

# Stretched to Perfection

Manufacturer of industrial plastic containers achieves operational efficiency with heavy-duty stretchwrapping system loaded with custom-engineered features built-in to meet exacting specs

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PHOTOS BY SANDRA STRANGEMORE

**M**aking industrial plastic containers may not strike you as one of the most glamorous ways in the manufacturing world to make a living, but the manufacturing world itself would be a far less comfortable place without this reliable, reusable and highly efficient form of packaging.

Which only follows then, that a manufacturing operation like **Ropak Corp.**'s plant in Oakville, Ont., where such containers are made, must itself be a model of manufacturing efficiency.

And that is exactly what the folks working at the 170,000-square-foot facility strive for day-in, day-out, as a visit there last month by *Canadian Packaging* revealed.

Headquartered in Fullerton, Ca., Ropak Corporation operates eight manufacturing plants across North America, including three in Canada and five in the United States.

The company's strategic focus is geared exclusively to the design, manufacture and marketing of rigid plastic packaging products that are widely used across a broad spectrum of industries, including agriculture, fishing, dairy, food processing, chemical, automotive, paint, petroleum and many others.

It is a member of the **Linpac Group of Companies**—headquartered in Lincolnshire, U.K.—which runs several related manufacturing divisions located around the globe, mainly producing packaging containers in plastic, corrugated and tin materials.

A first-time visitor to the Oakville plant may well be taken aback by a request to put on a hair net—and a beard net if necessary—since the plant is anything but a food processing operation.

But there is much reason and logic behind this requirement.

"We produce quite a lot of product that is destined for the food industry," explains Ropak project manager Kirk Samlalsingh. "Therefore, we try to run our plant along similar lines as a food processing plant—even going as far as getting food-type designations."

In fact, a sister Ropak plant in the Vancouver area has recently achieved both an AIB (American Institute of Baking) and Hazard Analysis and Critical Control Point (HACCP) certifications—a remarkable achievement for a company that does not actually handle food itself.

"We try to maintain good, clean standards within all our plants anyway," notes Samlalsingh. "It's not a special effort for us to get the AIB rating.

"Safety, cleanliness ... all the things that go along with those designations are an everyday thing for us."

When the Oakville plant was first being put together, Ropak actually put up the inside of the plant first, before erecting the building around it. The idea was to allow room for future expansion in output, which in Ropak's case seems inevitable.

It only follows that the operation pays the closest possible scrutiny when purchasing new production equipment and machinery to be used at the plant. Some of it was designed and put together by Ropak itself, but anything brought in from the outside had to



The Wulftec Tornado 200 installed at the Ropak plant in Oakville has several custom built-in features that allow it to optimize load stability and virtually dispense with the use of wooden pallets altogether.

**Inc.**, based in nearby Mississauga, Ont.

Wulftec International—acquired earlier this year by Greek-based industrial machinery conglomerate **M.J. Maillis Group**—has been in the business of developing, manufacturing and distributing stretchwrapping machines for customers worldwide since 1986.

Headquartered in Ayer's Cliff, Que., about 120 kilometers southeast of Montreal, the 150-employee manufacturer now generates annual revenues of about \$27 million—all of it exclusively from the sales of stretchwrapping equipment and related accessories.

"We wanted something that met the needs of this plant—gave a good wrap and provided good structural integrity," explains Samlalsingh. "To maintain the package integrity, there were a few things we needed to do. We needed to get the wrap under the package and to keep it intact.

"Prior to the Wulftec machine, there was a semi-automatic wrapper. We would place [the load] on the turntable, manually attach the wrap, and put it on.

"The technology wasn't as good as it is today," he states. "For instance, we had problems with the wrap being consistent, and when the elastic memory returned, it was actually deforming some of our pails."

Stretchwrap and shrinkwrap, like elephants and bank loan officers, have a razor-sharp memory. Regardless of how much you stretch and pull it, it will return to its original integrity.

Says Samlalsingh: "We needed a machine that was sophisticated enough to be accurate in what it did."

Moreover, the machine had to deliver impeccable reliability to an operation that runs two daily shifts,

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Rick Williams,  
Sales Manager,  
Dynamic Packaging Systems

Kirk Samlalsingh,  
Project Manager,  
Ropak Corp.

be absolutely top-class. The manufacture of plastic containers is as competitive a game as any: if you're not on top of things, you're gone.

Naturally, this strict attention to detail played a large role when time came to purchase equipment to wrap Ropak's goods for shipment to the customers.

After scouting the available talent, Ropak finally zoomed in on **Wulftec International Inc.** and its local distributor **Dynamic Packaging Systems,**

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24-hours-a-day, seven-days-a-week.

To fit the bill, Wulftec supplied Ropak with the model Tornado 200 machine—featuring capacity of 60 loads per hour, a rotary tower with a conveyor, structural-steel construction, a counterbalanced rotary arm, a dual steel boom with a double chain, and an object obstruction safety hoop that automatically stops the arm motion whenever there is any interference in the wrapping area. The roller out-feed conveyor comes with electric controls, photoeye positioning, and a three-phase AC motor drive.

However impressive these features are, though, they are fairly common on most Wulftec product offerings.

But this particular machine at Ropak has been enhanced with its very own unique, custom features.

“In this particular case, our initial meeting was to discuss the potential of an automated stretchwrapping system in conjunction with automated strapping,” says Rick Williams, sales manager at Dynamic Packaging. “The way Wulftec can now design their stretchwrapping equipment, they do a function which is called roping.

“By introducing this roping function, we were able to eliminate the need for a second strapping machine.”

What happens during roping is this: after the pre-stretch carriage stretches the film, there are two wheels on pneumatic cylinders which are fired up to condense the full web of the stretch film into an actual round rope made entirely of stretchwrap.

One could argue that you could achieve the same end result by pre-programming the winding cycle to simply add extra wrap in the obvious strategic places, such as the top and bottom of a load.

“You could certainly do that,” agrees Williams, “but the best way to unitize any load is by completely covering it, top to bottom, not just with concentric bands of film. Certainly you want to stabilize the load, but you

must also stabilize the trays within the load.”

Adds Samlalsingh: “There are some customers who require minimal packaging, where roping can make it happen, as opposed to a full web of wrap continuously around the product. There are even some that require both, because they want to have a more sturdy package. The combination of the stretchwrap and the rope around it is similar, in nature, to having a plastic

bag with a metal strap over it, which is what the industry used to do.”

The plastic containers made at Ropak are, of course, quite light, meaning that the free-standing loads placed on the roller have to be handled gently with care.

“One of the features that helps us with that is the top platin,” points out Samlalsingh. “When the load comes in, the top platin descends, contacts the top tray of the load and, basically, stabilizes it.”

Resembling a big magnet, a platin is a circular object that attaches itself to the top of a load

and applies just the right amount of friction to keep it in place.

Another unique feature found on the Tornado 200 used at Ropak is the so-called Pop-Up station, which lifts the loaded product from underneath. The Pop-Up elevates the load by four inches to allow for up to two inches of wrap underneath the load.

“The Pop-Up was needed because we don’t necessarily use wooden pallets with our loads,” says Samlalsingh. “The system is designed to work with or without pallets, and typically, we don’t use them for cleanliness purposes. With wooden pallets, you can get wood chips and dirt accumulating everywhere.” □



The Wulftec Tornado 200 stretchwrapper achieves throughput speeds of 60 loads per hour.

For more information on:

**Wulftec International Inc.**      **Circle 432**  
**Dynamic Packaging Systems**      **Circle 433**