



Agriculture | Defence | Aerospace |
Automotive | Railway | Oil & Gas



PRECISION ENGINEERING & POWERING THE FUTURE

PRODUCT PORTFOLIO

BALU FORGE INDUSTRIES LIMITED

CRANKSHAFTS

OUR FLAGSHIP PRODUCT. PRECISION FORGED SINCE 1989.

WHO WE ARE

Balu had a humble beginning in the year 1989, in Belgaum, India. It has been a long journey & over three generations of the Balu Family have worked to build a truly global enterprise. But we have only just started & endeavor to become one of the largest Precision Engineering & Metal Forming Company in the world.

37+

Years of Excellence

1,000+

Skilled Workforce

86+

Countries Served

25+

Global OEM Customers



INDUSTRIES SERVED & APPLICATIONS

- AGRICULTURE

AEROSPACE

AUTOMOTIVE

WIND ENERGY

INDUSTRIAL VEHICLES
- DEFENCE

RAILWAY

OIL & GAS

EARTHMOVING MACHINERY

MARINE

WHY US

One-roof forging & machining

Global approvals & certifications

Defence-grade compliance

Scalable production

Heavy & complex forging capability

NABL Accredited Metallurgy Lab

OUR MISSION & VISION

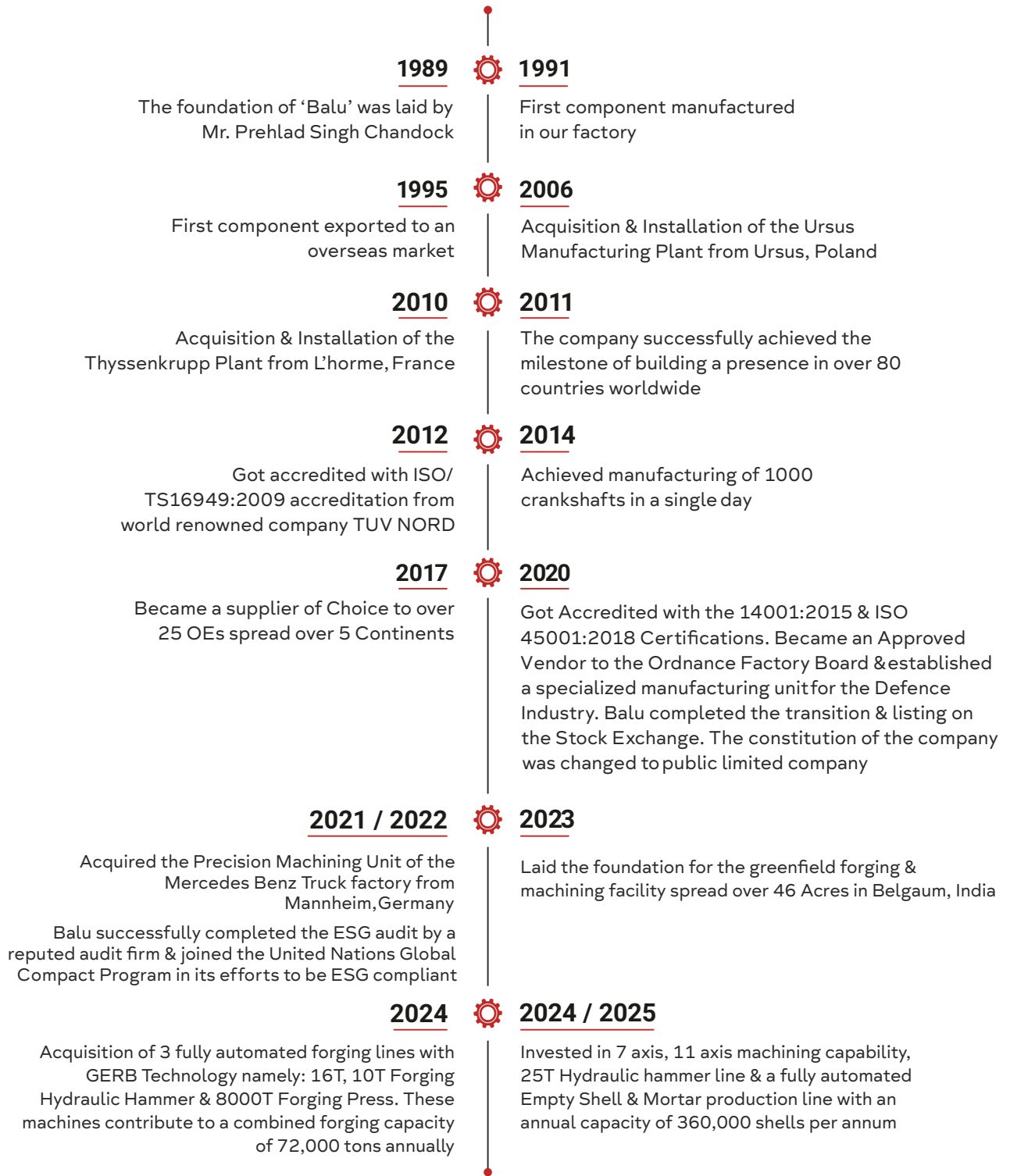
Mission:
To manufacture and deliver superior quality products that meet or exceed customer expectations in terms of performance, reliability and cost-effectiveness.

Vision:
To become a global leader in manufacturing and supplying high-quality forgings and precision engineering components.

HISTORY

HOW WE STARTED BALU

We had a humble beginning in the year 1989 in Belgaum, India. The initial set up was for manufacturing of crankshafts for single cylinder & two cylinder with a limited workforce. Within the last decade the company is supplying to over 25 OEM companies and the aftermarket presence has since expanded to over 80 countries. In 1989, we were the first company in India to mass - produce Crankshafts suitable for Tractor, Trucks and Passenger car applications. Two decades later we have gained an excellent reputation in the world market with over 4 manufacturing facilities. The modern era of Balu upholds the reputation of durability by manufacturing Crankshafts only out of Forgings & precision components conforming to the New Emission Regulations & Mobility / Energy Space.



CORE COMPETENCY

- The Core Competencies which distinguish us from our competitors & the pillars which have ensured the building of a strong brand worldwide are as below:
- Complete CNC manufacturing capability
 - Over three decades of experience in Precision Engineering
 - Diversified Product Portfolio & Applications
 - Supplier of choice for OEMs
 - State of the Art Manufacturing set up
 - In-house tool room
 - In-house Metallurgical lab
 - Dedicated R&D Facility
 - Strong Emphasis on New Energy Vehicles & Components
 - All machining & forging operations in-house
 - Fully Integrated Plant providing full supply capability to its Geographically dispersed customers from concept to Product design, engineering, manufacturing, testing & validations, Highly skilled work force with a technologically advanced plant
 - Well established brand worldwide
 - In-house capability to manufacture a product from 1 Kg to 1500 Kgs & upto 3 meters long
 - Supply base comprising over 25 OEMs both in India & overseas
 - Aftermarket customer & distributor base in over 86 countries

CERTIFICATIONS



SUSTAINABILITY & ESG

Up to 90%

Vibration Reduction via GERB

1,000+

Skilled Workforce

UN Global Compact

Member Since 2021/22

Environmental Responsibility

Our forging lines use GERB Anti-Vibration Technology, cutting vibration by up to 90% and delivering significant energy savings while extending the life of our presses and hammers. Every component we forge conforms to the latest emission regulations and new energy mobility requirements, with a strong emphasis on components for electric and new-energy vehicles.

Workplace Safety & People

A 1,000+ strong skilled workforce is supported by an in-house R&D team of 75+ specialists, a dedicated tool room, and a metallurgical laboratory. Our ISO 45001 occupational health & safety certification reflects a safety first culture across all four manufacturing units, alongside defence-grade compliance standards.

Quality & Responsible Manufacturing

Certified to ISO 9001, IATF 16949, ISO 14001, and ISO 45001, we maintain rigorous inspection and testing systems at every stage of production, backed by an NABL-accredited metallurgical lab ensuring every component we forge meets the highest standards of quality and environmental compliance.

MANUFACTURING FACILITIES

Unit 1

Kakti Industrial Area, Belgaum, Karnataka, India.
(5 Acres)

Unit 2

Kakti Industrial Area, Belgaum, Karnataka, India.
(2 Acres)

Unit 3

Hattargi Village, Hukkeri, Karnataka, India.
(46 Acres)

Unit 4

Ras Al Khaimah, United Arab Emirates.
(1 Acre)

Forging Capacity
150,000+ MTPA

Advanced forging facility featuring **25 Ton, 16 Ton and 10 Ton Hydraulic Hammers** and an **8000 Ton Mechanical Press** with Hydraulic Power Head. The system enhances the capacity of the hammers, resulting in significant energy savings. Equipped with **GERB Anti-Vibration Technology**, it increases accuracy, extends the life of presses and hammers and ensures higher uptime with no breakdowns. Vibration levels are reduced by **up to 90%**, optimizing overall performance and efficiency.

Machining Capacity
80,000+ MTPA

The machining facility operates with a capacity of **80,000+ MTPA**, advanced state-of-the-art **7-Axis and 11-Axis** CNC machining line supported by **CBN grinding machines**. The machining process integrates advanced automation and robotics, including **FANUC robotic systems** in the empty shell production line.





BFIL Greenfield Manufacturing Facility

A state-of-the-art **46-acres** facility in Belgaum, equipped with advanced **7-axis and 11-axis** CNC machining lines, delivering high-precision manufacturing at scale.

MANUFACTURING EXCELLENCE AT EVERY STAGE



Our manufacturing strength is driven by advanced infrastructure, integrated processes, and robust quality control systems. With end-to-end capabilities in forging and precision machining, we deliver high-performance solutions across diverse industries, supported by continuous improvement and modern automation.



In-House R&D, Tool Room & Metallurgical Lab

Research & Development

State of the Art Machining

Our machining operations are powered by cutting-edge infrastructure featuring a fully equipped in-house tool room, advanced metallurgical laboratory, and dedicated design & process development capabilities. These are complemented by rigorous inspection and testing systems to ensure uncompromising quality at every stage.

Material Development

Our teams continuously study and advance material science analysing evolving metal chemistries, alloy compositions, and real-world applications. This enables superior component performance and opens new frontiers in precision engineering.

Product Engineering & Innovation

Driven by a relentless commitment to engineering excellence, we design and develop innovative forged components tailored to the evolving demands of automotive, defence, railway, aerospace, and energy industries.

Advanced & Additive Manufacturing

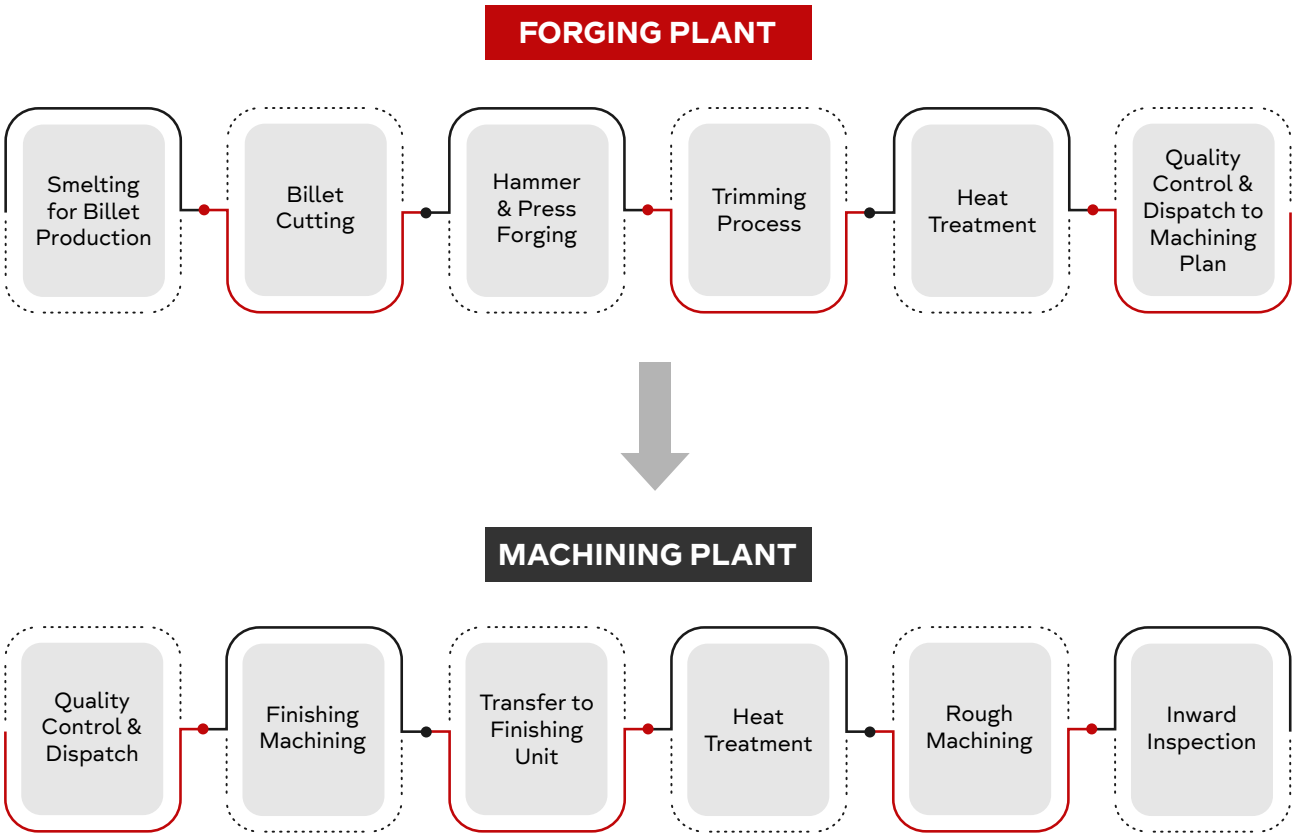
By integrating advanced and additive manufacturing technologies into our development process, we enhance production flexibility, significantly accelerate prototyping, and compress product development cycles.

75+

Dedicated R&D specialists driving continuous innovation in metallurgy, tooling, and process engineering across every product vertical.

OUR VALUE CHAIN

Our manufacturing value chain undertakes hybrid production within a streamlined workflow. Raw materials sourcing occurs from selected steel plants and semi-forged component suppliers prior to the transfer through billet production, cutting, forging, trimming, heat treatment and machining. Quality is consistently maintained across the production cycle, with finished components undergoing final inspection before dispatch. In-house tool rooms and metallurgical laboratories support the manufacturing process across forging and machining. Manufacturing Process.



OUR MANUFACTURING SCOPE

Our manufacturing platform incorporates advanced infrastructure, forging and precision-engineering competence, fortified by rigorous quality control and process expertise. Our heightened focus on technology and precision accelerates efficient production of reliable, high-quality components across varying commercial applications.



DEFENCE & AMMUNITION

FULLY AUTOMATED EMPTY SHELL PRODUCTION LINE

AMMUNITION SUMMARY



MORTAR
AMMUNITION



ARTILLERY
AMMUNITION



TANK
AMMUNITION



NAVAL
AMMUNITION



RCL
AMMUNITION



AERIAL
AMMUNITION

UPTO 360,000 SHELLS CAPACITY PER ANNUM

- 1000T Hydraulic Press
- 600MT Hydraulic Nosing Press
- Induction Heater 600 KW (Partial Heating)
- Powder Coating Paint shop with Automation
- Phosphating Plat of 155mm Full Automated
- Shot Blasting
- CNC Machining
- Cutting (Circular Saw) m/c
- 400T Vertical Elongator
- Induction Heater 1800 KW
- Copper Band Dia Press for Assembly
- 6-Axis multiple Robot
- Machine Auxiliary Supporting
- Sand Blasting
- Heat Treatment

EMPTY SHELL



Mortar Ammunition
51 mm, 81 mm, 120 mm



Artillery Ammunition
155 mm, 152mm, 130 mm,
105 mm



RCL Ammunition
Round 84 mm



Naval Ammunition
Cartridge 40 mm, 76.2 mm, 76/62 SRGM, RGB 60 Rocket



Tank Ammunition
Round 120 mm, Shell 125 mm



Aerial Ammunition
500 kg GP Aerial Bomb

OTHER COMPONENTS

Balu Forge supplies a wide range of precision-forged armoured vehicle and weapon system components including:



Crankshaft



Breach Base



Road Wheel Arm



Flange



Crank 690



Track Guide



EFA Crankshaft



Sun Gear



Shoe



Gear Ring (Solid)



Hub Carrier



Track Link



Clamp



Intermediate Gear

ADVANCED AEROSPACE SOLUTIONS

Advanced aerospace solutions precision forgings for the world's most critical applications.

AEROSPACE PRODUCT RANGE

AERO STRUCTURE

Weight Range : 50 to 250 kgs
Material : Titanium + Aluminium Alloy
Scope : Forged + Semi Machined

APU COMPONENTS

Weight Range : 5 to 300 kgs
Material : Titanium + Aluminium Alloy
Scope : Forged + Semi Machined

LANDING GEAR COMPONENTS

Weight Range : 50 to 250 kgs
Material : Titanium + Aluminium Alloy
Scope : Forged + Semi Machined

ENGINE COMPONENTS

Weight Range : 5 to 300 kgs
Material : Titanium + Aluminium Alloy
Scope : Forged + Semi Machined

RAIL MOBILITY SOLUTIONS

BFIL is a leading manufacturer of high-quality, precision engineered heavy forged components for the railway industry.



OTHER COMPONENTS

Connecting Rod 50 to 150 kgs	Connecting Cap 25 to 100 kgs
Crankshafts 2 to 1000 kgs	Camshafts 50 to 100 kgs
Flanges 100 to 600 kgs	Hooks 10 to 200 kgs
Gear Blanks 10 to 500 kgs	Nuts 5 to 150 kgs
Tail Pin 10 to 25 kgs	Rocker Lever 10 to 50 kgs
Arm 20 to 50 kgs	Link 50 to 150 kgs
Dome Nuts 10 to 25 kgs	Bend Arm 10 to 30 kgs
Valve Body 10 to 850 kgs	Pivot 100 to 450 kgs
Dog Pin 10 to 50 kgs	Control Arm 10 to 25 kgs
Lever 15 to 25 kgs	Yoke Shafts 10 to 100 kgs
Roll Link 10 to 25 kgs	Link Pin 15 to 50 kgs
Yokes 10 to 50 kgs	

BFIL has evolved to produce a wide range of wheels, axles & wheel sets to meet the needs of our customers. Hence contributing sustainably to the Indian government's Make in India initiative. We are one of the few fully integrated businesses, producing wheels, axles & wheel sets all under one roof. The firm has an experienced railway vehicle design & development team on hand to serve our patrons with prompt, high-quality & end to end solutions. The company meets the bulk requirements for locomotives, passenger vehicles, freight vehicles & other coaching vehicles in terms of wheels, axles & wheel sets. We produce high-quality wheel sets for clients all over the world with a production capacity of about 6,000 wheels per year to start with offering a diverse application suitable for railway wagons, passenger coaches & locomotives in various gauges. The company has successfully initiated supplies to Indian Railways & successfully negotiated a long term contract with a Middle Eastern nation.



OIL & GAS INDUSTRY SOLUTIONS

Balu Forge Industries Limited manufactures high-strength forged and precision machined components designed for demanding applications in the global Oil and Gas Industry. Our products are engineered to operate in high-pressure, high-temperature and corrosive environments, ensuring reliability and durability in critical oilfield operations.

OIL AND GAS
PRODUCT
RANGE





GATE VALVES



CHOKE VALVES



MUD GATE VALVES



FLANGES, TEES, CROSS, X-OVERS



PRESSURE CONTROL EQUIPMENT



FORGED HYDRAULIC FITTING, STUBS ENDS



CHICKSAN LOOPS & SWIVELS



HAMMER UNIONS & PUP JOINTS



MANIFOLD UNITS

ENGINEERED FOR HIGH-PRESSURE,
HIGH-TEMPERATURE AND CRITICAL
OILFIELD ENVIRONMENTS.

OTHER COMPONENTS

Structural, motion and rigging systems engineered for heavy vehicles, off-highway equipment and industrial machinery.



Chassis

Supply: Raw Forged, Semi Finished, Fully Finished or Assembled
Products: Front Axle Beams, Steering Knuckles, Control Arms, Forks, Steering Components



Transmission & Clutches

Supply: Raw Forged, Semi Finished, Fully Finished
Products: Drive Shafts, Input & Output Shafts, Main Shafts, Yokes



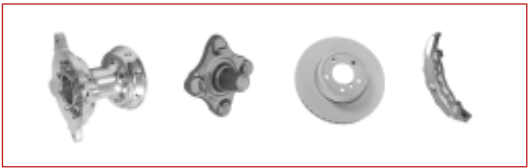
Under Carriage

Supply: Raw Forged, Semi Finished, Fully Finished or Assembled
Products: Track Shoe, Track Link, Track Roller, Carrier Roller, Sprocket, Track Chain, Idler



Hydraulic Motors

Supply: Raw Forged, Semi Finished, Fully Finished
Products: Rotor, Track, Body & Piston Brakes



Brake Parts

Supply: Raw Forged, Semi Finished, Fully Finished
Products: Hub, Brake Flange, Disc, Caliper



Hooks

Supply: Raw Forged, Semi Finished, Fully Finished
Products: Sorting Hooks, Snap Hooks, Shank Hooks, Ramshorn Lifting Hooks



Towing Accessories

Supply: Raw Forged, Semi Finished, Fully Finished
Products: Swan Necks, Flange Balls, Tow Bars



BALU[®]
FORGE

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info@baluindustries.com

PLANT ADDRESS UNIT 1

43 - B, Kakti Industrial Area, Kakti,
Belgaum - 591113, Karnataka, India.

PLANT ADDRESS UNIT 2

44 - A, Kakti Industrial Area, Kakti,
Belgaum - 591113, Karnataka, India.

PLANT ADDRESS UNIT 3

428/1, Next to Aequs SEZ, Hattargi Village,
Taluk Hukkeri - 591243, Karnataka, India.

PLANT ADDRESS UNIT 4

Ras Al Khaimah (RAK), United Arab Emirates.



COMPANY WEBSITE

www.baluindustries.com