

DYNAMATIC TECHNOLOGIES LIMITED



DESIGN
ENGINEERING
MANUFACTURING
MATERIAL SCIENCE

Dynatomic Technologies Limited designs and builds highly engineered products for Automotive, Aeronautic, Hydraulic and Security applications. With futuristic design, engineering and manufacturing facilities in Europe and India, we are able to meet customers' exacting requirements on 6 continents.

Our facilities are located in India (Bangalore, Chennai, Coimbatore, Nasik), United Kingdom (Swindon, Bristol) and Germany (Schwarzenberg). We also have sales offices across India and in North America, Europe & East Asia.

With three design laboratories in India and Europe, Dynatomic Technologies is a leading Private R&D Organisation, with numerous inventions and patents to its credit. The Company and its Subsidiaries employ around 60 scientists and 600 engineers with expertise in Mechanical Engineering, Advanced Computer Aided Engineering, Materials & Metallurgical Engineering, Fluid Dynamics and Defence & Aerospace Research.

We are geared towards providing innovative and creative solutions to our customers on a continuous basis. Every business process is built around the customer and this approach has, over the years, enabled us to grow at a sustained pace by forging deep and lasting relationships with all our stakeholders that are based on mutual trust and respect, and upon our capabilities in delivering complex technological solutions at economically viable price levels.



Global Single Source Supplier of Flap-Track-Beam Assemblies to Airbus

With the acquisition of advanced-manufacturing facilities in the United Kingdom, Dynamatic Technologies became the first Indian company to establish a global manufacturing supply chain for leading international aerospace companies.

Dynamatic Technologies is the single source manufacturer of Flap-Track-Beam assemblies for Airbus single aisle aircraft (A318, A319, A320 & A321). We have just commenced commercial production of Flap-Track-Beam assemblies for Airbus wide bodied aircraft (A330) on a single source basis.

Dynamatic manufactures complex parts at its factories in Bristol & Swindon, UK, in stage I machining, and completes stage II manufacturing with artisanal craftsmanship and final assembly at its facilities in Bangalore, India, providing Airbus with global best-value Aerostructures.

It has developed a unique value proposition based on a combination of advantages that India & the UK collectively enjoy.



Complex 5 Axis Machining at Dynamatic, Bristol, UK



Assembly of Flap-Track-Beams for Airbus A320 Single Aisle Aircraft at Dynamatic, Bangalore, India



Dynamatic CEO, Udayant Malhoutra showcasing Flap Track Beams to Prime Minister Shri Narendra Modi at Toulouse along with Airbus India Managing Director, Dr. Srinivasan Dwarakanath.



Airbus A330 Flap Track Beam Assembly Line at Dynamatic Aerotropolis

UK-INDIA Collaborative Advanced Manufacturing



COMPLEMENTARY ADVANTAGES

United Kingdom

- Advanced Robotic 5-Axis machining
- Qualified raw material suppliers
- Low cost of Capital

India

- Advanced 3D Engineering skills
- Artisanal craftsmanship
- Low cost of manpower



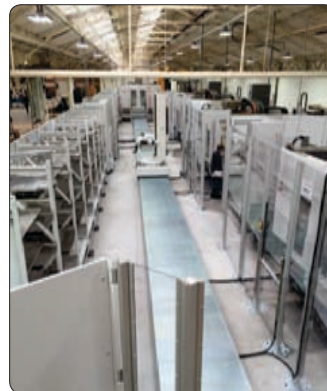
*United Kingdom Prime Minister Ms. Theresa May
at Dynamatic Park, Bangalore on 8th November, 2016*

Pioneer in Indian Private Sector
for Manufacture of **Complex Aero Structures**

Global Best Value Model



Flap-Track-Beam of Wide Bodied Airbus A330 aircraft



Fully Autonomous Robotic Manufacturing line in Swindon, UK

DMC 340 U RS4 Giga Milling Centre at Swindon, UK

*Map not to scale.
For illustrative purposes only.*

Manufacturing Partner for Boeing Defense Systems

Boeing P8 Poseidon

Dynamatic is Boeing's sole global supplier of Power and Mission Cabinets for the Boeing's P8 Poseidon Maritime Reconnaissance Aircraft.



Production of Boeing P8 - Mission Cabinets, Mechanical & Power Cabinets at Dynamatic Technologies, Bangalore





On February 01, 2019, Dynamatic Technologies Limited handed over the 100th Shipset of Boeing P8 Power Cabinets in presence of Ms. Kim Pastega, Vice President, Enterprise Supply Chain Delivery & Performance, Boeing and Mr. Ashwani Bhargava, Director, Enterprise Supplier Management, Boeing India and Dynamatic Senior Executives.

Boeing CH-47 Chinook Helicopter

Dynamatic manufactures the Aft Pylon Assembly and Cargo Ramp Assembly for the Boeing Chinook CH-47F Helicopter.



Aft Pylon
Assembly

Cargo Ramp
Assembly



Ms. Shelley Lavender, President, Boeing Military Aircraft
along with Udayant Malhoutra at Dynamatic, Bangalore



*"In September 2014 **Dynamatic Technologies** and its collaborator **Boeing** inaugurated a plant in India to manufacture critical parts for a Boeing helicopter that is sold globally. I understand that it was a day after **Make in India** was launched. I am pleased to learn that the first set of parts is ready for shipment today".*

*- Hon. Prime Minister Shri Narendra Modi
at inaugural speech of AERO INDIA 2015*



Dynamic Assembly Line for Boeing Chinook-CH47F



US-INDIA Collaborative Aerospace Industrialisation

Boeing CH-47 Chinook Helicopter

Dynamatic-Oldland Aerospace® manufactures the Aft Pylon Assembly (right) and Cargo Ramp Assembly (left) for the Boeing Chinook CH-47F Helicopter, which is Boeing Defense Systems' largest export programme out of India.



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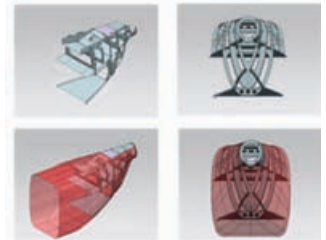
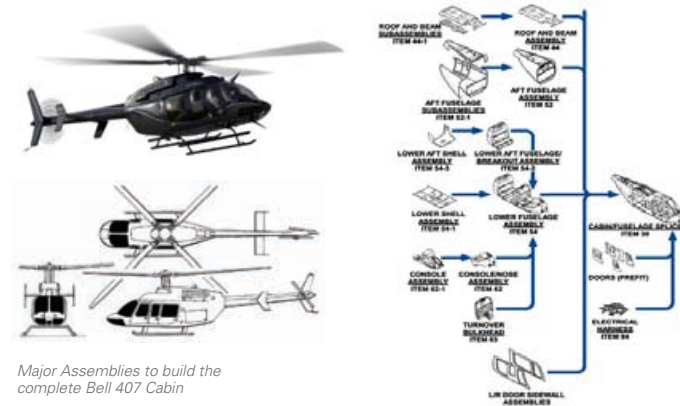
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Manufacturing Partner for Bell Helicopter

Bell 407 Fuselage Assemblies

The Bell 407, is one of the world's largest selling helicopters. Dynamatic Technologies has been contracted as a single-source supplier of Major Airframe Assemblies for the Bell 407 Helicopter (shown below) for the 'life of program'.



The industrialisation program at Dynamatic has involved digitisation of over 2000 detail parts, followed by development of tooling, processes and part manufacturing. We have now taken up the 5 major fuselage assemblies and has supplied over 100 ship sets.

BUILDING A YELLOW BRICK ROAD

BELL 407
ITEM 42
CONSOLE NOSE
ASSEMBLY

COMPLEX MACHINING

EXPLANTING

EXPLOSION



bell

BELL 407
ITEM 52
AFT FUSELAGE
ASSEMBLY





US-INDIA Collaborative Aerospace Industrialisation

Bell 407 Helicopter

Dynamatic-Oldland Aerospace® is the global single-source supplier of Major Airframe Assemblies for the Bell 407 Helicopter



Pioneer in Indian Private Sector for Manufacture of **Complex Aero Structures**

Dynatonic is a work-share partner with HAL on the Sukhoi 30MKI, India's largest Aerospace Defence Program. Over 1/6th of the airframe structure, including critical control surfaces (shown below) are manufactured by Dynatonic at its facility co-located at HAL-Nasik, and is the largest PPP for manufacturing between HAL & Indian private sector.

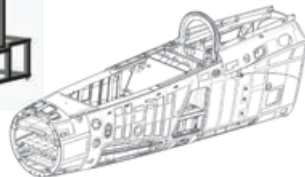
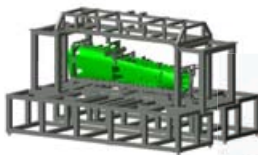
Today, Dynatonic has the largest infrastructure in the Indian Private sector for the manufacture of exacting Air Frame Structures and Precision Aerospace Components.

First in the private sector to secure AS 9100 quality certifications & NADCAP certifications for its Non-Destructive, Heat Treatment, Welding facilities and Measurement and Inspection.



Handing over 100th Ship Set of Sukhoi-30 MKI Assemblies to HAL on 9th Dec 2017, in presence of Dr. Subhash Bhamre, Raksha Rajya Mantri, Government of India which was a unique Public-Private-Partnership successfully implemented by HAL.

Dynamic has been chosen as the supplier for Light Combat Aircraft TEJAS Front Fuselage assembly from HAL - LCA Division. This is a long term contract for Dynamic, which includes manufacturing of detail parts and Assemblies along with the jigs and fixture requirements. HAL & RDAQA approval for special processes like NDT and Painting which is first in Indian private sector.



Consistently **HAL's Best Supplier**

2003



HAL Best Vendor Award for
2002-03 by HAL's aircraft division

2008



Outstanding Vendor Award for
2008 by HAL

2013



Best Supplier Award
for 2013 by HAL

2015



2016



2017

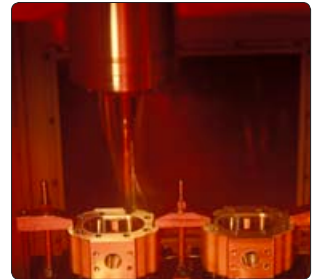


The world's leading producer of Hydraulic Gear Pumps

Dynamatic Hydraulics™, a division of Dynamatic Technologies Limited, is the world's largest producer of Hydraulic Gear Pumps. Its state-of-the-art manufacturing facilities are located in Bangalore, India, and in Swindon, U.K.

Dynamatic Hydraulics™, India, produces a wide range of custom tailored Hydraulic Solutions extending from simple Hydraulic Pumping Units to complex Marine Power Packs and Aircraft Ground Support Systems to Turnkey Industrial Installations. The Company also supplies India's Defence Forces with the Hydraulic Transmission System including the Steering Control System, Turret Control System and Brake Actuating System for the Main Battle Tank.

Dynamatic Hydraulics™ enjoys very high brand recognition in USA, Europe, India and ASEAN, having built up a large and sustained market share in the Tractor OEM and after sales markets as well as the Industrial Pumps market. The Company has an extensive marketing network, with marketing, sales and servicing branches in all key cities and dealers and distributors across the world. Apart from selling pumps and motors which are proprietary in nature, the marketing network trades certain special products such as Industrial and mobile control valves and filter elements.





Sole Supplier of Hydraulic Gear Pumps to Global OEMs

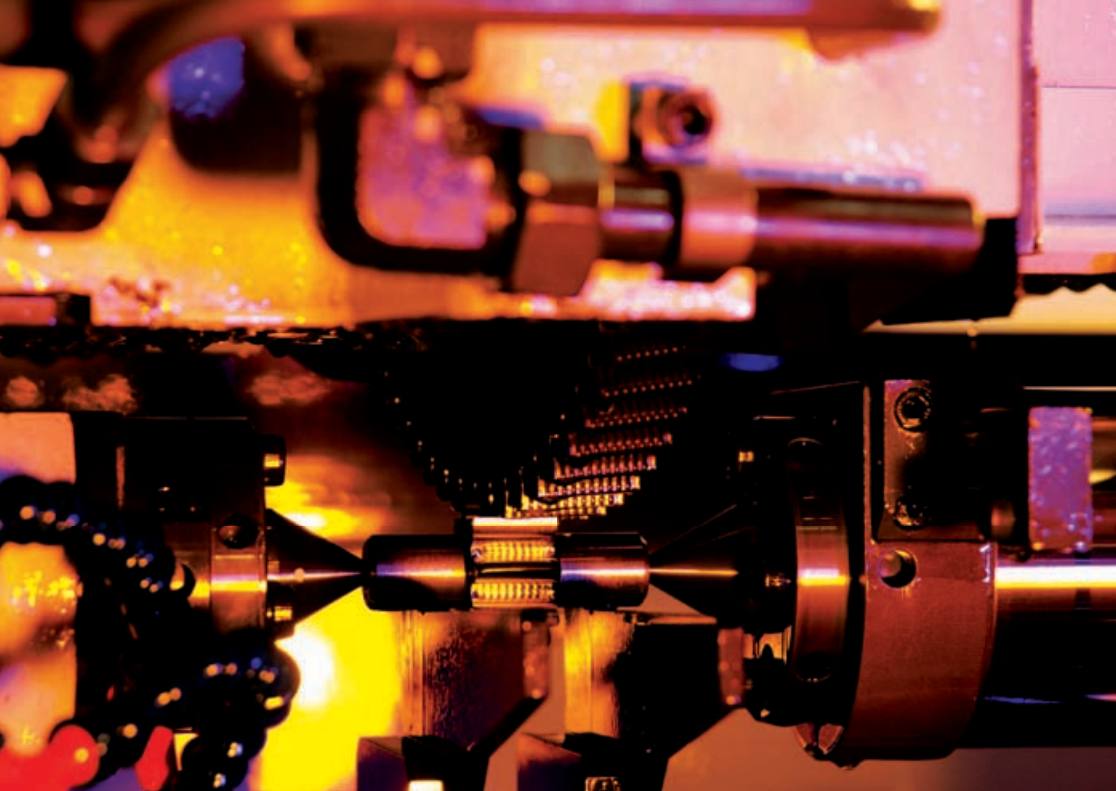
The Dynamatic Technologies facility in Swindon, UK, designs and manufactures Gear Pumps and Piston Pumps for Agricultural, Construction and Off Highway Vehicle manufacturers. The UK unit specialises in Combined Variable and Fixed Displacement Pump Packages, Temperature Controlled Fan Drive Systems and Fixed Displacement Pumps in Aluminium and Cast Iron with a range of additional integrated valve options.

Dynamatic has embraced design thinking as a core philosophy with state of the art R&D capabilities, which serve as reliable enablers of value for the enterprise. The JKM Science Centre in Bangalore and Dynamatic Engineering Laboratory in Swindon, UK, house Hydraulic Research and Development Centre with highly qualified research engineers working with the most advanced and sophisticated tools for design and analysis and well equipped labs to conduct validation tests including noise level tests, killer tests, endurance tests, cyclic test, constant load test, high temperature test.



**One out of four tractors
Agricultural Tractors
produced anywhere in the
world are factory-fitted
with Dynamatic Pumps**



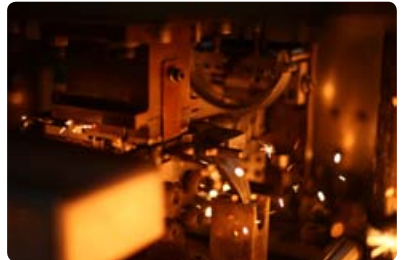


Producer of high-quality Ferrous Alloy and Castings for Automotive Components

Dynumatic Technologies produces high quality Ferrous Automotive Components for Highway, Off-Highway and Technology oriented applications for leading Global Automotive OEMs. The Company possesses modern Ferrous foundries as well as modern state-of-the-art automotive component manufacturing facilities in India and Germany, and is able to vertically integrate the competence and locational advantages of its facilities to deliver greater value to our customers.

The JKM Ferrotech™ facility in Chennai has expertise in producing High Si-Mo automotive components and is certified to the highest quality standards specified by the Automotive Industry.

JKM Ferrotech™ expertise in producing intricately shaped castings and its skills in handling ferrous alloys, particularly High Si-Mo and Ni-Resis, makes it a strong development partner for prototypes in Ferrous Alloy castings.





State-of-the-art Robotic Manufacturing. 650 year old legacy



Eisenwerk Erla GmbH is a preferred supplier of Precision, Complex Metallurgical Products for Automotive Engines and Turbochargers to leading Global Automotive OEMs and Turbo Charger Companies including Audi, BMW, Borg Warner Turbo Emission Systems, Bosch Mahle Turbo Systems, IHI Charging Systems, Volkswagen and Daimler. The Eisenwerk Erla site, which has been in business for over 630 years, possesses one of the finest Ferrous Foundries in Europe capable of manufacturing extremely intricate Ferrous and Steel castings from difficult-to-cast materials, as well as strong R&D capabilities with patented technologies specific to the automotive industry.

The First Machining Facility was inaugurated at Eisenwerk Erla GmbH, Germany on 11 November 2016, by the Board of Directors, Dynamatic Technologies Limited.

This is a fully robotised facility for machining at Erla, which incorporates the latest technological innovations and will allow Dynamatic to increase its competitiveness in manufacturing high volume precision parts for BMW.



Advanced Robotic Manufacturing line at Erla, Germany





Research & Development Lab, India

The **JKM Science Center** in Bangalore, India, houses the Dynamic Research & Development Center, as well as a sophisticated Material Sciences Laboratory, which are engaged in:

- Design and Prototyping of new products
- Improvement of existing designs
- Continuous improvement of existing processes
- Ongoing testing of products and materials product value to its customers.

At Dynamic, creation of new products and applications are not mere projects, but a part of daily life.

Dynamic Research & Development Center, India

The Dynamic Research & Development Center is completely electronic, utilising state-of-the-art parametric 3D design programs and knowledge based expert systems.

The Center has been a 'Recognized In-House R&D Unit' certified by the Department of Scientific and Industrial Research (DSIR), Government of India, since 2001.





Material Science Lab, Germany

Dynamatic also has an advanced **Material Science Laboratory**, in Erla, Germany, and holds several patents on special metals and alloys with high thermal capabilities.

Testing Lab, UK

The **Dynamatic Engineering Laboratory**, in Swindon, U.K, possesses advanced design knowledge for the Mobile Hydraulics Sector, and has comprehensive product testing and validation capabilities.

Quality Accreditations

- Accredited to the British Standards Institute Quality Management System, ISO 9001 2008
- AS9100, DGAQA and NADCAP approved
- Only company in the Indian Private Sector to be certified by Airbus, Boeing, Bell Helicopters, HAL
- DGAQA approval for In-house Processes
- ISO 9001:2000 certified by UL
- AS 9100 Rev D certified
- Entire Campus ISO 14001 approved by Lloyds
- NADCAP approval for NDT, Heat Treatment, Welding Facilities, Metrology
- AS9100 (ISO 9001:2008) certified by Novo Star for Aerotropolis
- ISO 27001: 2013 approval Information Security Management System



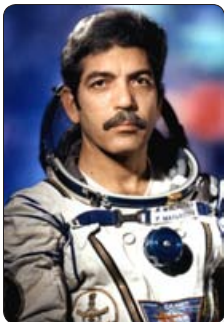


Expansion Facilities



On 15th February, 2017, Dynamatic opened the First Hangar at Dynamatic Aerotropolis next to the Bangalore International Airport, which was inaugurated by **Mr. R V Deshpande**, Minister for Large & Medium Industries & Infrastructure Development, **Hon Sir Dominic Anthony Gerard Asquith**, British High Commissioner, **Ms. MaryKay Loss Carlson**, Charge d’Affaires at the U.S Embassy & **Udayant Malhoutra**, CEO & Managing Director, Dynamatic Technologies Limited.

It is the first state-of-the-art plant on the sprawling 28 acre Dynamatic Aerotropolis.



(Left) Air Commodore Ravish Malhotra, Cosmonaut and Chief Test Pilot (IAF)

(Right) Udayant Malhoutra at Tezpur AFB in a SU-30 MKI along with Ravish



The Hangar was named as **'The Ravish Malhotra Hangar'** named after **Air Commodore Ravish Malhotra** in consideration of his service to the Nation and to Dynamatic Technologies.



Dynamatic Technologies Limited



www.dynamics.com



We care about you, so we make this easy to pack and carry home. And we care about our planet, so we use less paper and eco-friendly ink.