A close-up portrait of Deepak Pahwa, a middle-aged man with thinning hair, wearing glasses, a dark suit, a white shirt, and an orange tie. He is looking directly at the camera with a slight smile. The background is dark, and there is a large, semi-transparent orange shape in the lower right corner that overlaps the text.

Technology Adoption

to Play a Pivotal Role
for Plastic Auxiliaries

Deepak Pahwa
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Gurugram

"With rapid technological advancements taking place in manufacturing - Industry 4.0, growing usage of Artificial Intelligence (AI) etc., it's manufacturing which is seen to provide sustainable growth and rise in the career path of young Indians," opines Deepak Pahwa, in dialogue with POLYMERS Communiqué.

Q. What new opportunities for environment control are you witnessing today. Tell us more about the opportunities presented by the manufacturing of electric vehicle batteries.

The demand for reliable and trustworthy environment control solutions is ever increasing. With the fast-paced growth across industries, countries, economies...and ignorance towards key natural resources and the environment at large, going forward we see immense opportunities for environment control solutions. Fresh air or non-contaminated air will become a dire need with rapid civilisation and technology growth. Take, for example, the boom in the energy storage and EV (electric vehicle) markets. The driver is 'greener technology', alternative solutions to declining resources but come with the same challenges to address / minimise the environmental hazards, risk to humans and finding a sustainable model to sustain the need of modern mankind.

The Indian market has huge potential for EVs and is fast growing its capacities to be a self-sustainable EV manufacturer with all technologies / materials / machinery / dry rooms being available for enhancing and driving the needs of next-gen Indians.

Analysing the trends in the space of EV, it looks like for the next few years, the raw material driving the market and in immense demand across the globe is lithium and related battery materials.

There are four critical legs on which the lithium battery production space stands on:

- Technology
- Raw material / other inputs like battery separators
- Machinery, and
- Dry Rooms

Lithium battery manufacturing is a very critical process and requires ultra-low dew point conditions for production. It requires dry rooms with environmental control equipment which can help achieve <1% RH conditions.

As a key industry stakeholder working in the transformative mobility and energy storage space, in the field of providing dry room technology, which is critical for lithium battery manufacturing, Bry-Air is well-equipped as a 'Made in India' dry room technology supplier offering patented solutions to cater to the growing EV battery manufacturing market.

Q. How would you rate the technology adoption by this industry (plastic auxiliaries)?

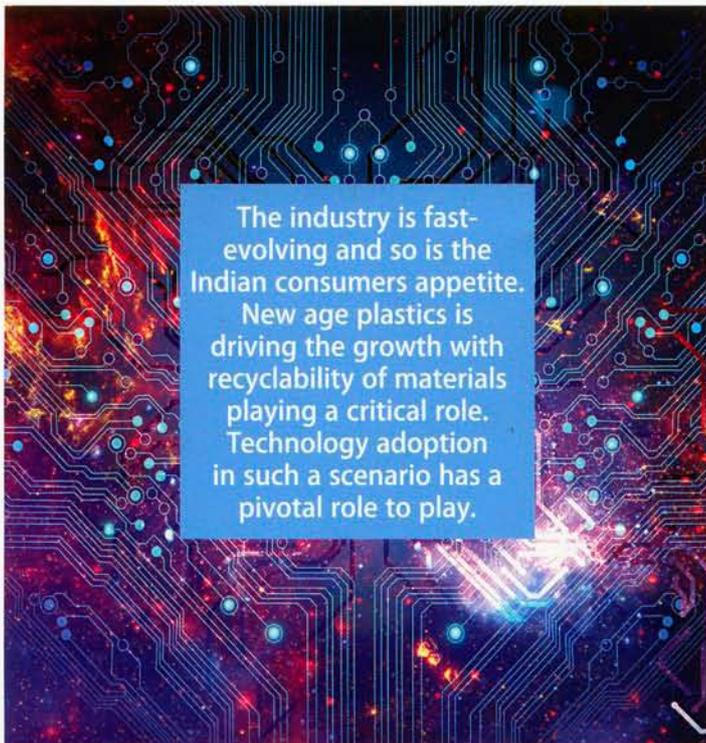
The industry is fast-evolving and so is the Indian consumers appetite. New age plastics is driving the growth with recyclability of materials playing a critical role. Technology adoption in such a scenario has a pivotal role to play.

The Indian consumer is now discerning, more conscious and aware of the nuisances of plastics. Yet, he / she is privy to the importance of plastics in daily life needs.

The consumer / manufacturer is more concerned about the grade of plastic being manufactured / used, stringent quality checks it has undergone, certification by leading domestic and international bodies of repute and none-but-the-least conformability and recyclability.

Hence, role of technology in traceability, real-time analysis, measurement and control of moisture during processing, recyclability and predictive maintenance are all the more important for plastics auxiliary manufacturers.

Bry-Air, a front-runner in the plastics auxiliary business, also specialises in real-time, inline



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moisture measurement for varied industrial applications. A wide range of bulk materials, both organic and synthetic, wherein measuring real-time moisture content is essential, Bry-Air Prokon's swiss made Moisture Minder™ incorporating patented BRYSCAN™ sensor technology is the perfect saviour. Our sensor is one of the main items supporting the plastics industry's quest for 4.0.

Q. According to you, in plastics, the top three business opportunities in India and overseas for auxiliary manufacturers.

The highly engineered and new age plastics are changing the usage and consumption pattern of plastics across industries like automotive, food, medical, white goods, electrical and cable industry etc.

To support this fast-evolving and ever-changing Indian and overseas plastics growth, we do believe the top three business opportunities for auxiliary manufacturers currently are:

- Moisture Analysers
- Predictive Maintenance, and
- Drying and Conveying

Bry-Air, leader in plastics dryers since 1978 in Asia and North America, has been working on

these growth areas for long and has developed some very fine products to cater to your new age plastics requirement.

Q. Drying, conveying and blending for the plastics industry. Any disruptor technologies that the industry in future can witness?

The current business scenario is such that every now and then you hear of a new technological advancement / breakthrough which has created ripples in the industry. Some survive the test of time, some die out fast and some are there to stay for long.

Major technological advancements which are primarily driven by customer needs and wants are here to stay. It may take time to evolve and create its own path, but in the long run will show its impact. Industry 4.0 is one such disruptor technology and its role in plastics auxiliaries business is already started to seep in.

Adapting AI and other such augmented technology tools in manufacturing is leading the way and plastics auxiliary industry is no exception.

Bry-Air has the capability to provide solutions which helps you in your march towards Industry 4.0. Depending on the customer's requirements, we customise our products and services.

Bry-Air BrySmart® Wheel Dryers (BWD series) is one such product from the Bry-Air family which is high on energy saving, reliable and leads to significant cost savings. Product USP and features like BrySmart Controls, Super BryWheel™ Rotor, remote accessibility and predictive maintenance (on request) are incorporated in BWD series dryers which help in your march towards 4.0.

Q. As you look back on your journey, what do you consider as the most pivotal period for you in business?

There is no such pivotal period in my business which I recall. The only times I do remember, are the times when the going gets tough and we have sailed through very smoothly. We, as an organisation, believe in innovation in technology and business processes and that has been the driving philosophy of the Pahwa Group over the years. The Group has filed 123 international patent applications in 13 new technologies (since 2007), of which 46 patents have been granted / allowed already.

The industry is fast-evolving and so is the Indian consumers appetite. New age plastics is driving the growth with recyclability of materials playing a critical role. Technology adoption in such a scenario has a pivotal role to play.

Q. From an integration perspective and with increasing impact of Industry 4.0, what challenges are faced by suppliers as you?

India is a very price sensitive market and adaptability to new technology takes its own time. Customers wait till the fag end till there is a huge push or demand from the end consumer, but the good part is when change becomes inevitable and it comes with a sudden rush, organisations need to be well-equipped to cater to the huge demand.

Bry-Air, where innovation is life, has always been ahead of its time and likes to be a front-runner in all new technological advancements related to its businesses. Hence, we do not face major challenges as we are already well-equipped and waiting for the right time to come to deliver.

Q. According to you, the biggest change your organisation has embraced in the last 30 years?

Our organisation, right from the earlier days of its inception, had embraced one change and which has stayed with us as part of our DNA during the rough and smooth sailing is the family bonding. Employees are our core strength and the united, yet diversified, family is what has got us where we are today and will take us places in future.

We value our human resources and even today, being a global company and having 1500+ employees across geographical regions, Bry-Air retains its pride of being one united family.

Another major change which the organisation has embarked upon is the digital transformation journey. We, as an organisation, have decided to embrace digital transformation in all we do

and the journey would take us 12 - 18 months from now.

Q. Today, how attractive is manufacturing as a career?

Manufacturing as a career has never been the preferred choice for young engineers. It has always been the second distant choice and so have been the professionals in this field. They have never marketed their profile as an interesting field for career growth, not denying the commitment and hard work demanded by the sector.

Very recently, due to the slowdown in lot of major industry segments and the advent of IoT (Internet of Things) and digital transformation across the manufacturing sector, suddenly there has been a surge of demand in manufacturing as a career. Students / freshers have come to accept the fundamentals and accepted the new revamped manufacturing sector with open arms. With rapid technological advancements taking place in manufacturing - Industry 4.0, growing usage of Artificial Intelligence (AI) etc., it's manufacturing which is seen to provide sustainable growth and rise in the career path of these young Indians.

It is an equally viable and attractive career option and we have always played a pivotal role in promoting youngsters to take up manufacturing as a career under its students programme called Bry-Air Learning Initiative (BALI) wherein students are taken to one of the most accomplished HVAC&R exhibition, given a 2-day exposure to the good work / innovations undertaken in the industry and manufacturing as a lucrative career option. ■■

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