BAY OF QUINTE
ECONOMIC DEVELOPMENT

QUINTE TECHNOLOGY ADOPTION PROGRAM

2021-2022 REPORT

INTRODUCTION

Local Quinte businesses like Kool Koatings, Reid's Dairy, NOD Apiary, Donini Chocolate, FDF Raceshop, Deca Cables, Mr. Print, Donmac, and Sharkskin Marine Flooring all have two things in common. First, all these businesses, which combined employ hundreds of people in the region, needed to invest in new technology to update and improve their operations. Second, each of these businesses were enabled to invest in new tech through their partnership with the Quinte Technology Adoption Program (QTAP).

QTAP is a pilot project of the Quinte Economic Development Commission to assist Small and Medium Sized Enterprises (SMEs) in the manufacturing sector located in the City of Belleville, Municipality of Brighton and the City of Quinte West through funding to support the adoption of technology. This program, which is financially supported by Quinte Economic Development Commission and Trenval, is in response to input from manufacturers who identified the need to adopt technology in their operations.

QTAP's purpose is helping local manufacturing companies upgrade their technology in order to stay competitive and thrive. These investments have tangible benefits for the companies, their customers, the labour force, and their respective industries.

Their partnership with QTAP improved the way they did business. Some of the investments made were:

- new design software to improve customer experience (Kool Koatings);
- energy efficient cooling systems to preserve product quality (Reid's Dairy);
- a state-of-the-art printer to better meet shipping needs (NOD Apiary);
- an actual robot to assemble chocolatey treats (Donini Chocolate);
- a 3D modeling software to improve speed and accuracy in the modeling process (Sharkskin Marine Flooring).

Improved productivity was one of the highest reported benefits of their investment. But the nine businesses that have partnered with QTAP also reported better employee retention, reduced waste production, improved quality control and energy efficiency, scalability, and improved sales.

These local Quinte businesses demonstrate that an investment in technology through QTAP does not have to be cost prohibitive and can only benefit growth. To learn more about the ways that these businesses invested in and grew with new tech, read on.

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DECA CABLES

Automating Packaging a Boost for Employee Engagement

Deca Cables has been in business for 40 years, relying on a solid production team to meet their customer demands. When the opportunity for some help purchasing new technology was offered through the Quinte Technology Adoption Program (QTAP), they jumped at the chance to free up valuable employee time for more challenging tasks.

As a leading manufacturer of wire and cable for industrial, petrochemical, utility, mining, transportation, original equipment manufacturers and electronic markets, efficient shipping of high volumes of goods is essential to customer satisfaction and business growth. Deca Cable's skilled production staff are needed to support both the manufacturing and shipping processes for the in-house designed and developed cables.

By purchasing new packaging technology for the wire packaging department, one staff member is freed up to do other tasks while one remains to control the new machine. A win for employees and management.

The semi-automatic case forming and packaging station removes the need for two people to manually build, tape, fill and load the boxes for shipping. Automation was needed to not only speed up the shipping process but also to relieve employees of the monotonous task. By reducing the amount of labour required to keep up with the boxing and packaging of the wire, the company can place staff in other areas that require more of their skills.

Canadian Built Technology Helps Deca Cables Increase Production

The new packaging machine is Canadian built by Wexxar Bel based in British Columbia.

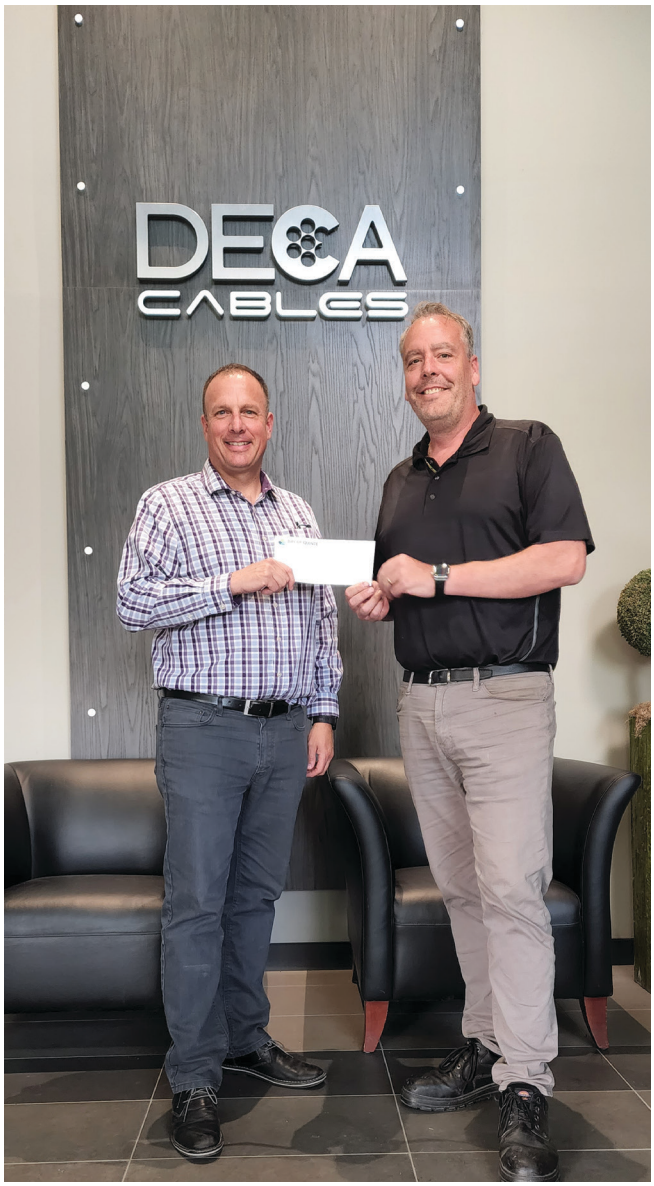
The automation allows the company to better use its staff resources and keep up with a surge in production demand for the wire product. Faster packaging methods mean improved hourly throughput. Since the packaging machine acquisition, the Deca Cables team has reported an increased throughput on average of about 25%.

As for the end product, the new machine produces a better-looking package with repeatable quality of the box. Less and more consistent amounts of tape is used in the automation process helping to reduce waste.

The purchase of the new machine came at a time when business was picking up and staff were getting more difficult to find and retain. Now, with reliable packaging staffed by just one person (not two), demand can be met so the available workforce can be deployed where most needed.

> *Deca Cables has reported an increased throughput on average of about 25%*

The Quinte West-based business has earned Platinum Club status with Canada's Best Managed Companies program. The QTAP support allowed it to automate processes where human talent was previously underutilized, opening up opportunities for staff to both advance their skills and enjoy their work. QTAP was a pilot project that helped manufacturers in the Bay of Quinte region upgrade technology, such as automation, software or robotics.



Successful applicants to the Quinte Technology Adoption Program (QTAP) received up to 50% funding (to a maximum contribution of $10,000) for new technology acquisitions.

REID'S DAIRY

New Chilling System Helps Reid's Dairy Maintain High Food Safety & Quality

Reid's Dairy is the largest independent dairy operation in Ontario. Now into its third generation, the business is still family-run by Stephen, the grandson of the company's founder, Arthur Quickert. Reid's is a popular tourist attraction with ice cream parlours in Kingston and Belleville. The company, founded in 1910, is also a significant local manufacturer and employer in the region. Reid's operates a 50,000-square-foot factory in Belleville, complete with an on-site quality lab.

Dedication to quality and food safety prompted the need for a new chilling system. Reid's Dairy products do not contain preservatives, making proper temperature regulation the highest priority.

With the highly perishable nature of its raw materials and end products, Reid's Dairy needed a reliable chilling system so it could meet demands while upholding high standards for its goods.

The purchase of a Carrier 60 Ton Modular Scroll system offers improved technology, is more efficient, allows an increase in production output and helps ensure the high quality of the most perishable products is maintained.

The purchase of the new chilling system is supported, in part, by the Quinte Technology Adoption Program (QTAP). QTAP is a pilot project that helps manufacturers in the Quinte region upgrade technology, such as automation, software or robotics.

The need for new chilling technology was evident when the existing system was soon to be non-compliant and becoming inefficient, and requiring increasing amounts of maintenance. The old system consisted of four 25-horsepower glycol chillers and two ice tanks with all-manual valves that were running beyond the anticipated capacity. The system's output was limited, and the outdated technology was unable to connect

with the facility's supervisory control and data acquisition (SCADA) system, making it difficult to meet regulations. The new technology will help the company to remain competitive and compliant while ensuring all requirements are met.

Here's how the new chilling system will improve Reid's Dairy production, quality control, energy efficiency and ease of use for employees:

1. The digital technology has its own programmable logic controller (PLC) capable of connecting to a SCADA system right at the facility.

2. It can be monitored continuously both on-site and off-site, anywhere where internet access is available.

3. Its automated system (with automatic flow control valves) is much more efficient.

4. Its increased cooling capacity allows for increased production output.

5. The system provides improved process control and allows the removal of one of the current two ice tanks (an 8,000 lb. tank).

Reid's Dairy employs 51 people in the region. It produces two percent of the fluid milk supply in Ontario, sourcing two-thirds of its raw milk from farms within 100 km of the factory. Its products are sold widely in the province's retail sector. Reid's Dairy produces goods for use in institutions as well.

Here are some Reid's Dairy products you will find:
- Fluid milk,
- Creams,
- Ice cream,
- Frozen yogurts,
- Specialty mixes and custom blends, and
- All-natural juices and drinks.

Reid's Dairy's high-quality products are made fresh with limited processing (no ultra-high-temperature processing) and using natural ingredients. Its packaging is created to be fully recyclable as well.

Reid's Dairy: Local Community Builders

In the community, Reid's Dairy makes significant monetary contributions and supports volunteerism efforts with local charities, food banks, schools, sponsorship and cancer research. Reid's Dairy has adopted an Animal Welfare Oath to help ensure animal health and well-being on the local dairy farms that currently supply its raw milk.

Successful applicants to the Quinte Technology Adoption Program (QTAP) could receive up to 50% funding (to a maximum contribution of $10,000) for new technology acquisitions.

SHARKSKIN

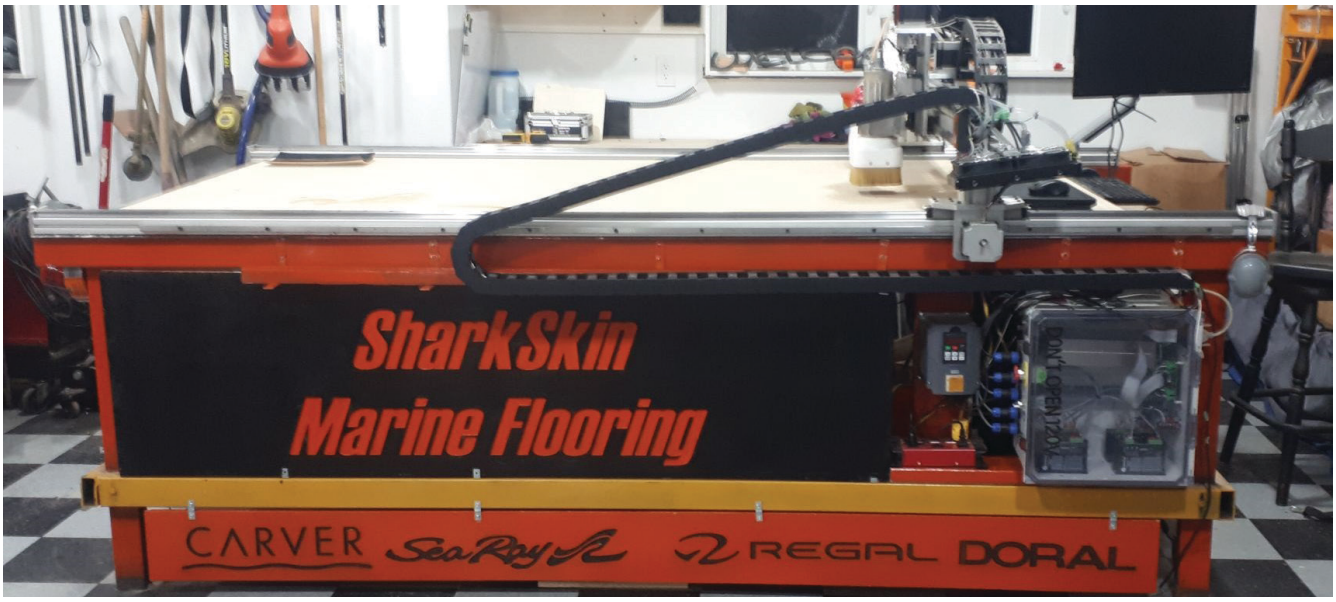
3D Modeling Software Is the “Bigger Boat” for SharkSkin Marine Flooring

Scott Connors at SharkSkin Marine Flooring knows how to keep up with demand for his custom Ethylene-vinyl acetate (EVA) flooring for boats. Step one: improve the speed and accuracy of the manufacturing process from the initial measurement to the final cut.

With the help of the Quinte Technology Adoption Program (QTAP), he was able to get what he needed to accomplish that first step: new cost-effective technology that performs 3D scanning to gather 2D and 3D measurements of a boat’s deck to generate digitized photos that are then manipulated using the software.

As Connors gears up to make SharkSkin Marine Flooring a full-time venture, the purchase of the computer numerical control (CNC) router to help create custom-cut logos in the EVA foam sheets is an essential piece to ensure the business keeps up with demand. CNC routing is the only method for machining and cutting raw EVA foam sheets accurately and quickly to the customer’s specifications.

The PhotoModeler digitizing system removes the need for manual creation of the 2D templates. It uses a camera right on the client’s boat to perform the measurements. The CNC router lets the manufacturer create unique multicoloured flooring patterns in a sheet of flooring to fit each individual boat. Using the new PhotoModeler software, ordinary digital photos are converted to computer files that can assign accurate measurements of the floor space. The files are then converted to the file type used by the router.



Here's how the updated technology speeds up the manufacturing process and retains high-quality workmanship:

1. Consult with the client about what they want their custom marine flooring to look like,

2. Create a digitized template based on the customer's designs and colours and take a 2D or 3D scan of the deck/floor,

3. Use the PhotoModeler software to convert the information into CAD format so the router can quickly and accurately cut the flooring material.

SharkSkin Marine Flooring Banking on Speed & Accuracy to Grow

The efficiency of the new technology means Connors, the sole employee so far, can:

- Increase production. Removing the need for hand measuring each project and hand cutting the mats and individual designs while maintaining accuracy increases both the volume and complexity of projects the business can take on.
- Improve quality: Using computer-generated measurements, the CNC router accurately and quickly cuts the EVA sheets to exactly fit the boat, making for a faster installation.
- Reduce costs: More accurate templates mean better use of the coloured EVA material. The router can be programmed to optimize cutting patterns to lessen waste. Eliminating the need for hands-on measuring saves time throughout the project as well.
- Increase sales: Increasing production-process speeds means more time to produce more products, which meets the high demand of boat owners who like to personalize their boats.
- Reduce waste and rework: The new technology system allows for the optimization of the cutting process, reducing material waste.

The Quinte-based marine flooring manufacturer applied to QTAP to ensure that expanding his business could be done efficiently, using the latest industry technology to boost sales and meet consumer needs. QTAP was a pilot project that helped manufacturers in the Quinte region upgrade technology, such as automation, software or robotics. Successful applicants to the Quinte Technology Adoption Program (QTAP) received up to 50% funding (to a maximum contribution of $10,000) for new technology acquisitions.

FDF RACESHOP

New Parts Manufacturing Technology Helps FDF Raceshop Put the Pedal to the Metal

For Josiah Fallaise, working with fast car aficionados meant swift business growth and the need for speed. Manufacturing speed that is.

Times have changed for Fallaise who started fabricating parts and building drifting race cars for his customers in his spare time. That was 2015. Today, he's the owner of FDF Raceshop, a fast-growing automotive customization business. Now he needs new technology to keep up with the high demand for FDF Raceshop's high-quality customization and repairs. Fallaise designs parts to enhance his clients' driving experience — whether they own BMWs or Toyotas — working with customers in North America and around the world. He still builds his own cars too, racing them — and winning.

Even as an engineering technician and self-taught fabricator creating many of his parts by himself, Fallaise relied on international resources for computerized numerical control (CNC) lathe work. By purchasing a CNC lathe, with help from the Quinte Technology Adoption Program (QTAP), FDF Raceshop gained the capability to manufacture custom components consistently and accurately without the hassle of outsourcing parts.

A CNC lathe is a significant investment in the company's growth as FDF Raceshop strives to meet client needs, expand services and move its operation closer to being 100% Canadian.

How New Tech Builds Car Customization Business

The high-speed, highly accurate machining capabilities of an in-house CNC lathe means the difference between the potential for bad parts and a stalled production schedule and fast, quality-controlled parts manufacturing overseen by Falaise and his skilled team.

The new machine is fitted with a bar feeder, which is a programmable robot that feeds the machine material, steel and aluminum. The machine is also fitted with multiple tool holders and a tool changer. More precise manufacturing means more efficient use of material, and what metal waste there is will be recycled nearby, benefiting local metal companies.

> *Staff project a 30% increase in production with no need to use international manufacturers*

The new technology's benefits to the race shop are more than simply better-quality parts. Staff project a 30% increase in production with no need to use international manufacturers. As production increases long term and per-part costs will be reduced. Even better, a technician is needed to run the machine, creating another specialized job in the Quinte region.

The Quinte West -based FDF Raceshop applied to QTAP to help offset the costs of the new manufacturing technology so Josiah could continue to reinvest in the business in other ways. QTAP was a pilot project that helped manufacturers in the Quinte region upgrade technology, such as automation, software or robotics. Successful applicants to the Quinte Technology Adoption Program (QTAP) received up to 50% funding (to a maximum contribution of $10,000) for new technology acquisitions.

DONMAC

Donmac Precision Machining Welcomes Next Generation of Manufacturing and Technology

Donmac Precision Machining Inc. has room to grow - in their brand-new Foxboro, Ontario facility and into the new technology that the next generation of machinists and manufacturing technicians want to use. For the last 34 years, Donmac has created mission critical components for defense, aerospace, medical and electronics markets. Donmac's growth has never been more obvious than over the last 5 years, when Donmac has been growing their capabilities in the defense and medical industries; their latest projects include complex assemblies for a large project involving Navy ships. These industries require tighter tolerances, faster lead times, and more complex parts requiring better capabilities, faster setups, and more machine time from Donmac.

> *Donmac has grown their customer base allowing them to expand their reach into medical markets.*

Out With the Old, In With The Next Gen of Manufacturing Tech

Donmac decided to embrace new technologies that would allow faster setups and tighter tolerances then their multi spindle machines. The new technology includes a complex CNC Lathe with auto-loading and unattended machining capabilities. Some of the high demand features of this machine include:

1. Automatic bar loading system which automatically removes old workpieces and inserts new raw materials

2. LFV (low frequency vibration) cutting technology which allows Donmac to machine exotic materials that are prone to build up. The LFV cutting action breaks up the build up to stop clogs from forming within the machine, and allows for fewer to no operator interventions while the machine is running.

3. Conveyor system that carries the finished product out of the machine to the machining bay and into the operator inspection basket, so it can be inspected and passed to the next step in the process without stopping the machine.

4. Chip conveyor which evacuates cuttings so that the machine can continue production without being stopped for clean out.

Supported by QTAP (Quinte Technology Adoption Program), Donmac was able to make the switch from their out of date multi-spindle machines to the new CNC Lathes and have witnessed growth and efficiency improvements for the company. The CNC Lathe with auto-loading and unattended machining technology have:

- Given Donmac the ability to compete with US competitors
- Improved run time by allowing Donmac to run the machine for longer periods without attending to the machine - the “unattended machining”
- Improved operator training time since, with the new CNC Swiss lathes there is a network of solutions, including YouTube channels and Facebook groups, to help users with programming and machine set up
- Off-site training is also available, a feature that no longer existed with Donmac’s older technology
- Increased sales by taking on more complex work, as well as made up for profit losses after Donmac retired the multi-spindle machines
- Grown their customer base allowing them to expand their reach into medical markets, which have tight tolerances and require exotic materials
- Created jobs by allowing Donmac to hire 1 new machinist and 1 new apprentice

Donmac’s success can be attributed to their understanding of the changes in the industry and their decision to improve with QTAP. Successful applicants to QTAP could receive up to 50% funding (to a maximum contribution of $10,000) for new technology acquisitions.

MR. PRINT

PRECISE PRINTING TECHNOLOGY MAKES ITS MARK AT BELLEVILLE PRINT SHOP

The Mr. Print story started in a garage 24 years ago. It has grown from a home-based initiative to a multi-product print and sign company operating out of 487 Dundas West in Belleville and serving clients locally and across Canada. Mr. Print offers print and sign work plus advertising, design and expertise. Increased demand for Mr. Print quality print jobs made it obvious that a new state-of-the-art finishing machine was needed.

Norm's original partner David Pepper left in 2018. Norman Clifton and his daughter Amanda Carson now run the business.

Having grown the business from the ground up with limited resources, the opportunity to once again increase sales opportunities and maintain high-quality products with the help of the Quinte Technology Adoption Program (QTAP) helped move the shop to the next chapter of its story.

The QTAP-supported purchase was a PT 8336SCC Multi, a complete full-bleed finishing system designed for the digital marketplace. Now Mr. Print staff can make quick work of popular print jobs such as business cards, greeting cards, invitations, brochures, pamphlets, catalogues, posters, book/CD covers, photographs and tent cards.

What's great is that the automated technology can switch seamlessly from creasing to perforation dies and create custom perforation when "T" or "box" perforations are required. Very little operator intervention is needed, so there are fewer bottlenecks and quality issues. The system increases processing speeds as well. For example, for sheets up to 400 grams per square metre (gsm), prints can be done at speeds of 25 sheets per minute (8.5" x 11", 2 cuts, 1 crease).

The new capabilities have increased productivity and allowed for new products to be offered on-site.

The automated steps, from prepress to finishing, save up to 70% in setup time so more customers get more products, faster. The increased profit and time mean more investment in other avenues of the business plus new opportunities for employees relieved of the stress of meeting the demanding order schedule. With a crew of five, employee time is a valuable resource. The new capabilities have increased productivity and allowed for new products to be offered on-site.The high accuracy and easy setup means less waste, and higher profit. The software and integration makes it easy to transition between jobs, and a workflow option keeps the orders in check.

With the help of QTAP, the Belleville-based print and sign shop can continue to grow its already successful business that includes large format and digital printing along with the product lines improved by the new PT 8336SCC Multi. QTAP was a pilot project that helped manufacturers in the Bay of Quinte region upgrade technology, such as automation, software or robotics. Successful applicants to the Quinte Technology Adoption Program (QTAP) received up to 50% funding (to a maximum contribution of $10,000) for new technology acquisitions.

DONINI CHOCOLATE

Local Chocolate Maker Implements New Technology to Meet Growing Production Demands

Donini Chocolate is well known as the maker of mouthwatering chocolate treats. Led by Director of Operations Kimberly Bushell the company saw increasing demand for their tantalizing creations, prompting a need for faster, more efficient equipment to satisfy output in their chocolate shop and retailers.

The company had to find a way to meet increased production demands while maintaining the quality, handcrafted care that goes into each batch. The solution was to purchase and implement a Pick-and-Place Motoman Robot. The robot assembles chocolate-filled hollows quickly, approximately 12 per cycle. The technology speeds up production times, and its precision decreases waste and allows for adaptation in processes. This flexibility offers more production opportunities as the company continues to grow.

The purchase of the Pick-and-Place Motoman Robot was supported, in part, by the Quinte Technology Adoption Program (QTAP). QTAP is a pilot project that helps manufacturers in the Quinte region upgrade technology, such as automation, software or robotics.

Here is how the new technology works. The Motoman Robot creates an assembly cell that repeatedly produces chocolate spheres fast. The robot vacuum picks 12 demi spheres per cycle and assembles 12 complete spheres per cycle. This rate of production is unprecedented in the Donini factory. With a placement accuracy of 0.005 mm on this production line, time is saved and wasted chocolate (gasp) is limited. While automation speeds up the base chocolate production, the human chocolate makers still do the finishing touches, such as decoration or candy and other flavour additions, by hand.

Though the Donini Chocolate company headquarters have been in Belleville since 1980, its unique chocolate creations and master chocolatier are rooted in Italy. Vigilio Salvoni helped introduce Donini Chocolate excellence to Canada, bringing a talent honed by generations of family chocolatiers. Carrying on the more than 80-year tradition of creating wonderful chocolate treats using simple ingredients and practiced methods, the Donini team of 25 (50 in the busy season) can chalk up this production line improvement as another success in the quest to have their chocolate


Introducing
COCOA Bee
CHOCOLATE RE-INVENTED
73% COCOA
Chocolate made with 3 simple ingredients
COCOA BUTTER
NATURAL COCOA POWDER
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Sinfully rich, creamy & delicious chocolate without all the other
"stuff!"
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REFINED WHITE SUGAR
ARTIFICIAL SWEETENERS
CANE SUGAR
PRESERVATIVES • TRANS FATS
ADDITIVES • COLOUR • SOY
With every bite, you are supporting prosperity for cocoa farmers and their families as well as championing initiatives that research and foster the bee populations.
#savethebees
FAIR TRADE CERTIFIED COCOA
TRUE SOURCE HONEY
NON GMO

enjoyed worldwide.

Donini Chocolate's popularity stems from its high-quality flavours (boasting 25 liquid chocolate formulations), its use of non-GMO ingredients and its no-sugar-added line of chocolates. A Kosher designation, a rarity for chocolate manufacturers, also adds to Donini's widespread appeal.

As a community-minded company, Donini is an active employer of skilled local workers. The company works with Loyalist College to train and hire and provides work opportunities to Community Living clients. Donini provides its custom moulds to the local humane society to boost fundraisers and promote City of Belleville and Bay of Quinte Tourism. The company also supports Gleaners Food Bank, donating chocolate and items for its raffles.

The Donini dedication to quality and integrity is also evident in their support of international humanitarian and environmentally-based initiatives. They work to eradicate child labour by sourcing cocoa from socially responsible partners, and they work to promote and source sustainable cocoa production to halt deforestation. Donini and its partners are also active in fostering farmer education and prosperity, including for women, by helping them develop better technologies in farming practices.

In 2018, Donini Chocolate received the 2018 Quinte Business Achievement Award for Business Excellence. Their products, such as white, milk and dark chocolate, gourmet crunches, peanut brittle, and CocoaBee (a chocolate and honey product) are sold locally from their storefront at 335 Bell Blvd., in Belleville, and from local businesses such as The Big Apple in Colborne as well as many wineries across the Quinte and Niagara regions. Donini products are also available at Yummy Market locations, in Sobeys stores under the Cocoa Canyon brand name and under the Donini Chocolate brand at Costco.

Successful applicants to the Quinte Technology Adoption Program (QTAP) could receive up to 50% funding (to a maximum contribution of $10,000) for new technology acquisitions.

NOD APIARY

Game-Changing Printing Tech a Boost to NOD Apiary Products Growth

When your company strives to protect honey bees and build a reputation globally, having a high-quality, reliable printer is essential to make the process easier. NOD Apiary Products Ltd. recently acquired a Trojan T2-C Tabletop Mini-Press Label Printer to better meet its label-making needs as shipping their bee health-boosting products ramps up across Canada and internationally.

The purchase of the Trojan T2-C Tabletop Mini-Press Label Printer was supported, in part, by the Quinte

Technology Adoption Program (QTAP). QTAP is a pilot project that helps manufacturers in the Quinte region upgrade technology, such as automation, software or robotics.

The Canadian company headquartered in Quinte West has products registered across Europe, North America and New Zealand. With market authorization to expand in 23 European regions, there are plans to reach Switzerland, Serbia, Turkey, and Middle East and North Africa (MENA). This extended international reach highlighted the urgency for a more advanced printer.

Making do with the existing printer was no longer viable. Hard to replace parts, high operational costs, low-quality and defective prints combined with an overall inability to meet label application needs was a hindrance moving forward. Enter a new, large-volume tabletop label printer offering high-resolution inkjet quality and precision printing. The new printing solution ensures NOD can meet the high volume

of printing and variable specifications required for new markets—a capability that the current in-house printer could not provide resulting in higher costs and outsourcing to external vendors.

Good Print Technology is Time Saving and Energy Efficient

As a producer of sustainable, convenient and effective honey-bee health products, increasing efficiency while limiting waste in the shipping process is in-line with company values.

The Trojan T2-C makes it possible for NOD to uphold high-quality standards, maintain environmental stewardship plus deliver ROI to stakeholders. The advanced printer combines higher quality labelling with less waste. Lower maintenance costs and limited defects and waste means increased production with less environmental impact. The advanced software and label design capabilities facilitate ease of operation for staff and flexibility for frequent changes. Faster print turnarounds decrease production downtime and its associated costs.

Here are some examples of how a printer impacts production, efficiency and environmental impact.

NOD currently prints 11 different types of labels with volumes of approx. 13,500 per month in-house and outside processing label volumes of approx. 1200 per month. The T2-C printer meets NOD's complex label printing needs offering high resolution and fast print speeds suitable for its cardstock, food-grade and metallic packaging, making its shipping processes self-sufficient. More efficiencies with the new technology include:

- A decrease in per-print costs from 2.2 cents/copy to 1.6 cents/copy. That is an average of 30% savings in ink costs.
- Virtual elimination of defective prints. Waste on current printing operations monitored over two months was approximately 6.3% (or approx. 850 labels).
- Significant decrease in parts costs on print heads alone. The T2-C uses one print head costing $875 whereas, the former printer required two print heads costing $6400 and had to be replaced twice in six years.


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NOD
NATURES OWN DESIGN
APIARY PRODUCTS

Why It's Important to Get NOD Apiary Products Everywhere

NOD Apiary Products Ltd. protects bees and animal health worldwide, naturally. The Healthy Bees, Healthy Plant vision is evident in NOD products and company culture.

> *"Bees pollinate 1 in 3 bites of food we eat and are vital to a healthy ecology", according to The Bee Conservancy (TBC).*

NOD developed and now manufactures products to help beekeepers and farmers transition from synthetic chemicals to naturally sustainable products. Their formic acid strips protect honey bees from the devastating Varroa Destructor Mite. Plus, the Bee Cozy™ Winter Hive Wraps prevent unnecessary heat loss. The cozies also help bees to conserve feed stores over the winter, helping the honey bees to build up in the spring.

NOD was founded in 1997 by beekeepers in Frankford, Ontario. With 30 plus employees now, the company has also recently expanded in Trenton in Quinte West with a new manufacturing facility and office space. The site is also the future home of the Honey Bee Health and Education centre.

In 2011, NOD Apiary Products received the Ontario Premier's Award for Agri-Business of the Year. Previously, the company received the Agri-Food Innovation Excellence award (2006) and the Innovation Project of the Year (2008).

Successful applicants of the Quinte Technology Adoption Program (QTAP) program could receive up to 50% funding (to a maximum contribution of $10,000) for new technology acquisitions.

KOOL KOATINGS

Build Your Own Technology Means Kool Koatings' Customers Can Customize Before They Buy

Kool Koatings has been giving customers high-quality custom-coated designs since 2013. Now, it's the number one rated production-level custom coatings manufacturer in Canada. Pretty good for a father and son team just doing what they love. Sharing their talent with people wanting unique looks for merchandise such as cars, sports equipment and hunting paraphernalia means better access to a bigger consumer base.

Kool Koatings' new "configurator" system, a must-have for manufacturers, lets consumers add their input before orders are processed in the shop. The new technology is an important boost for this local business, as no others in the Cerakote polymer ceramic coatings or hydrographic industry are using such an approach. Purchase of the new web-based customization and online shopping software is supported, in part, by the Quinte Technology Adoption Program (QTAP). QTAP is a pilot project that helps manufacturers in the Quinte region upgrade technology, such as automation, software or robotics.

Here are some services Kool Koatings offers:

1. Cerakote - a polymer Ceramic applications involve different mixtures and temperatures that can coat just about any solid material.

2. Hydrographics are printed-ink designs transferred from pre-printed membrane to a pliable ink using water, then applied to any 3-dimensional surface made of wood, metal, polymer, plastic and even glass.

3. Fiber-laser allows the shading of an existing colour, deep-engraving and anything in between.

4. Powder coatings are based on polymer powder resin systems combined with curatives, pigments, levelling agents, flow modifiers and other additives that can be used on multiple surfaces.

The interactive product configuration process — the “configurator” — lets the user choose a feature and, once validated, allows the user to make the next choice.

For Kool Koatings, this opens up a much larger client base. Not only is the customization process convenient and fun for buyers, the reach offered by the web-based technology as a website will help attract more clients to the business, wherever they are.

Kool Koatings has solidified its reputation for unique, custom-designed surface finishes. The new technology makes it possible for them to meet the demand for finishing manufactured products with specialty coatings and customized looks.

What makes this system more appealing is that it allows for user-friendly, unique customizations, such as colour. The product appearance changes as users make their choices. Users also get to try out different parts, textures and components of the product. Online order processing is simple for the consumer and helps increase both throughput and productivity.

Some website elements will even allow the suppliers of government and defence industry orders to complete their order with access-only passwords. Some products in Kool Koatings’ RCMP-approved "Controlled Goods'' facility are of a sensitive and confidential nature.

While Kool Koatings has an existing customer base of both individual and large manufacturers almost solely marketed through word-of-mouth, the capacity is there to increase production. Reaching a bigger audience is a key way to maximize productivity and get the company’s unique, quality product sold to consumers around the world. The new technology allows for user-driven online shopping options with minimal company input.

As a distributor for a few related retail product lines (Pelican, Longshot, Edge) that can also have unique surface finishes applied based on customer preferences, the system opens up access to consumers of these goods as well.

A steadier influx of clients ensures that Kool Koatings’ skilled employees can use their talents full time whether sandblasting, powder coating, Cerakote polymer ceramic coating, hydrographic dipping, laser marking, engraving or etching.

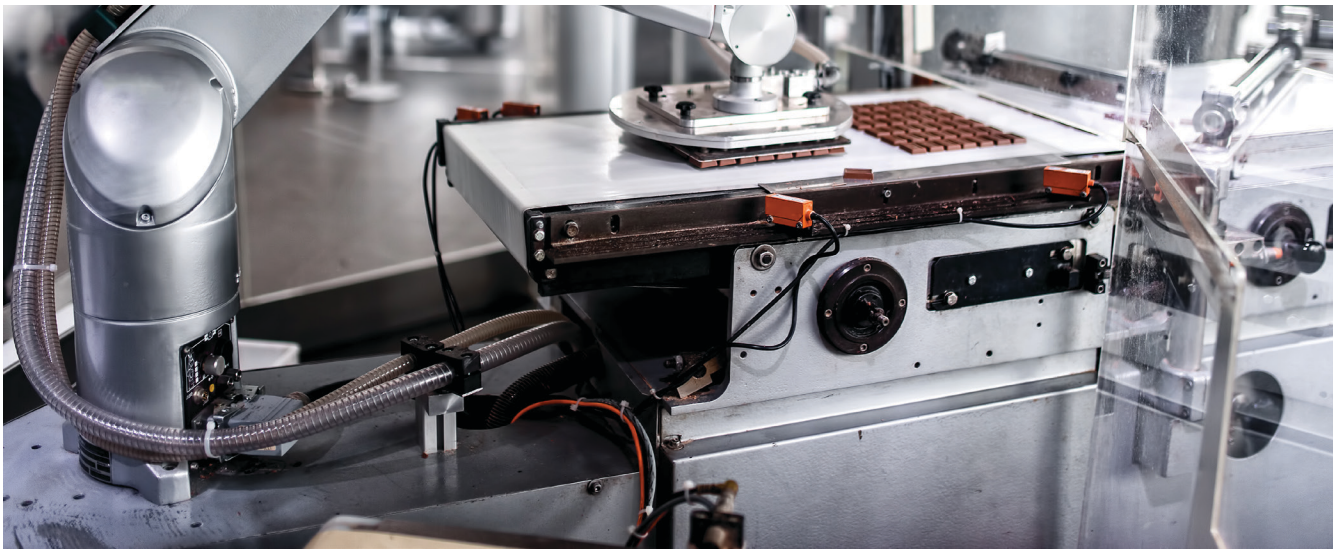
Kool Koatings Technology Upgrade Improves Business

Any new purchase is better if it provides wide-reaching benefits to the business and its employees. Here is how Kool Koatings improved:

- Increase in productivity: Consumer customization options let potential buyers do a lot of the initial design themselves before staff need to get involved. There's more time for fine-tuning and unique finishing touches when the basic details are already established without the need for staff input.
- Increase in sales: The new website is interactive, and purchases can be completed without a call to the shop (as had been the case). Not only does this save time, but it also allows consumers to get what they want when they want it with the option to reach out for assistance if needed.
- Increase in production: The new technology allows online shopping for options with different colours and patterns, so orders for custom work production levels will accelerate simply through the ease of use of the ordering process.
- Impact on the workforce: The new technology contributes to more consistent orders, meaning more work for skilled employees to remain on staff.
- Reduced waste and rework: In a very specialized business like Kool Koatings, training can create waste and the need for reworked products. Reduced staff turnaround, which is a result of increased web-based sales, can mean less waste as the instances of new trainees and mistakes in the learning process drop.

Successful applicants to the Quinte Technology Adoption Program (QTAP) could receive up to 50% funding (to a maximum contribution of $10,000) for new technology acquisitions.

Conclusion



The Bay of Quinte region manufacturers provide good-paying jobs, economic activity and positive spin-off for the region's economy. EMSI Analyst reports show that over 50% of the QEDC's region's economic output is generated from the manufacturing sector. The manufacturing sector continues to struggle to find employees in all positions from entry-level workers, to skilled trades and leadership positions. The region is employing several strategies to support the sector including new worker and incumbent worker training through Elevate Plus, attracting new workers to the region and raising awareness to attract more local people into manufacturing careers through the Proudly Made in Bay of Quinte Region program.

The QTAP pilot project demonstrated at the regional level the benefits of increasing technology adoption with individual manufacturers by addressing the financial barrier to technology adoption in the manufacturing sector. Trenval Business Development Corporation and Quinte Economic Development Commission graciously provided the funding QTAP. Special thanks to QEDC's Mike Hewitt , Manufacturing Resource Centre Coordinator for managing QTAP. Applications for this pilot project were reviewed through a competitive process by a panel with representatives from QEDC, MRC, QMA and Trenval. The panel assessed company needs for the funding to adopt the new technology as well as the magnitude of the benefits that each company was expecting from the adoption of the new technology.

We also recognize the manufacturers that successfully applied to the program and implemented the new technologies in addition to investing their own capital in to the projects. The funding from QEDC and Trenval was successfully leveraged through further investment by the manufacturers. For every dollar from QEDC and Trenval manufacturers directly invested

> *Over 50% of the region's economic output is generated by manufacturing*

approximately $10 of their own funds on the projects. Project sizes ranged from less than $10,000 to over $350,000.

Manufacturers have clearly identified the need to adopt new technologies and automation in their facilities to improve performance and capabilities and redeploy workers from lower skilled, labour intensive activities to higher-level activities within the plant. This issue was identified in the March 2020 Bay of Quinte Region Manufacturing Sector Technology Adoption report that was produced with input from local manufacturers. The results of the QTAP program reinforce the need for manufacturers to invest in technology and automation. The following conclusions are derived from QTAP participant feedback and input from on-going QEDC industry outreach:

- Labour supply continues to be a challenge for manufacturers in the foreseeable future and the adoption of technology is one part of the solution to address labour shortages
- There is an on-going need for financial support for manufacturers to adopt technology
- Funding support accelerates technology adoption timelines, resulting in improved company performance and does not result in job losses.
- Funding support programs are most effective when they are industry driven, timely, flexible, relevant, easy to apply to and move at the speed business
- Implementing technology requires higher skill sets, and knowledge for the incumbent workforce to successfully manage the new technology.

Building on the success of the QTAP pilot project, QEDC will work to identify and secure funds for future technology adoption programs.

Helping Local Business Thrive
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