

PIRAMAL GLASS

getting future-ready

Glass Machinery Plants & Accessories (GMP&A): Your recent press release informed us that you have set up an important collaboration with Microsoft. How do you expect this to improve and change your production? What will be the outcome in terms of production quantities and quality?
Vijay Shah, Director - Piramal Glass & Executive Director - Piramal Enterprises Ltd: Piramal Glass is a global specialist in the design,

production, and decoration of glass packaging (flaconnage) solutions for Pharmaceutical, Cosmetics & Perfumery, and Specialty Food & Beverage industries. We partnered with Microsoft for their Azure IoT platform to digitally transform our manufacturing operations. An early adopter of the technology, we have currently implemented a custom-developed solution, Real-Time Manufacturing Insights

(RTMI), on 46 production lines across four plants at Kosamba and Jambusar in Gujarat, India, Sri Lanka and the United States. The plants have an overall capacity of 1,375 tons per day, with 12 furnaces and 60 production lines, all of which run on a 24/7 basis.

We have leveraged IoT to get real-time visibility into our line manufacturing operations and to analyse production line losses at various stages. With the Azure



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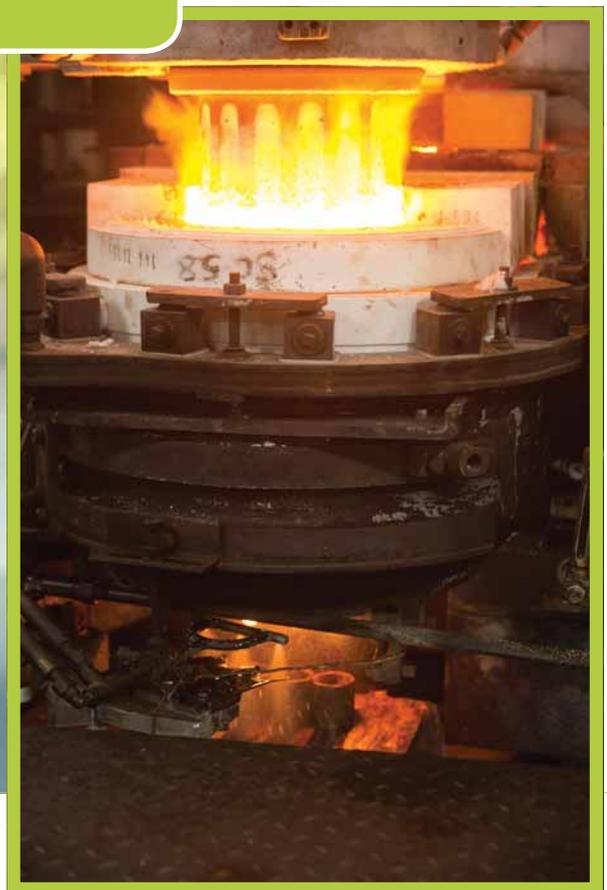


After a recent announcement regarding an important collaboration with Microsoft, we speak to Vijay Shah, Director of Piramal Glass and Executive Director of Piramal Enterprises, to find out more on how this global specialist in design, production, and decoration of glass packaging solutions is using this technology to strengthen and accelerate growth in all aspects of its business.

IoT platform, Microsoft and its partners have helped us acquire data from sensors on production lines to identify quality parameters at each stage and get insights on line efficiencies in real-time. This resulted in one per cent improved production efficiency within eight months and 40 per cent reduction in manual data gathering. With real-time feedback and communication, we have seen lower numbers of defects being generated. The investment in this solution is up to 70 per cent less as compared to a glass industry manufacturing execution system (MES).

GMP&A: You mention digital transformation – how is this integrating into your present production and products? What are the benefits for the end users of glass packaging?

Vijay Shah: Glass manufacturing is a complex process with many interactive variables. Combining digital technologies with precision high-quality glass manufacturing has helped our company strengthen its acceler-



ated growth path. Our digital strategy encompasses transformation of all aspects of our business, including production, quality, logistics, sales and customer service.

As a part of Piramal Glass digital roadmap, we have prioritized initiatives that will have a positive impact on the customer's journey:

- Smart Manufacturing and Smart Supply Chain initiatives enable better predictability of planning, production and logistics;
- Connected Workplace initiatives including innovation management, e-Learning & AI-based Chatbots enable up-skilled and satisfied employees to service customers;
- As a part of Customer Delight initiatives, product catalogue apps and augmented reality tools for customers helped conceptualize new designs. In order to be closer to customers, we plan to implement highly interactive collaboration tools to enable new product development.

Ultimately, the objective is to create an exhilarating experience for customers by leveraging emerging technologies and more importantly, providing high-quality customised glass packaging solutions.

GMP&A: In the release, you speak about a custom solution – what kind of demands did you have other than production? How will the use of this new software affect your personnel in terms of skills?

Vijay Shah: To develop the RTMI platform, we empanelled one of Microsoft's partners that brought in its Plant Monitoring System hosted on Microsoft Azure. A custom solution was developed on top of this system to provide stage-wise losses, production reports, quality

control workflows as well as role-specific KPIs on PCs and smartphones of plant personnel. Actionable alerts are sent through SMS, email and push notifications whenever there is an anomaly detected or the production efficiency drops. In summary, RTMI has democratized real-time information availability to all plant stakeholders, enabling them to take faster decisions.

In addition, the data that is captured across the manufacturing operations is being leveraged to create AI models that will predict yield, quality issues and defect causality. This will augment our experienced personnel to take better and faster decisions.

GMP&A: How do you see the near future of the glass packaging industry? What could be the next steps involving Industry 4.0 for example?

Vijay Shah: We are the largest specialty glass player in Asia and have been the fastest growing glass company in the world for over a decade. Our company is the only significant player from Asia with a strong presence in the premium segment. We have progressed rapidly on our Digital Transformation journey and have made substantial investments in IoT as well as other digital technologies. While many of our digital initiatives started as experiments, a number of these have been scaled up, namely, computer vision to improve worker effectiveness, persuasive technologies to drive innovation, bots to enhance employee productivity & AI to create a manufacturing process Digital Twin.

We at Piramal Glass strongly believe and are optimistic that technologies such as IoT, AI, AR/VR & Bots have reached



an inflection point and will help businesses, including Glass industry, to improve operational efficiency and enhance the overall customer experience. These will positively impact all aspects of the organization, not just manufacturing, making Piramal Glass future-ready. ■



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