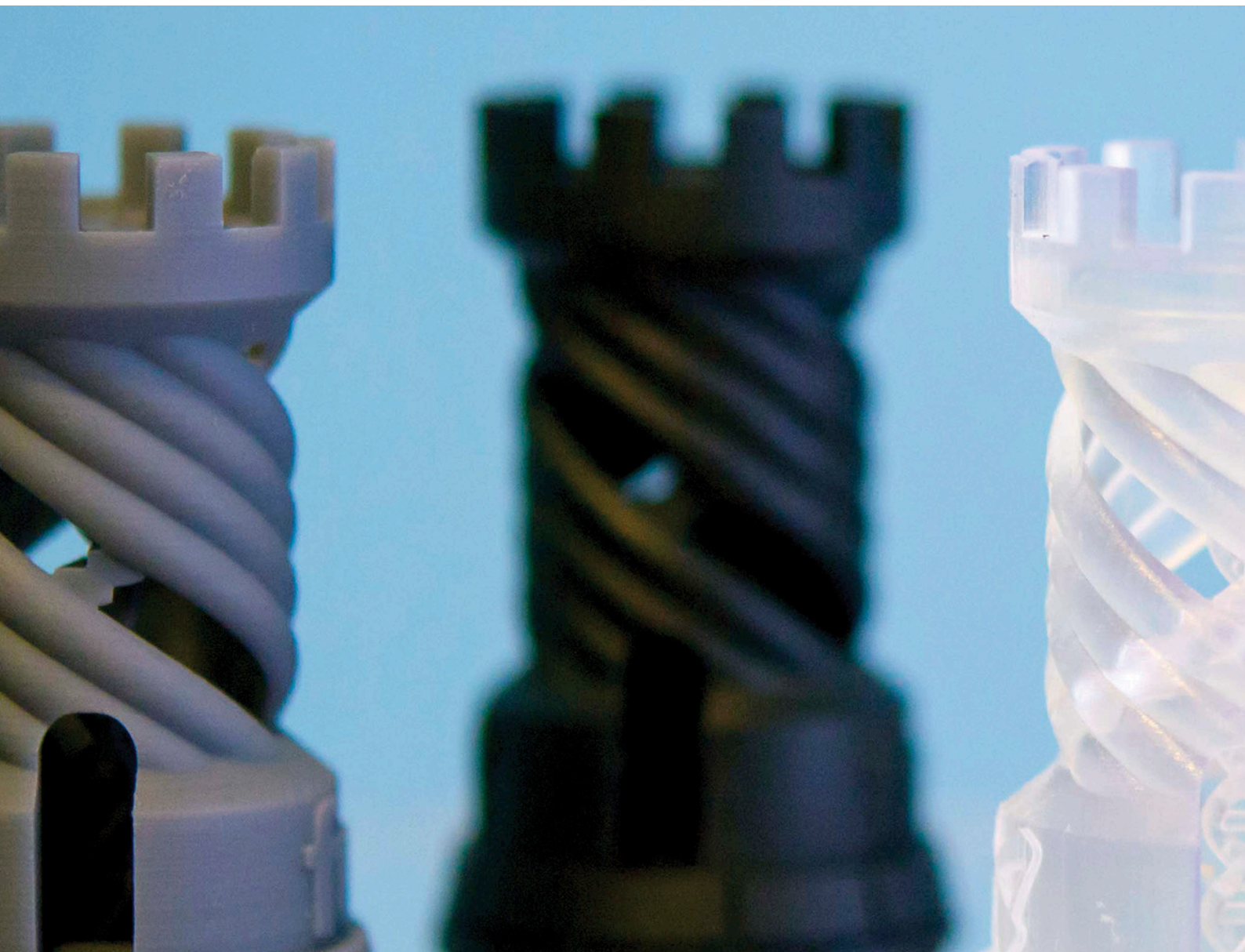


Injection WORLD



3D PRINTING: MAKING THE NEXT MOVE

MACHINERY INNOVATIONS SAVE ENERGY

USING THE BUILDING BLOCKS OF BIOPLASTICS



INJECTION MOLDING & DESIGN EXPO

The first Injection Molding and Design Expo in May saw injection moulders and their suppliers discussing post-pandemic challenges.
By David Eldridge



US moulding industry shares its experience in Detroit

**Main image:
Talking
business at the
Mantle booth**

The inaugural Injection Molding and Design Expo in the US last month received a warm welcome from the plastics industry. The event, which took place in Detroit, Michigan on 25-26 May, comprised a free-to-attend exhibition plus conference sessions and was organised by AMI (publisher of *Injection World*) and Crain Global Polymer Group (publisher of *Plastics News*).

**Below:
Injection
moulding
machinery and
equipment at
the show**

The organisers said after the event that more than 2,000 visitors came to the Injection Molding and Design Expo, where there were 130+ exhibitors focused on injection moulding machinery, materials, mould technology and supporting services.

Exhibitors shared their enthusiasm on the first day of the event. Joe Gracia, National Sales Manager at MAC Automation Concepts, said: "We have been so busy, and it's only been open for an hour and a half. We've had a lot of good feedback and a lot of good customers and a lot of interest so we're happy to be here."

Troy Nix, Executive Director at the Manufacturers Association for Plastic Processors, said: "I think this show is an awesome opportunity for people to come together and learn about technology adoption and methodologies; this is a great place to be."

As well as the busy exhibition booths at the Injection Molding and Design Expo, there was good attendance at the three conference theatres, where visitors heard from 70+ experts delivering industry insights during the conference keynote speeches and panels as well as practical advice from training sessions and company presentations.

Themes discussed during the event included sustainability, production efficiency and the effects of the Covid pandemic on business and markets in the North American injection moulding sector. A recurring topic was the difficulties moulders are having with staff shortages and how this has made companies think more deeply about automation, staff training and retention.





Left: Visitors came to Injection Molding and Design to do deals

Medical needs

Mark Gomulka, CEO of Westfall Technik, gave an opening keynote address about the group, which grew rapidly through multiple acquisitions and which now has 18 injection moulding facilities in North America and other regions. Westfall Technik is not just an injection moulder but has a full-service offering including design, said Gomulka, who became CEO in September 2021. He spoke of the group’s scope as similar to contract manufacturers Nypro (now owned by Jabil) and Flex, where he previously worked with Brian Jones, the founder of Westfall. The group’s approach is centred on reducing the time-to-market for customers’ products, he said.

Westfall had a hectic acquisition period in 2018 and 2019 and was moving to a consolidation phase when the Covid pandemic struck. “What Covid did for us was that it brought the company together,” said Gomulka. It did not stand still in 2020 but took the opportunity to implement a cross-company platform. This involved consolidation of some medical moulding sites, the addition of 60,000 sq ft clean room space across facilities, investment in 45 new injection moulding machines and creation of the company-wide Westfall BOS IT system.

Westfall has also invested in automation across its production sites. Gomulka spoke about its development of a proprietary press-side automation system which has capabilities for inspection, sorting, degating and flash trimming among other features. He said 30 such systems are currently deployed across the company’s operations in low-volume, high-mix environments which can run lights-out with no operators, where previously 120 people were needed in total.

In a panel discussion on medical and healthcare at the Injection Molding and Design Expo, participants noted the Covid pandemic’s effects on the

supply chain. With the boost in demand for medical products, clients have cut their expectations for speed-to-market to six months or less, said Christian Herrild, Director of Growth Strategies at Teel Plastics. Customers also want a lot of design support early in a project, said John Budreau, Director of New Business at PTI Engineered Plastics. Adding to the demands on medical manufacturers, clients are asking for extra steps from US moulders because a lot of business is being reshored from China, said Megan Tzanoukakis, Supply Chain VP, at Sussex IM.

Sustainability continues to be the headline topic for packaging moulders, although there was a hiccup in the past couple of years. The pandemic caused a slowdown in the sustainable packaging projects of brand owners, although they have now started to collaborate again with manufacturers, said Millie Nuno, Director of Business Development at Hoffer Plastics. She was a participant in a panel discussion on trends in packaging design, which ranged over tamper-evident closures, labels and other topics.

“Brands are moving from lightweighting to rightweighting,” said Thierry Fabozzi, President & CEO at Plastic Technologies Inc, who noted thin-gauge packaging tends to be littered more. Design-for-recycling was discussed by the panelists, including John Manderfield, Innovation and Design Fellow at Altium Packaging, who said brand clients don’t always want to follow the recyclability guidelines published by the Association of Plastics Recyclers.

Staff shortages

One panel discussion was devoted to the problem of staff shortages, which has affected almost every company in the North American injection moulding value chain, exacerbated by changing labour market dynamics during the pandemic’s peak. Craig Carrel, President and Partner at Team 1

Below: Training and development session during the exhibition



Right: Mark Gomulka (left), CEO of Westfall Technik, talking to David Eldridge, Editor of Injection World

Plastics, said the biggest challenge for his company is recruitment for entry-level vacancies; some newcomers only stay for a few days before leaving, he said. **Jeff Ignatowski, Director of Sales and Marketing at Champion Plastics, said there are concerns for the future in skilled jobs such as toolmaking as it is not attracting young people.**

There is an increasing trend towards automation at injection moulders, the panellists agreed. Carrel indicated that investment in automation is becoming a necessity, as the skills shortage is not a short-term problem. "I think [the skills shortage] will stay at this level or maybe get worse as Baby Boomers retire," he said.

Exhibiting companies also discussed increased automation as the way ahead. Sam Rajkovich, VP Sales and Marketing at Conair, said there was a customer need behind the company's development of a common control platform, which gives users the same control experience across all its auxiliary equipment lines. "The idea was about how to lessen the pain of labour shortages for customers," he said.

During development, Conair had a central goal of reducing training time for operators of its equipment. A Thermolator temperature-control unit, Model dX mobile dryer and SmartFLX conveying system will all feature the common control, which presents menu structure and navigation, set-point entry, alarm notification, icons, colours, communication protocols and back-end hardware that are essentially the same as on other Conair equipment.

Automation is a growth area for StackTeck Systems, said executives at the Canadian mould systems company's booth. In 2020, it set up an automation business for in-mould labelling applications, offering own brand IML robots for all moulds built within its FastTrack program. The executives reported the business is "going great". They estimated only 50% of the North American injection moulded packaging market is served by IML, indicating good growth potential.

Another mould-related exhibitor, Mantle, showed its 3Dprint technology for production of sintered metal mould components. Combining both additive extrusion and subtractive machining techniques prior to final sintering, the TrueShape technology automatically converts digital part files and achieves a high quality final surface finish and level of detail similar to spark erosion, almost eliminating post-processing. According to Dana McCallum, Mantle VP of Sales, Tessa Plastics has already achieved more than 1m shots running its tooling with PP. She says Mantle expects to deliver its first beta machines shortly; one to US mould-



maker Westminster Tool and a second to a medical device OEM. These will offer a build envelope of 200mm by 200mm by 150mm.

Gene Altonen, CTO at Imflux, provided an update about the company, whose injection moulding control technology uses melt pressure sensing at the machine nozzle together with custom software to provide closed loop pressure-based control of the flow front as it moves through the mould. Imflux technology was developed by (and the company is part of) P&G, which remains its major customer accounting for more than 80% of its supplied systems to date. However, Altonen says the company has "hundreds of systems out there at dozens of customers". It now uses a simple purchase model (rather than the licensing model it launched with a decade ago) and he says the company is talking to more than 20 machinery OEMs about integration into their control systems.

Polykemi updated on progress with construction of its first US compounding operation at Gastonia in North Carolina. Post-pandemic freight problems have pushed back the original Q2 2022 start-up but construction of the 4,600 m² facility is now underway and some production may commence by the end of the year.

Two lines are to be installed in the first phase – based on 75mm and 92mm twin screw compounders – providing a capacity of around 6,500 tonnes, according to Adam Hokkanen, Technical KAM North America. He says the plant will initially take over manufacturing of existing European OEM approvals that it currently supplies to the US automotive market from Sweden or from its North American toll compounding partner.

See and hear highlights of the Injection Molding and Design Expo 2022 in two LinkedIn videos [here](#) and [here](#)