



Precision Metal Casting Solutions



Trushape Precision Castings is a leading manufacturer of high-quality precision metal castings based in India. The company serves a wide range of industries, delivering reliable, custom-engineered casting solutions with a focus on quality, innovation, and customer satisfaction.

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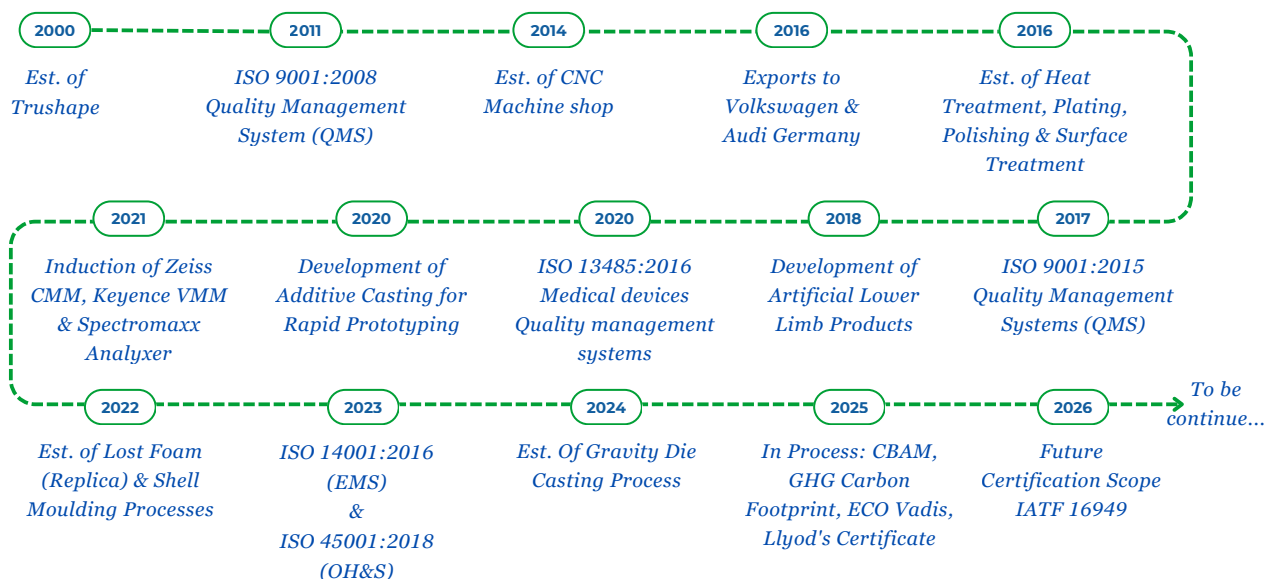
About Us



Trushape Precision Castings, Bhavnagar, Gujarat, India

Founded in the year 2000, Trushape Precision Castings Pvt. Ltd. has emerged as a leading manufacturer of ferrous and non-ferrous precision castings. Based in Bhavnagar, Gujarat, India, we have built a reputation for delivering high-quality, dimensionally accurate, and durable casting solutions across diverse industries. Our state-of-the-art manufacturing facility, spanning 100,000 square feet, houses a 40,000 square feet production unit equipped with cutting-edge technology and advanced machinery, ensuring seamless operations and future expansions.

With over 150 highly skilled employees, we specialize in Investment Casting, Lost Foam Casting, Shell Molding, Gravity Die Casting, and Rapid Prototyping. Our in-house capabilities include CNC machining, heat treatment, electroplating, polishing, and rigorous mechanical and chemical testing, enabling us to offer fully finished, ready-to-use components.



In House Capabilities

Processes:

- Investment Casting / Lost Wax / Feinguss
- Shell Molding Casting
- Lost Foam Casting
- No Bake Casting
- Rapid Prototyping / 3D Printing
- Gravity Die Casting

Weight capabilities:

- Lost Wax : 3 Grams to 30 Kgs
- Shell Molding: 5 Kgs to 60 Kgs
- Lost Foam: 3.5 Kgs to 90 Kgs
- No Bake: 3 Kgs to 40 Kgs
- Rapid Prototyping: 5 Grams to 30 Kgs
- Gravity Die Casting: 100 Grams to 3 Kgs

Surface Treatment:

- Heat Treatment Furnaces
- Sand Blasting
- Shot Blasting
- Glass Bead Blasting
- Media Polishing
- Electropolishing
- Electroplating

Quality Control:

- Trimos Height Gauge
- Zeiss CMM
- Keyence VMM

Rapid Prototyping:

- 3 Nos FDM (Multi material) Printer
- 2 Nos SLA Printer

Testing Lab:

- Tensile Testing
- Izod Impact Testing
- Hardness Testing
- Spectrometer (Spectromaxx & Bruker)
- Dye Penetrant Test
- Ultrasonic Test
- Conductivity Test
- Pressure Test

Material Grades:

- Carbon Steel
- Stainless Steel, Duplex Steel, Precipitate Hardening Steel, Heat resistant Steel
- Super Alloys
- Copper
- Brass
- Bronze
- Aluminum and Aluminum Alloys

Machine Shop:

- 2 Nos CNC Turning Machines
- 4 Nos 3 Axis VMC Machines
- 2 Nos 4 Axis VMC Machines (Makino)
- Conventional Lathe, Drill and Milling Machines

Material Capabilities

Stainless Steel

- Austenitic : 304, 316, 316L, 321, 1.4301, 1.4404, CF8, CF8M
- Martensitic: 410, 420, 440C
- Duplex & Super duplex: F51, CA6NM
- Precipitation Hardened: 17-4PH, 1.4542, CB7Cu-1

Aluminium & Light Alloys:

- Casting Alloys: LM6, LM25, 535, A356

Nickel & Cobalt based Superalloys:

- Nickel Based: Inconel 625, Inconel 713C, Hastelloy C-22, Hastelloy X, CW12MW
- Cobalt Based: ASTM F75 (CoCr), Stellite 6
- Ni-Resist: Type 1 Ni-Resist

Special & Magnetic Alloys:

- Alnico, ISO 5832-1, 1.4441, 1.4086, Guronit

Carbon & Low Alloy Steels:

- Carbon Steels: EN8, EN24, EN36, C15, C45, ASTM A48
- Low Alloy Steels: 4140, 4130, 4340, 8620, 20MnCr5, 42CrMo4
- Case Hardening Steels: 16MnCr5, 34CrNiMo6, 38Cr5Ni3Mo1Cu

Tool & High-Speed Steels:

- Tool & Wear Resistant: D2, 1.2379, 1.2080, HSS, X155CrVMo12.1, Hardox 400

Copper Based:

- Brass, Bronze & Gunmetal: CZ121, CB766S, C83600, CuAl11Fe6Ni6, CC040A, CuZn37Al1

In house Processes



Investment Casting / Lost Wax / Feinguss

- Exceptional dimensional accuracy and surface finish.
 - Ability to cast intricate shapes and fine details.
 - Cost-effective for small to medium production runs.
 - Suitable for a wide variety of metals and high-performance alloys.
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Shell Molding Casting

- High dimensional accuracy and smooth surface finishes, reducing machining costs.
 - Improved repeatability and consistency in production.
 - Suitable for medium to high-volume production.
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Lost Foam Casting

- Ability to cast very complex geometries, including undercuts and passageways.
 - No need for core assembly, reducing labor and tooling costs.
 - Versatile and adaptable for small to large parts.
 - Minimal post-casting machining required due to high dimensional accuracy.
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No Bake Casting

- Flexibility in casting size and complexity, suitable for a wide range of applications.
 - Excellent surface finish and dimensional accuracy.
 - The chemical binder ensures mold stability and fine detail reproduction.
 - Environmentally friendly options with reusable sand and reduced waste.
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Rapid Prototyping

- Accelerates the design and development process
 - Allows for easy modifications and iterations
 - Reduces development costs and time to market
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Gravity Die Casting (Aluminum)

- Produces strong, durable, and dimensionally precise parts
- Ideal for medium to high-volume production
- Excellent surface finish and tolerances
- Cost-effective for repeatable production

Product Segments

General Engineering Components

Our general engineering components are precision-crafted through advanced casting techniques to meet the rigorous demands of diverse industries, ensuring superior performance, durability, and efficiency in every application

Applications

- Pump and Valve Components
- Gear and Transmission Parts
- Aerospace and Defense
- Construction and Infrastructure
- Energy Sector
- Marine Applications



Automotive and Transportation Components

Our automotive and transportation components, produced with precision casting, enhance vehicle performance and safety. They are engineered for durability and strength, meeting the exacting standards of the automotive industry.

Applications

- Engine blocks and cylinder heads
- Transmission cases
- Suspension arms and brackets
- Brake calipers and discs
- Wheel hubs and bearings
- Exhaust systems
- Steering components
- Chassis parts



Heat Resistant Steels

Our heat-resistant steel components are engineered to withstand extreme temperatures, offering unparalleled strength and longevity in demanding environments, making them essential for industries requiring high thermal tolerance.

Applications

- Industrial furnace parts
- Turbine blades in power generation
- Heat exchangers and cooling systems
- Burners and combustion chambers
- Petrochemical processing equipment
- Exhaust manifolds in automotive
- Valve bodies for high-temperature applications



Electrical Components

Our electrical and electronics components, utilizing pure copper castings, ensure optimal conductivity and durability, enhancing the performance of electrical systems with precision and reliability in even the most advanced applications.

Applications

- Electrical connectors and terminals
- Busbars and switchgear components
- Electromagnetic shielding cases
- Transformer taps and winding parts
- Circuit breaker parts
- Heat sinks for electronic devices
- Induction coils
- Contacts and relays



Industrial Textile

Our industrial textile components, precisely engineered from durable metal castings, enhance machine performance and longevity. They're designed to withstand the rigorous demands of textile manufacturing, ensuring seamless operation and high-quality output.

Applications

- Needle bars and hooks for precise fabric stitching
- Bobbin cases and spool holders for smooth thread handling
- Machine frames and structural components for stability
- Drive gears and pulleys for efficient machine operation
- Thread cutters and trimmers for clean finishing
- Lever and dial components for user control adjustments



Hardware

Our hardware components, made from robust metal castings, are key to building durable and reliable products. Engineered for precision and strength, they meet the highest standards of quality, offering unmatched functionality in the hardware sector.

Applications

- Lock mechanisms and door handles for security and ease of use
- Hinges and brackets ensuring smooth operation and structural integrity
- Cabinet and furniture fittings for aesthetic and functional purposes
- Plumbing fixtures like faucets and valves for water control
- Automotive hardware for safety and operational efficiency
- Construction anchors and fasteners for robust building support

Aerospace & Defense

Our Aerospace & Defense components are engineered with high-precision metal castings to ensure exceptional durability, dimensional accuracy, and reliable performance under the most demanding conditions. From high-altitude aerospace systems to mission-critical defense equipment, we meet the rigorous standards required by these sectors — where failure is not an option.

Applications

- Weapon components, including firearm receivers and mounts
- Missile and ordnance casings for enhanced durability
- Naval ship components
- Optical and sighting system components for accuracy and resilience
- Aerospace structural parts for airframes and engine assemblies

Energy

Our energy components are engineered with precision metal castings to ensure exceptional strength, thermal stability, and long-term durability in some of the most demanding industrial environments. Designed to perform in high-pressure, high-temperature, and corrosive conditions, our castings support critical systems across both traditional and renewable energy sectors.

Applications

- Turbine components for gas, steam, and hydro power generation
- Heat exchanger and boiler parts for thermal energy applications
- Flanges and impellers for oil & gas operations
- Structural parts for solar and wind energy systems
- Corrosion-resistant components for offshore and subsea installations

Precision Prototyping

Our precision prototyping services accelerate product development by transforming concepts into functional, test-ready components with speed and accuracy. Using advanced tools like rapid prototyping, 3D printing, and short-run casting, we help reduce development cycles, minimize costs, and validate designs before full-scale production — all while maintaining tight tolerances and exceptional surface quality.

Applications

- Functional prototypes for fit, form, and performance testing
- Design validation for complex geometries and critical assemblies
- Short-run production of custom or limited-edition components
- Rapid iteration for design improvements and client feedback
- Bridge tooling for faster market entry before mass production
- Low-volume precision parts for high-mix manufacturing needs



Luxury Decorative Metal Art

At Trushape, we craft high-quality metal castings that merge engineering precision with artistic expression. Our decorative castings are designed for luxury applications where aesthetics, detail, and finish are just as important as durability. With advanced casting processes and meticulous surface treatments, we create custom metal art pieces that elevate architectural, interior, and lifestyle spaces — combining timeless beauty with lasting strength.

Applications

- Architectural facades, railings, and ornamental structures
- Decorative elements for luxury interiors and furniture
- Lighting fixtures, sculptures, and artistic installations
- Custom metal art for hotels, resorts, and heritage projects
- Exterior and landscape décor such as fountains and signage
- Premium hardware, fittings, and bespoke design components



Trushape Equiform

At Trushape Precision Castings, our saddlery components reflect a perfect blend of traditional craftsmanship and modern engineering. Crafted from premium-grade metal castings, each piece combines strength with elegance—ensuring durability, reliability, and performance in every ride.

Our journey in precision metal casting began with a vision to bring world-class quality to Indian manufacturing. Over the years, we've refined our techniques and expanded our expertise to cater to the demanding needs of the equestrian industry. Drawing upon decades of metallurgical knowledge and advanced casting technologies, we produce components that withstand the rigors of riding while maintaining impeccable finish and aesthetic appeal.

From stirrup irons to buckles and fittings, every component is engineered with meticulous attention to detail, reflecting our commitment to excellence and our respect for the heritage of equestrian craftsmanship.

Applications

- Buckles and Clasps – For secure and reliable fastening of straps and harnesses.
- Stirrups – Providing rider support, balance, and safety during every ride.
- Bits – Enabling effective control and communication between horse and rider.
- Spurs – Delivering precise rider cues for refined performance.
- Saddle Trees – Forming the core structure that ensures proper fit and comfort.
- Decorative Hardware – Adding visual appeal and elegance to premium saddlery products.



Trushape Meditech

Orthopedic & Prosthetic Components – Precision for Human Mobility

Since our inception in 2010, Trushape Precision Castings has been at the forefront of innovation in orthopedic and prosthetic metal castings. What began as a vision to extend our expertise in precision engineering to the healthcare industry has evolved into a trusted partnership with leading medical device manufacturers across India and beyond.

At Trushape, we not only manufacture precision-cast components but also carry out complete in-house assembly and testing to ensure consistent quality, performance, and reliability. Each assembly undergoes rigorous inspection and functional testing before delivery, ensuring it meets the strict standards required by the medical and biomechanical sectors.

Product Range & Applications

- Prosthetic Joints & Connectors – Precision-cast knees, ankles, and connectors for smooth movement and long-term durability.
- Custom Socket Interfaces – Designed for a perfect anatomical fit, enhancing comfort and usability.
- Orthotic Supports & Braces (KAFOs, AFOs) – Engineered for strength, alignment, and lightweight performance.
- Lightweight, High-Strength Components – Manufactured using premium stainless steel and aluminum alloys for durability without added weight.
- Ergonomic & Aesthetic Designs – Focused on patient comfort, wearability, and visual appeal.
- Orthopedic Implants & Surgical Tools – High-precision castings for hip, knee, and toe implants, orthopedic jigs, and other critical surgical components.

We proudly supply our products to NGOs, healthcare institutions, and prosthetic rehabilitation centers both nationally and internationally, supporting initiatives that restore mobility and improve the quality of life for countless individuals in need.



Standardize Process

Top Notch Quality

At TRUSHAPE, quality is the foundation of everything we do. Our products are crafted with precision and undergo rigorous quality assurance processes. Our management system is certified to international standards:

ISO 9001:2016 · ISO 13485:2016 · ISO 14001:2015 · ISO 45001:2018

- At TRUSHAPE, customer centricity is at the heart of our philosophy. This unwavering focus has enabled us to build long-term relationships based on trust, reliability, and satisfaction.
- We place the highest importance on delivering a positive customer experience by consistently providing top-quality goods and services that meet and exceed expectations.
- Our approach emphasizes error prevention over error correction, with a clear objective: zero defects through the complete fulfillment of customer requirements.
- We believe that excellence starts from within. That's why employee orientation, ongoing training, and professional development are key pillars of our corporate policy. By ensuring optimal working conditions, we empower our team to perform at their best—today and tomorrow, in both national and global markets—while actively conserving resources and protecting the environment.

Quality Assurance & Material Testing

At TRUSHAPE, product quality is ensured through advanced testing methods and high-precision instruments. Our comprehensive quality assurance process includes:

Mechanical & Technological Testing

- Tensile Testing Machine – to assess material strength
- Hardness Testing Devices – for evaluating material hardness
- Notched Bar Impact Test – to determine toughness under impact

Chemical Composition Analysis

- Spectral Analysis using SpectroMaxx and Bruker spectrometers – for precise determination of material composition

Non-Destructive Testing (NDT)

- Ultrasonic Testing – for internal flaw detection
- Dye Penetrant Test – for surface defect identification
- Radiographic Testing – for detailed internal structure evaluation

Precision Measurement

- Video Measuring Machine (Keyence) – for dimensional inspection
- Coordinate Measuring Machine (CMM) (Zeiss) – for high-accuracy 3D measurements



Quality Certificates



ISO 9001:2016



ISO 13485:2016



ISO 45001:2018



ISO 14001:2015

Memberships & Certifications



Indo-German Chamber of Commerce
Deutsch-Indische Handelskammer
Mumbai • Delhi • Kolkata • Chennai
Bengaluru • Pune • Düsseldorf



Confederation of Indian Industry



Trushape's Social Initiatives



Trushape indigenously developed an Oxygen Flowmeter during COVID - 19 relief initiative. 150 Oxygen Flowmeters were manufactured, assembled and tested in house to provide the best quality flow meters for the needy.

The Oxygen Flowmeter was manufactured using casting, 3D SLA printing and machining, which was made open-source on GitHub so that anyone around the world could manufacture the same.



CSR Activity: Donation to the "Shahid Jawan Fund" on Republic Day and Independence Day



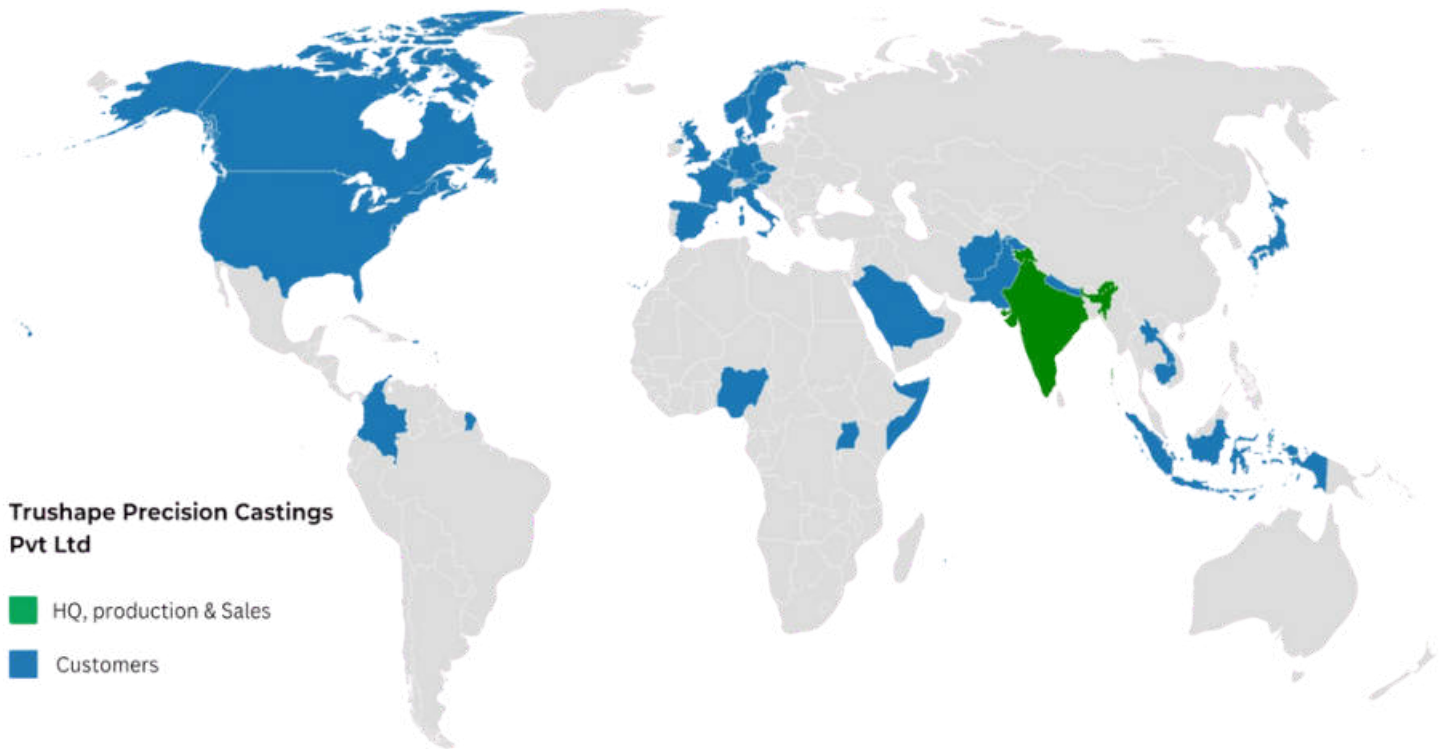
Industry-Academia Collaboration | Digital Manufacturing Visit at Trushape



Blood Donation Camp - 30 to 40 Units of Blood is donated to City blood bank twice every year



Parenting for Peace Workshop - Workshops are conducted for betterment and educating the Trushape Team



Trushape Precision Castings Pvt. Ltd.

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