

Manufacturing Today

DECISIVE TOOL FOR MANUFACTURING EXCELLENCE

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A good moulded product needs the right mould

Mitsubishi is the first choice for all mould makers to achieve consistent quality mould making with lesser cycle times and economical prices.



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DECISIVE TOOL MANUFACTURING EXCELLENCE

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CUTTING TOOLS

A CUT ABOVE

IMTEX 2017

EVENT PREVIEW

UPWARD FLIGHT

**RAJESH KHATRI,
ED & CEO, TAL
MANUFACTURING
SOLUTIONS,
HAS SET THE
AEROSPACE
AND ROBOTICS
DIVISION
ON A NEW
TRAJECTORY**



A CUT ABOVE

EVOLVING CUSTOMER NEEDS HAVE LED CUTTING TOOLS VENDORS TO INCLUDE INNOVATIVE AND INDUSTRY-SPECIFIC SOLUTIONS IN THEIR PRODUCT PORTFOLIO.

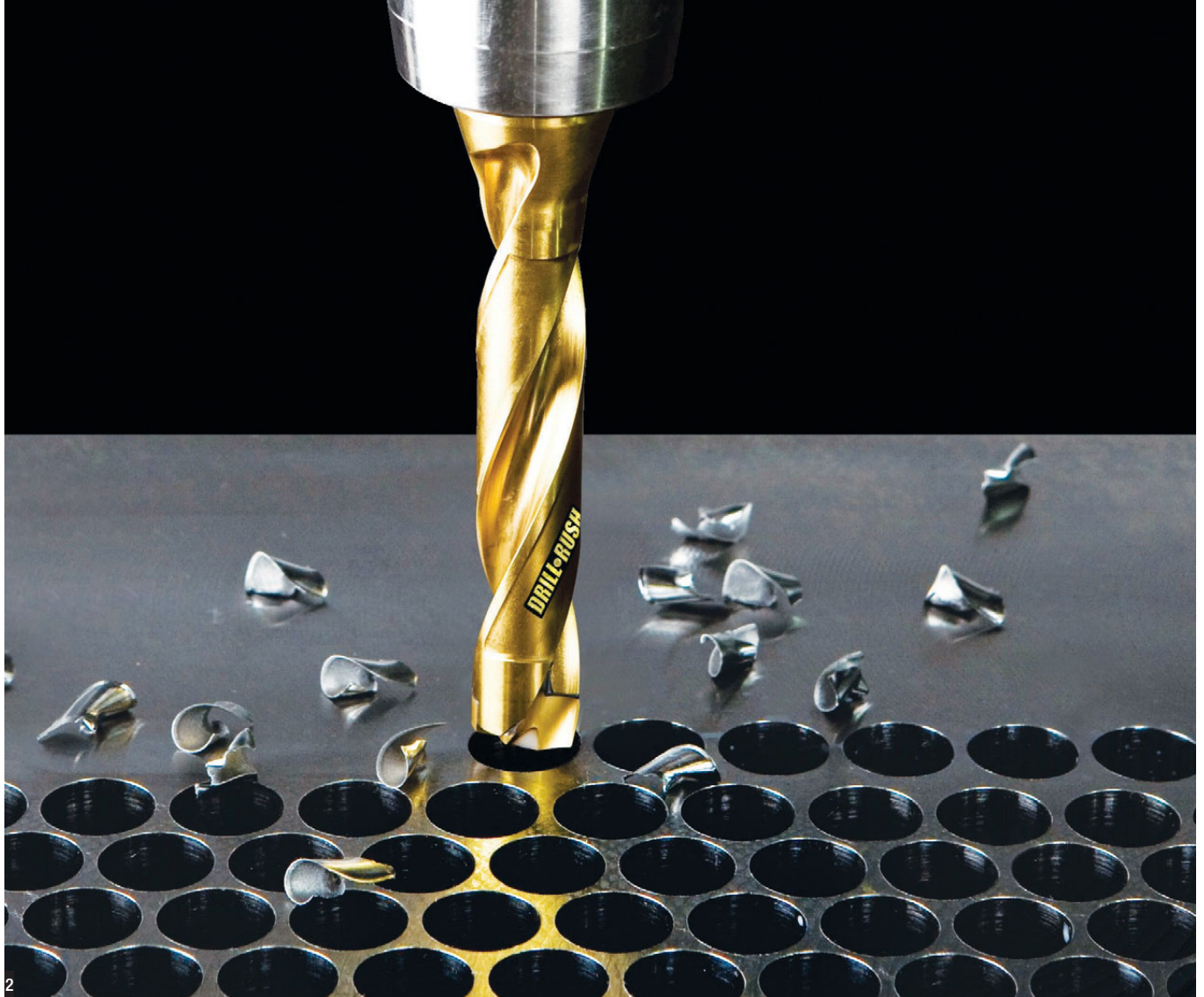
BY MITALEE KURDEKAR

“LIFE DOESN'T MAKE ANY SENSE WITHOUT interdependence. We need each other, and the sooner we learn that, the better for us all,” said renowned American psychologist Erik Erikson. One of the least talked about concepts in today's business environment is interdependence. Yet, it is at the heart of any business. The cutting tools industry is no different. Not only is it codependent on its customers in

the metalworking industry to grow, but it also shares a strong working relationship with them. They owe their existence to each other and prosper in the company of one another. Therefore, one notices a strong collaboration between players from either side.

While the cutting tools industry provides quality products, user-friendly service, on time delivery at best-in-class costs to its customers in the metal-

1. TaeguTec's state-of-the-art facility at Bengaluru manufactures world-class tooling solutions.



If we are able to demonstrate a satisfactory value proposition, customers are more than willing to migrate to more expensive solutions.
- L. Krishnan



Customer specific tie-ups are needed as it enhances the commitment to a project.
- V. Srinivasan

2. TaeguTec's DrillRush cutting tool in action.

working industry, they in turn continuously work with cutting tools vendors, apprising them of their evolving requirements and supporting them in their development activities.

BUSINESS RATIONALE

Globally, the cutting tools industry is large in size in countries like Germany, Japan, US and China. However, consumption in the West is not growing in line with their production capacities, owing to a slow-down in the manufacturing sector over the past few years. It is encouraging to note that, according to a recent report, there has been a slight improvement in consumption numbers over the year 2016, suggesting that the market is turning over and that it can now push for productivity improvements to serve the global markets better. So where does India stand in this kind of scenario?

If industry insiders are to be believed, the Indian economy is on the brink of big change with the Make in India initiative finally taking shape. While most economies are grappling under pressure, India presents a great opportunity for steady growth. Leading this growth are key industries such as automotive, heavy engineering, aerospace, defence, etc. Of course, the success of these industries is largely dependent on their use of capital assets. Seeing as

how cutting tools help in improving the productivity of those very capital assets, their importance to the manufacturing sector is a given fact.

Brajesh Kumar, MD, Walter Tools India, states, "The internal demand for energy and railways is high in India. The aerospace industry is mostly export based and it is showing a really impressive growth in the past few years. While the automotive segment contributes to a major share of Walter's business, Walter has established its dominance in other resilient segments like railways, aerospace, power equipment and so on. We have a strong product line and customised solutions for very specific machining needs of these emerging sectors. Our engineers bring world-class technologies to the customer through Walter's Engineering Kompetenz promise."

The Indian cutting tools industry has grown significantly over the past two decades, thanks to strong growth seen in important sectors like automotive as well as both heavy and light engineering. A similar growth in power generation, railways and defence production, largely in the Government arena and managed by the Government of India, has also been a major demand driver for cutting tools. In India, such products are largely classified into two important sub groups – High Speed Steel (HSS) tools and carbide cutting tools. Though carbide tools are growing in



Whenever we plan for a new customer, we position it to be one of the best in the world at that particular time.
- Gautam Ahuja



While the automotive segment contributes to a major share of Walter's business, Walter has established its dominance in other resilient segments.
- Brajesh Kumar

3. Milling inserts by Dormer Tools India.

4. Dormer conducts customer surveys to develop tools that are better suited to user needs.

5. Minda SAI uses semi-automatic tooling solutions to improve output quality.



THE CUTTING TOOLS INDUSTRY HAS STOOD UP TO THE TEST BY MATCHING PRODUCT DEVELOPMENTS WITH MARKET CHANGES.

demand as compared to HSS tools due to increasing demand from engineering units, HSS tools have also picked up well in niche industries.

With changing market requirements like new work materials to tool, new technology to do multiple metalworking simultaneously and productivity improvements to beat the cost of investment, the cutting tools industry has stood up to the test by matching product developments with these changes. Industry players are quite confident that the revival in Indian user industries will drive business growth for them, even as various Government initiatives add to this momentum.

RECOGNISE AND RESPOND

Domestic cutting tools manufacturers are today witnessing tremendous competition, not only from lo-



cal vendors, but also from some global players who have entered this lucrative Indian market. In this buyers' market, the customer is the king. This raises expectations from suppliers in terms of providing technological superiority and productivity at a best-in-class cost. As a result, suppliers need to recognise customer needs even before they themselves realise them, and thereafter quickly respond with a suitable, new or tweaked product. Such a give and take drives business growth for both.

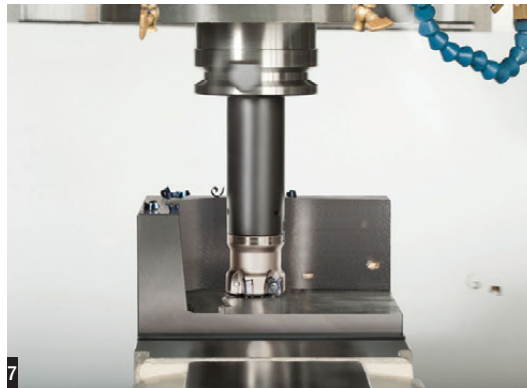
Jay Shah, MD, Tungaloy India, agrees when he says, "It is extremely important for us to understand the customer requirements, and for this, we are always in touch with the industry. Our team is always in close contact with end users to understand the new components and materials that are being developed."

Explaining the process followed by his company, **Gautam Ahuja, MD, Dormer Tools India**, states, "Whenever we plan for a new customer, we position it to be one of the best in the world at that particular time. Customer surveys are done prior to this, in order to understand the upcoming needs of the customers, which could be in terms of improving the productivity, tool life or certain quality parameters."

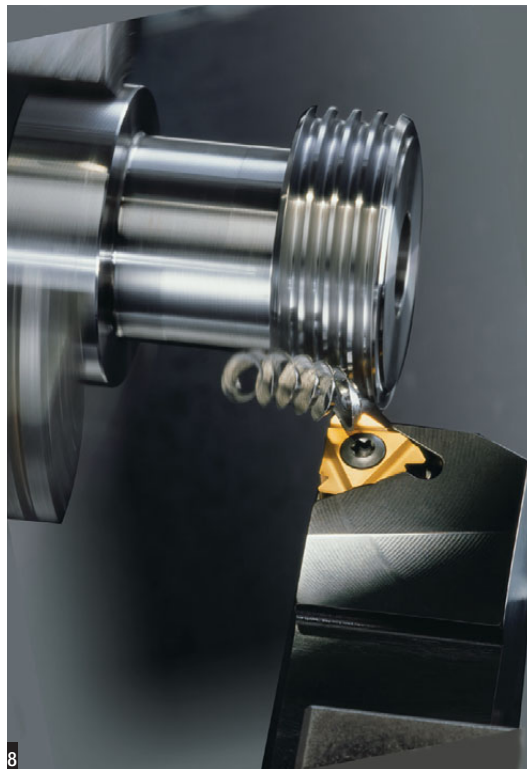
The cutting tools industry has a diverse customer base with varying requirements. Yet, they remain receptive to ideas and stay ahead by spending their development efforts researching on new materials, new processes and productivity measures. **L Krishnan, MD, TaeguTec India**, elaborates on this point, "As a cutting tool supplier, we need to be tracking several developments in the industry. Many of them,



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Our team is always in close contact with end users to understand the new components and materials that are being developed.
- Jay Shah

6. Before developing new products, Tungaloy's team works closely with customers.

7. Tungaloy's DoFeed tool at work.

8. Walter provides customised solutions for very specific machining needs.

9. Walter is targeting emerging sectors with its products.

at the outset, may seem unconnected, but have an impact on our customers and in turn on our research and development strategies. If a manufacturer chooses to change engine material from cast iron to aluminium, it would be a different tooling development challenge altogether from the cutting tool supplier's point of view. In aerospace, using more CFRP/composites for structures pose completely different machining challenges as compared to machining of aluminium alloys or titanium-based structures."

Adding to this, **V Srinivasan, SBU head, southern region, India, Minda SAI**, suggests, "Volatility in business is a normal phenomenon. Customer specific tie-ups are needed as it enhances the commitment to a project." Of course, it is equally imperative that customers be open to accepting new technology as developed by cutting tools vendors. As Srinivasan proclaims, "We at Minda SAI are highly quality conscious and therefore have invested in state-of-the-art manufacturing facilities across the country."

Gradual changes in machining materials and targets for improving productivity of machining jobs are seen to be the biggest challenges in this industry. Both have immense influence on costs of machining activities per piece. Ahuja explains, "There is a gradual shift in the materials from alloy steels to light weight alloys having a strength similar to steel. These HRSA materials are difficult to machine, and require very sharp geometries and special grades." For cutting tools, Dormer Pramet has special geometries, which can take low depths of cut, but still take a high feed rate, thereby improving the productivity at all stages of the manufacturing process.

On the other hand, Tungaloy too is constantly upgrading their portfolio. Shah points out, "In our catalogue today, more than 60% of the products are less than three years old, as we need to constantly