to find ways to reduce costs, manufacturers' twin goals typically are first, to sell a sufficient quantity of goods to turn a profit and stay in business, and second, to compete successfully on the global stage.

Predicting that "the U.S. is poised for a manufacturing renaissance," Zinser cites low-cost production, increased productivity of American workers, and product quality as among the reasons. "Beyond the economics, the quality of the products that U.S. workers produce and the skilled workforce are attractive additional factors that will fuel an expected resurgence in U.S. manufacturing," he adds.

Helping competitive ability

Significantly aiding and abetting North American manufacturers in this resurgence are their Italian machinery manufacturing partners. In fact, much of the new growth in industrial activity is occurring within industries that have a history of leveraging the sophistication, innovation, and flexibility of Italian-made industrial equipment. Not only have they expanded sales and service offerings

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in Canada, the U.S., and Mexico, but Italian machinery firms have invested heavily in new technologies, innovative designs, and flexible manufacturing solutions—all aimed at adding a new arrow or two to the North American companies' competitive quiver.

Often the Italian firms' equipment is chosen for its sheer creativity and ingenuity—the ability to complete a task in a newer, faster way, or in a manner that achieves an added goal, such as greater precision of manufacture.

In other cases, the Italian-built product won out over the competition because it performs at a reduced cost—consuming less energy, requiring less effort, or producing less waste—than its competitors on the market. At the same time, there are plenty of instances where Italian-made solutions are deemed especially attractive to North American industry because they have a reputation for lasting longer, are safer to operate, or feature more intuitive—and easier to operate—user interfaces.

Regardless of the reasons they chose an Italian make of equipment, North American manufacturers find their competitive chops sharpened as a result, either through lower cost, improved quality, or expanded functionality.

Italian ingenuity supports U.S. defense

One company that is leveraging its use of Italian equipment to help reduce costs while boosting production to

Lockheed Martin Aeronautics

Italian-built machines provide the essential surface control needed to shape the smooth forward fuselage of the F35 Strike Fighter. This production line also utilizes Italian-made motors, dollies, and rails in the overhead material handling system that ushers the aircraft's wings down the assembly line.

meet growing demand for its products is **Lockheed Martin Aeronautics** (www.lmco.com). "We purchased two Parpas Group OMV machines that we use to machine the forward fuselage structure of the aircraft," explains Don Kinard, Ph.D., Senior Fellow and Deputy for the F35 Fighter Production System at Lockheed Martin's Fort Worth, Texas, plant. "In order for the fighter to do what it does, we need a nice, smooth surface."

The Parpas Group (www.gruppoparpas.com) OMV machines are what Kinard refers to as "super-CNC machines." These machines are capable of tight temperature control and have laser-compensation calibration as part of their normal operation. "They also are significantly more expensive than the typical CNC machine," Kinard adds. "These are not machines you can buy from anybody—they're rare.

"These machines are essential in order for us to get the surface control that we need for the Joint Strike Fighter aircraft," he says. "We had an existing supplier, but Parpas had both the technical capability we needed and the most attractive price."

Kinard further explains that "every machine we buy is really a custom-build. This is a piece of customized equipment for our program. Its ability to hold to extremely tight tolerances on our surface is critical." The machine also is capable of drilling interchangeable hole patterns, which is another attractive function for the F35 production process, he adds.

A key attraction of the Parpas machines is their flexibility, such that they can be modified to meet the varying needs of manufacturers in different industries, from automotive to aerospace. "Parpas has done a good job to adapt their equipment to our needs and the way we make the F35," says Jeff Langevin, F35 Project Lead responsible for manufacturing technology at the Fort Worth plant. His role is to integrate the processes and equipment with the goal of being able to produce the aircraft faster and cheaper through better processes and more efficient manufacturing technologies. "They worked with our team to make their product fit our manufacturing plan."

Because the machines have such a high precision capability, they have to be situated on an absolutely solid base to ensure a total lack of movement during

operation. "We poured a 20-foot-deep concrete base to make a platform solid enough to hold the tolerances we needed for this application," Kinard says.

The F35 aircraft is 51.4 feet long and 14.4 feet high, with a 35-foot wingspan. Capable of carrying bombs, missiles, and cannons, the aircraft can be outfitted differently to meet different customers' needs.

A huge global manufacturing effort, the F35 Joint Strike Fighter, also called the F35 Lightning II, currently has global orders for more than 3,100 aircraft. Although the vast bulk of the production will go to the U.S. Department of Defense—with the Air Force, Marines, and Navy comprising 2,443 fighters—numerous other nations have placed orders. Among those on the F35 waiting list and the volumes they've ordered are United Kingdom (138), Australia (100), Turkey (100), Canada (65), and Italy (60). As of October, 2012, 37 aircraft had been delivered to the Defense Department.

Currently the F-35 program employs 133,000 direct and indirect (supplier) jobs in the U.S. and Puerto Rico. The U.S. supplier base numbers more than 1,300 companies.

Lockheed Martin's Fort Worth production line for the F35 also utilizes specialized motors, dollies, and rails built by **CPM S.p.A.** (www.cpm-spa.com) in the overhead material handling system that ushers the aircraft's wings down the assembly line. The overhead rails system moves the wings from one station to the next, enabling plant workers to maintain their takt time for each step in the assembly process.

"We are flow-based manufacturing, and this technology enables us to move from station to station to the takt time," Kinard says. "This application is important because it helps us to achieve flow and thus efficiency in our factory."

In fact, these machines aren't the only contributions Italian manufacturers are making to the global F35 effort. Italian manufacturers are building a number of components of the F35 itself. These include parts of the airplane's wing components that are being produced by **Alenia Aermacchi** (www.aleniaaermacchi.it). "There is an enormous amount of activity in Italy for the F35 program," Kinard points out. "They are supplying wings for the U.S. and for Italy."

Among the Italian firms building parts for the F-35 is **Selex Galileo S.p.A.** (www.selexgalileo.com), which is making a number of components for the aircraft, including the ejection seat firing mechanism, and the UHF emergency radio. Another Italian firm, **Oto Melara S.p.A.** (www.otomelara.it), is building the aircraft's gun and bulk ammo loader.

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> ***— Don Kinard, Ph.D., Senior Fellow and Deputy for the F35 Fighter Production System at Lockheed Martin's Fort Worth, Texas, plant***

From a cost reduction standpoint, Kinard believes the Italian-built machinery is helping Lockheed Martin stay competitive in the global defense business. "Absolutely, this equipment has helped reduce our cost and enabled us to maintain our competitiveness in this market," he asserts. "This piece of equipment is critical to our program's success. The whole purpose of holding the tolerances in the factory is to ensure that we are able to reduce the sustainment or ownership cost to the customers."

Plastics extrusion manufacturer

Besides aerospace and defense, another industry where Italian-built machinery is helping companies keep their competitive edge is plastics. A good example of this is plastics extrusion manufacturer **Ipex** (www.ipexna.com), which operates 17 plants in North America. At the firm's Mississauga, Ontario, Canada, plant employing 60 workers, the company utilizes a **Sica S.p.A** (www.sica-italy.com) rotary saw model TRS 32-250 purchased almost a year ago, and expects to begin using an **F.B. Balzanelli Avvolgitori S.p.A.** (www.fb-balzanelli.it) pipe coiler model F10800 AB AVV due to be delivered in January 2013.

Headquartered in Alfonsine, Italy, Sica S.p.A. manufactures more than 200 models of machines. The company sells about 600 machines annually, with 90% of them exported to customers worldwide. Sica S.p.A. makes a wide variety of products for the automation of pipe extrusion lines. The company's machines have such a reputation for durability and longterm value that they find a ready market as secondhand machines.

Duna-USA Inc.

Duna-USA Inc. uses this ISTech Segatrici programmable band saw at its Baytown, Texas plant to cut laminated sheets of high-density polyurethane foam to be used in the signage and automotive industries.

F.B. Balzanelli, based in Milan, is known for construction of coilers for flexible and pliable pipes made of plastics or other materials. In the last two years, the F.B. Balzanelli range of coilers has been extended, with new models and existing ones completely renewed, relating to the type of control used. The new system, using more modern languages, allows easier software development and is designed to facilitate continued evolution of the machines. For the users of the machines, this means greater ease of use, faster operation, and greater efficiency.

"The saw was installed about 10 months ago and it performs great, and we know from our sister company that the pipe coiler also is great equipment," says Chris Ciszek, Plant Manager. "We also have more Italian equipment purchased at other locations throughout our company."

Ipex produces PVC pipe, and at the Mississauga plant, the company makes PVC pipe from ½ inch to 6 inches in diameter. The equipment purchased from the Italian firms is part of the plant's standard production lines. The saw is used to cut the PVC pipe to the prescribed length, usually either 10 or 20 feet. The coiler will be put to use on production lines making flexible conduit and will make coils of different lengths.

"The Italian equipment is high quality and innovative," Ciszek says when asked why Ipex chose it. He also had some familiarity with it through personal experience. "As a Plant Engineer/Maintenance Manager at our other location, I used a Sica rotary saw, and that was back in 2000."

One of the chief reasons Ipex went with the Italian-made machines is their durability over time. "The reliability of the equipment is very important for us," Ciszek adds. "For instance, the Sica saw has an excellent vacuum cleaning system, which prevents the saw from jamming up. The Italian companies are supplying good equipment, and this of course helps us to stay competitive."

In addition to those benefits, Ciszek also found the equipment innovative from a safety standpoint. "One of the most important features for us were the safety aspects and safety protections," he points out. "The Italian equipment is much better in this aspect than that built in North America. This year we achieved 12 years without a lost-time accident, and we'd like to continue this record. To do so, we always look for the highest safety standards available in any new equipment."

Italian tools deep in heart of Texas

Another North American company that has found Italian-made machinery critical to its manufacturing process is **Duna-USA Inc.** (www.dunagroup.com). With plants in Baytown, Texas, and Ludington, Michigan, Duna-USA makes laminated sheets of high-density polyurethane foam to be used in the sign industry as well as in automotive tooling applications.

Among the most recent purchases of the Baytown plant is a programmable bandsaw that can be set to cut different densities of foam board. "You program the machine, and the table with the foam block on it moves back and forth," explains Franco Sala, Plant Manager. "We cut our material in sheets, and we have different

customer requirements for the thickness of the material. These machines have been very critical to us, because they enable us to get the right thickness on our board."

Duna-USA is using two bandsaws from **ISTech Segatrici S.r.l.** (www.istech-segatrici.com) in Vanzago, Italy. Founded in 1994, the brand ISTech (Italian Sawing Technology) has the stated mission of building an Italian product that is better than other manufacturers in terms of quality and reliability. The company grew quickly as a result of having garnered some larger manufacturing customers in the metalworking business as well as having introduced a number of key innovations to the band saw market.

Double-column, horizontal band saw machines are ISTech's core business. The company offers solutions for the fabrication industry as well as custom applications such as vertical sawing machines for cutting sandwich panels. Similar to many Italian machinery manufacturers, ISTech offers customer-oriented production, manufacturing flexibility, and quick turnaround for customer requests.

The latest product brought to market by ISTech is the Smart 290A, a numerically controlled machine with a cutting capacity of 290 mm by 290 mm. With a twin pillar-design saw head, the small band saw is mounted on linear ball bearings and is designed to perform quick and precise cuts. Similar to its regular line of band saws, the Smart 290A also is fully enclosed, ensuring safety and cleanliness of operation. It comes with automatic band brush, automatic chip conveyor, flushing hose, and idler roller conveyor.

ISTech band saws have touch panel controls, enabling customer operators to quickly establish a direct connection with the company's service technicians for remote assistance. Based on Microsoft Windows CE, the ISTech Touchtrol control can be connected through the customer firm's local area network directly to the ISTech server, allowing service engineers to solve most machine faults remotely. In addition, the band saws' new controller is easy to use, with a touch-screen display comprised of buttons with graphic icons and photos displayed on the color screen. This helps the operator to quickly understand any possible programming errors that may arise.

Smart 290A is the easy, inexpensive and efficient solution to make automatic cuts on a wide variety of materials.

"The machine does the cutting by itself," Sala says. "Once you set the program, it cuts the material automatically. We like it because it's very precise and you get a high-quality cut. Also, it meets our needs perfectly, and it has software that is very simple and easy to use. And the support is very good."

At Duna-USA's Baytown factory, first the band saw is used to cut the board. Then the skin is removed and the board sanded to obtain a smooth surface for the customer, whether the product is to be used as a sign or as a base for an automotive tooling application.

Most boards cut for the signage industry tend to have a maximum thickness of two inches. By contrast, Sala says, "For the automotive tooling industry, we tend to sell these customers four- to eight-inch-thick boards." These thicker boards are used in preparing the molding for car bumpers.

Sala points out that the machine's flexibility in handling a wide variety of size boards is very useful. Although the standard size sheet they cut is 48 inches by 96 inches, "We can cut boards up to 62 inches wide and 147 inches long in overall dimensions," he says.

The Duna-USA plant in Texas has been using one ISTech band saw since 2006; the company purchased a second machine in 2008. Of course, it doesn't hurt that Duna Group, the parent company, is an Italian firm, and Sala himself is of Italian heritage. "We are an Italian company, so we originally wanted to buy an Italian machine," he says. That said, Sala points out that the saws are top quality at a very competitive price. "This is a very strong, very durable machine, with a very competitive price against other machines available in the U.S. market," Sala adds.

Safety. Durability. Competitive prices. Critical to success. Achieves tight tolerances. High quality. Innovative. With all these tools to help sharpen their competitive edge, it's no wonder North American manufacturers have turned to Italian machine makers to hone their ability to succeed in global markets.

Embracing Automation **to Stay Competitive**

As North American manufacturers accelerate their use of automation, they turn to Italian machinery and automation firms for innovation and responsiveness to their needs.

Metro Paper Industries

A Metro Paper Industries employee performs a quality check on paper rolls on the company's high-speed, fully automated line built by PCMC Italia S.p.A.

Regardless of what business they compete in, the vast majority of North American manufacturers are harnessing automation to streamline operations, reduce costs, and strengthen their competitiveness. Helping U.S., Canadian, and Mexican industry meet this challenge are Italian manufacturers of automated machinery.

Fully automated and semi-automated production lines are common in North American plants. In fact, it's the rare manufacturing or assembly factory that doesn't have some automated component—a touch-screen-controlled cleaning line for metals processing, a robotic workstation performing difficult-to-reach welds inside a transformer box, a packaging and labeling machine at a consumer products manufacturer, or a guided vehicle delivering parts to a workstation.

Perhaps the most visible form of automation in many plants is the robotics, which are becoming more prevalent every day. According to the **International Federation of Robotics** (www.ifr.org), sales of industrial robots in North America jumped about 8,000 units to 24,341, a jump of about 50%. In the U.S., 20,555 robots were sold in 2011, up 43% over the number purchased the prior year. In Canada, robotics were even more in demand, with sales rising 72% to 1,848 units. The number of industrial robots shipped to Mexico more than doubled to a new high of 1,938 devices.

The common perception of robotics is that, as with any form of automation, they help eliminate jobs. But the International Federation of Robotics cites a study indicating that that a million industrial robots currently in operation worldwide have been directly responsible for creating almost three million jobs. The report further states that the growth in robotics over the next five years will result in the creation of an additional one million high quality jobs worldwide.

Automation takes many forms

Of course, robotics is only one form of automation. For every robot deployed in today's plant, there are numerous other types of automation systems performing a variety of industrial tasks— for example, shuttling components or assemblies, processing materials, and packaging finished goods.

In all these applications, Italian machinery, equipment, and tooling manufacturers are not only delivering innovative solutions to North American industrial firms, they are helping these companies compete.

For instance, **Metro Paper Industries** (www.metropaperindustries.com), a manufacturer of napkins, toilet tissue, and paper towels in Toronto, Canada, was facing a squeeze between declining margins in its industry and the deteriorating value of the U.S. dollar against the Canadian dollar. "We realized that declining margins in our industry and the foreign exchange rate are factors that we can't control, but what we can do is bring down our costs," says Amin Jadavji, Executive Vice President at the family-owned firm.

Metro Paper decided to build a new fully automated plant in Trenton, Ontario, using high-speed machinery. "Our primary goal was to replace three existing lines with one high-speed, more efficient line that would replicate the existing volume," Jadavji explains. Metro Paper produces two types of paper products: brown roll paper for industrial use, and jumbo roll toilet tissue, in different sizes and diameters.

The paper firm worked with **PCMC Italia S.p.A.** of Lucca, Italy, which is part of **Paper Converting Machine Co.** (www.pcmc.com), with headquarters in Green Bay, Wisconsin, a unit of the Barry-Wehmiller Co. "We sat down with their engineers and specified what our products were," Jadavji says. "What impressed me the most was that the Italians listened very well to our needs, and then went and made the machinery we wanted. They built the flexibility we wanted into the design of the machine.

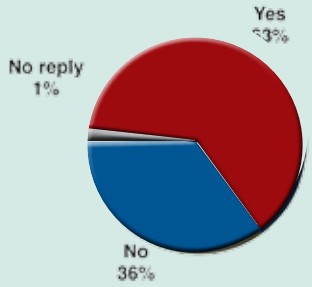
Italian Automation & Robotics Contribute To Manufacturers' Competitiveness

Most North American manufacturers (79%) use robotics and automation, and among them, more than two-thirds (68%) say they plan to increase their use of automation beyond the present level. Of those manufacturers using Italian-made automation, 93% say it has contributed to their company's competitiveness.

These and other findings from the 2012 Automation Study are available at www.machinesitalia.org.

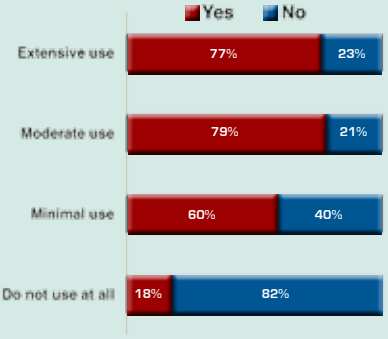
For additional findings, see page 38

Has automated equipment or robotics helped your firm compete in global markets?



What are the benefits of automation and robotics in terms of helping your firm become more competitive?

To accommodate more automation and robotics, have you had to expand the skill level of your workforce?



And they are innovative, using the newest technology such as servo motors and sophisticated controls."

For instance, the company wanted specific features on the operator interface panels. Now the operator has the various products pre-programmed into the control panel, enabling a swift 15-minute changeover from one type of product to another. That kind of speedy line changeover provides greater speed and flexibility in responding to changes in customer demand. "It gives us a higher uptime on the machine," Jadavji says. The company invested about $2 million on the new line, excluding the cost of the new plant.

Overall, the new line afforded some immediate savings. "It cut our labor costs by two-thirds," he adds. "We've been able to significantly bring down our operating costs, yet maintain our flexibility, while bringing together all these products from three lines into one."

Metro Paper's new line accommodates 105-inch wide rolls and can process two 2-ply rolls at the same time. The finished paper is cut and sealed, moving through a huge saw that cuts it to 3 ½ inches in width at 100 rolls per minute. The finished rolls move via automated conveyor to an area where they are automatically collated, stacked, and boxed in cases. The cases proceed along a conveyor into a robotic palletizer, where they are stacked onto a pallet, fitted with top and bottom caps, and then the pallet is shrink-wrapped. "With anything plastic-wrapped, the Italians are the best in the world," Jadavji says.

Another aspect of the machine's flexibility is its modularity. "We could buy one piece of it if we wanted to extend it," Jadavji adds. "Each unit has its own electrical brain. So if we want to extend a 550-meter line to 650 meters, we can do it. It's more flexible and upgradeable than what we were using before. That's a significant improvement."

> "What impressed me the most was that the Italians listened very well to our needs, and then went and made the machinery we wanted. They built the flexibility we wanted into the design of the machine."
>
> ***— Amin Jadavji, Executive Vice President, Metro Paper Industries, Toronto, Canada***

Automated lathes produce precision components

Zannini S.p.A. (www.zannini.com) utilizes automated systems including CNC machines working with automatic bar loaders to produce precision-turned metal components for North American manufacturers. Based in Castelfidardo, Italy, Zannini's customers in North America include Black & Decker, Sauer Danfoss N.A., Huf North America, and Magneti Marelli.

In addition to manufacturing precision turned components, Zannini also performs secondary manufacturing processes and assembly of turned components into semi-finished operating systems for customers. Zannini's precision components are turned on automatic lathes, CNC lathes, multispindle lathes, and multispindle CNC machines.

The company produces precision-turned components for several industries including automotive, electromechanical, hydraulics, motor tools, pneumatic, and security. In the automotive sector alone, Zannini turns out precision parts for the locking, fuel, air conditioning, shock absorber, transmission, and audio systems.

Zannini's use of automation includes an internally developed flexible manufacturing cell with a CNC-driven robot that performs the measuring of precision parts for hydraulics customers. The finished parts are automatically transferred from the cell and blister-packed for shipping to the customer. Zannini operates three plants in Italy and one in Poland and serves North American customers through a dedicated and currently Chicago-based Italian staff.

"At the Huf Mexico plant, Zannini worked with us as a team to provide support when we had problems or needed urgent parts," says Lorena Garcia in the Huf Purchasing Department. "In my experience, Zannini creates and maintains good relations with their customers."

Responsiveness to the needs of customers, combined with a commitment to innovation and investment in process improvement and automation, are essential for companies to compete in global markets. Like the ante for a professional poker player, they are required just to play the game. And many manufacturers in North America are betting on Italian-made automation to pay off in increased innovation, lower cost, and improved competitiveness.

Think Globally, **Service Locally**

Italian machinery companies meet the challenge of servicing their North American customers through local offices and investment.

A leader in the global packaging, wrapping, and mailing industry, Sitma U.S.A. serves its North American customers by providing after-sales services, including technical support and spare parts, through this 35,000-square foot facility in St. Paul, Minnesota.

By Douglas Bartholomew

One of the many attributes for which Italian machinery manufacturers are renowned is an unmatched ability to work closely with their customers.

But getting close to a particular geographic market and the companies that compete in it typically requires a whole lot more than just careful listening.

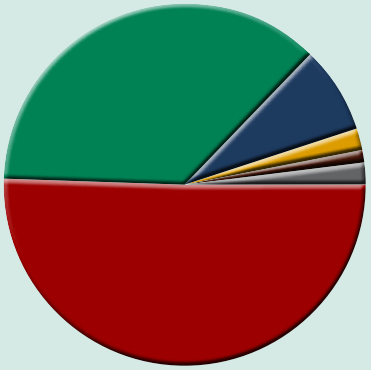
Often it means making the necessary investments in capital, people, and technology to demonstrate that an overseas machinery firm has made a strong commitment to serving the market. Fulfilling this promise may require establishing a local presence to deliver service, parts, and training.

It's clear that North American manufacturers want machinery suppliers that are responding to this challenge. For instance, in the **Italian Trade Commission**'s

In the Italian Trade Commission's (www.italtrade.com) 2012 Machines Italia Awareness Survey of North American manufacturing executives, the issue of technical support actually outranked price when making the decision to purchase equipment.

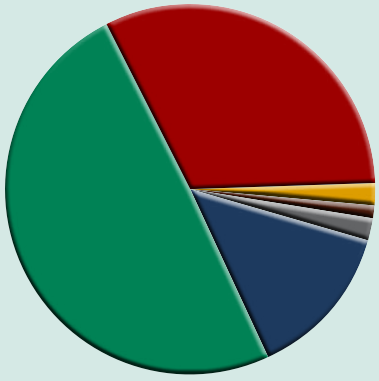
How important are the following attributes when deciding to purchase equipment?

Technical Support after the Sale



Extremely important	52%
Very important	38%
Somewhat important	8%
Not very important	1%
Not at all important	0%
Don't know	1%

Price



Extremely important	33%
Very important	51%
Somewhat important	14%
Not very important	1%
Not at all important	0%
Don't know	1%

(www.italtrade.com) 2012 Machines Italia Awareness Survey of North American manufacturing executives, the issue of technical support actually outranked price when making the decision to purchase equipment. Exactly 90% of participants said the availability of technical support after the purchase of machinery or equipment is an "extremely important," or "very important," factor in making the purchasing decision. By comparison, 84% said price was extremely or very important when deciding to purchase equipment.

Similarly, the availability of spare parts was considered extremely important or very important by 86% of those responding. Finally, the availability of training by the manufacturer or distributor was viewed as extremely or very important by 79% of manufacturing executives taking part in the online poll.

So how are Italian machinery manufacturers meeting this challenge? Angelo Bartesaghi, founder and President of **OMET S.r.l.** (www.omet.it), a manufacturer of narrow and mid-web printing presses based in Lecco, Italy, responded by opening an American branch, OMET Americas, Inc., in Grand Rapids, Mich.

"The last few years have been very successful for OMET, so we feel the timing is right for this important step," Bartesaghi says. "Having this organization in place will emphasize our commitment to OMET customers and the market. We are extremely pleased to have achieved this new milestone in our company's history. Added to OMET's established facilities in Europe and Asia, our American organization further highlights OMET's global presence."

The goal of OMET's American branch office is to deliver superior service and support for existing and future OMET customer installations in North America, the Caribbean, and Latin America. The new facility in Grand Rapids includes administrative, customer service, and technical field support staff. The plant also is equipped with a vast inventory of spare parts.

The branch office is staffed by American technical personnel trained on OMET equipment by skilled European technicians. "To help our customers achieve maximum productivity, we saw the need for a conveniently situated facility," adds Jean-Pierre Penhoat, Vice President of Operations at OMET Americas, Inc. "With our Grand Rapids, Michigan location, we can provide the necessary flexibility in service and support, as well as ease of troubleshooting." OMET installations throughout North America include servo-driv-

en packaging presses spanning applications from PS labels to unsupported film and carton.

In addition to parts, technical staff, and support for new installations, OMET's Grand Rapids facility also will carry out on-demand periodic maintenance visits and training programs for customers.The company offers online equipment service through the Internet. The latter feature ensures continuous support for customers, regardless of time zones—an efficient means of detecting and solving problems as they arise.

Demo and Training Center

Further demonstrating its commitment, OMET plans to open a North American press demonstration and training center at the Sunoco Institute of Packaging Design and Graphics, which is based at Clemson University. In this partnership between the company and the university, the centerpiece of the institute will be an OMET-donated Varyflex VF530-F1 seven-color press at the institute. Housed in the new Harris A. Smith building on the Clemson campus, the press will be available for students to train on this state-of-the-art piece of equipment.

Another company that has successfully leveraged a beachhead office to grow its business in North America is **Sitma** (www.sitma.com), a leader in the global packaging, wrapping, and mailing industry, based in Spilamberto, Italy. With about 90% of its business focused in the graphic arts industry, Sitma offers a wide range of film and paper wrapping machines, envelope wrapping systems, envelope inserting, bundle wrappers, inserting lines, and feeders and stackers.

> "With our Grand Rapids, Michigan location, we can provide the necessary flexibility in service and support, as well as ease of troubleshooting."
>
> ***— Jean-Pierre Penhoat, Vice President of Operations, OMET Americas Inc.***

This approach has paid off for the Italian firm. Through its U.S. subsidiary based in St. Paul, Minnesota, Sitma has placed more than 330 systems in the North American market. More than 95% are still in operation.

Since opening Sitma U.S.A., Inc. in 1980, the company has emphasized after-sales services, building a solid reputation for technical support and spare parts supply. With a staff of 10, the U.S. office comprises more than 35,000 square feet. The company has maximized its presence in the North American market by establishing strong partnerships with large North American manufacturers, supplying paper and film wrapping solutions for integration into their systems in transactional mail markets and publication production.

Many Italian machinery manufacturers have chosen an alternative approach to the market by enlisting an experienced manufacturer's representative to serve as their local presence in North America. That's the case with **Nuova Protex** (www.nuovaprotex.com), a Sumirago, Italy-based manufacturer of take-up winders. The company uses Richmond, Virginia-based manufacturers' representative Fi-Tech Inc. to provide sales, marketing, customer service, and parts.

Through careful listening and responding to customer needs, Italian machinery firms are increasing their commitment to serving North American manufacturers.

Omet

A manufacturer of narrow and mid-web printing presses, Omet S.r.l. opened an American branch office in Grand Rapids, Michigan. Omet plans to donate a state-of-the-art press such as this one at a North American press demonstration and training center at the Sunoco Institute of Packaging Design and Graphics at Clemson University.

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Competing in **HIGH GEAR**

As North America's auto industry picks up speed, Italian machinery manufacturers provide a competitive boost.

This recycling machine from Gamma Meccanica North America enables specialty fiber manufacturer Palmetto Synthetics to recycle waste materials into polyester and nylon to be used in automotive carpeting and other new fiber products. (page 20)

Against a backdrop of continued uncertainty in the economy, the automotive industry in North America continues to show growth, with improved sales year to year, and a brighter outlook than in recent years. Auto manufacturers and parts suppliers are once again investing in new plants and equipment.

New car sales in the U.S. were expected to reach 14.5 million vehicles in 2012, compared to sales of 12.8 million a year earlier, a gain of 13%. As of mid-year, light-vehicle production volume in North America was up 22% from the year-earlier period, according to **J.D. Power and Associates** (www.jdpower.com) and **LMC Automotive** (www.lmc-auto.com). U.S. production increased even more, up 26%t at mid-year. Production in Mexico was up 13%, while Canada turned in a 19% jump.

As OEM firms' sales improve, the vast number of manufacturers participating in the automotive supply chain in Canada, the U.S., and Mexico, in turn, increase production, investing in new equipment.

Italian manufacturers of production machinery and equipment tend to be front and center when auto industry firms evaluate machinery to support streamlined and flexible operations. By contributing to these efforts to improve quality, streamline operations, and reduce production costs, Italian manufacturers are helping spur the continuing recovery of North America's biggest manufacturing industry.

The automotive sector in the U.S. is expected to continue to add jobs. In KPMG's 2012 Automotive Industry Outlook Survey of more than 100 senior executives at OEM manufacturers and suppliers, two-thirds (66%) reported adding employees since last year, and 72% believed they will add more over the next year.

Industry faces workforce challenge

On the workforce front, however, the number of executives who cited the lack of qualified workers as a significant barrier to growth nearly doubled, from 10% in 2011 to 19% in 2012. "We are hearing from U.S. automakers

that they are poised for growth, but are struggling with their ability to find the right people with the right technical skill sets for jobs they are looking to fill," says Gary Silberg, National Automotive Industry Leader for **KPMG LLP** (www.kpmg.com). "This is becoming an increasing cause for concern, not just for auto companies, but for many companies in the manufacturing sector."

In response to this challenge, Italian-built machinery is being used to help bring U.S. workers' skills up to speed to operate state-of-the-art equipment. At the **National Center for Coatings Application Research & Education** (C-Care) facility in South Boston, Virginia, two full-size industrial processing lines are being used to train tens of thousands of American workers from companies across the U.S. in how to use the newest highly automated coatings equipment.

"We saw a need for a world-class process engineering lab—a center of excellence—for coatings applied to manufactured goods of all kinds," says Doug Corrigan, Director of the **Riverstone Energy Center** (www.riverstoneenergycenter.com), which manages the assets of the C-Care facility under the auspices of the Halifax County Industrial Development Authority. "The application of coatings to manufactured goods cuts across almost all industries, because everything that is a manufactured product is eventually coated with something." Numerous automotive parts are coated with paint or other materials to prevent rust or beautify their appearance, from door panels to engines to brake parts.

C-Care's mission is to encourage and support economic development to help improve the economy of southwest Virginia, a largely agricultural region, by developing some state of the art technology-based manufacturing. The C-Care facility's centerpieces are two Italian-made production lines for testing new coatings and training workers on the latest automation equipment.

One is a 60-foot-long, flat line automated system for coating flat or rolled materials built by **Superfici** (www.superfici.com) of Monza, Italy, with offices and a lab in Concord, North Carolina. A manufacturer of automated finishing and sanding solutions, Superfici makes complete lines as well as individual machines, including sprayers, coaters, conveyors, and dryers. The line in use at the C-Care Center came in pieces on a barge and was shipped to southwest Virginia where it was assembled on site. Most coatings are sprayed on, and then cured using a convection oven, infrared light, or ultraviolet light.

Workers trained to troubleshoot problems

The machine is fully automated, and operators are trained to program the automated line, oversee its operation, and perform quality control. C-Care offers more than 20 different courses for workers in the industrial coatings processes, with hands-on training utilizing the Italian machines. "We have a course on how to identify problems and fix them—how to handle the troubleshooting aspects of applied coatings," Corrigan explains.

"This is something a manufacturer can use to try out a new procedure," Corrigan explains. "We can do the research and development, test the new process, and develop procedures for its use. We also train their workforce on how to apply the coating," Corrigan adds. "We provide a turnkey solution."

The second coatings solution, a hang line, is used to coat three-dimensional parts. Parts are suspended from an overhead rail system and go through various chambers where they are coated and then cured using high temperature, infrared, or ultraviolet light. Built by **Tecnofirma S.p.A.** (www.tecnofirma.com), the second line is laid out in an elliptical shape, and can coat parts up to about four feet high by four feet in width. Coatings usually are either sprayed on or affixed as a powder-based coating. Also based in Monza, Italy, Tecnofirma manufactures surface treatment solutions for industrial washing, painting, and impregnation.

"These are actual full-scale production lines that simulate actual production," says Phil Stevenson, President

AWFI

Suspended from this overhead rail system, parts go through various chambers to be coated and cured at the C-Care facility managed by AWFI.

> "To bring jobs back to the U.S. and for the U.S. to improve its competitiveness, American manufacturers really have to focus on coatings to improve efficiency, cut costs, and reduce rework. A lot of that can be achieved through automation such as these Italian machines."
>
> ***— Phil Stevenson, President, AWFI, South Boston, Virginia***

of **AWFI** (www.awfi.org), a business development and training organization that manages and operates the C-Care Center. "If a manufacturer comes to us with a need for a new coating, we do the process engineering, we do the trials, and we come up with a process that meets their goals and requirements. Our goal is to advance the coating applications, provide solutions to manufacturers, and offer the training to support those solutions."

Goal to boost U.S. competitiveness

But all of these efforts, Stevenson emphasizes, are aimed at sharpening the competitiveness of American manufacturers and workers in any of the many industries that utilize coatings on their products. In the automotive industry, for example, a leading Japanese automaker is utilizing the C-Care Center to try out new coating and painting technology for their cars, Stevenson says. "We want to help manufacturers apply the latest technology to make them more competitive."

By training workers in U.S. industry to operate the new machinery, the C-Care Center is helping America's ability to compete, while helping advance workers' skills—and ultimately, their level of earnings. "The training increases the value of the people who are running our labs and who are in training here," Stevenson says. "People look at automation as a threat to their jobs, but in many cases, it leads to people making more money."

The application and costs associated with coatings are a big issue for manufacturers, not just in automotive, but in other industries as well. "Manufacturers in the U.S. struggle more with coating applications than with anything else," Stevenson says. "For example, almost 35% of the cost of a car goes into the different coatings on the vehicle. You've got to coat the engine, the brake drums, the dashboard, and many other parts.

"To bring jobs back to the U.S. and for the U.S. to improve its competitiveness, American manufacturers really have to focus on coatings to improve efficiency, cut costs, and reduce rework," Stevenson says. "It's a prime opportunity. And a lot of that can be achieved through automation such as these Italian machines."

Auto parts giant depends on Italian machinery

Utilizing highly advanced machinery that is high quality, cost-effective and dependable is important to global automotive parts giant **TRW** (www.trw.com). With 2011 sales of $16.2 billion, TRW manufactures a variety of parts for auto manufacturers worldwide. TRW depends heavily on sophisticated Italian-made equipment to perform various precision machining tasks.

At two plants in Mexico and a third one in Oakwood, Georgia, TRW employs more than 40 advanced multi-spindle CNC-controlled machining centers built by **Vigel S.p.A** (www.vigel.com) of Turin, Italy, for producing brake parts. The company uses the large twin-spindle machines with multiple fixtures (4 or 6) to machine two parts at the same time, thus increasing productivity.

The operator loads two parts, such as front and rear brake calipers with iron or aluminum housings and brackets, hits "go" on the control panel, and the machine rotates to machine both parts at the same time. "At our Mexico plant in Santa Rosa, we are making master cylinders," explains Mike Sanna, Senior Manager of Strategic Projects for TRW's Slip Control Systems, Actuation, and Modules team in North America. "We are transferring the manufacturing equipment for this business and adding hydraulic brake valves for slip-control (antilock braking) systems to our new plant in El Marques, Mexico."

The El Marques facility is machining and assembling brake actuation systems, i.e., the master cylinders are machined and mated to boosters that push the brake

fluid to the wheels to actuate the brakes. El Marques also will manufacture the slip control products, more commonly known as electronic stability control systems in the industry. The company will continue to operate both plants to accommodate growth in the market.

The Santa Rosa, Mexico plant is the biggest of the three, with more than 1,800 workers. There are about 200 workers at the El Marques facility, which opened in January, 2012, and an equal number at the Oakwood, Georgia factory. Both plants in Mexico are in the Queretaro area.

While Sanna is responsible for the transfer and installation of machines from the Santa Rosa, Mexico plant to the new greenfield El Marques plant in Mexico, his colleague Jon Wemple, Senior Advanced Manufacturing Engineering Manager for TRW's Foundation Brakes group in North America has responsibility for the machines at the Oakwood, Georgia and Santa Rosa facilities. The greenfield plant, which is gradually being filled with manufacturing equipment, has about 15 large machines and another 13 that will be installed soon. In addition, the other two plants have about a dozen Vigel units.

"Every brake has subtle but important changes, so we have to be flexible," Wemple explains. "From an operational standpoint, by using the same machine, it helps us to be more reliable in providing a quality product to our customers. With Vigel, we were able to get the company to commit to a program and deliver the right metrics at the right time."

Ease of maintenance is another reason for hewing to a single proven, reliable machining platform. "Sticking with the same supplier and maintaining the same machines and using the same parts, makes it easier for us to reduce our expenditure for spare parts and training," adds Sanna.

TRW managers wanted the ability to quickly reprogram the machines to perform different tasks as the various changes in brake parts were made. "We have a good blend of productivity and flexibility in our manufacturing operations using these machines," Wemple says. "We might produce 200,000 or 1 million parts of a specific type per year. Having the flexibility these machines offer is a good way of scheduling production with less downtime."

CNC knowledge required

Training people to operate the Vigel machines, while not trivial, requires some solid CNC knowledge and good mathematical understanding in order to make the necessary mechanical alignments. "It takes a good skillset to understand the mechanical alignments and the way to program the machine," Wemple says. "You need a technician with months of experience to get cells up to speed."

TRW

At TRW's greenfield plant in El Marques, Mexico, a technician checks brake parts at a quality inspection station outside a Vigel BiZ Twin machining center.

Once the machine has been programmed and set to the proper parameters for machining a particular part, its functioning is largely automatic. "The operator just loads and unloads the parts," Sanna says. "Of course, for changing tools and making adjustments, it requires a CNC technician."

The brake parts are delivered as iron castings from a foundry, but without any machining, holes, threading, or other necessary refinements that make the finished brake valve or master cylinder. The same is true for master cylinders, which start out as aluminum castings.

For example, on one machine an operator will perform the large cuts on a fixture, and then in the same machine, drill the holes and thread them to accommodate the completed geometry of the part. The flexibility of the machine offers the operator different approaches for getting the work done in the most efficient manner. "You can machine the part complete on one machine, or you could break it down and take it to another machine," Sanna explains. "It depends on how you want to process the load."

A single fixture in the multi-spindle machine can hold two to four parts, which are hydraulically held in place during the machining process. The fixture then rotates to the work space where heads hold the spindles (spinning devices). Moving at thousands of RPMs, the

> "We are able to keep these machines and reprogram them—in effect retooling—rather than have to buy whole new machining lines," Sanna says. "These machines are robust, enabling us to machine a large number of parts. Their reliability is good."
>
> ***— Mike Sanna, Senior Manager of Strategic Projects for TRW's Slip Control Systems Actuation, and Modules team in North America***

spindles perform various movements to machine the part to the desired specifications. "These machines have to be predictable and they have to reach a stable state, because every part has to be capable to the specifications," Wemple says.

The machines' flexibility allows TRW to retain the same machines to perform various machining tasks, even over a period of years while brake designs evolve to add or delete various capabilities and features. "We are able to keep these machines and reprogram them—in effect retooling—rather than have to buy whole new machining lines," Sanna says. "These machines are robust, enabling us to machine a large number of parts. Their reliability is good."

Innovative recycling solution for auto carpeting

Another automotive supplier taking advantage of Italian innovation to be more competitive is **Palmetto Synthetics** (www.palmsyn.com). A specialty fiber manufacturer in Kingstree, South Carolina, Palmetto Synthetics recycles polyester and nylon waste materials into polyester and nylon pellets that are used for a variety of products, including automotive carpeting. The company is using a plastics recycling solution from Gamma Meccanica North America, a joint venture of **Gamma Meccanica SpA** (www.gamma-meccanica.it) in Bibbiano, Italy, and **Innovative Recycling Solutions** (www.irecyclingsolutions.com) in Greer, South Carolina.

"All my equipment is Italian-made," says Benjie Tanner, Owner, Manager, and Vice President. "We wanted to do polyester recycling, and we worked together with Gamma Meccanica North America to make the machine that we wanted. We've been running that machine 24/7 for 2 ½ years now.

"The biggest reason for using Italian machinery was their willingness to work with us and to incorporate our ideas to make things better," Tanner says. "We got a machine that does exactly what we want at a very competitive cost, and they wound up with one of the best recycling machines in the world that they can market. They are very good at listening to customers, understanding the safety issues and the breakdown issues, and then making the necessary improvements on the equipment."

Tanner says the company recycles its own waste to make the raw material for new fiber products, including automotive carpeting. The process begins with a shredder that takes waste material up to six-inch pieces and chops it up. The shredded pieces travel via conveyor to a 300-horsepower blender with knives that operate at 670 RPM. The cutting produces friction and heat, and the cut up material moves into an extruder that melts it while removing the moisture. From there, the mixture goes into a pelletizer where it's processed into BB-size pellets. Palmetto Synthetics melts the pellets to produce fiber used in a variety of products, including automotive interiors, as well as for footwear, performance apparel, and abrasive pads.

Palmetto Synthetics is using the recycling machine to process 2,200 pounds per hour of polyester, or 1,700 pounds per hour of nylon. "This machine absolutely is making us a much greener company, since we are able to recycle our own waste back into our products," Tanner adds. "It's been very beneficial to us, because it saves the materials that would otherwise go into a landfill." Palmetto Synthetics is processing 26 million pounds per year on the one recycling machine.

Whether the challenge is to train workers to use the latest equipment, or turn out a million precision parts within spec, or find a solution to a thorny recycling problem, Italian-made machinery is helping the North American auto industry hone its competitiveness in global markets.

Custom Fit
For Every Size

Small and midsize enterprises in North America embrace Italian-built solutions in a variety of settings

Nuova Protex

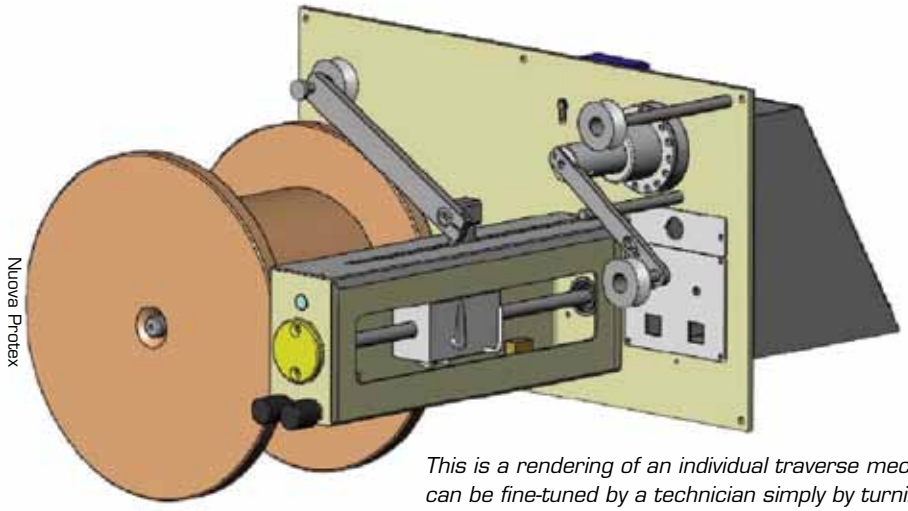
Asten Johnson Filaments' plant in Williston, Vermont uses this multiple-head winder built by Nuova Protex S.r.l. to manufacture polyester monofilament for the paper industry.

When it comes to Italian machinery and equipment, there's no telling where in North America a piece of Italian ingenuity and durability will turn up, from a small machine shop in Pennsylvania, to an automotive supplier in Massachusetts, to a paper plant in Canada.

In fact, it's not just the Lockheed Martins and the TRWs of North America that have embraced Italian-made tools and machinery. Equipment designed and built in Italy is just as popular with small or midsize enterprises of all kinds.

The reasons are plenty clear. Despite many of these companies not being huge multinational firms, they nonetheless find themselves in competition on the same global stage with the big boys. Similar to their larger counterparts, they face all manner of competitors, including low-cost players from China. Thus, as a matter of sheer survival and competitiveness, it's essential for them to search out and find the most innovative tools and equipment offering the highest quality, greatest precision, and most durability.

Clearly, the Italian machinery manufacturers have built their name in this market on both their responsiveness to customers–particularly in providing custom solutions–and the innovative nature of their tools and equipment. In solutions as far-reaching and diverse as the papermaking industry to the sports equipment business, Italian firms are leading the charge for customization and innovation. At the same time, the solutions Italian machinery manufacturers have developed save energy, pollute less, and offer superior safety features and greater reliability.



Nuova Protex

This is a rendering of an individual traverse mechanism that can be fine-tuned by a technician simply by turning a screw to change the tension or other aspects of its operation.

Custom solution for Vermont plant

A case in point is the experience of **Asten Johnson Filaments** (www.astenjohnson.com), which operates a plant in Williston, Vermont, that produces monofilament used in the papermaking industry. The monofilament is woven into fabrics or belts used to transport paper in paper mills. The filaments operation is part of a larger firm, Asten Johnson, which supplies a variety of products and technology for the papermaking industry.

A critical piece in papermaking is the forming fabric. In the papermaking process, pulp is diluted and mixed to form a slurry of solids and water. The mixture then is pumped evenly through a narrow slot in a headbox, where it is deposited on the forming fabric. This fabric filters the water, retaining the wood fibers to create the sheet.

The forming section consists of a long moving belt of fine screen kept in place by rolls. In the past this belt was made of metal, but today it's fabricated from synthetic polymer—largely polyester monofilament. Asten Johnson makes a variety of forming fabrics depending on the type of paper to be produced. On average, the forming fabric lasts about three months.

The company's Filaments unit turned to an Italian firm, **Nuova Protex** (www.nuovaprotex.com), based in Sumirago, Italy. The company is well known as a maker of take-up winders tailor-made to fit the individual needs of customers. The Williston plant needed a solution to a particular winding problem.

Fine tune each winding position

Asten Johnson Filaments wanted a multiple-head winder that would allow their technicians to fine-tune the length of the traverse movements for each individual winding position, but without the complexity and cost often associated with a winder having an electronically adjustable traverse motion.

The ability to make individual traverse adjustments is useful in order to wind material onto the same bobbins repeatedly. Because the pressure exerted by the monofilament against the flanges over a long period of time can result in bobbin deformation, the distance between the flanges varies from bobbin to bobbin.

With a gang traverse system, the operator can only adjust the overall traverse length, because all the thread guides are mounted onto the same moving structure. Thus, there can be a very small gap between the monofilament itself and the flanges on bobbins where the distance between the flanges has increased over multiple use. This can lead to problems when the bobbins are unwound, since the top layers of monofilament may fall into this small gap and get tangled. The end result can be broken monofilament and process interruptions.

For this reason, Asten Johnson wanted a new winder with the flexibility of individual traverse but without the cost and complexity of maintaining electronic winders. The mechanical units are simpler and can be adjusted by turning a screw to change the tension or other parameters of their operation.

"Asten Johnson expressed to Nuova Protex their de-

sire to purchase a winder with an individual traverse system that was completely mechanical," says David Praduroux of Nuova Protex. "In their opinion, this would reduce downtime. Also their technicians would be able to carry out maintenance operations without having to deal with complicated electronic equipment."

Nuova Protex responded with a solution that involved a device with adjustable tilted rolling rings mounted onto a plain rotating shaft for each winding position. The solution embraced a simple but effective principle that is usually adopted for winders with smaller numbers of winding heads, but in this application, was applied for the first time to a large, multiple-position winder. Asten Johnson purchased two 66-position winders from Nuova Protex, and both are in operation at the company's Williston plant.

> "We make farm animal feed, and I like the way the machinery can handle the packaging of animal feed. They have some good ideas for handling the ingredients in a different style."
>
> ***— Bill Kittmer, Operations Manager, Masterfeeds, London, Ontario, Canada***

"Asten Johnson was coming from a more complex solution, and we were able to present a more reliable solution," says Jeff Bassett of Fi-Tech, Inc., the Richmond, Virginia-based manufacturer's representative for Nuova Protex. "They were looking for something that would not require so many maintenance dollars, and where they could perform the maintenance themselves, rather than having to bring in technicians to perform the maintenance.

"We presented Asten Johnson with a test solution and they were very happy with it and decided to order a larger solution," Bassett explains. He adds that Asten Johnson's decision to go with the Nuova Protex winders was based on cost, reliability, and the ability to perform its own maintenance on the machines.

Innovation on the ice

Italian-manufactured equipment typically gets a workout in almost every possible venue, from the air to the land to the sea. But in this case, Italian machinery is making a splash—er, clean sweep—on the ice.

Hockey ice, that is. Although the U.S. and Canada compete together with professional hockey teams and the Stanley Cup, for Canadians, ice hockey is more like America's baseball—the national sport. In fact, Canadians get downright feverish when you talk hockey.

One of the essentials for a successful competitive ice hockey match is a smooth icy surface that is divot-free and without piles of icy snow left here and there where players' skates have carved up the surface. The divots, of course, are caused by players stopping quickly or pivoting and abruptly changing direction, digging

Animal feed firm favors Italian packaging

Although Canadian animal feeds producer **Masterfeeds** (www.masterfeeds.com) hasn't yet pulled the trigger, the company is close to making a major purchase of Italian packaging equipment. "I'm definitely leaning towards the Italian-made machine," says Bill Kittmer, Operations Manager at Masterfeeds in London, Ontario. The packaging equipment is from **Paglierani S.r.l.** (www.paglierani.com), based in Rimini, Italy, which makes machines for weighing, packaging, bagging, palletizing, wrapping, and truck-loading.

With a solid reputation as an innovator in its industry, Masterfeeds was the first to introduce the 50-pound paper bag to the marketplace. The 50-pound bag was a significant improvement over the previous industry standard of the 100-pound bag made of jute. Another example of Masterfeeds' innovativeness was the company's use of pelleting and crumbling of feeds, which put it at the forefront of this practice, which is now common in the business. Specializing in animal nutrition, including livestock and poultry feeding solutions, the company also performs other services, including soil testing and analysis.

Of the different material packaging solutions he's seen, Kittmer says the Italian-built model is the most promising. "The packaging machinery is the best in my industry," he says. "We make farm animal feed, and I like the way the machinery can handle the packaging of animal feed. Everything the Italian company has done so far makes theirs the preferred unit. The reasons are that it's both very flexible and innovative. They have some good ideas for handling the ingredients in a different style."

ngo Ltd.

At the 2012 Mastercard Memorial Cup hockey tournament in Shawinigan, Quebec, the Engo 230 RT Electric Ice Resurfacer demonstrates Italian ingenuity, providing both environmental and safety improvements for operators of indoor ice hockey rinks in North America.

a hole in the ice. The divots can be hazardous for the next skater whose skate could catch in one, causing him to lose his footing. At the same time, piles of ice churned up on the surface turn into snow and can impede players' speed and agility of movement.

Enter the ice resurfacing machine. Although these machines have been around for some time, traditionally they have been fossil-fuel driven, usually by a rear-mounted propane or natural gas tank on the resurfacing machine, which is operator driven. The drawback is that the exhaust from one or two of these propane-driven machines cleaning up the ice for 10 or 15 minutes can leave an arena smelling pretty badly, not to mention the unhealthy aspects of breathing all that carbon monoxide from the exhaust. Worsening matters, the exhaust gas is heavier than air and tends to congregate near the surface of the ice, where players, often hunched over low as they speed skate, breathe in the exhaust gases.

Blade changing a safety issue

Another problem with many ice machines is that the blade that scrapes the ice flat, a 78-inch-wide, razor-edged piece of steel, usually requires two people to change and can be dangerous. Numerous serious injuries have been incurred by ice resurfacing machine operators over the years while trying to swap out the blades.

At the 2012 Shawinigan Memorial Cup hockey tournament in Shawinigan, Quebec, in May, 2012, the tournament operators solved both problems at once. The solution was to use an electric **Engo Ice Resurfacer** from Engo Ltd., Terento, Italy (www.engo.it). Steve Dawe, Arena Ice Products & Services Manager at distributor **Joe Johnson Equipment** (www.jjei.com) of Innisfil, Ontario, says he was asked by the company owner to find the best ice resurfacing equipment available. The equipment distributor markets a variety of industrial vehicles to municipalities and commercial enterprises, including street sweepers, snow plows, sewer suckers, and other heavy equipment.

"Joe Johnson wanted an ice division, and he asked me to find him the best ice resurfacer in the world," explains Dawe, who had patented a couple of his own ice resurfacing innovations and was the most knowledgeable individual for the assignment. "I found it in Italy. In my 25 years' experience in this business, I had never seen a machine like this. It was easy to see it was a top quality machine with an advanced design for maximum productivity, safety, and comfort."

The machine was an Engo Electric Ice Resurfacer. Instead of running on fossil fuel, the Engo ice resurfacer runs on electric battery power. The Engo comes in two models, a 500-ampere-hour machine, and an 875-ampere-hour unit, both with 80-volt battery units. The Engo Ice Resurfacer Joe Johnson Equipment sells comes with batteries and a zero-emission charging system. The cell refilling is done via a wall-based unit that refills any cell with no emissions.

Nor is the battery running down a problem for Engo, despite the need to resurface the ice several times

during a hockey game. The reason is that each time the Engo machine comes off the ice, the operator plugs it in, and within 10 to 15 minutes it can be recharged to 80% of capacity, giving it plenty of juice to continue its appointed rounds to the end of the night, when it can be fully recharged. The distributor designs the battery charger, either a 480- or 600-volt unit, and mounts it on the arena wall. "JJE is now distributing these ice resurfacers throughout the North American market," Dawe says. "The Engo machines exceed fossil fuel machines in performance, reducing facilities' overall operational expenses while producing a safe operating environment."

The blade changeover on a traditional propane machine typically takes two operators 30 minutes to carefully remove 10 bolts holding the old blade, which they then drop down and pull out. By contrast, the Engo machine is designed for safety, enabling a lone operator to change the blade in half a minute or less. The operater simply slides the old blade out, then places the new blade into a groove in the machine, which raises it hydraulically into cutting position.

With 10 branches in North America, representatives from Joe Johnson Equipment's Quebec office met with the 2012 Mastercard Memorial Cup committee in Shawinigan, which agreed to use the Engo ice resurfacers for the tournament. "The president of the Memorial Cup couldn't believe that we were bringing the ice back to such pristine condition throughout the tournament," says Dawe.

"These powerful Electric Ice Resurfacers worked brilliantly through the duration of the event," adds Daniel Milot, General Manager of the 2012 Mastercard Memorial Cup. "The superior technology of these Ice Resurfacers has been instrumental in resurfacing and rebuilding the ice by the precise control of the amount of water deployed and the blade depth adjustments through a touch screen. Also the quick blade change system does not require any bolts to fasten, making it safe for all to use."

Some ice rink operators replace their resurfacing machines every five to seven years, often because of rust or due to parts wearing out. Because the electric motor and battery powered units are simpler and have fewer moving parts than a combustion engine, they tend to require less maintenance and provide longer service, Dawe says. "I've seen Engo Ice Resurfacers with over 10,000 hours on them, and they didn't look a year old. The metal parts are made with hot-dipped galvanized steel and steel hydraulic lines, with fiberglas body parts that can't rust."

Ice rink operators and hockey teams in Quebec have purchased seven machines; two more were purchased for hockey rinks in Calgary, and another half a dozen machines are on order. "Ice hockey rink managers are looking to lower their emissions," Dawe says.

In addition to its line of electric ice resurfacing machines, Engo also manufactures a zero environmental impact electric ice edger, the Minengo. Hockey teams and ice rink operators use these machines to remove the ice buildup around the boards at the perimeter of the rink. The 24-volt, battery-driven machine looks like a little lawnmower, except with a more vertical profile and a whole lot sleeker design. Powering the device is a 2.0 kilowatt, 3,000 RPM electric motor. The motor has an electromagnetic brake and a flange that immediately stops the cutters for safety.

Custom machinery. An innovative and flexible solution. A pollution-free, safety-conscious response to a market need. These examples demonstrate the willingness and the capability of Italian machinery firms to deliver the solutions that North America's small and midsize organizations look for when purchasing new equipment.

"The superior technology of these Ice Resurfacers has been instrumental in resurfacing and rebuilding the ice by the precise control of the amount of water deployed and the blade depth adjustments through a touch screen. Also, the quick blade change system does not require any bolts to fasten, making it safe for all to use."

— Daniel Milot, General Manager, 2012 Mastercard Memorial Cup, Shawinigan, Quebec, Canada

Salmoiraghi's Automated Solutions Reduce Errors Caused by Manual Handling

Monza, Italy-based **Salmoiraghi Automatic Handling S.p.A** (www.salgroup.it) designs, fabricates and installs a wide range of integrated systems and special machinery for automatic handling, internal transport and warehousing of industrial products.

Salmoiraghi's automation solutions offer "no-touch" handling, eliminating product damage and tracking errors caused by incorrect manual handling.

Ceever Washing Tunnel Plant Provides Robotic Loading and Unloading

Since 1959 **Ceever S.r.l.** (www.ceever.com) has produced plants for chemical-physical surface treatment. Based in Settala, Italy, near Milan, the company provides water washing plants, hydrocarbon solvents washing plants, shot-peening and sandblasting machines, plants for superficial treatments of metals and technical equipment for applications such as distillers and oil separators for plants.

All systems are available as a standard facility and as a customized plant. Ceever's new washing tunnel plant series provides high-precision mechanical processed parts with robotic loading and unloading.

S.T. Soffiaggio Installs Blow Molding Machine at US Facility

Monza, Italy-based **S.T. Soffiaggio Tecnica S.r.l.** (www.st-blowmoulding.com) has installed a blow molding machine at Roush Manufacturing Inc.'s Roush lab in Farmington, Mich. S.T. Soffiaggio has more than 30 years of experience designing and building blow moulding machines for hollow items.

The blow moulding machine is dedicated to producing technical articles for the automotive and "white" industries.

FB Balzenelli Sees Increasing Demand for Automatic Coiler in N. America

FB Balzanelli Avvolgitori S.p.A. (www.fb-balzanelli.it) has built a strong presence in North America over the past four years as demand for its automatic coilers has grown. The company, based in Milano, Italy, provides coilers for pipes as well as semi-automatic coilers for large bore pipes, including PE pressure pipes for water, PE pipes for oil and gas and irrigation pipes.

FB Balzanelli attributes the increasing demand in North America to its high-tech offerings and its presence at customer sites and plastics conferences.

Green Box Offers Self-Draining Fluid Coolers for Industrial Applications

Green Box S.r.l. (www.greenbox.it), based in Piove di Sacco Italy, is a global provider of high-efficiency, low-consumption cooling systems for industrial applications. Green Box's Fluid Coolers are suitable for most industrial cooling systems, including new existing systems.

The Fluid Coolers can be used as a chiller booster, as a cooling tower replacement or as dedicated cooling system for mid-high temperature applications up to 95 degrees Fahrenheit.

Repar2 Meets Safety Needs for Machine Shops

Based in Gorla Minore, Italy, **Repar2**'s (www.repar2.com) business has grown with increased workplace safety awareness. That's because the company produces safety guards for machine shops, including woodworking and other industries that require safety systems. Products include safety guards for lathes, presses, drilling machines, surface grinders, boring machines sawing machines and milling machines.

F. LLi Maris Develops Innovative Process for Continuous Rubber Recycling

F. LLi Maris S.p.A. (www.mariscorp.com) has been producing co-rotating twin-screw extruders since 1962. F. LLi Maris, based in Rosta, Italy, has expanded over the years from PVC compounding to vulcanizable rubber compounding.

Maris has now leveraged its experience in rubber compounding to begin devulcanizing rubber using a co-rotating twin-screw extruder with a completely thermo-mechanical process, which does not require the use of chemical agents.

Mario Crosta Introduces Energy-Efficient Sueding Machine

Mario Crosta S.r.l. (www.mariocrosta.com) has installed hundreds of finishing and ennobling fabrics machines in the U.S. Recently, the company invested in resources to simplify the machines to offer "ready-to-use" models with low maintenance levels.

Mario Crosta's new sueding brushing machine Lisa 4 replaces a previous six brushes-on-drum mode. The Lisa 4 uses four big brushes that operate at a high speed. The machine uses 20% less energy than the previous model. The machine fits into Mario Crosta's dedication to sustainability.

Monti Antonio Introduces a New Generation of Hot Melt Machines

Monti Antonio S.p.A. (www.montiantonio.com) has released a new generation of hot-melt machines, the 908 Hot Melt Modular. The thermoprinting and laminating machine manufacturer based in Thiene, Italy, has designed a new version of its hot-melt machine with the ability to exchange two modules: a full coating module and an engraved cylinder one, depending on the customer needs.

Tonello Washing Machines Follow the Latest Fashion Trends

Tonello S.r.l. (www.tonello.com) has been designing and manufacturing garment finishing technologies since the early 1980s. With a keen eye on fashion trends, the company began by producing side-loading washing machines to meet fast-growing demand for stone-wash finish apparel. Tonello, based in Vicenza, Italy, diversified its production to include its automatic Brush Robot and laser equipment for garment marking.

Intermot Hydraulic Motors Serve Wide-Range of Applications

Radial piston hydraulic motors producer **Intermot S.r.l.** (www.intermot.com) is based in Modena, Italy, but has a global presence through its subsidiaries in the group. Intermot offers a large range of drives, from 20 cc to 8500 cc displacement, two-speed motors and tailor-made units to meet customers' specific requirements.

The new robotized manufacturing station

Intermot's motors are available for several applications, including agricultural machinery, shredders, drilling machines, conveyor belts and also marine machinery. The company's products also suit underwater and high- and low-speed conditions.

Hansa-TMP Launches New Pumps for Mobile Equipment Markets

The hydraulic division of Modena, Italy-based **Hansa-TMP S.r.l.** (www.hansatmp.it) has introduced several new products for the mobile-equipment markets, including a new range of TPV closed-loop system variable displacement axial piston pumps and motors.

The new TPV series pumps offer displacement of 6 cc/rev to 110 cc/rev with a maximum operating pressure of 450 bar at a top speed of 3,900 rpm. These units provide high-power density, a key requirement of most mobile applications.

Re Controlli Launches New Roller Sensor and Pneumatic Brake

Re Controlli Industriali S.p.A. (www.re-spa.com), with headquarters in Bussero, Italy, is known globally for its converting equipment. The company recently introduced two new products, including a new roller sensor CPF Extreme pneumatic brake.

The CPF features an integrated amplifier and a clear display that allows the user to easily read the web tension directly on the roller's front. The four buttons on the keypad also enable user-friendly calibration.

API Offers N. America Expanded Pneumatic Components Line

API S.r.l. (www.api-pneumatic.com) provides pneumatic components, including circuit accessories and valves and cylinders. Based in Mozzate, Italy, API's wide range of product offerings include:

- Series A1 valves that feature a body machined from aluminum bar with thermoplastic cast covers. The range includes all pneumatically and electrically operated versions with 1/8-inch, ¼-inch and half-inch ports.
- Circuit accessories for the North American market that are available with ports NPT threaded.

US Demand for Italian Printing and Converting Machines Up in 2012

Italian printing and converting machinery industry exports grew 16.5% between January and July 2012, according to Istat data cited by **ACIMGA** (www.acimga.it). Acimga, based in Milano, Italy, represents the Italian manufacturers of machinery for the graphic, converting and paper industry. The U.S. continues to be the largest purchaser of Italian technology, with U.S. purchases up 4.6% during the first seven months of 2012.

SIMASV Expands Horizontal Bending Press Offerings

Thiene, Italy-based SIMASV s.r.l. (www.simasv.com) continues to innovate in the field of pipe and tube bending. The company has added to its offerings in the areas of the horizontal bending press machines.

SIMASV's horizontal hydraulic bending press T70 DIGIT and T100 DIGIT features a touchscreen key keyboard, a liquid-crystal monitor at high resolution, a selection of different languages to program, measurements in inches and millimetres as well as manual, semiautomatic and automatic program selections.

Atos Provides Force/ Position Controls Using Digital Electrohydraulics

Atos s.p.a. (www.atos.com) position/force controls use smart digital servoactuators with a low-friction servocylinder. The controls also include integral position and force transducers, actuated by a high performance servoproportional valve with on board digital driver and axis controller.

The Sesto Calende, Italy-based icompany's new line of digital controllers manage, in a closed-loop, position, speed or force of any electrohydraulic axis in either integrated format or panel mounting.

Giuseppe Crespi Expands Textile Mill Product Range

Giuseppe Crespi s.a.s (www.giuseppecrespi.it) produces components for textile spinning mills. The company, based in Milan, Italy, recently expanded its product range to include parts for handling technical textiles, industrial laundries, metal high-tech furniture and equipment for the food industry.

Giuseppe Crespi produces its equipment from plastic, aluminium (anodized or painted) and stainless steel (technical fiber – either galvanized or chrome or painted iron.)

Mario Carnaghi Machine-Tool Product Line Includes Vertical Lathes

Olgiate Olona, Italy-based **Mario Carnaghi S.p.a.** (www.mariocarnaghi.it) produces machines for the global machine-tool market. The company's product line includes:

- Vertical lathes with one or two upper frames for all turning, milling and boring operations
- Vertical machining centers with a rotating table
- Planing machines with one or two upper frames
- Milling heads

Mario Carnaghi machines are suitable for auto industry applications, die machining, the textile industry, aerospace applications and the shipping industry.

Bianco Expands Machinery Offerings for the Textile Industry

Bianco S.p.A. (www.bianco-spa.com) has operated for more than 35 years in the textile machinery industry with a focus on ennobling and finishing. The Cuneo, Italy-based manufacturer's latest product introduction is the Weight Detector "Weightex SWB1," a non-nuclear detector of basis weight.

Bianco also recently introduced a camera reading system SDD1 (smart design detection). The system features dedicated sensors, similar to cameras and pulsating light sources.

Meccanotecnica Riesi Partners With US Universities to Develop Machine Technology

Meccanotecnica Riesi S.r.l. (www.meccanotecnicariesi.com) based in Riesi, Italy, has expanded to gain an international presence with customers globally, including the U.S. Meccanotecnica Riesi is not only offering its machining services to companies outside Italy but has also partnered with U.S. universities.

Meccanotecnica Riese has worked with Wayne State University in Detroit and UC Berkeley to produce precise aluminum plates for electromagnetic calorimeters used inside the Hadron Collider.

"Recently we delivered some components to Robotic Mobility Group at Massachusetts Institute of Technology for their Terramechanics Project," says Rosy Trovato, head of business development at Meccanotecnica Riesi. "This experiment was conducted by MIT in collaboration with NASA, so we are very proud we are giving a contribution to space research."

The company also has been cooperating with Embry Riddle Aeronautical University to develop a system that employs cryogenic liquid rocket technologies, an innovative system that uses liquid rocket fuels for the purpose of increasing vehicle reusability.

DAVI Introduces Smart iRoll Control With iPad Connectivity

The **DAVI-Promau Group** (www.davi.com) based in Cesena, Italy, plate roll and angle roll machines. The company's iRoll is its latest automation innovation. The allows the operator to view plate-roll performance remotely on an iPad through the use of the iRoll Plus. iRoll Plus connects to the machine wirelessly, and it can control and program the machine.

The iPad can be used to remotely contact the DAVI service engineers, allowing the engineer to discuss with the customer a service issue and even see the issue with the use of the iPad camera. The machine can be connected by the WiFi network, so the service engineer can repair issues online.

Tecnorama Focuses Production Efforts on Bulk-Production Dyeing Machines

Tecnorama S.r.l. (www.tecnorama.it), based in Prato, Italy, develops and produces automatic dosing and dyeing machines for laboratory and bulk production. Tecnorama's machinery dispenses liquid and solid dyestuffs as well as chemicals. The robotized dyeing systems handle dye yarn, flock, fabric and knitwear textile materials.

The company is currently focusing its efforts on producing bulk-production machines. Tecnorama's global presence enables the company to support clients either by direct assistance or remotely.

Italian Technology Award Programs
Social Media Will Keep Current and Past Participants Connected in 2013!

Educational programs offer students a chance to advance learning and stay connected.

The Italian Trade Commission (ITC - www.italtrade.com), along with several partners, has for over a decade, made it possible for groups of North American students and professors to gain firsthand knowledge of Italian machinery and technology for the machinery manufacturing industries of machine tools, plastic, ceramic, marble and packaging. These various programs fall within the international program, the **Italian Technology Award.**

In 2013, the ITA program partners are looking to establish an alumni network of past and present winners – both students and faculty members ¬ to allow them to continue exchanging ideas, concepts, experiences, etc between them and those Italian companies and institutions/associations which have been part of the program since its inception over a decade ago.

Italy, which produces advanced manufacturing machinery systems for a wide variety of sectors, has been providing companies around the globe with innovative technologies, ideas and solutions.

Machine Tool Technology Award Program

One of the integrated programs over the years has been the **Italian Machine Tool Technology Award** (IMTTA) program, comprised of a competition asking upper level students attending premier North American universities to write a thesis on the relative innovation taking place in mechanical engineering-related industries and the issues they face. The aim of the program is to enrich the engineering education of students and to advance knowledge on issues of importance within the industry to the next generation of engineering professionals.

Recent winners of the Italian Machine Tool Technology Award (IMTTA), selected as having the best papers, have been awarded a two-week trip to Italy, allowing them to take part in certification programs offered by the Politecnico University of Milan.

The IMTTA has been sponsored by the **Italian Trade Commission**, via its Chicago Office, **UCIMU-SISTEMI PER PRODURRE** (Association of Italian Manufacturers of Machine Tools, Robots, Automation Systems and Ancillary Products – www.ucimu.it), **Politecnico University of Milan** (www.polimi.it), and in the United States, the **Society of Manufacturing Engineers' Education Foundation** (SME-EF – www.smeef.org).

Pasquale Bova, Trade Commissioner of the Italian Trade Commission's Chicago Office said, "Faculty participation provides the academics with a noteworthy opportunity to experience and learn about Italian machinery and technology and to enhance their programs by sharing such experiences upon their return to the classroom. And as we enter 2013, we look to integrate more social media into the program's mix."

Professors accompany students from leading academic institutions noted for their mechanical engineering programs.

Packaging Technology Award Program

Additionally, within the overall Italian Technology Award program, is the **Italian Packaging Technology Award** (IPTA). The IPTA program awards student winners of a writing competition (on technical innovations in packaging) with a trip to Italy to visit leading packaging machinery manufacturers. Italy is one of the world's main suppliers of machinery and materials for the packaging sector.

The IPTA program is coordinated and organized by the **Italian Trade Commission**, via its Chicago Office, **UCIMA** (Italian Packaging Machinery Manufacturers Association, www.ucima.it) and, for the U.S. element, the **Institute of Packaging Professionals** (IoPP, www.iopp.org).

The program endeavors to deepen the packaging education of students by providing them with an opportunity to learn how packaging machinery is crafted. The company visits also foster discussions on current challenges and opportunities within the packaging industry.

IPTA student winners usually spend two weeks in Italy visiting leading packaging machinery manufacturers. Faculties from participating universities accompany the students, providing them with a valuable opportunity to discover new packaging technologies and enhance their packaging programs by sharing their experiences with other students.

Italian Technology Award Programs in Mexico

Via the Italian Trade Commission Office in Mexico City, the elements of the Italian Technology Award Program – **Italian Plastic Technology Award**, **Italian Ceramic Technology Award** and **Italian Marble Technology Award** – have been respectfully organized with **ASSOCOMAPLAST** (Italian Plastics and Rubber Processing Machinery and Moulds Manufacturers' Association, www.assocomaplast.org), **ACIMAC** (Association of Italian Manufacturers of Machinery and Equipment for Ceramics, www.acimac.it) and **Confindustria Marmomacchine** (Italian association representing Italian Marble and Stone Machinery Industries, www.assomarmomacchine.com).

These award programs, along with those already mentioned, have had various training and educational programs both in Italy and Mexico working with the ITC and, in many cases, the Politecnico University of Milan along with local partners.

For many of the aforementioned programs, company tours and discussions with manufacturers of related industries located throughout Italy are scheduled as well as an advanced international engineering program provided by Politecnico University of Milan, along with visits to other educational institutions and cultural tours of various cities.

For more detailed information and for the latest machinery equipment and technologies from Italy, contact the Italian Trade Commission, Machines Italia division via the respective country offices located on the back cover of this publication or visit the website www.machinesitalia.org and select "Educational Programs" from the home page which provides information on the overall Italian Technology Award program and activities.

Italian Innovation **in the Spotlight**

2012 was an extremely busy year and 2013 is already planned to be another one as Machines Italia takes "Turning innovation into productivity" on the road to major North American events.

If you make the purchasing decisions for your company, you have an enormous responsibility. You must know the ins and outs of production in a way no one else does—finding machines and systems solutions that are functional, reliable and durable, with readily available service and spare parts. You decide whether the return on investment ultimately can be realized. In short, much of your company's success depends on your purchasing choices.

Italian machinery can make your decision easier.

That's why Machines Italia, together with its partner associations, is proud to be a featured participant and/or sponsor of major industry events. Over the course of 2013 Machines Italia will, or is planning to, appear at the events listed in the box at right.

To strengthen global competitiveness within the manufacturing industry, these events will include presentations on technological advances within the industry and instructional workshops on best practices. Machines Italia will be at these events to reveal the latest in Italian mechanical innovation, representing its partner associations and companies.

Major Event Highlights

Take advantage of these events with Machines Italia presentations and engage with its local representatives.

Machines Italia Manufacturing Summits, Machines Italia's invitation-only events for leading C-level North American executives, will feature top North American and Italian manufacturing experts, editors and industrialists to address key concerns facing manufacturing today and tomorrow.

Machines Italia representatives and partner Italian machinery manufacturers' associations will be at the events to help you identify the best Italian solution providers to meet your unique production needs.

Visitors to Machines Italia's booths will have access to information on the world's most skilled engineers, designers and manufacturers, who have been inventing or retooling productivity-enhancing systems for decades. Representatives will be available to respond to your needs or point you towards appropriate materials, including case histories, industry white papers, news, and testimonials on how Italian solution providers are keeping North American manufacturers both productive and competitive.

As Machines Italia frequently adds additional events and conferences to its roster, please remember to visit machinesitalia.org. On the site, for those events where our ITC offices will have a presence, from the home page go to events and select "ITC Events" and for those of our partner associations' activities both in North America and in Italy select "Sector Events."

Calendar of North American Events

AG Connect 2013 Expo & Summit
January 29-31, 2013
Kansas City, Missouri USA
www.agconnect.com

Expo Manufactura 2013
February 5-7, 2013
Cintermex, Monterrey, Nuevo León, Mexico
www.expomanufactura.com.mx

Italian Plastic Technology at Plastimagen 2013
March 12-15, 2013
Centro Banamex, Mexico City
www.plastimagen.com.mx

IndustryWeek Best Plants Conference 2013
April 22-24, 2013
Greenville, South Carolina
www.iwbestplants.com

Coverings 2013
April 27 - May 2, 2013
Atlanta, Georgia
www.coverings.com

Machines Italia Manufacturing Summits
Spring / Summer 2013 (dates TBA)
Canada and US

Intersolar North America 2013
(Machines Italia and Italian Clean Technology Projects scheduled to once again sponsor the Innovation Exchange program as it did in 2012)
July 9-11, 2013
San Francisco, California
www.intersolar.us

Pack Expo Las Vegas 2013
September 23-25, 2013
Las Vegas, Nevada
www.packexpo.com

Association for Manufacturing Excellence Annual International Conference 2013
October 21-25, 2013
Toronto, Canada
www.ameconference.org

EMDA - Equipment Marketing & Distribution Association 2013 Fall Convention & Industry Showcase
October 22-25, 2013
Indianapolis, Indiana
www.emda.net

Italian Exhibitions

listed by sector

Sector	Trade Show	Title	Machines Italia	Show Location	Show Dates
Agriculture	AGRILEVANTE	Biennial International Exhibition of Machinery, Plant and Technologies for Agricultural Production	FEDERUNACOMA	Bari, Italy	Oct. 17-20, 2013
Fluid Technology, Power Transmission, Automation	TPA ITALIA	International Trade Show for Fluid Technologies, Power Transmission and Automation	ASSOFLUID	Milan, Italy	May 6-9, 2014
Food Technology	CIBUS TEC 2014	Food Processing Packaging Technology Exhibition	Not in Attendance	Parma, Italy	Oct. 21-24, 2014
Food Technology	FRUITECH INNOVATION 2013	Processing, Packaging and Logistics to Consumer	Not in Attendance	Milan, Italy	Nov. 26-28, 2013
Food Technology: Catering & Restaurant	HOST 2013	International Exhibition of the Hospitality Industry	ANIMA (ASSOFOODTEC)	Fiera Milano, Italy	Oct. 18-22, 2013
Food Technology: Meat Industry	EUROCARNE 2012	International Exhibition for the Meat Industry	ANIMA (ASSOFOODTEC)	Verona, Italy	May 24-27,2012
Footwear & Leather Goods Machines	SIMAC 2011	International Exhibition of Machine and Technologies for Footwear and Leather Goods Industries	ASSOMAC	Bologna, Italy	Oct. 9-11, 2012
Foundry	METEF FOUNDEQ	Exhibition of Equipment and Products for the Foundry	AMAFOND	Fairs - Verona, Italy	June 11-14, 2014
Glass	VITRUM	International Trade Show Specailizing in Machinery, Equipment and Systems for Flat, Bent and Hollow glass and in Glass and Processed Products for Industry	GIMAV	Milan, Italy	Oct. 23-26, 2013
Graphic Arts, Print, Media, Communication	GRAFITALIA 2013	International Exhibition for Graphic Arts, Print Media and Communication	ACIMGA	Milan, Italy	May 7-11, 2013
Machine Tools for Metalforming	LAMIERA	Machines and Equipment for the Machining of Sheet Metal, Pipes, Sections, Wire and Metal Structural Work, Dies, Welding, Heat Treatments, Surface Treatment and Finishing	UCIMU-SISTEMI PER PRODURRE	Bologna, Italy	May 14-17, 2014
Machine Tools, Robots, Automation Systems, Components	EMO MILANO	The World of Metalworking	UCIMU-SISTEMI PER PRODURRE	Milan, Italy	Oct. 5-10, 2015
Machine Tools, Robots, Automation Systems	BI-MU MEDITERRANEA	Machine Tools, Robots, Automation	UCIMU-SISTEMI PER PRODURRE	Bari, Italy	Feb. 2014
Machine Tools, Robots, Automation Systems, Components	29.BI-MU	Metal Forming and Metal Cutting Machines, Robots, Automation and Auxiliary Technologies	UCIMU-SISTEMI PER PRODURRE	Milan, Italy	Sep. 30-Oct. 4, 2014
Marble	CARRARA MARMOTEC	International Fair for Marble Technologies & Design	ASSOMARMOCCHINE (Exhibitor)	Carrara, Italy	May 21-24, 2014
Marble	MARMOMACC	International Exhibition of Stone Design & Technology	ASSOMARMOCCHINE	Verona, Italy	Sep. 25-28, 2013
Package, Printing & Converting	CONVERFLEX 2013	International Exhibition for Converting, Package Printing and Labelling	ACIMGA	Milan, Italy	May 7-11, 2013
Packaging	PACKOLOGY	Exhibition of Technology for Packaging and Processing	UCIMA	Rimini, Italy	June 11-14, 2013
Packaging / Bottling Machinery	SIMEI 2013	International Exhibition of Machinery, Equipment, and Products for the Production, Bottling and Packaging of Drinks	Not in Attendance	Milan, Italy	Nov. 12-16, 2013
Packaging / Pharmaceutical	PHARMINTECH 2013	International Exhibition for the Pharmaceutical, Nutraceuitcal and Personal Care Industry	Not in Attendance	Bologna, Italy	April 17-19, 2013
Plastics & Rubber	PLAST 2012	International Plastics and Rubber Industries' Exhibition	ASSOCOMOPLAST	Milan, Italy	May 8-12, 2012
Processing, Packaging, and Material Handling	IPACK-IMA 2015	International Exhibition for Processing, Packaging and Material Handling Industry	ANIMA (ASSOFOODTEC)	Milan, Italy	May 19-23, 2015
Robots & Automation Systems, Mechatronics	MECHA-TRONIKA	Mechatronics, Controls, Automation, Embedded Electronics	UCIMU-SISTEMI PER PRODURRE	Milan, Italy	Oct. 23-26, 2013
Subcontracting	SFORTEC	Technical Subcontracting & Industrial Services	UCIMU-SISTEMI PER PRODURRE	Milan, Italy	Sep. 30-Oct. 4, 2014
Tanning Machines & Chemical Products	TANNING-TECH 2013	International Exhibition of Finishing and Knitting Machinery Tanning Industry	ASSOMAC	Bologna, Italy	Oct. 8-10, 2013
Woodworking & Machinery	XYLEXPO	Biennial Exhibiton for Woodworking Technology	ACIMALL	Milan, Italy	May 13-17, 2014

Web Site	Organizer	Address	Zip	City	Telephone*	Fax*	Email
www.agrilevante.eu	UNACOMA Service Surl	Via Venafro, 5	00159	Roma	06 432981	06 4076370	agrilevante@unacoma.it
www.hfitaly.com	Deutsche Messe AG - Fiera di Hannover	Via Paleocapa, 1	20121	Milano	02 70633292	02 70633412	info@hfitaly.com
www.fiereparma.it (www.cibustec.it)	Fiere di Parma S.p.A.	Via Rizzi, 67/a	43100	Baganzola (PR)	0521 9961	0521 996270	techno@fiereparma.it
www.fruitech.it	Ipack-Ima S.p.A.	Corso Sempione, 4	20154	Milano	02 3191091	02 33619826	ipackima@ipackima.it
www.host.fieramilano.it	Fiera Milano Rassegne S.p.A.	Strada Statale del Semione, 28	20017	Rho (MI)	02 49971	02 49976586	info@rassegne@fieramilano.it
www.eurocarne.it	VERONAFIERE Ipack-IMA S.p.A.	Viale del Lavoro, 8 Corso Sempione, 4	37135 20154	Verona Milano	045 829811 02 319091	045 8298288 02 33619826	info@veronafiere.it ipackima@ipackima.it
www.simac-fair.it	Assomac Servizi S.r.l.	Via Matteotti, 4/2, CP 73	27029	Vigevano (PV)	0381 78883	0381 88602	exhibition@assomac.it
www.vitrum-milano.it	VITRUM S.r.l.	Via Petitti, 16	20149	Milano	02 33006099	02 33005630	vitrum@vitrum-milano.it
www.grafitalia.biz	CENTREXPO S.p.A.	Corso Sempione, 4	20154	Milano	02 3191091	02 341677	centrexpo@centrexpo.it
www.lamiera.net	CEU-CENTRO ESPOSIZIONI UCIMU S.p.A.	Viale Fulvio Testi, 128	20092	Cinisello Balsamo (MI)	02 262551	02 26255214/ 349	ucimu@ucimu.it
www.emo-milan.com	EFIM-ENTE FIERE ITALIANE MACCHINE S.p.A. promoted by CECIMO (European Association of the Machine Tool Industries)	Viale Fulvio Testi, 128	20092	Cinisello Balsamo (MI)	02 26255860/ 861	02 26255882	info@emo-milan.com
www.bimu-mediterranea.com	ENTE AUTONOMO FIERA DEL LEVANTE in cooperation with CEU CENTRO ESPOSIZIONI UCIMU S.p.A.	Viale Fulvio Testi, 128	20092	Cinisello Balsamo (MI)	02 262551	02 26255214/ 349	ucimu@ucimu.it
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www.packologyexpo.com	Rimini Fiera S.p.A.	Via Emilia, 155	47900	Rimini	0541 74468	0541 744243	info@packologyexpo.com
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www.tanning-tech.it	Assomac Servizi S.r.l.	Via Matteoitti, 4/a- CP 73	27029	Vigevano (PV)	0381 78883	0381 88602	exhibition@assomac.it
www.xylexpo.com	ACIMALL	Strada 1 Palazzo F3	20090	Assago	02 89210200	02 8259009	info@acimall.com

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Innovation at work in **global markets**

AGRICULTURE/FARM MACHINERY

FEDERUNACOMA - The Italian Agricultural Machinery Manufacturers Federation represents a very wide sector of mechanical engineering industries and brings together associations of manufacturers of machinery, equipment, and technologies for agriculture, gardening, groundskeeping, earthmoving, and components. FEDERUNACOMA's member manufacturers account for 80% of national production in the sectors represented and for 60% of exports. Italian farm equipment manufacturers rank first in the world in terms of the range of machines produced. Italy's diverse climate and geography give its agriculture equipment producers an edge over competitors in the development of creative solutions for growers. Through their skill and expertise, they consistently produce farming innovations. **www.federunacoma.it**

CERAMICS

Italian manufacturers of machinery and equipment for ceramics have earned a world-class reputation for providing solutions that meet a vast range of customer needs—from traditional ceramics to the latest design trends. Customers around the globe choose machinery produced by members of ACIMAC, the Association of Italian Manufacturers of Machinery and Equipment for the Ceramic Industry, because it is easy to program and simple to maintain. This machinery is also known for its ability to increase productivity and for its design flexibility. **www.acimac.it**

EARTH MOVING MACHINERY

COMAMOTER is the Association of FederUnacoma, representing the Italian manufacturers of self-propelled earth-moving machinery, dumpers, trailed machinery, attachments, spare parts, and accessories. Branches of foreign manufacturers with plants in the European Union and distribution and service networks in Italy can also join. Italian earth-moving machinery has always stood for quality and reliability for businessmen around the world. The high professional level of technicians, the consolidated experience of the companies in the sector, and ongoing research for the development of the technological, design, comfort, and safety features of their machinery, have made the Italian product a world leader with operations and business positions in more than 150 countries. **www.comamoter.com**

FLUID POWER EQUIPMENT & COMPONENTS

ASSOFLUID is the Italian association of manufacturing and trading companies in Fluid Power Equipment and Components. ASSOFLUID's 195 member companies employ 14,000 people and represent 70% of the Italian manufacturing sector of hydraulic and pneumatic equipment and components. The association has been coordinating, promoting, and developing the technical and economic interests of the hydraulic and pneumatic industries for forty years, representing all over the world the Fluid Power Made in Italy, an industrial sector well known for its competitiveness, quality, reliability, and performances. **www.assofluid.it**

FOOD TECHNOLOGY

ASSOFOODTEC – the Italian Association of Machinery and Plant Manufacturers for Food Production, Processing, Preservation – represents global leaders in the most important Italian association for technologies for the food industry, thanks to a diversified offer that ranges from relatively simple machines to extremely sophisticated production lines. Prestigious and qualified companies, a great wealth of experience and reliability, and an increasing technical development of products…this is what ASSOFOODTEC can offer. ASSOFOODTEC cooperates in the activity of the most important bodies charged for the drawing up of European and world technical standards. ASSOFOODTEC operates within the Federation of Italian Mechanical and Engineering Association (ANIMA). **www.assofoodtec.it**

FOOTWEAR, LEATHER GOODS AND TANNING

ASSOMAC is the national association that represents the Italian manufacturers of Footwear, Leather Goods, and Tanning Machinery, an industrial sector that is a world leader. Italian exports account for more than 50% of all the exports of countries manufacturing machinery in this industrial sector worldwide. Every year, Italian companies export more than 70% of their production to 100+ countries around the world. It is not just quality that sets Italian machinery apart from the competition. It is also customization. Italian leather-machinery manufacturers work closely with customers to create a product that is "right" for the job, much like the relationship between suppliers and users. **www.assomac.it**

FOUNDRY AND METALLURGICAL MACHINERY

AMAFOND is the Italian association of companies producing machinery, plants, furnaces, products, and services for the foundry industry. Its 90 member companies provide machinery used in the manufacturing of everything from automobile engines and components to domestic appliances. AMAFOND credits the "Italian approach" to business—characterized by extra customer care and stronger personal relationships—as one of the reasons its member companies attract worldwide customers. **www.amafond.com**

GLASS

As an evolution of the Italian glass-making tradition, GIMAV—the Italian Association of Glass-Processing Machinery and Accessory Suppliers—represents Italian excellence in glass-making machinery today. This industry sector has expanded internationally by employing innovative technology that meets today's marketplace needs. GIMAV's 80 member companies are known for customizing machines to meet exacting end-user specifications—from high-rise building construction to fine arts applications. **www.gimav.it**

MARBLE AND STONE

Three hundred and twenty-five companies form the foundation of Associazione Italiana MARMOMACCHINE (CONFINDUSTRIA MARMOMACCHINE), the association representing the Italian marble and stone machinery industries. These companies supply the advanced technology that makes Italy a global leader in the stone and manufactured stone industries. Italian machinery is engineered to be versatile and provide customers with unique solutions to process marble and stone at competitive prices. **www.assomarmomacchine.com**

METALWORKING

UCIMU-SISTEMI PER PRODURRE is the Italian Machine Tools, Robots, and Automation Manufacturers' Association. As an official representative of the industry, UCIMU-SISTEMI PER PRODURRE acts as a worldwide ambassador for some of the latest technology developed in Italy. More than 200 member companies, who produce around 70% of the output for the sector, have won universal recognition for their quality, flexibility, reliability, and customization. **www.ucimu.it**

PACKAGING

UCIMA groups represent the Italian manufacturers of Automatic Packing and Packaging Machinery. Its members represent 70% of the total Italian production and, on average, 80% of Italian exports. One packaging machine out of every four in the world bears the wording "Made in Italy." And the United States is the industry's main outlet market for the sector. The worldwide success of the Italian packing and packaging industry is firmly rooted in a consolidated technological tradition and in the ability to find customized packing solutions. **www.ucima.it**

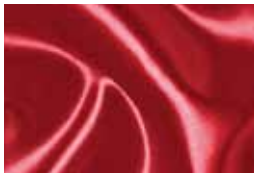
PLASTICS AND RUBBER

The companies of ASSOCOMAPLAST, the Italian Plastics and Rubber Processing Machinery and Molds Manufacturers Association, are globally renowned for their "turnkey solutions"—addressing customer needs through sophisticated machines and engineering. As a result, the Italian plastics and rubber processing machinery industry has seen steady growth since its inception in 1960. Italian machines are highly prized by the world's most industrialized and economically advanced countries. **www.assocomaplast.org**

PRINTING, GRAPHIC, AND CONVERTING

ACIMGA represents the Italian manufacturers of machinery for the graphic, converting, and paper industry. Members of this association are world leaders in making machinery for rotogravure and flexographic printing, paper and cardboard processing, and converting. Most of what is produced is absorbed by the packaging market with 60% of the industry's turnover, followed by the graphic arts industry with about 35%, and the rest is employed in various sectors. **www.acimga.it**

TEXTILE MACHINERY



ACIMIT is the Association of Italian Textile Machinery Manufacturers, representing 80% of the entire Italian textile machinery production. Each member takes pride in helping their manufacturing customers spin "cloth into gold." Italian textile machinery manufacturers meet the full spectrum of industry needs (spinning, weaving, knitting, and finishing machines), and leading American textile and clothing manufacturers rely on the quality of Italian high-tech machinery. **www.acimit.it**

WOOD

In every segment of woodworking, from sawmills to the industrial processing of solid wood and panel to finishing, the Italian industry is present with technological solutions capable of responding effectively to a multitude of user requirements. ACIMALL, the Italian Woodworking Machinery and Tools Manufacturers' Association, with over 220 of the most qualified companies in their field, represents 90% of the whole industry, both in terms of employees and in turnover. **www.acimall.com**

Turning Innovation Into **Productivity**

Introduction (3 min)

It's the twenty-first century. Your customers' needs come first. Your response is critical:

- *Demands for products built to their specifications?*
  Your operation must have flexibility to deliver what customers want.
- *Ideas for new products, faster cycle time and greener processes?*
  You need a machine-making partner with creativity to spare.
- *Solutions to challenges in the manufacturing process?*
  Your operation needs innovation to keep things running at peak efficiency.

Where do you find that combination of flexibility, creativity and innovation? **You find them in machines from Italy. *Machines Italia.***

Creativity (3 min)

What is creativity? Is it human expression found in art, music and letters? **Of course it is.** But creativity is so much more. Creativity is the machine maker's art, evident in Machines from Italy. Across industrial sectors, they are among the most creative and advanced in the world. Put Italian passion and creativity to work for you. ***Machines Italia. Turning creativity into productivity.***

Watch and listen to how Italian suppliers in various manufacturing sectors of machinery and technology are helping numerous North American companies and their operations gain a competitive edge, and deliver for customers, while boosting their bottom line.

Innovation (3 min)

Do you know what innovation is? It's a change in the thought process for doing something, or the useful application of new inventions or discoveries.

Across a wide variety of industrial machinery manufacturing sectors Italian manufacturers are innovating not only machine technology, but critical thinking too, from applications to relationships.

Flexibility (3 min)

Competition comes from every corner of the globe. The decisions you make - about products, people and processes - will determine the quality of your offering and your return on investment.

When you have options and your operation is nimble and able to respond to opportunities, you win. Across various industrial sectors, Italian machinery represents the very best in high technology, smart solutions and flexibility.

New equipment purchases provide great benefits and ROI

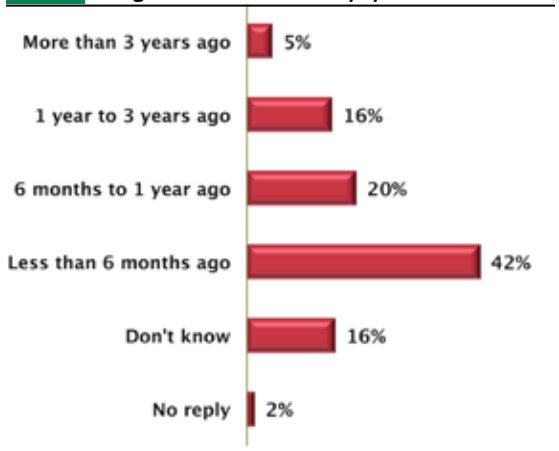
On October 31, 2012, Penton Research emailed invitations to participate in an online survey to print subscribers of IndustryWeek magazine. By November 19, 2012, Penton Research received 342 completed surveys. The objectives of this survey were to examine the use of automation and robotics among manufacturers; investigate the use of and perception of Italian machines; and determine future purchasing plans and the important factors and players in the decision-making process.

According to the 2012 Automation Study, respondent companies have likely purchased machines or equipment in the past year. In fact, 62% of companies bought a machine or equipment in the last year (Chart A). From the findings, represented in Chart B, it can be assumed that a new piece of equipment has likely transformed the efficiency or effectiveness of operations within the past three years. In fact, 28% of respondents have found a good ROI from new equipment or machinery in the last six months.

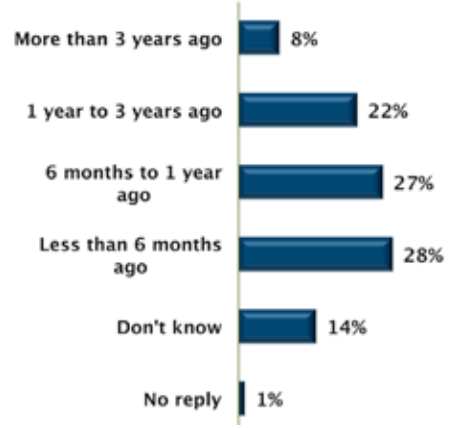
The study also provides insight regarding the greatest benefits of new equipment. According to survey respondents, the greatest benefits are increased throughput and lower operating costs (Chart C). More than one third of respondents report that the average equipment purchase results in an improvement of more than 25%. Over the next two fiscal years, 35% of respondents expect to spend $1 million or more on equipment (Chart D).

These and other findings from the 2012 Automation Study are available at www.machinesitalia.org.

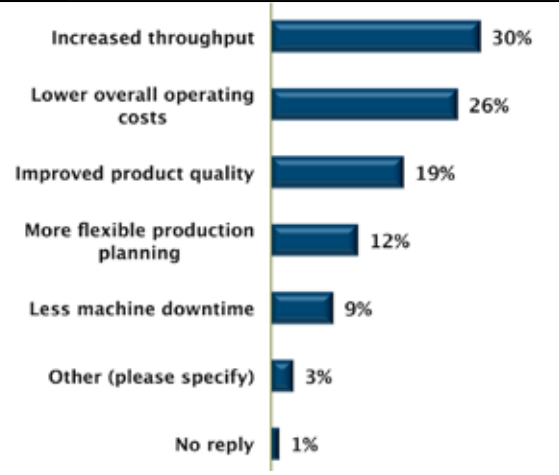
A *When was the last time your company bought a machine or equipment?*



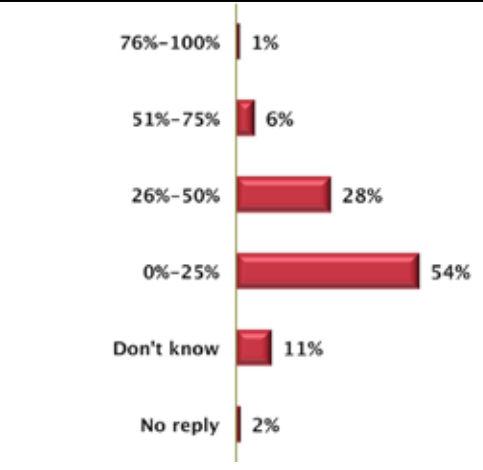
B *When was the last time a new piece of equipment transformed the efficiency or effectiveness by which your division/company operates?*



C *From your perspective, what is the biggest benefit from the purchase of new equipment?*



D *What is the average percentage of improvement from the purchase of new equipment?*



Base for both charts: all respondents (n=342).

THANK YOU FOR CONSIDERING TURNING OUR INNOVATION INTO YOUR PRODUCTIVITY!

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