


www.vartisengineering.com





VARTIS ENGINEERING PVT. LTD.

ENGINEERING, INNOVATION & EXCELLENCE

Vartis Engineering, proudly certified under ISO 9001:2015 and IATF 16949, is a trusted leader in precision machining and manufacturing. Since our founding in 2012, we have specialized in Investment Casting, Sand Casting, Forging, Complex Machining, Prototyping, and OEM Production, delivering world-class engineering solutions to a diverse global clientele.

Driven by a passion for excellence, we blend cutting-edge technology, advanced manufacturing processes, and skilled craftsmanship to meet and exceed our customers' expectations. Our focus is not just on creating components, but on fostering long-term partnerships by consistently providing superior quality, precision, and value.

Why Choose Vartis Engineering?

1. State-of-the-Art Capabilities:

Our facilities are equipped with the latest in precision machining technology, enabling us to take on the most challenging projects:

- Multi-Axis CNC Milling with speeds of up to 24,000 RPM for unmatched accuracy.
- Advanced CNC Turning for high-quality, complex geometries.
- Precision Wire EDM for intricate detailing.
- Zeiss CMM Metrology and inspection to ensure perfect dimensional accuracy.
- High-precision Grinding and Process Treatment for flawless finishes.

2. Expertise Across Materials:

We excel in working with a wide variety of materials, tailored to your project requirements:

- Steel Alloys and Fully Hardened Steels.
- High Nickel Alloys for high-temperature and specialty applications.
- Stainless Steels and Aluminum for strength and lightweight solutions.
- Non-Ferrous Alloys and Plastics for diverse industrial needs.

3. Comprehensive Solutions:

From prototype development to large-scale OEM production, we provide end-to-end solutions, ensuring consistent quality at every stage of the process. Our expertise spans industries such as automotive, aerospace, industrial equipment, energy, and consumer goods.

Our Commitment to Quality

At Vartis Engineering, quality is not just a benchmark—it's our promise. By adhering to stringent quality assurance protocols, investing in advanced testing equipment, and fostering a culture of continuous improvement, we deliver precision-crafted parts that meet the highest global standards.

Innovation Meets Partnership

With over a decade of experience, we understand that every project is unique. Our team collaborates closely with clients, offering tailored engineering solutions that enhance performance, reduce costs, and accelerate time to market.

Our Advance Capabilities

1. Precision Manufacturing

High-Tech CNC Machining:

- Multi-axis capabilities for producing intricate and high-tolerance components.
- Efficiently supports mass production with repeatable accuracy.

2. Custom Casting Solutions

- Expertise in aluminum, steel, and alloy castings tailored to customer specifications.
- Solutions for lightweight, durable, and corrosion-resistant parts in critical applications.

3. Customized Fabrication Techniques

- Welding, sheet metal forming, and custom assembly for unique industrial projects.
- Specialized fabrication for heavy-duty and load-bearing structures.

4. Tooling and Moulds

- **Investment Moulds:** High-precision tooling designed for long-term performance in production lines.
- **Die and Sand Casting Tooling:** Crafted to ensure seamless operations and consistent quality.

5. Engineering Design Support

- **CAD/CAM Expertise:** Advanced software-driven designs for prototyping and production optimization.
- Collaborative design iterations with clients to achieve innovation and efficiency.

6. Quality Assurance

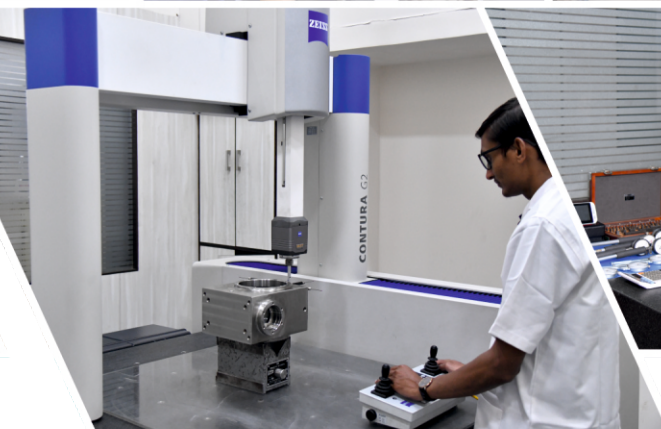
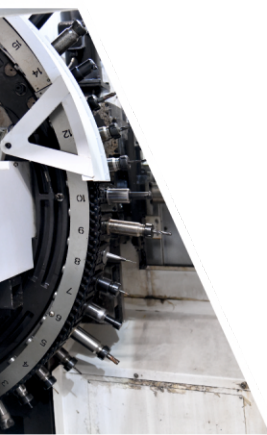
- **Meticulous Testing:** Advanced equipment such as 3D scanners, CMMs, and tensile testing machines.
- Real-time monitoring systems for in-process quality checks.
- Certifications to meet international standards, ensuring compliance and trust.

7. Production Scalability

- Flexible operations to support small batch prototypes to large-scale productions.
- Proven systems to maintain precision across varying production volumes.

8. Material Expertise

- Mastery over a wide range of materials: lightweight alloys, high-strength steels, composites, and heat-resistant metals.
- In-depth understanding of material properties for optimal application performance



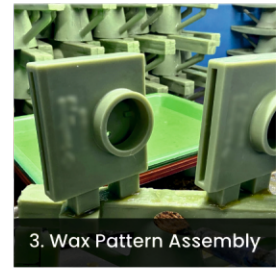
Casting Manufacturing Process



1. Tool Development



2. Wax Pattern Manufacturing



3. Wax Pattern Assembly



4. Ceramic Coating



5. Dewaxing



6. Shell Baking



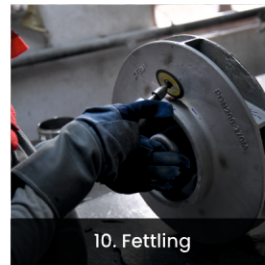
7. Inspection of Chemical Composition



8. Metal Pouring



9. Knockout



10. Fettling



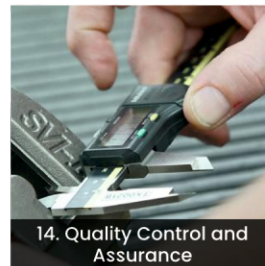
11. Visual Inspection



12. Heat Treatment



13. Machining



14. Quality Control and Assurance



15. Final Dispatch

Vartis Engineering Pvt. Ltd. has always been emphasizing in maintaining Quality and Productivity. To meet the high quality product standards, our experienced team takes utmost care during each and every step of manufacturing process.

3 Auto Injection Press **7 Manual** Injection Press **350 kg & 150 kg Melting** Induction Furnace **2 Shot** Blasting Machine **40 MT per month** Production Cap.

Supply Condition: Raw Castings, Machined Castings, finished, assembled as per customer requirement.

Job Handling Capacity: Size: Up to 700 mm length or diagonal, Piece Weight: From 0.05 to 100 kg., Surface finish: Ra 3.2 to 6.3 micron

Material Offered

We offer various grades according to ASTM, AISI, DIN, EN, GOST, JIS and other international standards. Flexibility of selection from Austenitic Stainless Steel, Carbon Steel, Low Alloy Steel, Martensitic Stainless Steel, Duplex steel, Precipitation Hardened Steel, Nickel based alloys, Ferric steel and any specific requirements.

Additional Tests

Surface roughness test, salt spray test, IGC practice A, B, C & E, G8 test, impact test, Bending tests as per requirements.

Coating

Zinc Coating, Pickling & Passivation, Electro-Polishing, Zinc And Manganese Phosphating as per Specific Standards, Mirror/ Matte Polishing, Liquid Painting, Powder Coating.

QUALITY SYSTEMS

Our trained and experienced engineers work from early in the project all the way to completion. We determine materials and methods that ensure the product meets or exceeds customer's expectations. Our advance tools and techniques deliver the results with cost effectiveness.

During product development, VARTIS ENGINEERING uses a rigorous Advance Product Quality Planning (APQP) System which emphasizes process failure mode and effect analysis. Our engineers utilize leading edge methods to simulate the filling of the mould and the solidification process. Your virtual cast part is created in this way for optimization and the avoidance of any flaws.

In production we achieve quality control and prevent defects from passing to the next stage via three point quality check system namely, In Process Inspection, Final Inspection and Pre-Dispatch Inspection. Our fully equipped work stations found throughout our casting and machining facility are an evidence of our commitment to Quality.

Cad systems

- NX CAD & CAM

Data exchange formats

- STEP 3D
- IGES 3D
- DWG 2D

Simulation software

- Magmasoft 5.4

ERP

- Solution One

MEASURE-TEST-DOCUMENT

Metal & Moulding Material

- Simulation Software- Magmasoft 5.4
- Thermo analysis
- Fully equipped Sand testing laboratory
- Metal Analyzer-Foundry
- Master Germany
- Microscopy
- Density Index Analyzer
- Tensometer and Die coat thickness and viscosity tester

Physical Properties

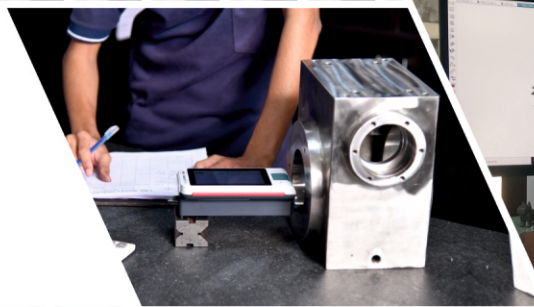
- Hardness Testing
- Tensile Testing
- X-ray Testing
- Pressure test for Leakage
- Ultrasonic Testing

Measuring

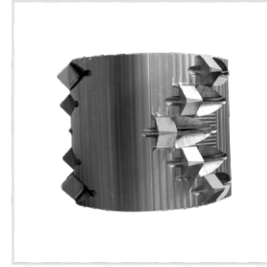
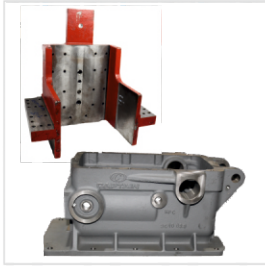
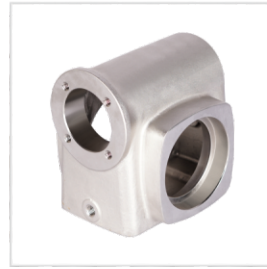
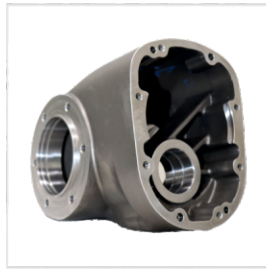
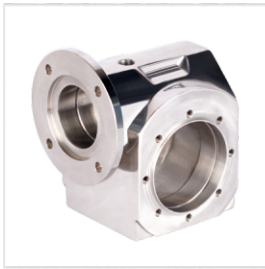
- Zeiss Contura G2 CMM with Scanning facility
- Mahr Marsurf XC2 for contour Measurement
- Mitutoyo Sj410 Surface roughness tester

Measuring

- Shrink Fit Machine- Haimer (Germany)
- Tool Pre Setter - Zoller (Germany)



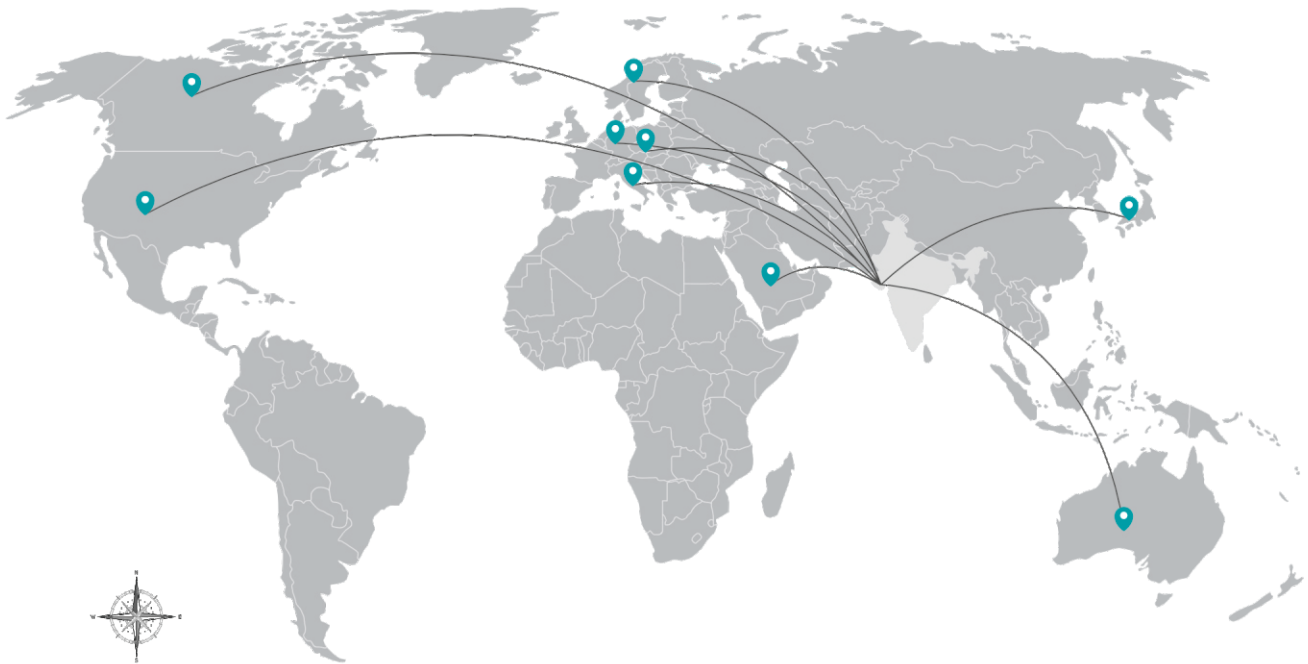
Product Portfolio



Industries We Serve



Valued Clientele Across The Globe



Australia, Saudi Arabia, South Korea, Italy, Germany, slovakia, Sweden, Canada, USA

Vartis Engineering Pvt. Ltd. has vast customer base round the globe in various sectors like Pumps, Valves, Automobiles, Architectural Hardware, Defence, Railway, Marine and General Engineering Application. We manufacture and supply Castings and Machine Parts in Low Alloy Steels, Stainless Steels, Duplex Steels, Hastelloy, Alloy 20 and Nickel based Alloys standard specifications given by customers.

When you choose Vartis Engineering, you're not just choosing a manufacturer—you're choosing a partner dedicated to engineering success.

“The Customer’s Perception is our Reality”

A Worldwide Manufacturer Specializing in Complex Metal Components and Versatile Casting Products.



VARTIS ENGINEERING PVT. LTD.

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