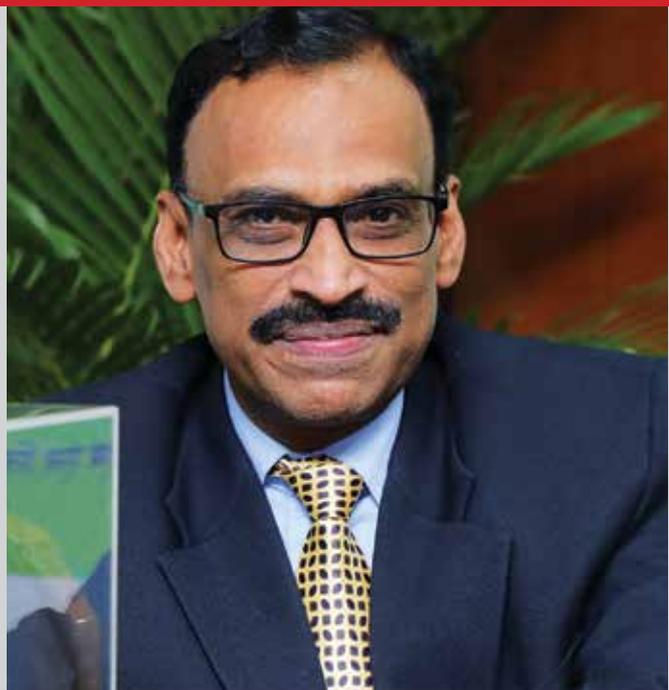


Atmanirbharta is in our DNA and over the years indigenization has been a big plank of our strategy.

MV RAJASEKHAR

CMD (Add. Charge), BEML Limited



BEML Limited, the leading multi-technology, multi-product company, is engaged in the design, development and manufacturing of a wide range of products for core sectors of economy such as Defence, Mining, Power, Infrastructure and Urban Transportation. Presently over 87% of total business is won against tough competition mainly from MNCs, while above 68% of the business comes from in-house R&D developed products. BEML Limited has exported its products to over 68 countries. **MV Rajasekhar, CMD (Add. Charge), BEML Limited** speaks about the company's contribution and its expansion plans. Excerpts from the interview...

High mobility vehicle with trailer.



BEML has been supplying quality products and services to sectors such as mining & construction, rail & metro, defence & aerospace. How successful has been the company in achieving its missions and goals? What are the major accomplishments in the recent times?

Yes. We could able to achieve our short-term goals. However, some of the long-term plans are yet to be achieved and we are on the trajectory for achieving the same. During recent times ample numbers of accomplishments has been achieved by the company. Some of them are:

- Designed, developed and supplied India's biggest excavator and dump trucks to Coal India, and bulldozer to Nalco
- Indigenously designed, developed & supplied metro cars to Kolkata Metro
- Catenary Maintenance Vehicle (CMV) was successfully designed & developed and supplied to Delhi Metro Rail Corporation
- Developed and supplied the country's first unmanned train operated (driverless) metro rolling stock for supply to MRSI project of Mumbai metro line 2A and line1500HP engine for defense application
- BEML received prestigious orders from VSSC, ISRO for manufacture of 8 types of Light alloy structures for GSLV. This is first of its kind for BEML to venture into space domain to manufacture critical launch vehicle structures thereby supporting ISRO for their upcoming launch mission including "Mission Gaganyaan". Required facilities including

an assembly hangar have been set up at Bangalore Complex

- BEML received orders for supply of more than 800 Nos BEML HMV vehicles and 1512 Nos Mine Ploughs for Tank T-90
- Overhauling of 2 nos. of Armoured Recovery Vehicle (ARV) has been taken up at KGF Division which is yet again first of its kind in BEML. Required facilities have already been established in the division

So far, more than 8200 high mobility vehicles, 350 armoured recovery vehicles, 3200 trailers / wagons, 6 sets (330 nos.) of pontoon bridge systems, 7 sets of Sarvatra bridge systems, 18000 rail coaches and 700 EMUs, 1650 metro cars, 32000 mining and construction equipment and 27000 engines.

Defence Minister Rajnath Singh, unveiled 'Driverless Metro Car' manufactured by BEML for MMRDA recently. Could you talk more about the project?

Indigenously designed and developed state-of-the-art driverless metro trains are being manufactured at BEML's Bangalore Complex. The cars will operate on 25 kV AC traction power and equipped with CCTV surveillance and with the provision to carry passenger bicycles in the coaches. The cars are made up of stainless-steel body with a capacity of carrying 2280 passengers in 6 cars metro train-set. BEML bagged a total order of 576 cars for MMRDA's MRSI project, the largest order ever, amidst stiff competition in the presence of international players and the supply is scheduled progressively upto January 2024. Recently on 29th January 2021, the Chief Minister of Maharashtra unveiled the first train on metro lines for 7 & 2A designed and supplied by BEML Limited.

What are the capabilities of the newly-launched aerospace assembly hangar, situated within BEML's Bangalore Complex, and the new Industrial Design Centre?

New aerospace assembly hangar has been set up at Bangalore Complex to take up the manufacture of the light alloy structures for GSLV Mk III structures. Required infrastructures have been established to meet the stringent quality requirements of ISRO.

Industrial Design Centre

- Focus on implementing industrial design & human factors in all products
- Global benchmarking for industrial design and ergonomics and integration with R&D and manufacturing
- Hub for exchange of creative ideas and

concepts to provide the 'design-edge' for better market and user acceptance.

How healthy is BEML's order book?

Over the last few years BEML's order book is very good. At present we are having an orderbook position of over Rs. 12200 crore which will be executed by 2023-24. With respect to Defense vertical, it has seen a rising trend in

Aircraft towing tractor.



performance over the last five years. BEML has around Rs.4660 crores order book as on date and around Rs.850 crores orders is in pipeline. With this order book position, BEML is poised to grow reasonably well in Defence business in the forthcoming years.

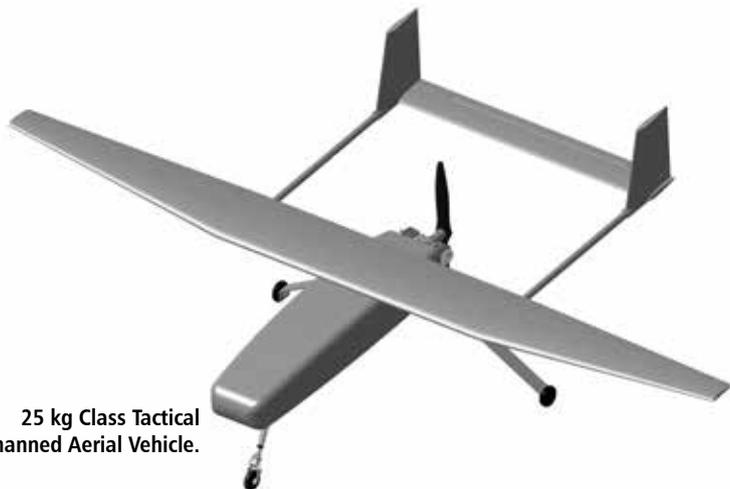
How does the company support for Atmanirbhar Bharat initiative?

Atmanirbharta is in our DNA. Over the years indigenization has been a big plank of our strategy. Under the government's guidance, we have issued an expression of interest on every product for seeking manufacturing and technology partnerships from reputed OEMs looking to establish and/or expand their supply chains/ manufacturing base in India for the manufacture of various goods and/or service business that is

BEML is signing MoU's and NDA with strategic OEMs for introducing new products.

Mumbai metro.





25 kg Class Tactical Unmanned Aerial Vehicle.



Track width mine plough (TWMP) mounted on T90 SSK tanks.

being imported as we want to go towards zero import on whatever item is being imported. BEML has also signed a ToT with Tatra Trucks for indigenization of cabins for military trucks.

- Under Atmanirbhar initiative, BEML is associated with IIT, Kanpur to establish a potential industry – research Institute relationship for joint development of 25 kg class tactical UAV for surveillance application.
- Furthermore, BEML is entering into an MOU with NAL to associate in the areas of advanced composites & autoclaves, mini UAV, design & analysis of aircraft structures & systems. Efforts are also being made with global OEMs to associate for indigenous design and development of unmanned aerial systems through technology transfer.

As stated above, apart from indigenously design and development of new product, during AtmanirbhartaSaptah from 7th August to 14th August 2020, the following were launched by Raksha Mantri:

Industrial Design Centre

- Focus on implementing Industrial design & human factors in all products
- Global benchmarking for Industrial design and ergonomics and integration with R&D and manufacturing
- Hub for exchange of creative ideas and concepts to provide the ‘design-edge’ for better market and user acceptance.

Indigenously Designed & Developed Products

- 150T dump truck (BH150E)
- 180T electrical excavator (BE1800E)
- 117 HP heliportable dozer (BD50HST), and
- Medium bullet proof vehicle ‘GAUR’ (MBPV) MoUs Signed
- IIT – Kanpur in the field of UAV, and
- NASSCOM – CoE for AI & IoT related areas.

To further enhance indigenization, BEML invited ‘Expression of Interest’ for manufacturing and technology partnerships with reputed global OEMs looking to establish and / or expand their supply chains / manufacturing base in India for the manufacture of various goods and/or service business in the areas of defence & aerospace, rail & metro, Mining & Construction, Engines and aggregates with the overarching objective of “AtmaNirbhar Bharat”. Positive Responses have been received and is under compilation.

What are the activities by BEML to promote the defence indigenization?

We have already achieved indigenization levels of 84% in high mobility vehicles and entered into ToT with Tatra Trucks a.s. for indigenous manufacture of cabins for HMTVs. Further, we have also planned for local manufacture of Defence spares through JVs.

- Development of 1500HP engine for Defence application.
- BEML has taken up a project for design, development and supply of 1500HP engine to CVRDE with end user being Indian Army.
- The engine will be supplied to use on FMBT and is designed to work in extreme environmental conditions.

The products of BEML are exported to more than 67 countries. Could you shed some light onto the export operations? Which are the main customers and what are the main export products?

BEML is exploring opportunities for exporting defence products to friendly neighboring countries like Bangladesh, Thailand etc. Apart from this,



BEML has exported more than 1100 equipment to various countries across the globe. Our main customers are Syria, Tunisia, Saudi Arabia, Abu Dhabi, Nepal and the main export products are HMV 8x8, HMV 6x6, Sarvatra bridge system, recovery vehicles, dozers, excavators etc.

We have mainly exported mining and construction products globally. For improving the geo-strategic reach and increasing exports, we are working on various business opportunities in Defence, mining and construction and rail and metro segments in SAARC and Africa.

We are in continuous discussion with Indian embassies / Defence attaches w.r.t. business promotion / engaging local representative and has already appointed representatives in Bangladesh, Tunisia, Cameroon, Thailand and in the process of appointing more representatives across the globe. Also, we are conducting various webinars and e-meetings through Indian Mission abroad to promote BEML products. Webinars have been conducted through Indian Mission in countries such as Kenya, Senegal, Zambia, Sri Lanka, Saudi Arabia, Abu Dhabi, Oman.

Kenya region has been allocated to us by MoD and we have already registered BEML branch office at Kenya.

What are the highlights of BEML's participation at the Aero India 2021?

BEML showcased some of its prime products during Aero India 2021, the biennial mega aero exhibition, being held in Bangalore, from 3rd to 5th Feb. 2021. The products, with theme of 'Atmanirbharata' included niche products such as Transporter Landing System (TLS) and Variants of Unmanned aerial vehicles (UAV). In the indoor Stall, BEML also displayed various equipment and critical components in the aero-space sector.



Could you share with us your vision for the company? What are the expansion plans for BEML's business operations?

Vision of the company is to "Become a market leader, as a diversified company, supplying quality products and services to sectors such as mining & construction, rail & metro, defence & aerospace and to emerge as a prominent international player." We are looking for growth in aerospace sector and have recently, established manufacturing facilities at our Bangalore Complex. We have planned to manufacture and supply aerospace components and aggregates for national programmes and for other DPSUs.

Recently, we have engaged management consultant firm McKinsey & Company Inc, Gurugram for devising business cum growth plan, after obtaining Board & MoD approval.

BEML plans to associate with global leaders for manufacturing airborne structures, aircraft systems that would enable BEML reaching the level of a lead integrator in the area of missile systems. In addition to this, BEML is also signing MoU's and NDA with strategic OEMs for introducing new products such as autonomous ground vehicles, twin tracked carriers, light armoured dozers, aggregates for T-90 tank etc under Make in India initiative.

▲ BHE 150E electric dump truck.

BEML plans to associate with global leaders for manufacturing airborne structures and aircraft systems.
