



Moore-Clark maintenance manager Wendell Hooper (left) and Chris Raymakers of Bunzl Distribution going over the mechanical features of the Tornado model stretchwrapper.

THE FEEDING FRENZY

Aquaculture feedstock producer boosts shipping efficiency with installation of reliable, made-in-Canada stretchwrap machinery

BY DAN PELTON, FEATURES EDITOR
PHOTOS BY TIM HANRAHAN

When it comes to enhancing the quality of the fruits of the sea we eat, **Moore-Clark** is a company that literally carries out this mission from coast to coast.

Owned by **Nutreco Aquaculture**, an aquatic research and manufacturing concern headquartered in Boxmeer in The Netherlands, Moore-Clark is a manufacturer of aquaculture feedstocks—operating facilities both on Canada's Pacific Coast in Vancouver; and one on the Atlantic in St. Andrews, N.B., about an hour's drive out of St. John, N.B.

In business since 1969, Moore-Clark specializes in the formulation of feeds for promoting and enhancing optimum fish growth and health, with focus on such commercially-valued species as Pacific and Atlantic salmon, trout and arctic charr.

The company's self-styled slogan, "Quality feed from start to finish," nicely sums up its corporate mission of taking care of the fishes' food needs from start-feeding to harvest.

While the production of fish-feed, high-quality stuff or not, may not seem like a glamorous pursuit, it is nevertheless an intricate and demanding process, with quite a bit of science involved. For example, Moore-Clark's parent company, Nutreco, has recently gone so far as to add beta-glucan to some of its formulas in order to aid the health of the fish fed on it and, ultimately, the health of the people consuming the fish.

Beta-glucan serves as a natural stimulus which triggers white blood cells. When the body has to defend itself against an infection, it's the white blood cells, activated by the introduction of beta-glucan, that do the fighting. When added to fish-feed, beta-glucan issues what is essentially a false alarm. The cells don't realize this, and proceed to build up the fish's immune system—thus making it is less susceptible to diseases that could be passed on to human consumers.

On another front, Nutreco has experimented with substituting vegetable-based and other oils for the traditional fish oils in the manufacture of trout feed. While still in the experimental phase, this could ultimately prove to be greatly beneficial to human consumers because the canola, soya and corn oils have low levels of saturates, but contain high levels of polyunsaturated fatty acids. Moreover, none of these oils contain the highly-

unsaturated, fatty acids commonly found in fish oils.

As one would expect from such scientifically-intensive activities, quality control is paramount in every phase of operations.

To this end, Moore-Clark's Vancouver, operation recently earned the all-important, internationally-recognized ISO 9001-2000 standard for quality management assurance—becoming the first aquaculture feed company in North America to do so.

At the St. Andrews facility, meanwhile, the company has recently undertaken several important capital upgrades aimed at improving the plant's shipping efficiency.

One of the recently-added pieces of equipment at the plant is a Tornado model stretchwrapper, outfitted with an inline top sheet dispenser, manufactured by **Wulftec International Inc.** of Ayers Cliff, Que.,

specialist with **Eastern Paper**, a division of **Bunzl Distribution**, a company that teamed up with Wulftec and Moore-Clark on the project: "The challenges were a very tight delivery date that we were able to adhere to, and the commissioning date to coincide with the bagger and palletizer manufacturers.

"The whole line was orchestrated seamlessly, with [maintenance manager] Wendell Hooper conducting the whole process without missing a beat."

So far, Hooper has no regrets regarding the Tornado.

"We're very pleased with the Wulftec technicians and sales staff," says Hooper. "The stretchwrapper is a good piece of machinery.

"It's very reliable, and it's very easy to learn and run."

Because the Tornado wrapper is housed in an unheated plant, thus subjected to outdoor temperatures that can drop below -20°C, the wrapper had to be equipped with a cold-temperature package to allow for all the vital controls and pneumatics to operate in that kind of an environment.

One of the machine's main value-added features is the inline top sheet dispenser, which allowed the folks at Moore-Clark to discontinue the use of expensive shrouds. Because the top-sheet dispenser is located within the wrap-zone, the pallet is also essentially waterproof.

Now that the wrapper is in place, and now that Moore-Clark has had some time to work out any bugs in the process, further options are being investigated, with the aim of boosting efficiency further.

One the options receiving much consideration involves the installation of a specially-dedicated modem package linked to a PLC (programmable logic controller), which would allow a Wulftec service technician to dial in and make whatever adjustments need to be made remotely from, literally, almost anywhere on the planet.

In Hooper's opinion, the St. Andrews installation has already benefitted the Moore-Clark operation, with further benefits bound to emerge down the road.

Says Hooper: "The machine has contributed to the ease of the [shipping] process," says Hooper, "and the neatness of the piles of finished goods makes them better for storage." □



The St. Andrews plant daily ships out 1,000-kilogram palletloads of large-sized bags, which must be perfectly stabilized and held together throughout the journey, either by truck or ship.

which was recently purchased by industrial machinery conglomerate **M.J. Maillis Group** of Greece. The new stretchwrapper takes care of all the end-of-line packaging needs of a brand-new packaging line that automatically packages, palletizes and stretch-wraps large-sized bags of fish feed.

Primarily a blending-and-mixing operation, the 50,000-square-foot facility in St. Andrews is responsible for shipping out pallets weighing 1,000 kilograms, or one metric tonne, either by flatbed tractor-trailers or by ship.

While the installation of the Wulftec Tornado was, by and large, performed smoothly, it presented some challenges to overcome, like all such installations do.

Recounts Chris Raymakers, packaging services spe-

For more information on:

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