Plastics Business

Fall 2017

Strategies for Today's Plastics Processors

2018: Processors Predict Sustained Growth

Coal Execution Enabled by 4DX Preparing for Ownership Transitions Faster Decisions with Scheduling

Official Publication of Manufacturers Association for Plastics Processors

Contents Fall 2017





features

outlook

Processors Predict Sustained Growth in 2018 by Dianna Brodine, managing editor, Plastics Business

training room

Four Strategies for Optimizing Production Scheduling in Real Time by Ed Potoczak, director of industry relations, IQMS

conference

MAPP's 2017 Benchmarking and Best Practices Conference

24 strategies Strategic

Strategic Alternatives Through an Owner's Eyes: Ownership Transitions by Joellen Sorenson, director, Stout

28 booklist Podcasts

Podcasts for Leaders by Dianna Brodine, managing editor, Plastics Business

management

Maintaining Business Stability Amid Political Turbulence by Jeff Bush, author and fiscal authority

economic corner

Hurricanes Storm In with Lasting Impact on the Plastics Industry by Chris Kuehl, managing director, Armada Corporate Intelligence

29

35

38	focus From Melting to Molding – Analytical Techniques to Support Process Optimization and Quality Control in the Injection Molding Industry	
46	by Mettler Toledo production 4DX Strategy Pushes Ideas to Goal Execution at GreenLeaf Industries by Nancy Cates, contributing writer, Plastics Business	
52	industry Manufacturing Day: Enhancing the Industry's Image <i>by Lara Copeland, contributing writer,</i> Plastics Business MAPP Award Honors Outreach Efforts	production 46
60	benchmarking As Labor Pool Shrinks, Compensation Rises by Ashley Burleson, membership and engagement manager,	



viewpoint6	association58
news44	supplier directory62



Manufacturers Association for Plastics Processors, Inc. (MAPP)

MAPP

7321 Shadeland Station Way, Suite 285 Indianapolis, IN 46256 phone 317.913.2440 • fax 317.913.2445 www.mappinc.com

MAPP Board of Directors President *Ben Harp*, Polymer Conversions, Inc.

Vice President Norm Forest, Dymotek Molding Technologies

Secretary Ryan Richey, Precision Plastics, Inc. Tim Capps, Par 4 Plastics Inc. Craig Carrel, Team 1 Plastics, Inc. Michael Devereux II, Mueller Prost PC Christopher Gedwed, Cosmetic Specialties International John Hoskins, Octex Holdings LLC Glenn Kornfeld, Asaclean-Sun Plastech Inc. James Krause, Microplastics, Inc. Bob MacIntosh, Nicolet Plastics, Inc. Terry Minnick, Molding Business Services Tom Nagler, Natech Plastics, Inc. Brian Olesen, Centro, Inc. Eric Paules, Crescent Industries Missy Rogers, Noble Plastics, Inc. Alan Rothenbuecher, Benesch, Friedlander, Coplan & Aronoff LLP Chuck Sholtis, Plastic Molding Technology, Inc. Tom Tredway, Erie Molded Plastics, Inc.

Plastics Business Strategies for Today's Plastics Processors



Editor in Chief Jeff Peterson

Managing Editor Dianna Brodine

Art Director Becky Arensdorf

Graphic Designer *Kelly Adams* Peterson Publications, Inc. 2150 SW Westport Dr., Suite 101 Topeka, KS 66614 phone 785.271.5801 www.plasticsbusinessmag.com

ndustry

Advertising/Sales Janet Dunnichay

Contributing Editors Nancy Cates Brittany Willes Lara Copeland

Circulation Manager *Brenda Schell*

Processors Predict Sustained Growth in 2018

by Dianna Brodine, managing editor, Plastics Business

In many ways, 2017 has been a year of growth for the plastics injection molding industry and the US as a whole. The S&P 500 is up more than 20 percent since Q3 2016¹, unemployment is at its lowest since 2000² and manufacturing order activity reached a 13-year high in September³. Third quarter 2017 merger and acquisition activity is up 60 percent year-over-year⁴, the global market for plastics used in medical applications is expected to increase by nearly five billion pounds in the next five years⁵, the global electronics component market is expecting growth of nearly two billion pounds over the same time period⁶ and automotive programs are launching at a rate that has molders scrambling to keep up, with the estimated 2018 automotive vendor tooling spend predicted to reach a record high of \$11 billion.⁷

However, some of the old worries remain – and new ones have emerged. Hiring and retaining qualified employees is a struggle that no one seems to have the answer for in industrial trades. China continues to pressure US manufacturers, and now Mexico is more of a concern than it has historically been, particularly in the automotive and appliance sectors. Natural disasters, in the form of wildfires and hurricanes, have not only thrown shipping and transportation into disarray, but also have impacted the availability of resins.

Despite the uncertainty brought about by supply chains, end-use market swings and – as of this writing – potentially significant changes to the US tax code – US plastics processors are looking to 2018 with optimism. In this article, processors and suppliers to the industry share their perspectives on what's in store for the coming year.



Challenges ahead

Success is often accompanied by growing pains. As orders increase, plastics processors face a new list of operational concerns that must be addressed to sustain growth.

Managing growth

Blow Molded Specialties (BMS) in Pawtucket, Rhode Island, is an extrusion blow molder focused on two business segments – specialty products (primarily in medical markets) and custom bottles (a blend of medical and personal care). The company grew about 20 percent in 2017, stacked on top of a 35 percent growth in 2016. While Tom Boyd, president of BMS, believes growth will slow in 2018, he still is anticipating an increase of about 15 percent. "While our growth is exciting, adapting to the new business can be difficult. There are new things to learn, and the question becomes, 'Can we learn fast enough?""

Boyd is engaged in an effort to be sure he is, as president, working on what he calls "the right things." In his case, that means hiring employees to remove tasks from his plate that can be done more effectively elsewhere. "In November of 2016, I hired a controller, and in June of this year, I hired a director of engineering," he said. "Now, I'm more available to oversee the planning, which is where my focus should be."

Precision Molded Plastics, Upland, California, has seen tremendous growth in 2017 - a 36 percent increase on the top line following 14 years of sustained increases in profitability. The company's business model calls for a diverse customer and market mix – no more than 10 percent with any customer and no more than 20 percent in any broad industry group – and its production model leads to constant line changes, mold changes and product changes.

"My biggest concern right now is managing growth without sacrificing quality or margin," explained David VanVoorhis, CEO. "Every Friday, we have a 90-minute meeting, and we strictly focus on how we can improve the business. It's not an operational meeting – we focus on how to be a better company and better service our customers. We have to be very discretionary about what we take on to make sure it's in alignment with our business objectives."

Months of upward-moving arrows on economic charts will eventually be followed by a downturn, and Chuck Sholtis, CEO of Plastic Molding Technology, Inc. (PMT) in El Paso, Texas, is preparing. The custom molding company works within four markets – automotive, electrical, medical and industrial – but automotive is dominant, even though the volume is spread across several customers.

"We've enjoyed positive growth over the last five years, and we're looking to sustain that going into 2018," Sholtis said, "but we're due for a cyclical adjustment, driven by the macro economy. My philosophy when running a business is 'hope for the best, but prepare for the worst,' so our biggest challenge will be market diversification." Changes in sales strategies and the hiring of a dedicated sales force will assist in the effort. Al Fosco, global marketing manager for Frigel, echoed the caution required by a potential market adjustment. "Our business is booming right now, and that's going to bleed into 2018 because of a backlog of large systems. Ninety-five percent of the bump has been in the plastics industry, and we're looking at a steadily increasing market, but a lot of that has to do with new plants or plant expansions in automotive. With automotive expected to be flat next year (but at a continuing high level), everything needs to be viewed with cautious optimism."

Addressing the skills gap

Anticipation of new staff members shines a spotlight on the second challenge many processors will experience in 2018 – namely, the manufacturing skills gap. "Growing our team – hiring new people and training our current employees – will be a priority," said Sholtis. "We'll accomplish that through an apprenticeship program and the Paulson training system we reinvested in this year. That will complement the training grant we received through the state of Texas, and we'll be prepared to respond and maintain our sustained growth and customer satisfaction."

Polymer Conversions, Inc., an Orchard Park, New York-based injection molding company, also is focused on training its team members. "2017 was the start of a growth period for Polymer Conversions," explained Chief Operating Officer Ben Harp. Specializing in critical-to-life applications across a range of industries, with the majority of its work centered in medical, the company is in the midst of onboarding several new projects. Harp expects those projects to fuel the company's growth into the first half of 2018.

"As we're talking to clients about new applications and devices, we're looking for employees to add to our company, too," he said. "We spend time identifying good people, but we're also developing the people we have so we can provide a high level of service experience for our customers and build a career path for our employees."

At Polymer Conversions, that means being deliberate about pairing experienced employees with those still learning the industry. "We've always been fortunate because we've had very little employee turnover," Harp explained, "but now those longtime employees are starting to retire. As we're onboarding people, we want to be sure we're showing them the opportunities that are available."

The company also builds the new employee workload slowly. "We team them up to job-shadow mentors or senior people in a role," he said. "For several months, we may give them a customer The increased rapid development cycle is setting processors up with an opportunity. Historically, a part and the tool for that part might run for 10 years – but today, customers want to redesign and go to market as quickly as possible. Extra margin is available for the processor that is able to react quickly.

or program, but not a full load. That's by design – to make sure they have an opportunity to learn and participate before we expose them to full project management."

Processors aren't the only ones with staffing concerns. At AMCO Polymers, an anticipated double-digit growth in the next calendar year equals a need for qualified employees. "It's a struggle for everyone in the distribution industry," said Stacy Shelly, regional commercial director-Midwest for AMCO. "Our team has to have the ability to provide solutions for our customers. Hiring the right individuals takes time and effort."

VanVoorhis believes culture and a solid benefits package could be the answer. "Precision Molded Plastics is in greater Los Angeles, which is such a huge market," he said. "We run into the same challenges of finding good people in a supercompetitive market, so we have worked to create a culture no one wants to leave. We also have a really good benefits package. It's been over three years since we've had someone who has left the company."

Operational questions

Then, there are operational issues that are common across all businesses and markets. "Cash flow is a significant issue for the processors we talk to," said AMCO's Shelly. "Their customers and their customers' customers are pushing for extended terms, and the processor gets caught in the middle."

Shelly also reiterated a concern he noted in an article published in *Plastics Business* in 2016: "Our North American logistical infrastructure is in dire straits. Before the hurricanes, it was

page 10 🕨

OUTLOOK

🗲 page 9

stressed – now, it's even worse, and that could hold back some of the growth in our industry."

Frigel's Fosco mentioned increasing energy costs as a factor in 2018 growth. "From the processor standpoint, the newest thing is energy conservancy – and, not just conserving energy, but being able to record energy use and know what actual costs are for each segment of business. There are software packages related to the machines that assist with that, and the industry has seen an increase in hybrid machines. Now, auxiliary equipment is moving in that same direction – controlled systems that are cloud based to allow customers to monitor electrical consumption, which will allow processors to pound that down to cost per part."



Anticipating additional growth

Growth in 2017 (and the years prior) has everyone wanting more. Where are processors focusing their efforts?

New markets and expansion of current customer base

At BMS, Boyd is focused on potential growth in the custom bottle segment. "We've got some capacity for high-volume business," he said. "Custom bottle has a predictable product timeline, and we'd like to add a couple more substantial customers of that nature." To accomplish that, and to assist in other target business acquisitions, Boyd plans to hire a director of sales – which will be another transition of job roles from Boyd to a dedicated staff person, as he currently prospects for new customers.

Sholtis is turning PMT's business plans to value-added services that can bring new life to existing customers. "We want to do more than just core plastics processing," he said. "That might be liquid silicone rubber, vacuum metallizing assembly work or insert molding. We're going to our customers to find out what their needs are so we can fulfill them."

Shelly sees an opportunity for processors with an upswing in reshoring activity and companies that prioritize domestic sourcing. "The increased rapid development cycle is setting processors up with an opportunity," he said. "Historically, a part and the tool for that part might run for 10 years – but today, customers want to redesign and go to market as quickly as possible. Extra margin is available for the processor that is able to react quickly – especially the medium-sized processor, like those in MAPP."

Improving internal systems

To meet the growth head on, VanVoorhis is making internal improvements. "We're refining our operating systems to support significant growth," he said. "In the middle of implementing ISO 9001:2015 standards, we decided to scrap our original Anticipation of new staff members shines a spotlight on the second challenge many processors will experience in 2018 – namely, the manufacturing skills gap.

ISO program and start over when we realized there were a lot of places we could improve. We're constantly reorganizing the facility, and we have a local lean guru/operational excellence specialist coming in February to consult for six months or so. We're pushing ourselves to see what's possible."

Process improvement also is the focus at Polymer Conversions, driven by the extreme complexity of its molded products. "When I first started 15 years ago, tooling lead time was 18 weeks, and only three weeks were reserved for process development and validation," Harp said. "Today, many of our medical customers have grown the validation detail required to 15 weeks or more. We're testing the validations across multiple lots and, instead of measuring four to 10 dimensions on a part, we're measuring three times that with more complexity and with tighter tolerances."

Project deliverables have expanded from 18 weeks to 30 or more, frustrating customers and staff. "We are spending time to see how we can trim that excess validation time, whether that's through advances in metrology to remove potential measurement errors or by streamlining the validation process and customer expectations," he explained.



In 2018, NPE comes to Orlando

Held triennially, NPE2018 will bring an estimated 65,000 plastics professionals and 2,000 exhibiting companies to Orlando, Florida, in May.

Technology upgrades and supplier introductions

NPE has planned pavilions dedicated to both medical plastics and bottles – two areas of focus that excite Boyd. "I will probably send a team with the expectation that they come away with ideas that will enable us to work smarter. For us, that's what NPE is all about – technology. The 'how to do it' is why we attend MAPP events – for benchmarking and to learn better ways of running the business. But, NPE is hardware and technology."

Sholtis agreed, saying he would attend and take a team with the objective of learning about the new technologies to complement

PMT's ambitious growth plan: "We'll come up with a laundry list of technology and supply sources to research while we are at NPE, based on what our customers need."

Industry exposure

Six to eight Polymer Conversions employees will head to Orlando to see new technologies. "NPE is a platform where equipment OEMs want to showcase their developments in service offerings and equipment, and we want to be there to make sure we can bring those to our customers right away," said Harp.

"But, we also look at NPE as a way to educate some of our key employees," he continued. "It's a place we can send them to really experience the size and scope of the opportunity that exists in plastics – that we're not just Polymer Conversions, but a part of a strong, healthy industry. We like to send a couple of employees to show them that where they're at is a good spot." ■

References

1. CNN, http://money.cnn.com/2017/11/08/investing/trump-rally-anniversarystocks/index.html

- Wall Street Journal, https://www.wsj.com/articles/hiring-rebounds-inoctober-unemployment-rate-falls-to-4-1-1509712307
- Markets Insider, http://markets.businessinsider.com/news/interestrates/ U-S-Manufacturing-Index-Pulls-Back-Off-Thirteen-Year-High-In-October-1006457848
- 4. Stout, https://www.stoutadvisory.com/insights/industry-update/plastics-and-packaging-q3-2017
- 5. BCC Research, Medical Plastics: Technologies and Global Markets, www. bccresearch.com
- 6. BCC Research, Plastics in Electronics Components: Technologies and Global Markets, www.bccresearch.com
- 7. Harbour Results, Inc., Annual Automotive Tooling Update, www. harbourresults.com

