

Industry Outlook

DEFENCE MANUFACTURERS

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Rajamanickam,
Managing Director

IYAPPAN ENGINEERING INDUSTRIES

*The Harbinger for a
Truly 'Aatmanirbhar
Bharat'*



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COVER STORY

The aerospace and defence (A&D) industry in India is a multibillion dollar industry and a focus market for many international A&D businesses. Domestic industrial goods conglomerates seeking non-linear growth through positions throughout the A&D value chain on various platforms find the Indian market to be appealing as well. This is a result of reduced defence spending in Western nations, whereas Saudi Arabia and India continue to spend steadily more on defence. In addition to this, over the past two to three years, new policy changes have allowed the Indian defence industry to mature. As a result, the government has been able to quickly advance important programmes to close the military's significant asset gaps—the so-called "principal aim." The amount of work, measured in dollars, that is carried out in India's defence industry is rough-

ly equal to 18 billion. Consequently, MSMEs offer the greatest manufacturing depth due to their presence in Tiers-II, III, and IV of the supply chain. They are the sector's most significant force multiplier in the defence manufacturing industry in India. Thrust for R&D ecosystem is also helping the academicians and the MSMEs to collaborate. In an effort to reduce dependence on imports, The 'Make in India' initiative, which aims to achieve 70 percent indigenisation has been a key focus of the defence sector. DPP 2016 has introduced new procurement categories such as Buy-Indigenously Designed Developed and Manufactured (IDDM), Make-I and Make-II, to supplement the 'Make in India' initiative and inclusion of MSMEs. The various programs conducted by DDP and PSUs, to create awareness about Make I, Make II, and iDex, is helping the SMEs to understand the requirement better and helps them to choose their path. "Our Government's vision to shift our stand from Defence Importers to creating a Global manufacturing Hub in India is very encouraging", Rajamanickam, Managing Director, Iyappan Engineering Industries.



Our business is motivated by a desire for import substitution, which has helped us advance in this field

**Rajamanickam,
Managing Director**



Based out of Chennai, and building a legacy of quality products for the past 45 years, Iyappan Engineering Industries specializes in manufacturing of Precision hydraulic assemblies. Iyappan Engineering Industries has been catering to Rail, Power, and Automobile sectors. Precision hydraulic assemblies and electro mechanical parts are the focus of the company's production of import-substitution goods for the power and defence industries. "Our business is motivated by a desire for import substitution, which has helped us advance in this field", adds Rajamanickam. Rajamanickam is backed by 20 plus engineers who have undergone training in Japan, Switzerland, and Russia. Along with Rajamanickam, T.Palaniappan - Director Operations, and Uma Meiyappan - Director Commercial, envision an India truly self-reliant and work towards the same.

What Clients Need the Most that Iyappan Delivers

Quality and Delivery Timelines have always been the major expectations of clients, as per Rajamanickam. He further shares his views on the urgent need saying, "For India to become self-reliant, SMEs need to start playing a bigger part in Defence manufacturing by meeting Global quality standard". Understanding the needs of the contemporary industrial ecosystem, Iyappan Engineering Industries has evolved from a conventional family-owned SME to a process-driven company. As an AS9100 D certified business, the firm has implemented quality management systems. Iyappan Engineering Industries also follows Process control with PFMEA.

Since the beginning, beginning with the power industry and the defence sector, we have been practising import substitution. As a result, we have a good understanding of all the steps involved and are prepared to handle the low volume manufacture.

To assist with any development concerns, Iyappan Engineering Industries also collaborates closely with academics. Accordingly, the firm is well-equipped to join a defence manufacturing consortium and is open to joint ventures and knowledge exchanges.

Products in Detail

Iyappan Engineering Industries has improved facilities of Quality Control Department Equipped with CMM, and Profile Projector etc. that have added value for quality inspection at works. The firm also has a hydraulic testing facility up to 600 bar & pneumatic testing facilities up to 200 bar. Iyappan Engineering Industries has the ability & capacity to manufacture components/assemblies based on drawings or by reverse engineering. The products manufactured for Defence establishments are Gun elevation hydraulics for T90 & T72 tanks, Pedestal X apar for Naval guns, Roller support

assembly for K9 Vajra tank tracks, Cylinder with valve for T72 tank, Delivery pump & Suction pumps for T72 tank, Gas valve for suspensions, Loader fire safety device, Manual pump, and Hydraulic & Mechanical assemblies for K9 vajra tanks.

Specializations at a Glance

- Hydraulic Block assemblies of size 300mm x 200mm x 200 mm & up to 600 bar pressure.
- Hydraulic Actuator assemblies up to 300mm bore diameter and stroke of 400mm length.
- Rotating cylinder assemblies with hydraulic rotating union up to 415mm diameter cylinder with a maximum stroke of 100mm.
- Servo mechanism hydraulic assemblies using electromagnetic principle.
- Pressure relief valves & Pressure reducing valve assemblies up to 600 bar.
- Roller support assemblies with rubberization for Defence Track vehicles.
- Manufacturing of Piston & Gear Pump up to 250 bar pressure.
- Any Electromechanical assemblies

Future Roadmap

The next years if implemented properly will be the golden period for MSMEs in the Defence sector. Expressing the firm's aspirations, Rajamanickam says, "We as a company are poised to grab the opportunities that has opened up now in the industry. We hope to be a part of the Global manufacturing hub in India. Collaborations will take SMEs a long way and will pave way for bigger projects. The capacity and capability will increase in multiple folds". Iyappan Engineering Industries, as a company, will continue to focus on high precision Hydraulic, electro mechanical and mechanical assemblies. Most important, the firm will continue to focus on Quality and be part of the 'Make in India'. "We are an SME but are always poised to venture into new development and understand the stringent Quality requirement. You need to have the patience, passion and perseverance to be in this industry", Uma Meiyappan, the Director-Commercial, takes pride in saying that Iyappan Engineering, as an MSME, wants to contribute towards making Indian MSME a Global brand. "We strongly believe that only an 'Aatmanirbhar Bharath' can make a 'Shrestha Bharat' JAI HIND", concludes Uma Meiyappan. ||

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IS PROUD TO PRESENT

IYAPPAN ENGINEERING INDUSTRIES

AS ONE OF THE

TOP 10
DEFENCE MANUFACTURERS
2022

in acknowledgement of its unwavering focus and dedication to achieve excellence in quality and delivery in this field.

Sudhakar Singh

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Managing Editor
Industry Outlook