

# PMM

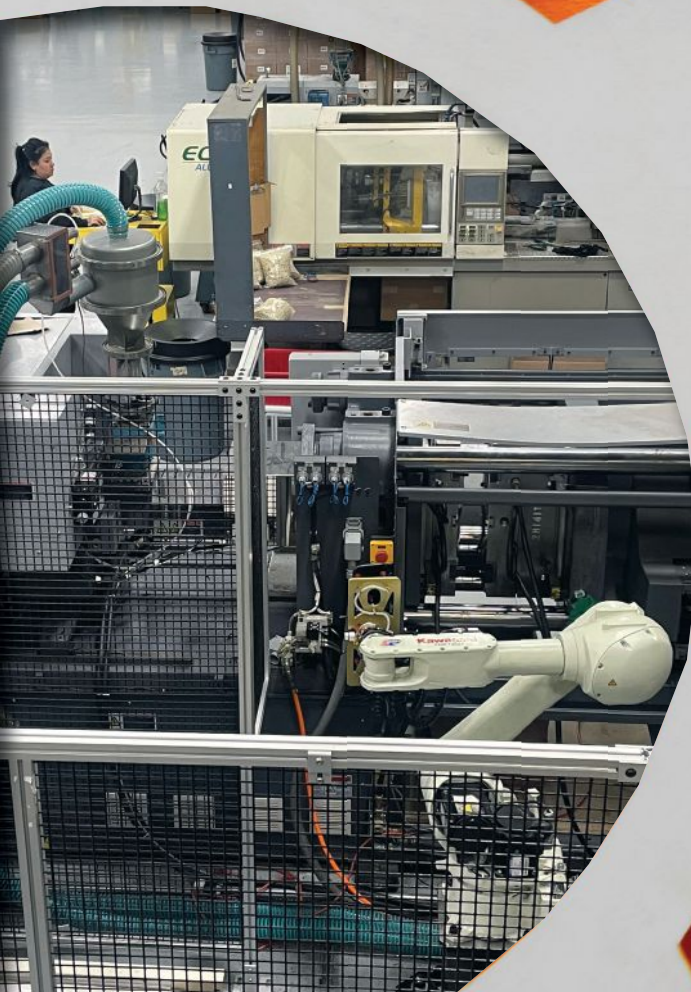
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## FINDING THE RIGHT GEAR

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# MANY FACTORS DRIVE '23 MACHINERY PLANS

By Lynne Sherwin

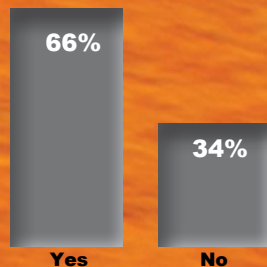
**AS COVID'S** impact on the plastics industry has waned, the issues it left in its wake — the labor shortage, supply chain issues, inflation, the threat of a recession — are coloring processors' outlooks for the year ahead and their decisions on machinery investments.

Respondents were feeling less optimistic in *Plastics Machinery & Manufacturing's* fourth annual survey of machinery buying plans. In the survey conducted in 2020, 73 percent of respondents said they expected business to improve in the upcoming year, and in 2021 that figure was 60 percent. But only 44 percent think their business will be better in 2023, according to the latest survey, conducted in October; 43 percent expect it to remain the same.

However, processors are still planning to invest in machinery: 66 percent of the 109 respondents plan to buy primary processing equipment in 2023, up slightly from 63 percent in last year's survey.

Companies say they need new equipment to expand capacity (71 percent), replace existing equipment (62 percent) and/or add new processing capabilities (19 percent). Investment in primary equipment will be larger this year than last year for half the respondents and approximately the same amount for 39 percent.

## Do you plan to buy primary processing equipment in 2023?



Two-thirds of respondents plan to buy auxiliary equipment (not including robots or automation) in 2023. Forty-four percent plan to spend more this year than last year.

Processors who took the survey and OEMs contacted for comment shared similar outlooks. Most expect their business to remain steady or slow down this year, after the pandemic fueled record investment in the last two years. The threat of a recession is a concern, and the labor shortage continues, leading many to adopt or expand automation.

North American shipments of injection molding and extrusion machinery slowed in the third quarter, according to statistics compiled by the Plastics Industry Association's Committee on Equipment Statistics (CES).

The value of shipments was estimated at \$353.8 million — down 14.4 percent from Q2, but up 6 percent from the 2021 number. (Read more on Page 35.)

"In sum, the third-quarter data is consistent with the projected growth in plastics machinery shipments for the second half of 2022," PLASTICS Chief Economist Perc Pineda said in a press release accompanying the report. "However, the U.S. manufacturing sector continues to face headwinds — elevated energy prices, rising interest rates and inflation — which could weigh on the economy's manufacturing output in 2023."

Just over half of respondents to *PMM's* survey said their companies perform injection molding, while 21 percent are involved in making or repairing molds and tooling. Other processes included pipe, profile or tube extrusion (20 percent); film or sheet extrusion (16.5 percent); recycling (16.5 percent); compounding (15 percent); blow molding (14 percent); additive manufacturing (12 percent); and rotomolding (2 percent). Respondents could select more than one process.

Of the 109 companies, 33 reported annual sales revenue of less than \$5 million; 41 companies, between \$5 million and \$25 million; 21 companies, between \$25 and \$100 million; and 14 said their annual sales topped \$100 million.

COVID-19's effect on the plastics industry is receding somewhat, with only 28 percent of respondents saying it



**Champion Plastics, an injection molder that supplies the automotive, motorcycle and other industries, relies extensively on automation.**

had a negative impact on their businesses. But other worries have taken the pandemic's place. Respondents said issues that affected them negatively in 2022 included the labor shortage and supply chain issues (73 percent each), resin shortages and price hikes (63 percent), and the state of the economy (47 percent).

Regarding investment plans for 2023, the labor shortage was the top factor pushing companies to spend more (31 percent) and the state of the economy was the top factor causing companies to spend less (23 percent).

## THE VIEW FROM THE PLANT FLOOR

Reflecting the survey results, processors reported varying outlooks on their business this year. Some are seeing growth and planning to buy equipment to support it; others are still struggling with staff shortages or bracing for a slowdown.

Annette Crandall, president of molder Quality Assured Plastics Inc., said her company is replacing older IMMs with new equipment that offers "more technology, energy efficiency and automation ability ... making things easier, letting machines do things that machines should do and people do things that people have to do."



**Crandall**

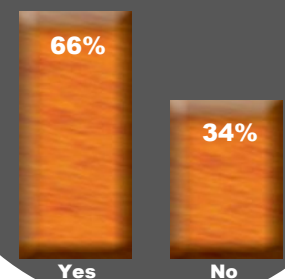
But she said potential for growth is hampered by labor shortages and economic uncertainty: "The upheaval in the supply chain, the question of, 'what's the economy going to do? Why are people not working?' It's still the same problems. It's just getting worse, like our whole system is imploding."

She said, "Right now, I've got machines that I don't have people to run."

Crandall expects to invest in auxiliary equipment as well, but due to the nature of her company's business, not so much in robots.

"We do a lot of short runs, and they don't lend themselves well to robots. I would love to buy

## Do you plan to purchase auxiliary equipment not including robots or automation in 2023?



*Continued*



robots, but our business model doesn't support them. But it does support blenders and sprue pickers and conveyors and counters and things like that."

Meanwhile, Mel O'Leary, president and CEO of Meredith-Springfield Associates Inc., Lud-



O'Leary

low, Mass., said his blow molding facility invested in a major expansion in 2021 and is still finding ways to utilize that new capacity, so it does not plan to invest in machinery this year.

"We added space, we added molders, auxiliary and automation equipment in anticipation of a surge of volume as the pandemic

wound down. For us, the opposite occurred, so we have some capacity underutilized," he said.

"With the uncertainty of economic conditions and a possible recession in 2023, we are not planning any major capital projects for next year."

Meredith-Springfield is basing its 2023 plan on the assumption that business will remain at the same level as the second half of 2022, which was up 6 percent over the first half.

"That outlook will change when we begin to see our customers' businesses gain more momentum than we're seeing at present and when inflation begins to recede," O'Leary said.

Other processors are gearing up for growth.

"We're actually in a big expansion right now," said Jeff Ignatowski, director of sales and marketing for Champion Plastics in Auburn Hills, Mich., an injection molder that provides parts for the automotive, motorcycle and other markets. "We're probably going to see a 50 percent increase in sales [in 2023], so we're fortunate for that."

On top of that growth, Champion is also in the running for a new contract that would necessitate the purchase of two more presses to add to the company's current stable of 10.

"Those particular cells will be completely automated, lights-out. We're looking to buy two presses that would have two six-axis robots, and box convey-

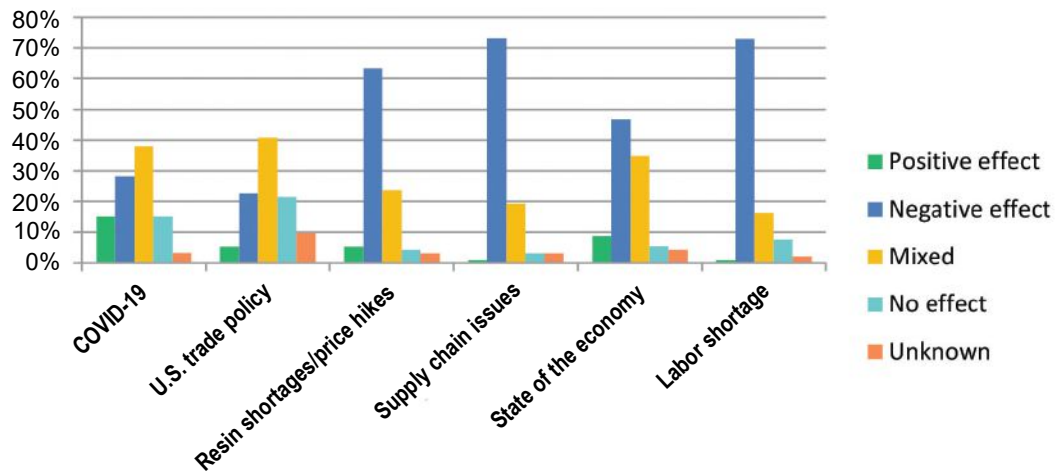


Meredith-Springfield

Meredith-Springfield produces blow molded products like post caps, above, and these beverage containers, right.



### How has each of the following issues affected your business in 2022?



ors, and it would automatically also apply some adhesive tape to parts. Those are very high-volume jobs."

While the potential for an economic slowdown is a concern, he said, "with such large growth, if we don't get 50 [percent sales increase], and really get 40, it still justifies the automation that we need. And the programs that we're receiving are all new programs, so they're going to go out for six years. ... We're not overly concerned, but you know, we're keeping a pulse on it."

Champion might add a 67-ton machine as well, for small precision work.

Film Tech LLC, Stanley, Wis., which makes mono- and multilayer film products, also is considering expansion.

"We have begun discussions for a new blown film line, because demand has picked up for our products," operations manager Jim Benson said. "New business and our current customers are growing as well. We are shifting to a 24/7 operation in January 2023."

#### OEMS OPTIMISTIC, BUT PREPARING FOR A SLOWDOWN

On the other hand, makers of plastics machinery are preparing for an economic slowdown and the end of the pandemic-era sales boom, although some are still catching up with orders and see certain markets remaining strong.

"For 2022, we are coming down from the record new order rate in 2021; however, we are sitting on a substantial record order backlog," said Wittmann USA President David Preusse.

"As is the case with many global markets, the U.S. plastics industry is recording 15 to 20-plus percent reduction of new orders in 2022. Many shipments pushed over to this year, so reve-

nues are still OK, just impacted for supply chain delays."

He believes "time will tell what kind of recession may be ahead" as the Federal Reserve continues to raise interest rates to cool the economy.

Extrusion equipment manufacturer Davis-Standard also is affected by supply chain delays.

"We expect strong sales in 2023 if we can mitigate material shortage risks as we continue to address the backlog caused by the pandemic. We also expect new orders to decline as customers

delay key investments due to the bleak economic outlook," CMO Tony Toklo said.



Toklo

"Sustainability, skilled labor shortages, and high interest rates are key factors for most industry players. Sustainability and labor trends are driving OEM-customer collaboration toward innovation, machinery automation and the

implementation of digital strategies," he said.

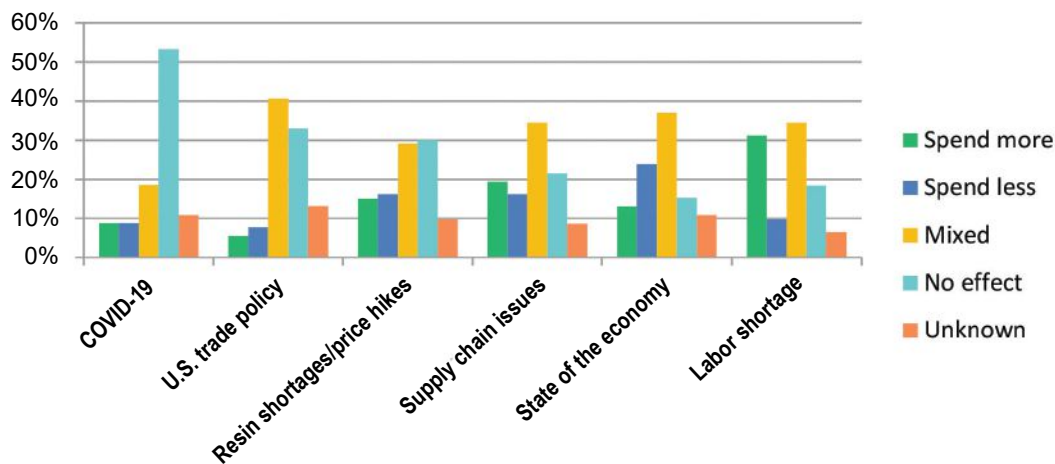
At a press conference at the K Show in October, Engel CEO Stefan Engleder reported "very good business" in North America despite the economic headwinds, with the packaging division showing significant growth.

"Engel is benefiting from the ongoing reshoring trend in this region," with high demands for machinery, Engleder said at K.

"Due to the recession, Engel expects demand in North America to slacken in the short term. However, the market offers the best conditions for further strong growth in the medium to long term," he said.

In a separate emailed statement, Engleder said the company noted a decline in orders since August and expects that trend to continue, attributing it to slowdowns in the construction and infrastructure markets. He also cited supply chain

## How will each of the following issues influence your machinery-buying plans for 2023?



challenges and increases in energy and material prices.

Representatives from a number of other OEMs voiced hope that new lines and facilities, along with the potential presented by particular economic sectors, would spell growth for them in 2023.

KraussMaffei made a splash at K 2022 by entering the additive manufacturing market with its new powerPrint and precisionPrint machines.

“Following injection molding, extrusion and reaction process machinery, this new line — additive manufacturing — will form the fourth pillar of the KraussMaffei product portfolio,” said Nolan Strall, president of KraussMaffei North America.

Strall said last year the company was on pace to exceed targets by more than 20 percent, and he expects this year to be one of the company’s best.

Two new plants in Germany “will give us more capacity for machine production and streamline our manufacturing processes, which means better delivery reliability for our customers and decreased lead times,” he said, while improvements at the company’s Florence, Ky., facility will focus on demonstrating the company’s various lines, including automation solutions.

For China-based Tederic, the year opens with the promise of growth as it prepares to open a new North American headquarters in Pittsburgh with a large inventory of machines, said Tony Firth, VP

of sales and marketing, Tederic North American Machinery.

“We are pushing hard to grow brand recognition,” Firth said. “Though we are recognized in China as a premium machine builder, with leading expertise in the automotive and multi-material fields, we are still relatively unknown in North America.”

He said the company is growing its all-electric machine sales with the introduction of the new Neo.E II series, and sees opportunity for the company in the automotive sector.

Absolute Haitian introduced an IMM tailored for medical molding at the K Show, and co-owner Glenn Frohring sees these application-specific configurations as a growth market.

“We’ve enhanced our machine designs to accommodate those markets including medical packages, higher speeds and multi-component machine configurations,” he said.

Like KraussMaffei, Absolute Haitian is boosting its machine-building capacity; a new facility opened in Guadalajara, Mexico, in October, marking the first time its IMM’s are being built in Mexico, Frohring said. The company will break ground this year for a manufacturing center in Serbia.

Packaging and consumer products, including housewares like storage containers and garden appliances, were strong markets last year.

“While many people were remotely working from home, they had time to clean out attics, update living spaces, convert living spaces to work-at-home spaces,” Frohring said.

Absolute Haitian saw many processors upgrade to more energy-efficient IMM’s that offer advanced controls.

“For molders, gaining capability in Industry 4.0 remains a factor to stay competitive,” Frohring said.

“Haitian continues to advance our MES machine

capabilities but with practical, useful approaches that are easy to use. We’ll be sure to feature MES connectivity in every machine cell we take to trade shows in 2023.”

Preusse agreed that smarter manufacturing is on buyers’ minds, citing customer interest in Wittmann’s digitalization products and integrated work cells.

Demand in the personal protective equipment (PPE) market has fallen as the COVID emergency passes, Preusse said, while “the rest of health-care demands that were partially stalled by COVID hospitalizations picked up with health-care products that serve our large aging population.”

Interest in automation rose in the automotive market, “since robots don’t get COVID or exposures, but unfortunately, the anticipated auto sector demand rose, but not manufacturing output,” he said. “They too were stalled from critical parts shortages, hence high demand, lower output.”

Strall said KraussMaffei’s injection molding division has seen interest from the logistics, packaging and medical markets, although the demand is lessening for PPE and COVID testing kits. He expects the automotive sector to grow this year, especially with the move to electric vehicles and continued demand for lightweighting. The company’s extrusion business has seen “activity and growth across the board, with significant increase in recycling and circular economy,” along with construction and housing.

“Packaging and building were strong for us during the pandemic,” said Tammy Straw, marketing and business development manager for twin-screw extruder maker Entek.

“Packaging remains strong; however, building has slowed. We attribute this to the increase in interest rates.”

Engleder said Engel has seen growth in the electric-vehicle market as well, along with interest in the use of recycled material in packaging.

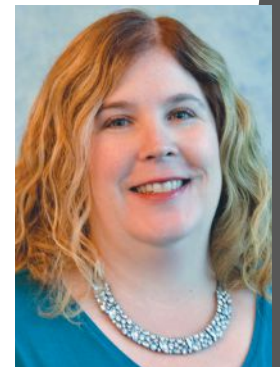
“Recycling is and has been a hot trend in the plastics industry,” Straw said. “We are seeing more requests from companies who are either expanding their recycling operations or are looking for ways to recycle their own scrap.”

### DARK CLOUDS LURK ON THE ECONOMIC HORIZON

Even for processors and OEMs anticipating some growth, concerns about inflation, rising interest and the threat of a slowdown dampen the mood.

“We are running our business as if we are already in a recession,”

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Straw



Absolute Haitian

Absolute Haitian introduced an IMM tailored for medical molding at K 2022.