THE QUIET RISE OF AN ENGINEERING FORCE

TK Karuppannaswamy, Founder & Chairman, Barani Hydraulics India Pvt Ltd, received the IMTMA–Premier Outstanding Entrepreneur Award at IMTEX FORMING 2026 at BIEC, Bengaluru — a moment that prompted reflection on the company's journey.

Source: Barani Hydraulics India Pvt Ltd

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"As I stood on the stage at BIEC to receive the award, I was transported to the time I began my entrepreneurial journey in 1988 after eight years of employment," the Chairman shared.

Karuppannaswamy's early ambition was modest: to create employment for at least ten people. "The goal was manufacturing hydraulic machines, but none of the organizations were willing to place an order with a micro-level industry for capital machines," he noted.

Despite the initial hurdles, his focus on building hydraulic equipment remained unwavered. The company began by producing hydraulic jacks and small presses for the motor pump industry before gradually moving into more advanced machinery. Over time, it progressed to manufacturing presses that met corporate standards and eventually entered international markets.

The company was also honored with the IMTMA Export Performance Award in Memory of Shailesh R. Sheth in the Metal Forming category, recognizing its significant achievements in exports of machine tools and related products.

"Though Barani has already received national and international awards, these two prestigious awards from IMTMA are a real honor for us and a recognition of true Indian engineering values. They motivate us to serve our nation even better. We sincerely appreciate IMTMA's contribution and encouragement in promoting Indian engineering successfully in the global arena."

When Opportunity Knocked – Barani Answered

Several defining moments helped the company transition from a small manufacturing unit into a global supplier. One of the first major breakthroughs came in 1997 when a leading motor pump manufacturer in India began exporting. "It chose not to import hydraulic presses and instead entrusted us with developing indigenous machines," he shared.

Another important project followed in 2005. "A leading automotive wheel rim manufacturer handed the opportunity for manufacturing the wheel rim

project line with automation," Karuppannaswamy said.

The company achieved another milestone in 2008 when it worked with an Indian market leader associated with a Japanese global manufacturer for a joint venture project. "We got the opportunity to develop JIS Grade-1 accuracy level presses that were certified by the Japanese team for their country standards," he said.

He noted that these experiences significantly strengthened the company's confidence. "These successful opportunities increased our confidence in providing total solutions to customers and entering the global arena," he added.

Coimbatore's Influence

A substantial part of the company's success is rooted in the Coimbatore ecosystem. The region's entrepreneurial spirit has played a pivotal role in shaping the company's identity. "The geographical area supported our progress and helped us gain the confidence to compete globally with pride as an Indian manufacturer," he shared.

"Known as the Manchester of South India, Coimbatore has a long tradition of engineering excellence, innovation, and self-reliance, and hosts nearly 80 percent of India's motor pump manufacturing industries in and around the region," he noted.

He added that collaboration within the local industrial community helped the company continuously improve. "The presence of strong industrial associations, technical institutions, and knowledge sharing among entrepreneurs helped us learn from peers and continuously raise our standards," he said.

> "Though we had a lot of struggles, the ambition to build hydraulic products never deviated. We started by manufacturing hydraulic jacks and small presses for the motor pump industry. We later built presses that met corporate standards and eventually entered global markets."
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> **TK Karuppannaswamy**
> **Founder & Chairman**
> **Barani Hydraulics India Pvt Ltd**

Integrating Artificial Intelligence into Machinery

As manufacturing industries are increasingly adopting digital technologies, the company has also incorporated artificial intelligence into its machine-building processes. "As man-dependent activities are reducing, industries have started focusing on Industry 4.0, industrial safety, and consistent performance in both quality and productivity. Artificial Intelligence support is a must now," he said.

He noted that modern manufacturing increasingly relies on data-driven processes. "Almost all the manufacturing sectors are focusing more on process capability with data science. AI integration has become essential."

"As an equipment manufacturer for more than a decade, we have introduced AI and data-driven intelligence wherever possible. To compete globally, it was essential to introduce upgraded technology with modern resources," he added.

Establishing Indian Engineering in Global Markets

Entering global markets was not without challenges. Karuppannaswamy explained that Indian manufacturers initially faced skepticism from international customers. "A decade ago, it was difficult to get leading global manufacturers to accept Indian capital machines," he said. The company addressed this perception by focusing on advanced engineering and global certifications.

"Meeting global standards such as JIS, CE, UL, and NR12 was another major challenge," he noted. Persistence and continuous improvement eventually

Source: Barani Hydraulics India Pvt Ltd

Barani Hydraulics India Pvt Ltd currently supports customers in more than 20 countries and has expanded its manufacturing footprint with additional facilities.

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paid off. "With a lot of struggle and learnings, Barani machines have been certified with almost all the global standards, capable of exporting anywhere in the world," he emphasized.

He also pointed out that the company's ability to offer customized solutions helped it stand apart. "Some hydraulic press manufacturers restrict their product range to specific segments and produce standard catalogue products in large volumes," he said. "But Barani is more focused on customized solutions and providing total solutions to customers."

He added that the company now serves more than 100 industrial segments, which has become a key strength.

Balancing Heavy Engineering with Digital Technology

Shedding light on global customers' expectations for strong structural design and advanced monitoring systems, the Chairman said, "Construction rigidity with adequate safety factors in our designs, structural analysis for every product, the introduction of digital inspection procedures, and the capture of functional and process data are essential."

The company therefore integrates digital tools with traditional heavy engineering. "We are deliberate in adopting digitalization and advanced technologies to achieve higher uptime, improved quality, enhanced safety, and longer machine life," he said.

He added that the company designs machines so that "software enhances hardware, real-time monitoring improves consistency, data analytics reduce downtime, and smart controls make machines less operator-dependent."

Expanding Global Reach and Future Plans

"Barani Hydraulics always focused on introducing new technology. With every decade of our journey, we have adopted modern techniques at par with global manufacturers," Karuppannaswamy explained with pride, hinting at the company's expansion of its technology base and manufacturing capabilities.

He noted that the company now offers complete project lines along with hydraulic presses. "As an Indian capital machine manufacturer, our product range is not only hydraulic press but also other related machines in the total project line with automation as a total solution," he said.

Barani currently supports customers in more than 30 countries and has expanded its manufacturing footprint with additional facilities and spread the wings in its product manufacturing divisions, associating with the world's top MNCs as a strategic supply partner. "Now we have opened a new facility that is ready to serve as a strategic supply partner for a multinational corporation to cater to its global needs," he said.

Karuppannaswamy established a charitable trust in 2009 and went on to found Jai Shriram Engineering College near his hometown, with the aim of providing quality higher education to the rural community. The institution has since nurtured over 4,500 engineering graduates and professionals.

Complementing this initiative, the Barani Technology Training Centre focuses on imparting hands-on experience, helping students enhance their practical skills and evolve into industry-ready, creative engineers.

He also revealed that the company is involved in a major project aimed at reducing India's dependence on imported machinery. Reflecting on the broader transformation of the country's manufacturing sector, he said, "India is no longer just a low-cost manufacturing country. We have grown significantly, and Indian manufacturers are proudly carrying the Indian engineering banner across international markets, and Barani Hydraulics is one among them."