

PRECISION BY DESIGN



Aerospace Technologies Private Limited

(Subsidiary of Varsun eTechnologies Pvt. Ltd.)



VARSUN Aerospace Technologies is one of the fast-evolving company

Varsun Aerospace Technologies is one of the fast-evolving company that maintains a progressive vision and dynamic approach through the use of innovative technology, offering wide range of services in the fields of Application development, ERP Implementations, IT services, Training, Project Management, Manufacturing and Engineering. Varsun is an ISO 9001: 2015 company and is in the process of obtaining AS 9100 shortly.

Founded in 2003 by a group of Technocrats pioneering a new vision in the IT era, who believe in the convergence of technology, innovation, expertise, experience and vision to deliver sustained value creation for customers, employees, industries and the community.

Experienced in the fields of providing software solutions, Manufacturing and Engineering, Aviation Components, Jigs and Fixtures for more than 15 years, the company promoters have come up to offer total Design and Manufacturing services. In the last four years the company has successfully manufactured and supplied various Aero-Engineering tools and components for organizations like various divisions of HAL, RCI, Turbo-Tech, etc.

The company has also entered into an MOU with a sixteen-year-old leading manufacturing company – Oil Country Tubular Limited (OCTL), which is an ISO 9001: 2015 Company which is licensed by American Petroleum Institute (API) under API Specification 5D, 5CT and 7.

Mission

"Design and Manufacturing of High Precision and Advanced Technology Products with Quality to match Global Standards"

Vision

Varsun envision achieving global leadership in providing sustained value to its clients by combining technology skills, domain expertise, process focus and a commitment to long-term relationship.

Man Power

Our highly experienced and motivated teams of software specialists are adept at delivering quality solutions and services to clients. In the manufacturing area also, the company has a policy of selecting well-qualified personnel and training them from time to time to expose them to the latest technological trends, latest machines, machining techniques, usage of tools, and cost-effective solutions.

Production	Quality
Managers – 06	Managers – 02
Engineers – 16	Engineers – 04
Tuners – 47	Inspectors – 08
Millers & Others – 20	



Commitment

"Design and Manufacturing of High Precision and Advanced Technology Products with Quality to match Global Standards" is our mission, which envisages our mission is to optimize value and quality through technical competency and efficiency. To this end, we believe in offering world-class services and solutions that transcend geographical boundaries and ideological implications. Innovation and technical excellence are the driving spirit behind Varsun and the overriding focus of Varsun is on the quality of its products and services.

Security

Confidentiality is ensured and given top priority. The documents and engineering data products. Security is ensured completely, especially clients / customers property / data in case of outsourced jobs. The operations are conducted under secured conditions and data is handled through systematic procedures to ensure total security to the technical data.



Service Offering

- ✓ Project Management
- ERP Implementations
- ✓ Application Development
- ✓ IT Services & Training
- Engineering & Manufacturing



Engineering & Manufacturing Services

Manufacturing

- ✓ Aerospace Components
 - o Blades
 - o Casings
 - o Rings
- ✓ Tooling
 - o Precision Forging Dies
- ✓ Alloy Casing
- ✓ Rapid Prototyping

Design

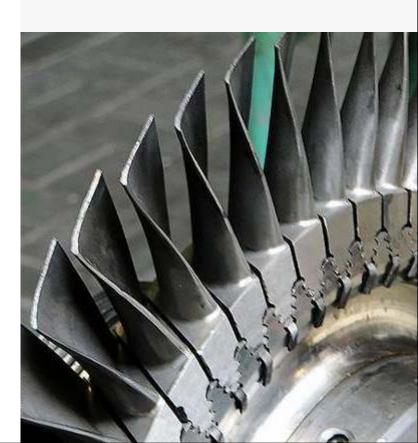
- ✓ Modeling and Conceptual Designs
- ✓ Detailing and Drafting
- ✓ Detailing Mockups
- ✓ Visualization Reverse Engineering
- ✓ Tool & Die Design
- ✓ CNC Programming

Software Development/Customization

- ✓ Custom Software Development
- ✓ Integration of CAD / CAE / CAM Software
- ✓ Productivity Tools

Analysis

- ✓ Design Validations
- ✓ Failure Analysis
- ✓ Optimization
- ✓ Non Linear
- ✓ Structural Model



Quality

Quality is a buzz word within the organization and nothing but the best is passed on to the customer at a competitive price and in time. Basically, there is a heavy emphasis on quality assurance and quality control to ensure the final products fully satisfy the customer's specification and requirement.

VARSUN is an ISO 9001 : 2015 certified company and is in the process of obtaining AS 9100 shortly.

- Ensuring right raw material through right source and testing.
- ✓ Maintaining quality standards during manufacturing
- Quality through right packing and timely delivery to customer
- Maintaining the quality system through documentation for traceability.

Certification / Accreditation

✓ API Specification – Q1 : Registration No. Q1-0016

✓ APIQR (ISO) : Registration No. 0078

✓ API Specification-5D : Registration No. 5D-0035

✓ API Specification-7 : Registration No. 7-0082

✓ API Specification- 5CT : Registration No. 5CT-0243



The products are licensed by American Petroleum Institute (API) as



- Processor of casing and tubing: Plain end
- ✓ Threaded and Coupled as per API Specification 5CT
- Processor of Drill Pipe as per API Specification 5D
- Manufacturer of Rotary Drill Elements as per API Specification

Quality Policy

We at VTPL, commit ourselves to design, manufacture and supply the products to conform to customer's requirements and enhance customer satisfaction by implementing and practicing quality management system in all our operations in its true spirit, ensuring continual improvement in all our processes, practices and operations, complying with applicable Statutory and Regulatory Acts and work in safe environment.

Quality Control (Metrology) Facilities

- 1. Spectrometer, ARL make-1 no. used for ferrous analyses-17 elements.
- 2. Lab Furnace 1 no.
- 3. Tensile testing machine, make US 1no.
- 4. Comparator 1no.
- 5. Contour reader 1no.
- 6. Thermocouple calibration furnace 1no.
- 7. Spectalog 6000 1 no. for detecting longitudinal and transverse defects, wall variation, grade identification.
- 8. Scanalog 500 1no. Function as above.
- 9. UT inspection equipment 2 nos.
- 10. Wet MPI inspection equipment 2 nos.
- 11. Rockwell hardness tester 2 nos.
- 12. Brinell hardness tester 3 nos.
- 13. Vickers hardness tester 1no.
- 14. Carbon analyzer 1no.
- 15. Micrometers.
- 16. Verniers.
- 17. Vernier height gauge.
- 18. Depth micrometer
- 19.Saddle gauges.
- 20. Ovality gauge.
- 21. Vick-ender gauge for checking ID upsets. Chemical lab for phosphate analyses.





Varsun has state-of-the-art infrastructure to provide customers with excellent service and technical support. We also operate from our liaison office located in Irvine, California, USA.

The Design wing is fully equipped with latest high configuration computers, plotters and scanners and latest software like PRO - E, Catia, Solid works Uni Graphics.

The Design team comprises of CAD/CAM engineers who are well qualified and experienced to offer customized solutions. We have successfully executed design jobs related to specialized tools like Fixtures, Jigs, Dies, Holders, special Gauges, Mandrels and Checking Devices for aero foil blades etc. used in manufacturing of Aero-Engine components and also carried out reverse Engineering jobs to manufacture dies for component.

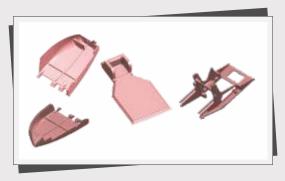
We offer CAD services, product design services, 2D to 3D conversion services, reverse engineering services, CNC programming services for 3 axis to 5 axis machines and CNC machining services. We specialize in tool design for dies, injection moulds and Sheetmetal.

CAM 3D: Roughing of surfaces with a stepped path; finishing of surfaces along an angle; projection or wrapping of paths onto planes and surfaces; 3D engraving.

Solid Simulation: Solid tool path simulation; management of clamps and fixtures; collision control.

Input: Our system supports input from the following formats: DXF, DWG, IGS, STL, ANVIL, STEP, CADL, VDA, Rhino 3D, Solid works, Parasolid, Inventor and Catia 4 options.

Paper Drawings: Conventional drawings can be either converted through our CAD department into machine files or used directly by our machinists.







Aerospace CNC Machining

Since inception Varsun has specialized in precision engineering for the aerospace industry. Our principal specialty is the machining of prototype, low and medium batch quantities for engine systems, undercarriage actuation system, pneumatic weapon ejection, thermal imaging, missile seeker cooling, satellite cryogenic cooling & propulsion systems.

Precision Engineering

Varsun expertise covers manufacturing of precision engineering components like Adopters, Flanges, Impellors, Discs etc. used in Aero Engines. We are fully conversant with various International Standards, Technologies followed in manufacturing these components and fully accustomed with various intermediate process like Heat treatment, Case hardening and Anti-corrosive treatments.



Reverse Engineering

We at Varsun, provide best reverse engineering service, and produce new CAD geometry of the product that can be physically measured using traditional hand tools, non-contact inspection equipment and coordinate measuring machine. In this method we identify the part, curing it and take scans at each of the milled depths to produce an internal and external point cloud geometry.

Addressing the need of the industries to build new designs and enhancements using existing physical models, prototypes and parts, we offer reverse engineering techniques using data from physical components and curve & points data from scanning for developing component 3d models, Rapid Prototypes and inspection of physical models with CAD models.

Furthermore these digital models can be made parametric and associative with design intent captured in them. Any future change can be easily incorporated in the model avoiding several redesign stages.

We Offer

A range of complementary precision engineering services

Jig Boring



Because single point tools offer greater accuracy on larger bores we manitain two vertical jig bores for precision work and are ideal for manufacturing precision details / assemblies.

Electro Discharge Machining



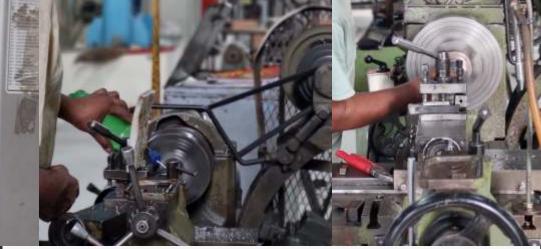
We offer CNC spark erosion including wirecut machines which is ideal for tool making and machining of harden materials.

Grinding



Our surface grinding section is equipped with Okamoto machines that can achieves highest accuracies.





Our **Strengths**

- A complete integrated service provider right from design to manufacturing
- Quality products with 100% product traceability (raw materials to finished products)
- Proximity to customers with Front end office at USA
- Professional administration
- Qualified design and process personnel
- An ISO 9001 : 2015 and API certified company



Aviation Components





Machinery and Manufacturing of Aviation Components and

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CNC Machining

Our 5,000 Sq.ft CNC machine shop software solution features an arsenal of precision equipment of Fixtures (such as 3 axis) to tackle the high volumeer total Desid 200 man-hours/week, a capacity of upto Milling and Turning demands of today's accessfully market. We specialize in quick turn precision machining. At Varsun you get your parts fast and also you get them right.

Precision CNC turn mill is capable of undertaking turning and milling (or) both at a time. This will drastically reduce set up times and ensure required technical condition in a single set up.

CNC Machining

We operate 3 CNC turning centers at our site and 7 CNC at OCTL offering a total of DIA 430 x 860mm and a bar dia of up to 76mm ations like various





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