

VENTTUP
SUSTAINABLE MANUFACTURING

Empowering the Future of Sustainable Manufacturing

Venttup is a B2B engineering services startup, building a global network of scalable manufacturing capabilities from India

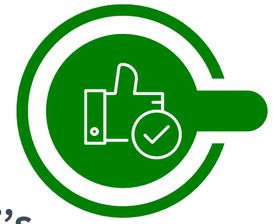
We are Committed to Making India a Global Manufacturing Hub

THE PROBLEM STATEMENT & SOLUTION

VENTUP

Dependency on single source for Critical Infrastructure Projects

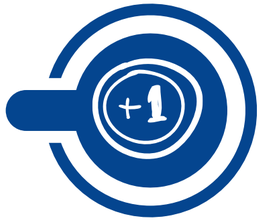




New Part Development using MaaS Model

Pain Points of customer's & MSME's

China Plus one Strategy







India for World : Pilot to Mass Production

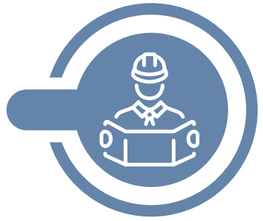
Customer

- Dedicated Team
- Development Time
- Partner Identification

MSME

- Good Product
- Poor PM, DM
- R&D efforts

Engineering services for grid transition, e-mobility, and defense





Quality & Sustainable Engineering Services

Solution

Global buyers' difficulty in verifying manufacturer credibility







Local to global: A trusted export partner from P2P

OUR DIFFERENTIATOR

Unique approach to drive component development: Combines reverse engineering, new part development, sustainability, and technology to offer a unique value proposition - THE GATE PROCESS

Gate 0
- Feasibility Check
- NDA Sign off
- Scope Finalisation

Gate 1
- Agreement to start
- Project Team
- Project Timeline

Gate 2
- Risk Assessment
- Supplier Selection
- Qualification

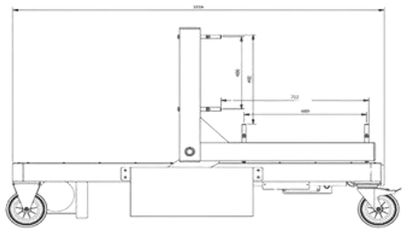
Gate 3
- Pilot Planning
- Pilot Production
- Prototype Testing

Gate 4
- Prototype Results
- Documentation
- Report Validation

Gate 5
- Project Report
- Mass Production

Gate 6
- Project Closure
- Hand over

Gate 7
- Supplier Performance
- Sustainability
- Lessons Learned



From a hand sketch, product observation, drawing, we can proceed with part development using the GATE process

In House Engineering, Design, Quality, Supply Chain & Project Management



OUR SERVICES

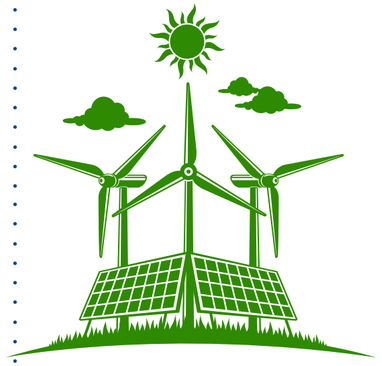
VENTUP



- Engineering Design & Consulting
- Reverse Engineering
- Prototype To New Part Development
- Unified Platform For Global Buyers
- B2B Contract Manufacturing
- Heavy Engineering Fabrications
- Energy Transition Products
- One Stop Sourcing Solutions

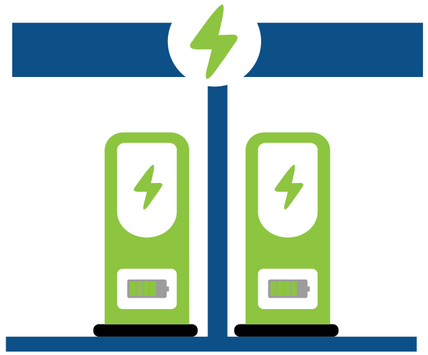
FOCUSED SECTORS

Renewable Energy



- Control Panels
- Switchyard Equipments
- HVDC Components
- Cabinet Equipments
- Cables & Wire Harness
- Valve Cooling Systems

Electric Vehicles & Charging



- Charging Station Panels
- DC Components
- Wires & Cables
- Frames & Structures
- Hydraulics & HVAC
- BMS & VCU’s
- Power Train

Aerospace & Defence



- Special Purpose Machines
- Frame and Structural Components
- Power Systems
- Sensors and Detection
- Composite materials
- Ground Support Equipment

Buildings & Factories



- Roof Top Solar
- Evaporative cooling
- Energy Storage & Automation
- Heavy Engineering Fabrications
- Trolleys & Fixtures
- Assembly Tools

NPD CAPABILITES: MECHANICAL

VENTTUP

MACHINING



- Machined & Turned Parts
- CNC Milling
- Turning & Drilling
- Grinding & Sawing

CASTING



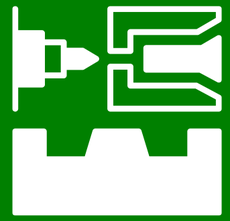
- Sand Casting
- Investment Casting
- Pressure Die Casting
- Gravity Casting
- Aluminum & Zinc Casting

FORGING



- Closed Die Forging
- Open Die Forging
- Cold Forging
- Hot Forging
- Roll Forging

INJECTION MOLDING



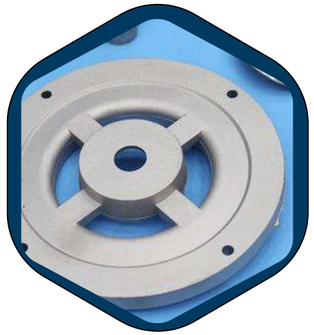
- Plastic Injection Molding
- Over Molding
- Insert Molding
- LSR Injection Molding
- Metal Injection Molding

SHEET METAL

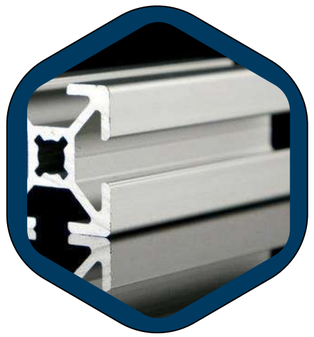


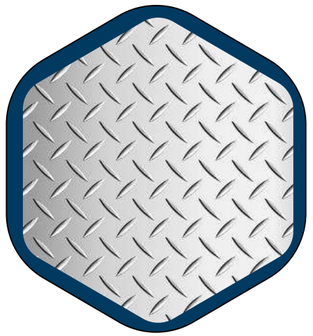
- Sheet Metal Fabrication
- Laser Cutting
- Plasma Cutting
- Water Jet Cutting
- Piercing
- Progressive Die Stamping











NPD CAPABILITES: ELECTRICAL & ELECTRONICS

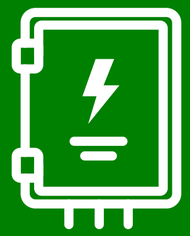
VENTTUP

SPM



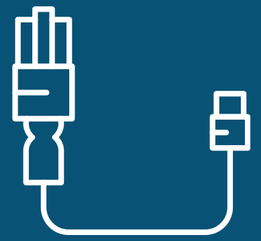
- Special Purpose Machine
- Robotic Solutions
- Coveyor Systems
- Assemby lines

CONTROL PANELS



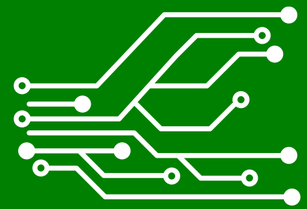
- Control Relay Panels
- Distribution Panels
- Cabinet Equipments
- Data Center Enclosures

WIRE HARNESS



- Data Cables
- Power Cables
- Fiber Optics
- Automotive Wires

PCB CONTROL BOARDS



- Motor Control PCB
- Inverter Control PCB
- Charging Control
- DC-DC Converter

AGV



- Automatic Guided Vehicle
- Automated Mobile Robots
- Pallet Jack AGVs
- Forklift AGVs











TRUSTED EXPORT PARTNER

VENTUP

Building a unified platform for global buyers to source high quality, sustainable & proven components from India



India for Global: Streamlined Export Partner

Expand your reach across borders with our comprehensive import and export solutions.

- Indian Procurement Office
- Best Cost Country Sourcing
- Engineering Design

- Alternative Source Identification
- Qualification Audits
- ESG Assessment

- Design Review
- Manufacturing
- Type Testing
- FAT & Quality Checks

- Export Packaging
- Trade Documentation
- Freight Management
- E2E Project Execution

KEY CUSTOMERS & MSME PARTNERS

VENTUP

Energy

SIEMENS energy
एनटीपीसी NTPC
L&T Construction
adani
HITACHI
VIBRANT ENERGY
A-Bond Strands
A legacy of precision engineering and innovation
Oriano
KELTRON
A Government of Kerala Undertaking

Aerospace & Defence

CELERITAS AUTOMATION
Systems . Solutions . Services
TATA ADVANCED SYSTEMS
OrbitAID
Fueling the future
ITI

Infra & Mobility

ABCO
SIEMENS
SAINT-GOBAIN
LINCOLN ELECTRIC
Avalon
manufacturing your success
ENTUPLE E-MOBILITY
COCHIN SHIPYARD LIMITED

Others

FANUC INDIA
WENDT
Manjushree 2.0
Rivarp MEDICAL
tvasta
bindwel
Enriching Solutioning Beyond Expectations
ProcMart
moglix

100+

Manufacturing partners

VENTTUP TEAM

VENTTUP

SIEMENS energy | Hitachi Energy | LARSEN & TOUBRO | HITACHI | KALPA-TARU POWER TRANSMISSION LIMITED | Feedback



SANDEEP NAIR
CO-FOUNDER & CEO

B.E. Electronics I GM, IIMB
Ex: Siemens, Hitachi , L&T
Expertise : Procurement ,Project Management, Localisation



M WASIM ANKLI
CO-FOUNDER & COO

B.E. Electrical & Electronics
Ex: L&T
Expertise : Project Management, Tendering, Bidding



JOSEPH PANAKKAL
CO-FOUNDER & CMO

B.E. Electronics I MBA UK
Ex: Feedback, SAI, Tecnova
Expertise : Project Management, Business Consulting, Marketing



UMASHANKAR K
CTO

B.E Mechanical
Ex: Jet Airways, Frigate, Airflow
Expertise : Sourcing, Business Development, Operations

Led by a passionate team of founders with deep industry expertise

VENTTUP INVESTORS & ECO SYSTEM PARTNERS

Our Investor

UNICORN INDIA VENTURES

- In September 2024, Venttup Ventures secured seed funding from Unicorn India Ventures
- The capital will be used to accelerate business growth and technology development for Localisation program management

Our Eco System Partners

Government of India #startupindia

KERALA STARTUP MISSION

- Provided valuable opportunities to position the company
- Supported participation in events like TiE Global Summit (Bangalore), Huddle Global, Startup Mahakumbh and Gitex (Dubai) by offering affordable, subsidized costs for startups
- Collaborated closely with Venttup at various stages of the investment journey


NDTV | Profit

Markets Business Research Reports Premium

B2B Engineering Services Startup Venttup Raises Seed Funding From Unicorn India Ventures

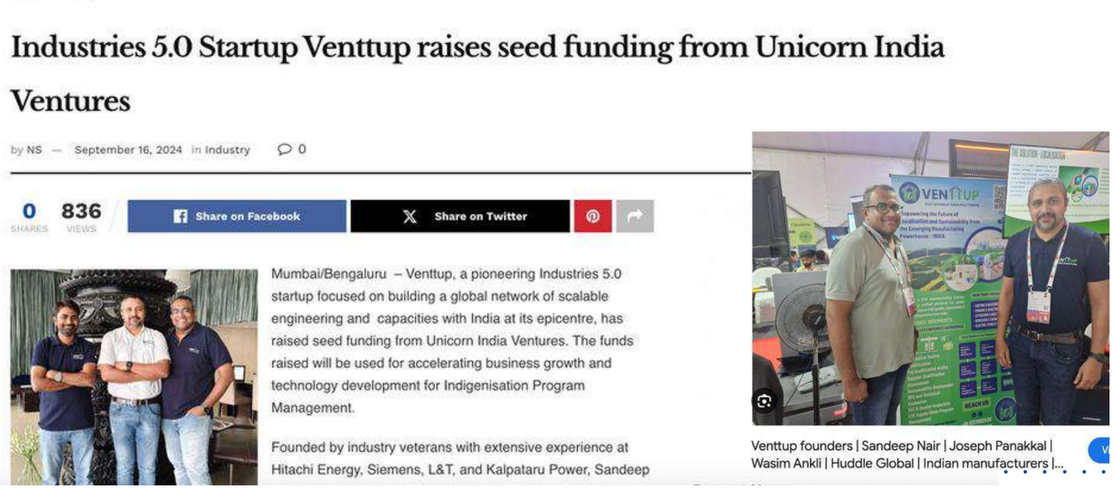
The startup provides sustainable and localised industrial B2B services to its client base, including Fortune 100 companies.

NDTV Profit Tech

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Industries 5.0 Startup Venttup raises seed funding from Unicorn India Ventures

by NS — September 16, 2024 in Industry 0

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Mumbai/Bengaluru – Venttup, a pioneering Industries 5.0 startup focused on building a global network of scalable engineering and capacities with India at its epicentre, has raised seed funding from Unicorn India Ventures. The funds raised will be used for accelerating business growth and technology development for Indigenisation Program Management.

Founded by industry veterans with extensive experience at Hitachi Energy, Siemens, L&T, and Kalpataru Power, Sandeep

Venttup founders | Sandeep Nair | Joseph Panakkal | Wasim Ankli | Huddle Global | Indian manufacturers |...

THANK YOU

Empowering Global Businesses to Manufacture in INDIA

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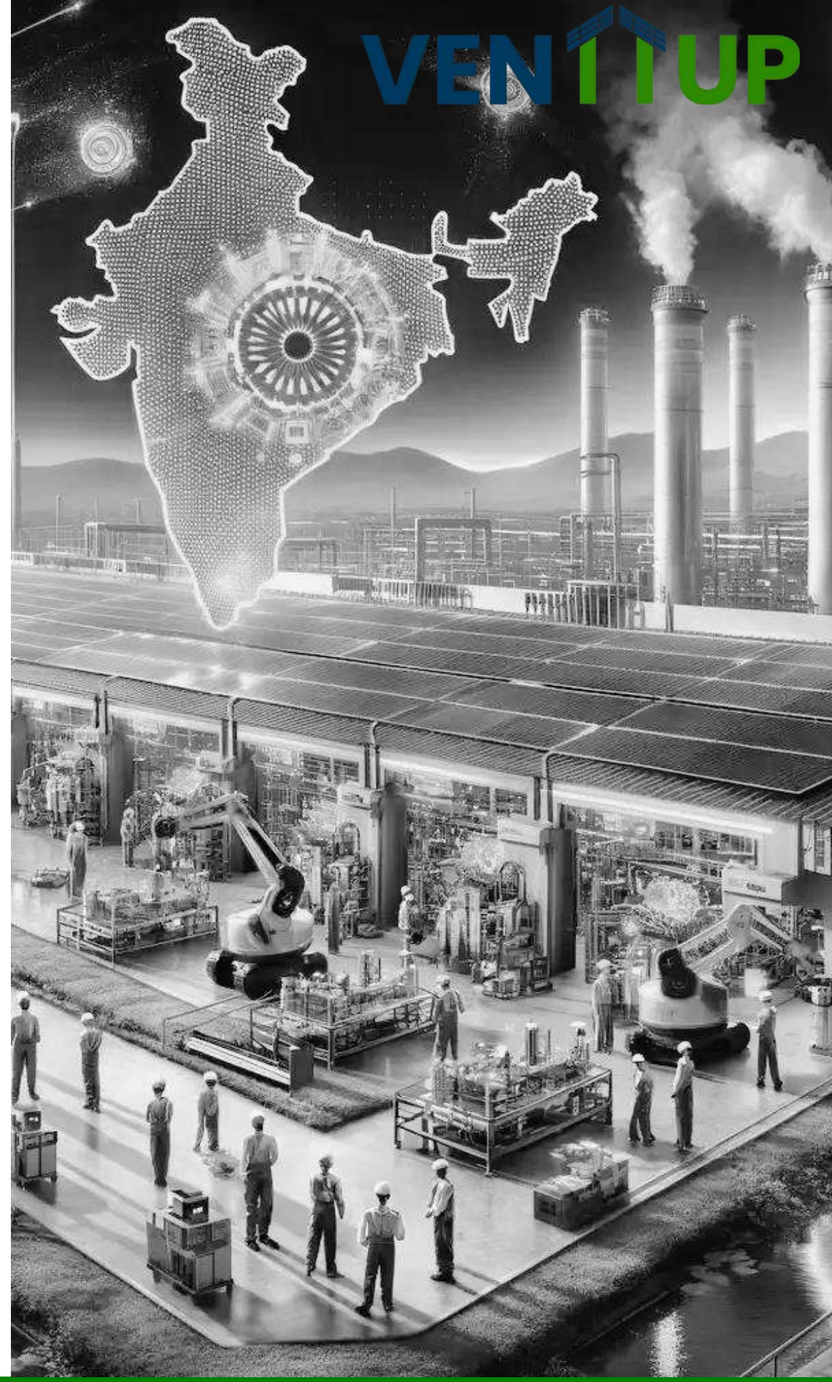


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Our Kochi Office

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Case Studies

Case Study

Localization

HITACHI | Development support with Reverse Engineering

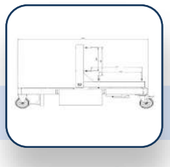
Localization of capacitor tilt trolley



- Venttup reverse-engineered; customer approved
- A prototype was developed in Coimbatore & tested
- The equipment is operational at Hitachi Energy, Chennai



Onboarding



Hand sketch



Product observation & drawing



GATE process initiation



Final product

Venttup's expertise ensured seamless execution across the value chain, including: reverse engineering, design and creation of manufacturing drawings, project management, quality check, manufacturing and delivery

30%

Reduction in lead time

25%

Cost savings

Case Study

Localization

CELERITAS AUTOMATION Systems . Solutions . Services

New Product Development

Precision manufacturing of Copper Rotors & Motor shafts to support machinery functionalities in Defence application

Faced challenges in manufacturing precision components

VENTTUP SUSTAINABLE MANUFACTURING

- Developed Copper Rotors & Motor Shafts with Venttup's partner manufacturer
- Samples met design specifications
- Timely delivered resolved the issue



Venttup's expertise ensured precision manufacturing through:

- Right vendor selection
- Drawing evaluation and feasibility check
- Project management and manufacturing execution
- Rigorous quality checks &Timely delivery

100%

Fitment achieved to the assembly

Faster production and on time delivery

Case Study

Contract Manufacturing

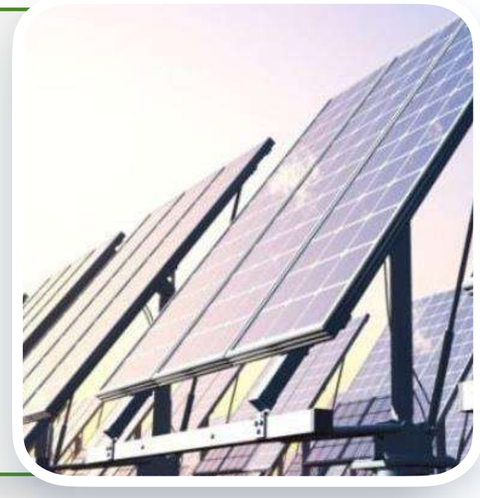
Contract manufacturing project

Manufacturing of module mounting structure of solar projects



Faced delays in procuring mounting structures

- Manufacturing the structures through a partner
- Structures met design specifications
- Timely delivered resolved the issue



Venttup's expertise ensured precision manufacturing through:

- Strategic vendor selection based on quality standards, production capacity, and domain expertise
- Thorough drawing evaluation and feasibility assessment
- Streamlined project management and on-ground execution
- Rigorous quality checks at every stage and timely delivery aligned with customer expectations

~100 MT

Volume of MMS delivered on time

6-8%

Reduction to customer overheads

Case Study

Contract Manufacturing

Investment Casting Development of Abond Strands

Manufacturing of Cone Gear, Cam Plate, and Trip parts via the investment casting process for their machinery functionalities

Faced issues in Development & Cost Reduction





- Manufacturing investments Casting a partner
- Components met design specifications
- Timely delivered resolved the issue







- Venttup collaborated with a high-quality manufacturing partner
- Successfully addressed key challenges by improving lead times, reducing costs, and delivering superior-quality finished components through efficient project management and strong supply chain expertise

15%

Cost saving

100%

Quality assured

Reduction in lead time

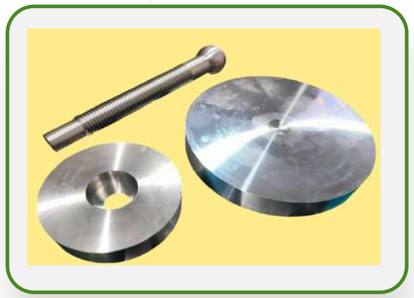
Case Study

New Part Development

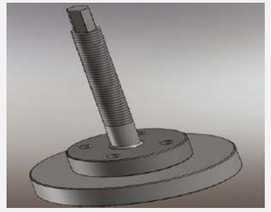
New Product Development of Pivot Footing Assembly

Manufacturing of Pivot Footing Assembly to support individual columns in construction.

Faced issues in Design and Development



- Manufactured Pivot footing through a partner
- Components met design specifications
- Ensured cost savings and better leadtime







Venttup's value addition ensured end-to-end precision manufacturing, including:

- Strategic vendor selection
- Detailed evaluation of drawings and technical feasibility
- Robust project management and streamlined manufacturing execution
- Comprehensive quality checks and faster delivery

100%

Achieved optimum quality with surface finish

Faster Turnaround Time

15%

Cost savings

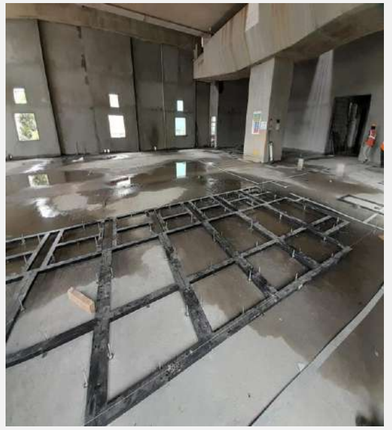
SIEMENS | Contract manufacturing project for Siemens (BMRCL)

Manufacturing of 33kV Base Frames in different sizes to hold switch gears panels in metro projects.

Faced delays and quality issues in fabricating the base frame structures



- Developed base frames through Venttup's Partner Manufacturer
- Frames met design specifications and quality
- Ensured timely delivery



Venttup's value addition includes:
- Strategic vendor selection based on production volume and quality
- Design and dimensional improvements to ensure better fitment and performance
- Efficient project management with batch-wise manufacturing aligned to customer schedules
- Rigorous batch-wise quality checks and on-time delivery for enhanced reliability

~26 MT

Volume of Base frames

Reduction in lead time

100%

Quality assured

Case Study

Reverse Engineering and manufacturing

adani | Reverse Engineering of Adani Kutch Copper Ltd.

Reverse engineering of chain Sprocket bucket elevator and boiler drag chain via 3D Scanning and Material Testing

Reverse engineering support for critical components. Originally sourced from international OEMs and currently lack available drawings



- Successfully tested the parts by using the XRF method and 3D scanning with Tscan Hawk 2
- Submitted PMI, Calibration Reports & 2D/3D Models
- Timely submission ensured



Venttup's expertise ensured seamless execution across the value chain, including:
- Reverse engineering of existing components
- Design optimization and creation of detailed manufacturing drawings
- End-to-end project management for smooth coordination
- Technical modifications to enhance system performance and reliability

100%

Accuracy

Accurate measurement reports & manufacturing drawings delivered

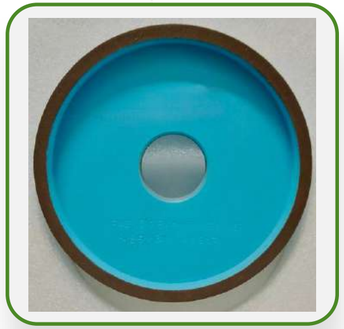
Effective Reverse Engineering

Case Study

New Part Development

Manufacturing of Cutting Wheel for BHEL

Manufacturing & Supply of Diamond metal-bonded cutting wheel for grinding applications



Faced issues in Manufacturing & quality

- Developed complete 2D drawing and manufactured the wheels with manufacturing partner
- Samples met customer expectations & qualified for volume production
- Timely submission resolved the issue



Venttup's value addition includes:

- Strategic vendor selection tailored to production volume, complexity, and quality needs
- Design and dimensional improvements to enhance fitment, functionality, and performance
- Streamlined project management aligned to customer timelines
- Efficient quality checks ensuring consistency and on-time delivery

100%
Quality assured

Faster Turnaround Time

Improved performance and extended service life

Case Study

New Part Development

Precision Manufacturing: India for Global

Design & Development of FG285 Stuffing Box Using shell molding method

Design and Development



- Delivered end-to-end precision manufacturing with design modifications and process improvement (Green Sand → shell molding)
- Identified and onboarded capable vendors despite a limited supplier base
- Performed detailed drawing review and technical feasibility analysis



Venttup's value addition includes:

- Customer imported stuffing boxes from China but faced challenges in achieving the required RA 3–6 µm surface finish. Venttup proposed the shell molding casting method, reviewed and amended the drawings with customer approval, and successfully developed the sample as per specifications. Production is set to begin.
- Executed robust project management for smooth and timely manufacturing of sample and delivered
- Ensured comprehensive quality checks for higher reliability and faster delivery.

100%
Quality assured

Faster Turnaround Time

Improved performance and extended service life

Case Study

New Part Development

VENTTUP

Precision components developed for Satellite application

Manufacturing Developed 29 different types of SS316L & Al7075 T6 components through machining process designed for satellite integration

Venttup's value addition includes:

- Venttup collaborated with a trusted high-quality manufacturing partner to ensure precision, consistency, and adherence to stringent quality standards for critical components
- Efficient project management ensured the component was delivered within a short lead time, meeting customer timelines without compromising on quality

