# Packaging Progress

### Thinking outside the box...and inside too!

## Integrated Packaging Machinery boosts uptime for cheese processors

**GRAND RAPIDS, Mich.** — Integrated Packaging Machinery (IPM), a vendor-neutral secondary packaging system integrator, is known for designing and installing fully integrated secondary packaging systems in high-value, high-volume and highly regulated food, beverage and life sciences processing plants.

Tom Wiersma, business development manager, IPM, notes the company's particular deep expertise has two parts.

"One is helping customers to achieve and protect their margin by protecting the functional performance and branded integrity of the primary package. The other is designing modern and centralized controls architecture that streamlines the operation of complex packaging systems. Smart, reliable automation is an imperative component of both," Wiersma says.

Given the premium position IPM's customers' brands hold in the marketplace, IPM's original equipment manufacturer (OEM)-neutral business model has proven to be essential, he adds.

### "Every large-volume plant struggling with workforce shortages aspires to integrate more controlled, and more reliable, automation."

Dan Breuker INTEGRATED PACKAGING MACHINERY

The number of sophisticated single-purpose, narrow-scope OEMdeveloped packaging technologies product types and packaging applications, has proven to be irreplaceable," he says, noting IPM documents and archives all of that accumulated fullline operations data. That knowledge is then transformed into comprehensive full-line training programs tailored to the customer and their product mix.

"The accumulated archive of IPM's packaging system design, best-fit technology, application and integration know-how is substantial," Wiersma says. • **OEM-neutral and resource-rich** 

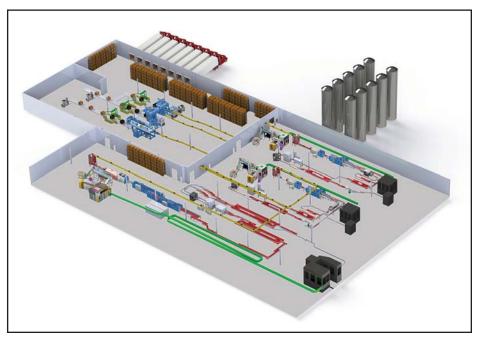
According to Brad Breuker, sales manager, IPM, "Our customers benefit because they know they have a neutral yet resource-rich systems engineering partner who will 'own' the performance of the entire packaging line following scope freeze.

"Ours is intentionally not a siloed approach," he adds. "It's a comprehensive project delivery method that's capable of delivering optimal throughput and integrated uptime within the constraints of customer space, customers' customer expectations, project budget and schedule."

In addition to customers, IMP's OEM partners also benefit because they know their technology won't be misapplied, Breuker notes.

"They've seen over the last several decades that we'll fully support the technology decisions made in the pre-design phases and agreed upon at scope freeze," he says. "We don't always see eye-toeye on every specification, but they have come to value our OEM-neutral approach to engineering, specifying, integrating and controlling our mutual customers' downstream technology operations combined with full-line training."

Dan Breuker, senior director of integration services, IPM, adds, "Our architecture and engineering (A&E) partners value the OEM-neutral project delivery method because they've seen our approach is customer-driven. They find themselves empowered to design facility and related infrastructure all the while aware that we won't over-or underdesign a packaging system solution." Dan Breuker also notes that IPM employs dozens of packaging systems engineers. "That's a body of full-line downstream packaging application, integration and automation thought leadership and know-how resident at IPM that an A&E firm, or OEM, understandably, is simply not equipped, or even willing, to maintain," he says.



Rendering courtesy of integrated Packaging Machinery

**FULL-LINE SECONDARY PACKAGING** — Pictured above is a rendering of a full-line integrated downstream packaging operation from filler through to robotic palletizing and stretch wrapping. Hand-in-hand with the owner, Integrated Packaging Machinery collaborated with all original equipment manufacturer allies and construction partners to project manage each stage from pre-design and design development to scope freeze, construction and start-up, followed by training and optimization.

approach is central to intentional uptime, IPM notes. Fundamental to that kind of uptime is almost always a central control panel to manage, set up and change over every extruding, slicing/ shredding, packaging, labeling, case packing, conveying, palletizing and shrink wrapping function, as well as collect throughput data.

"Today's customers are increasingly data-driven — and they need to be," Dan Breuker says. "There's too much at stake. Different cheese SKUs exit the extruder at the front of the packaging line in the quantities, weights and form factor prescribed by the ERP system. The block, cubed, shredded, sliced or String cheese alternatives are not endless, but they are definitely varied and always demanding. Then in whatever form it exits the extruder function, the cheese enters a thermoformer technology outputting flexible or rigid, appropriately branded packages as dictated by each plant's retail or professional/ commercial end-user customer. To profit from packaging uptime, all that early stage packaging functionality needs to be successfully integrated with the downstream rate, orientation, functionality and intra-machine transition requirements before the primary package is then X-rayed, date-coded, check-weighed, case-packed, palletized and shrink-wrapped." He adds that the communication requirements back to the plant networks become more important for each customer as rate, SKU and recipe variations, package type, case type and end-customer options multiply - especially as a trained workforce is more difficult to find and retain.

"Our job is to help customers get the most value out of every ounce of cheese they make. We do that by giving them the most integrated and streamlined uptime at every stage of their packaging operation," Dan Breuker says.

Each one of the OEM machine centers' contributing function-specific performance needs to be specified for the range of product weights, package or pouch types, rates and package orientation iterations prescribed by agreed scope. The function-specific performance also typically needs to accommodate expansion driven by business growth, product changeovers and product line extensions.

"Every large-volume plant struggling with workforce shortages aspires to integrate more controlled, and more reliable, automation. We're seeing more customers asking for our recommendations around aspects of automation customers didn't even think of before,"he says. "These aspirations are all deliverable, but they require more function-specific and changeoverfriendly machine centers. So from an integration standpoint, more full-line

has grown substantially in just the last decade, Wiersma notes. In light of the proliferating options, IPM's role is to strategize with its customers and collaborate with OEM partners to test, vet, specify and seamlessly integrate the optimal application-specific and uptime-driven secondary and tertiary packaging technology solutions.

"The breadth of real-world installation, integration and controls experience accumulated across a spectrum of highly regulated food, beverage and related markets, as well as hundreds of

• Full line, full control

A full-line, full-control automation

command and control packaging automation is an imperative."

But it's not just packaging line uptime at risk, Wiersma notes.

"Food safety, machine maintenance, personnel safety and customer satisfaction will always be compromised by unplanned stops and restarts," he says. "Our high-value, high-volume and growth-oriented customers won't tolerate those kinds of avoidable interruptions. They fully realize the value of automating all of *Turn to IPM, page 9* 

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#### IPM

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the machine centers in the line from the front of the extruder to the front of the warehouse. They know profitable uptime depends on the conveyor technology reliably feeding or pulling away product from each machine center at a prescribed rate — and in a prescribed way. And they know that the conveyor technology needs to have the right flexibility engineered into it to deal with the unplanned upsets, surge and accumulation events that will occur." • A perfect fit versus a close fit

Installing and operating machines as isolated performance islands in a packaging line no longer can be tolerated, IPM notes. Decentralized multiple machine center control systems can compromise productivity and destabilize throughput. When that occurs, the entire operation from the incoming milk to finished goods inventory will be plagued by unplanned shuts and restarts. The number of SKUs, the increased line speeds, the more complex transitions between machine centers and the demanding conveyor paths and line control technologies combined with more exacting customer requirements are simply too demanding to rely on a less than a perfect fit. Bankable uptime needs to be the business model standard, and reliable uptime is central to a growth-oriented and intentional profit-making strategy.

Brad Breuker notes most of IPM's competitors are strong machine builders.

"They all make machines with particular strengths and specific performance characteristics. And many of them are good at integrating the technology they know. Issues arise when only some of the technology they build can do all that the processors' business model requires," he says.

IPM, on the other hand, is first and foremost an integration company, he says.

"We are OEM-neutral and performance-centric, and we deliberately focus on integrating the technology our customers need — not the technology our factories make," Brad Breuker says.

"I think there's clearly a difference

Uptime and Runnability Engineered) approach equips it to provide customers with the greenfield or rebuilt packaging system solutions best suited to their plant, their product and their commercial aspirations. The SUREthing approach also helps to accelerate and document scope freeze, which in turn streamlines the specification, procurement and integration of individual machines.

"Customers' secondary packaging lines are the last mile in their strategy to present their products, protect their brands and realize their commercialization goals. The capabilities and cumulative know-how of the people they trust to design their secondary packaging operations are mission critical,"Wiersma says. CMN



Photo courtesy of Integrated Packaging Machinery

**ROBOTIC PALLETIZING** — Operating independently, the multiple robotic palletizers build pallets of line-specific product before labeling and documenting the completed pallets for scanning, inventory and shipment. Pictured above is an ice cream application, but it is similar in most respects to high-volume cheese packaging applications.

# Is putting more uptime into your downstream a tough nut to crack?

## OEM-neutral integrated packaging systems engineered and installed on your terms.

You have market-driven product aspirations. You've considered capacity growth. You have business-driven margin goals. And you have customer-specific production aims. All those aspirations and all that product investment can still be sidelined, delayed, or even scrapped.

#### More uptime in your downstream may not be such a tough nut to crack after all.

At IPM we engineer, specify, procure, integrate, install, and automate OEM-neutral integrated secondary packaging technology solutions. We'll work with you to add substantial new capacity. Or to rebuild an existing line for incremental growth. You'll get the flexibility you require. The functionality you want. The scope and scale you need. And the Uptime you expect. That's a **SUREthing**<sup>™</sup>.

between an OEM-built machine and an OEM-neutral packaging system and a major difference when it comes to understanding the flow of a customer's product through the entirety of a packaging line," he adds. "We're optimizing our customer's packaging system uptime with an OEM-neutral engineered solution that satisfies our customers' strategic runnability aspirations. It's not always easy - but because we're allowed specification access to all technology options instead of just some technology options, the outcome is always smarter than trying to make a close fit be a perfect fit." IPM's "SURE-thing" (Strategic



Ask for "Seven tips to put more Uptime in your Downstream"

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