



From left James, Louis and Justin Taraborelli pose for a family group shot at WeighPack's state-of-the-art factory in Montreal, one of Paxiom Group's nine global facilities that include manufacturing operations in four countries.

The sum of all parts

Leading-edge automation technologies help Canadian OEM set new benchmark for machine performance and equipment effectiveness

What sets a strong service-oriented company apart from a weak one? If you ask Justin Taraborelli, vice-president of operations for Montreal-based WeighPack Systems Inc., it's a complete supply chain.

"To be a strong service company and a strong people company, you also need a strong supply chain and that includes the way you treat your supply chain," Taraborelli states.

"We choose partners, we don't just buy from suppliers. We make sure they can support us so we can support our clients, and it's a completely integrated chain," he says.

Part of the globally operating Paxiom Group of companies,

WeighPack is a renowned provider of automated primary packaging machines, including weighing, filling, bagging, wrapping, conveying and turnkey systems.

The company serves a variety of industries around the globe, predominantly related to consumer goods for the food and pharmaceutical sectors.

"Basically, anything you see when you walk through a grocery store or a pharmacy, we've got a machine for that," Taraborelli says.

For WeighPack to offer high-precision packaging machines to clients around the world, they require a strong global supply chain,

"If we do have a problem in the field, it doesn't matter where the source of the Omron products came from, we can count on Omron tech support on a global level."



Justin Taraborelli (left) and Frank Pennimpede, Omron's regional sales manager for eastern Canada, share a moment discussing features of an Omron controller.



Omron's AC Servo Series with built-in EtherCAT communications.

and one of the key components of that supply chain for the past years has been Omron Automation Americas.

Headquartered in the Americas out of Hoffman Estates, Ill., with locations across Canada, Omron is a global leader in industrial automation technology. With a comprehensive portfolio spanning sensing, control, safety, vision, motion, and robotics they provide their customers with a complete automation solution backed by a strong service and support network. "Based on the amount of volume and experience we've had with Omron, I can say that over the years, Omron products have been extremely reliable," says Louis Taraborelli, founder of WeighPack Systems.

"I've never received customer complaints or anyone calling to say, 'Hey, we're getting a tremendous amount out of service calls due to the controls on our products.'

"They (Omron) have proven to be very reliable," he adds.

"We have machines today still running, 20 to 25 years later, on older-generation PLCs (programmable logic controllers) from Omron that are still very functional today."

Louis says the high level of service that Omron provides on a global scale has made them a key partner in the success of WeighPack's business.

"Omron has been a super partner to work with from a global support perspective," he says.

"If we do have a problem in the field, it doesn't matter where the source of the Omron products came from, we can count on Omron tech support on a global level!"

"For example, Omron Canada will support you even if we buy from Omron in Italy or China," adds Justin. "It's really easy."

"You don't have to go through some terrible phone system and beg for support: You can always get a hold of someone." "There's a lot of value in that."

Omron has also set itself up with a strong network by building a value-add distribution network.

"So it's not just Omron directly; it's the re-sellers that they've chosen to partner with as well," Justin says.

"We're have over 30,000 employees in 120 countries worldwide," says Frank Pennimpede, regional sales manager for eastern Canada at Omron Automation Americas.

"We tell WeighPack whether they buy products here in Montreal, China or North Africa, wherever you may be, you're going to get the same high level of support worldwide."

Over the years, Omron has supplied a diverse variety of automation



Justin Taraborelli (left) and Frank Pennimpede, Omron's regional sales manager for eastern Canada, share a moment discussing features of an Omron controller.

technologies for WeighPack's machinery.

In WeighPack's SleekWrapper ValTara flow wrapper series, for example, Omron's control technologies give the flow wrapper four axis of motion on the panel.

"Our function blocks in our PLCs for motion are pre-tested and help in reducing the programming needed," Pennimpede says. "This helps them a lot."

The first two are for the thin ceiling and front and rear ceiling of this machinery, he explains, while the third and fourth blocks are used for the tensioner and the unwinding of the film.

Omron also supplied two variable frequency drives (VFDs) used to lower and raise the ceiling jaws of the machine.

"All of it is connected through our EtherCAT network to the PLC to have everything connected," Pennimpede points out.

"In there we have function blocks, and an instruction set that accelerates or decelerates the various points we have to attain for this machinery," he explains.

Omron technologies also power Weigh-Pack's VerTek range of vertical bagging machinery.

"We have our Omron PLC from the CP H family along with our temperature control card in there, which controls the top and rear jaws," Pennimpede says.

"We have safety relays that secure this machinery from A to Z and another safety relay that controls our door switches on this unit in case of emergency."

Motion applications are particularly important for automated bagging technologies like the VerTek machines.

Pennimpede says there are a few key factors that are important when it comes to bagging.

The first is having a marker to make sure the bag aligns properly, he explains, which is performed with sensors.

The second is ensuring speed and accuracy.

"In the bagger, through our instruction set, we were able to get the speed required, resolution required, and the precision required," Pennimpede says.

"You'll get bags that are consistently filled out properly, so you won't get waste, and also get high throughput as well." "Those are the things that WeighPack looks for in their machines."

For WeighPack's SpinDexer filling machinery, Omron has supplied the CP H series PLCs, along with safety relays, to control the opening and closing of the doors.

"It controls the 16 heads to rotate and have the non-liquid fill up the bottles at a certain level, doing 60 to 70 bottles per minute," Pennimpede says.

"It's a modular type of system. Our PLCs can go from four, eight, 12 or 16 bottles that you can program for.

"The other good thing is we don't do is create overflow," he says, "which is really important.

"The pre-test function blocks help tremendously, as the speed to fill up those bottles is pretty quick.

"We can do batches of four, eight or 16, so you get high throughput at a high speed."

Over the past few years, Omron and WeighPack have been working together on building high-precision packaging machinery for an industry



Manufactured by Paxiom, the SleekWrapper ValTara series automatic flow wrapping machine above incorporates advanced Omron servo drives and inverters (bottom left) to ensure precise motion control and product positioning at exceptionally high operating speeds of up to 200 packages per minute.

that blends in perfectly with the grocery and pharmaceutical sectors: the cannabis industry.

“The cannabis industry for us was rather organic,” Justin Taraborelli relates.

“We build high-precision packaging equipment that is a seamless fit into cannabis production.

“Through our brand recognition and relationships we’ve built in cannabis, it created new opportunities for us.

“There was strong demand for packaging pre-rolls, and the JuanaRoll, which we developed with Omron as our partner, has been a tremendous success,” Taraborelli states.

“It’s a high-precision machine that is extremely technologically complex on the back end, but on the front end it’s rather seamless and intuitive—easy to use, easy to maintain, easy to operate, and

allows for tool-less changeover.”

Justin says the JuanaRoll automated pre-roll machine has become an overnight success with cannabis producers.

“The thing we’re most proud about is that repeat sales are coming because our clients believe in the machine,” he says.

“It’s proven to perform what’s expected, and now the customers are coming back for second and third machines,” he says.

One of the key components of the JuanaRoll machine is Omron’s Sysmac PLC automation platform, the company’s latest machine automation platform from Omron with integration throughout: from controller to software.

According to Omron, the guiding principles behind the Sysmac automation platform are having one control for the

entire machine or production cell; maintaining harmony between machine and people; and using open communication and open programming standards.

The automation platform features a new machine automation controller designed to integrate motion, sequencing, safety, networking and vision inspection; a new software (Sysmac Studio) that includes configuration, programming, simulation and monitoring; and a fast machine network (EtherCAT) to control motion, safety, vision, sensors and actuators.

Justin says that it’s the software that sets Omron apart from the competition.

“We really like Sysmac Studio software,” he states.

“It’s easy to use, it’s intuitive, it has an integration feature that we think is really smart, and it helps us managing our revisioning much better in collaborative programming,” he says.

“They (Omron) have also introduced some non-industrial standards that help us make fantastic, intuitive HMI (human-machine interface) terminal. “This is a revolutionary terminal that is so quick that it can do five jobs in one.

“It can act like a PLC; it can support motion applications; it can support safety applications; it can support vision applications; and it can also support PC-type applications by working with SLU databases.

“It can do quite a bit,” Pennimpede says, “and it’s especially quick with motion applications.



Also manufactured by WeighPack, the SpinDexer container filling machine on the right incorporates Omron's Sysmac CP1H PLCs (programmable logic controllers) shown in the pictures below to fill up to 60 to 70 bottles per minute with various types of dry and powder products.

"The response time to get the products from A to B, or on an indexing table, is really fast.

That's why when we offer a kit with PLCs, HMIs and servos, OEMs get something that's really valuable for what they're paying."

WeighPack also spec'd in the 1S Servo System package, whereby the first servo controls the compactor; the second controls the dampener; the third controls the twister; and the fourth the conveyor.

"All of this is connected through EtherCAT technology to the EtherCAT network. It goes to our PLC which controls all the I/O on the machinery," Pennimpe says.

Justin says the servo package offers seamless integration with the rest of the Omron package.

"It's been easy to use. It's a reliable servo and it's instrumental for the performance of the machine," he says. "It's really intuitive and it all works seamlessly together."

Pennimpe worked with WeighPack on creation of the very first JuanaRoll machine.

"We're starting to build more and more of these," he says.

"This was one-of-a-kind, but since then, we've had other OEMs reach out and ask for some help," he says, adding that reduction in labor costs and improvements in efficiencies are key drivers for the purchasing decisions of cannabis producers.

"Today with COVID restrictions and the goal of limiting human contact, the customer is always looking to automate their machines as much as possible, whether it's by robots or automation systems."

While quality, durable components and global-reaching high-level customer service and support have been key reasons for WeighPack's long-standing relationship with Omron, cost has also been a deciding factor.

"As an OEM we're cost-sensitive, and our clients are cost sensitive," says Justin Taraborelli. "Omron's PLCs are easy to use and they're reliable.

Says Taraborelli: "For the amount of pressure we're putting on the servos, we could use any brand.

"But for us, it is much more about the ease-of-use and programming. Omron has a really nice software suite that lays out a nice product road map for their studios."

For his part, Pennimpe says Omron's latest PLC system offers quick response times, and that its servo-driven motion control system comes at a reasonable price point.

"We offer quality equipment and a good bang for your buck," he says.



Omron servo drives and inverters ensure precise motion control and product positioning at exceptionally high operating speeds of up to 200 packages per minute.

All in all, Louis Taraborelli sees a bright future for Omron and its partnership with WeighPack.

“We like the direction Omron is going in and I think their product life-cycle is going to be really rewarding — especially in non-industrial standards,” Taraborelli sums up. “For us, we really like building intuitive HMIs and better user experiences and Omron gives us that platform that allows us to segway into other technologies that we can piggyback on their platform.”



[Learn more](#)

Please see a video of running automatic WeighPack packaging machinery powered by Omron automation controls and software at the WeighPack Systems manufacturing facility in Montreal on Canadian Packaging TV at www.canadianpackaging.com.



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	NXAD3603
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Benefits:

- Includes Sysmac Studio for seamless design and simulation.
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