We cast dreams into reality

CERTIFIED ISO 9001:2015 COMPANY

MEDICAL DEVICES ISO ISO 13485:2016 QUALITY MANAGEMENT

Trushape

Ideas Shaped, Quality Delivered

Trushape is one of the pioneers in the metal shaping industry delivering quality products with integrity & excellence

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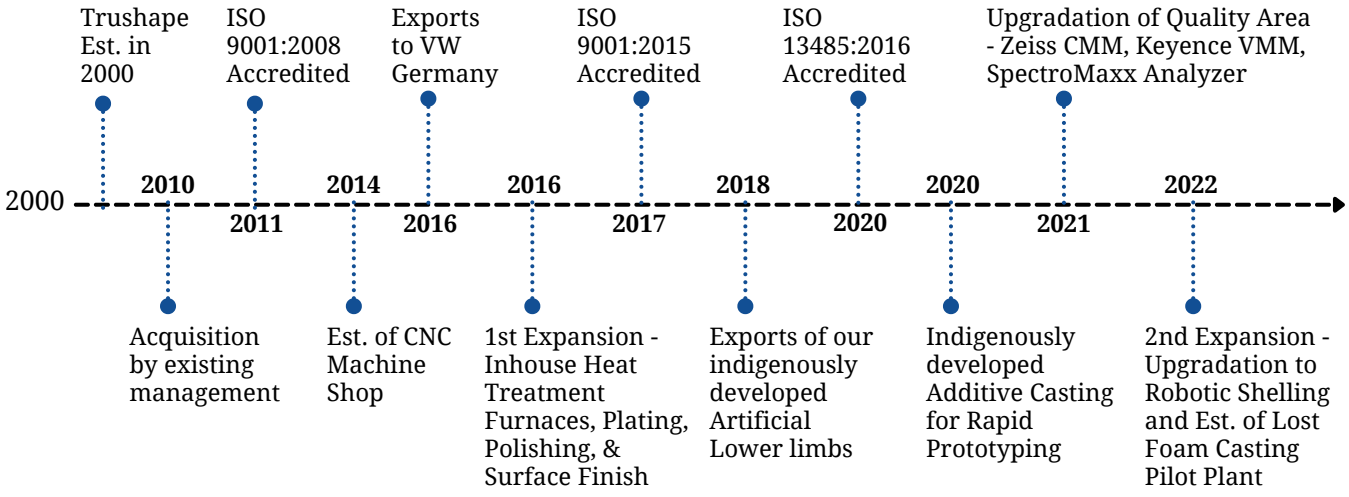
About Us

Trushape Precision Castings, Bhavnagar, Gujarat, India

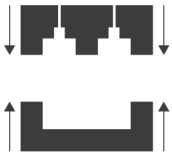
Trushape Precision Castings Pvt. Ltd., established in 2000 in Bhavnagar district of Gujarat State of India, manufacturing Ferrous & Non-ferrous Investment Precision Castings by different processes, has carved a niche for itself as the manufacturer of Quality Investment Castings. Trushape draws its name from a combination of two words; "True" and "Shape". The name itself embodies the principle, culture and objectives of the company.

Trushape is spread over a sprawling area of 90000 Square Feet with an eye towards ease of future expansion. The manufacturing facility is housed in a modern and spacious building admeasuring 17000 Square Feet. The manufacturing facility is most modern and designed to produce a state of the art castings, conforming to most international standards as well as product-specific standards.

With exports to Germany, Belgium, Denmark, Italy, Spain, U.K. etc., we enjoy a reputation for quality and timely deliveries.



Investment Casting Process Flow



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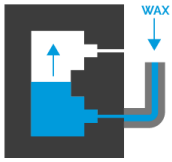

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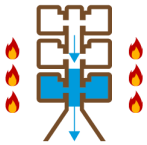

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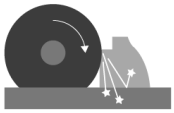

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10

1. Aluminium/Steel Die Tool having component cavity is manufactured for injection moulding.

2. Wax is injected at high pressure and temperature into the Die tool to obtain a replica of component in wax.

3. These wax patterns are glued together to form an assembly tree which consists of spur, runner, gate and components.

4. - 5. The assembly tree is dipped into ceramic slurry then coated by fine to coarse sand. The process is repeated several times to achieve the desired level of coating thickness.

6. Once the assembly is dried, the wax is removed out of the shell using high pressure steam which melts out the wax from shell, thereby making the shell hollow.

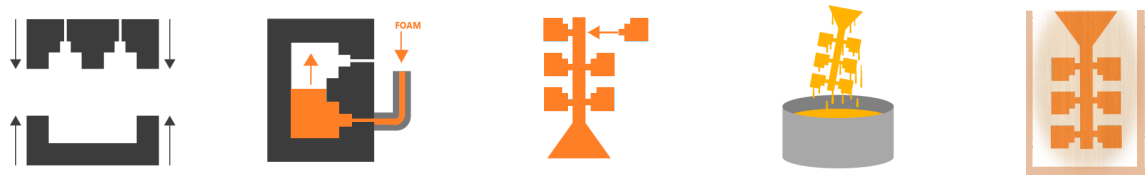
7. The shell is preheated to high temperatures and molten metal is poured inside the shell. Thereon the shell is put aside for solidifying and cooling.

8. The ceramic shell is removed by vibration and blasting which gives casted assembly tree.

9. In fettling process the component is cutout from the assembly tree. After the gate removal the component is blasted, heat treated, machined, plated etc. as per the requirements.

10. The finished component is then checked for all quality parameters as per requirement.

Lost Foam Casting Process Flow



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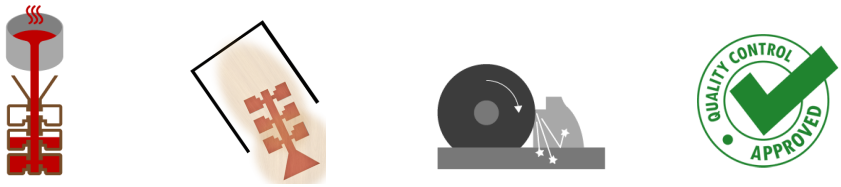


6 7 8 9

1. Aluminium/Steel Die Tool consisting of component cavity is manufactured for pressure injection moulding.

2. Polystyrene Foam is injected at high pressure and temperature into the Die tool to obtain a replica of component in Foam

3. These Foam patterns are glued together to form an assembly tree which consists of spur, runner, gate and components.

4. - 5. The assembly tree is dipped into a slurry which acts as the primary coat. After drying the coated assembly is placed in an empty chamber which is filled with sand which gives support to the assembly while pouring.

6. The molten metal is poured directly on the foam assembly, the foam converts into gas as soon as the molten metal is poured.

7. Once cooled down, the casted assembly is then removed from the chamber and prime coat is knocked out via blasting.

8. In fettling process the component is cutout from the assembly tree. After the gate removal the component is blasted, heat treated, machined, plated etc. as per the requirements.

9. The finished component is then checked for all quality parameters as per requirement.

Stainless Steels

In several areas of Industrial applications, castings used in the manufacturing of Heat Treatment furnaces from Trushape ensure reliable technical functions.

Applications

- Industrial:
  Razor Bade components, Power generation parts, springs and cutters.
- Automotive:
  Fuel Rails, Orifices
- Medical:
  Surgical anvils, Needle caps/guards, hypodermic needles.
- Aerospace:
  Helicopter components, Jet engine components, landing gears.

Materials, weight spectrum

- Alloys: Austenitic Steels. Ferritic austenitic Steels, Non-Magnetic Steels etc.
- Steel, From 5 gms to 25 Kg
- Volume, max. 300mm X 300mm X 300mm

Trushape Technologies

- Investment Casting
- Lost Foam Casting
- Additive Casting

Trushape manufactures energy recovery heat exchangers for Heat Treatment Furnace manufacturers in several European countries.

General Engineering Components

In several areas of Industrial applications castings from Trushape manufactured components ensures reliability.

Applications

- Industrial:
  Turbo Pump - Stators, Rotors.
- Oil & Gas:
  Brackets
- Conveyor System automation:
  Hangers
- Food Industry:
  Coupler, Spindle

Materials, weight spectrum

- Ferrous & Non-Ferrous Alloys, max. 28 Kg
- Volume, max. 300mm X 300mm X 300mm

Trushape Technologies

- Investment Casting
- Lost Foam Casting
- Additive Casting

Trushape manufactures Impellers for multi-stage gas turbines, which are used in Oil & Gas Industries

Automotive, Electrical & Electronics

We are proud to cater to several industries and MNC's by supplying them with fully finished precision castings.

Applications

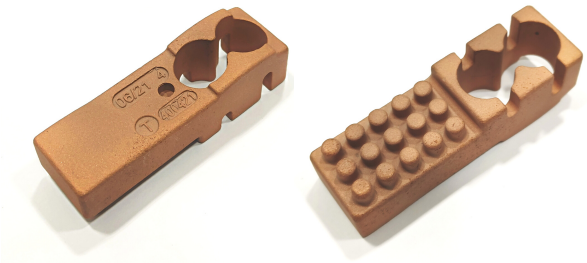
- Automotive:
  Safety-Critical chassis components
- Electrical:
  Switch Gear, Electrical contacts

Materials, weight spectrum

- Alloys: EN Series, Stainless Steel, Carbon Steel, CK40, SG Iron Copper, Brass and many more.
- Weight, max. 25 Kg
- Volume, max. 300mm X 300mm X 300mm

Trushape Technologies

- Investment Casting
- Lost Foam Casting
- Additive Casting



Trushape manufactures 99.9% pure Copper castings which are used as electrical contacts

Industrial Sewing, Textile & Hardware

We manufacture finished components for critical components of the sewing and textile industry along with ready to use parts for hardware and architectural applications.

Applications

- Sewing & Textile:
  Critical components of sewing machinery
- Hardware:
  Hinges, Locks, Architectural Hardware,
  Glass holding components

Materials, weight spectrum

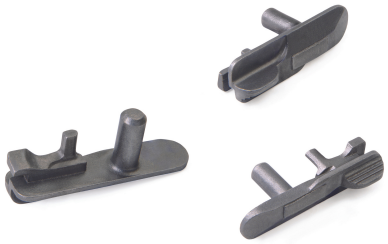
- Alloys: Stainless Steel, WCB, Gunmetal, Aluminum etc.
- Weight, 2 grams - 25 Kg
- Volume, max. 300mm X 300mm X 300mm

Trushape Technologies

- Investment Casting
- Lost Foam Casting
- Additive Casting

Architectural Hardware - Anchors which are used for holding glass ceilings in building exteriors

Defence & Saddlery



Applications

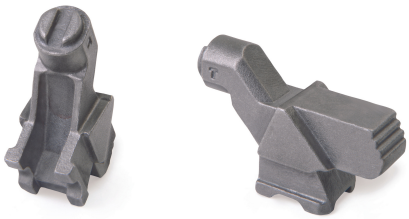
- Defence:
  Rifle Eye Sight, Pistol Safety Switch.
  Helicopter Hub
- Saddlery:
  Horse Shoe, Stirrup

Materials, weight spectrum

- Alloys: IS, BS, GOST, MIL, Stainless Steel, Carbon Steel
- Weight: max. 25 Kg
- Volume, max. 300mm X 300mm X 300mm

Trushape Technologies

- Investment Casting
- Lost Foam Casting
- Additive Casting



Trushape Manufacturers defence components such as eyesight and safety switch for Indian ordinance factory

Prosthetics & Orthotics

We have proudly developed our own set of Orthotic & Prosthetic Products which includes Prosthetic Adapters, Transtibial Prosthetic Kit, Pediatric Prosthetic Components and Kits, Lower Extremity - Pre Fabricated Orthotics, Sach Foot, Aluminum AK & BK Pylons.

Materials, weight spectrum

- Alloys: Stainless Steel, Aluminum, PU
- Weight: max 2.5 Kg

Trushape Technologies

- Investment Casting
- Additive Casting (Prototyping)

AK552 - 4 Bar Polycentric Knee Joint weighing 1.395 Kgs which could take up a bodyweight load of 100 Kgs

Procedures for every Requirement

Investment Casting Advantages:

- Versatility of design
- Alloy Selection
- exceptional surface finish
- Tight Tolerances
- Low-tooling costs
- Faster Production

Lost Foam Casting Advantages:

- Simple and straightforward process
- Shorter Lead time
- Cost-Effective
- Rapid Bulk Production

Additive Casting Advantages:

- Rapid Prototyping
- Lead time is 7 - 8 days
- Nominal Tolerances
- Minimal Tooling costs
- The flexibility of design changes
- Versatility in alloy selection

Standardize Process

Top Notch Quality

TRUSHAPE products are marked by high quality. In addition to the strict quality assurance of the individual products, the TRUSHAPE management system is certified according to the international standards ISO 9001 & ISO 13485.

- Customer centricity is at the core of TRUSHAPE and it is that belief that has led the business to build long term relationship
- Ensuring a positive customer experience, making available goods and services that are of top notch is given prime importance
- At TRUSHAPE, error prevention takes priority over error correction. The goal is zero defects in the sense of complete fulfilment of customer requirements.
- Employee orientation, training and further education and optimum working conditions are important components of the corporate policy at TRUSHAPE – so that top performances are achieved in national and worldwide markets today and tomorrow and so that resources and the environment are conserved at the same time.

QUALITY ASSURANCE & MATERIAL TESTING

TRUSHAPE uses a variety of methods and instruments to ensure product quality

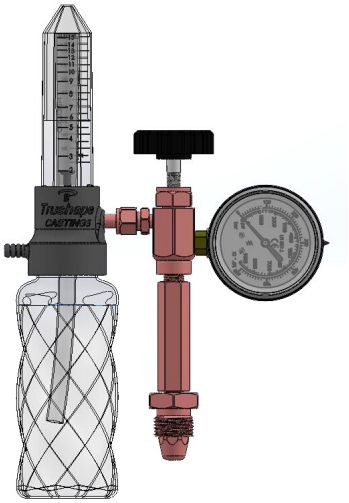
Testing of Mechanical & Technological Properties
- Tensile testing machine
- Hardness testing devices
- Notched bar impact test

Determination of chemical composition
- Spectral analysis (SpectroMaxx)
- Chemical analysis

Non-destructive testing methods.
- Ultrasonic tests
- Dye penetrant test
- Radiography test

High precision measuring instruments
- Video Measuring Machine (Keyence)
- Coordinate Measuring Machine (Zeiss)

Trushape's Social Initiatives



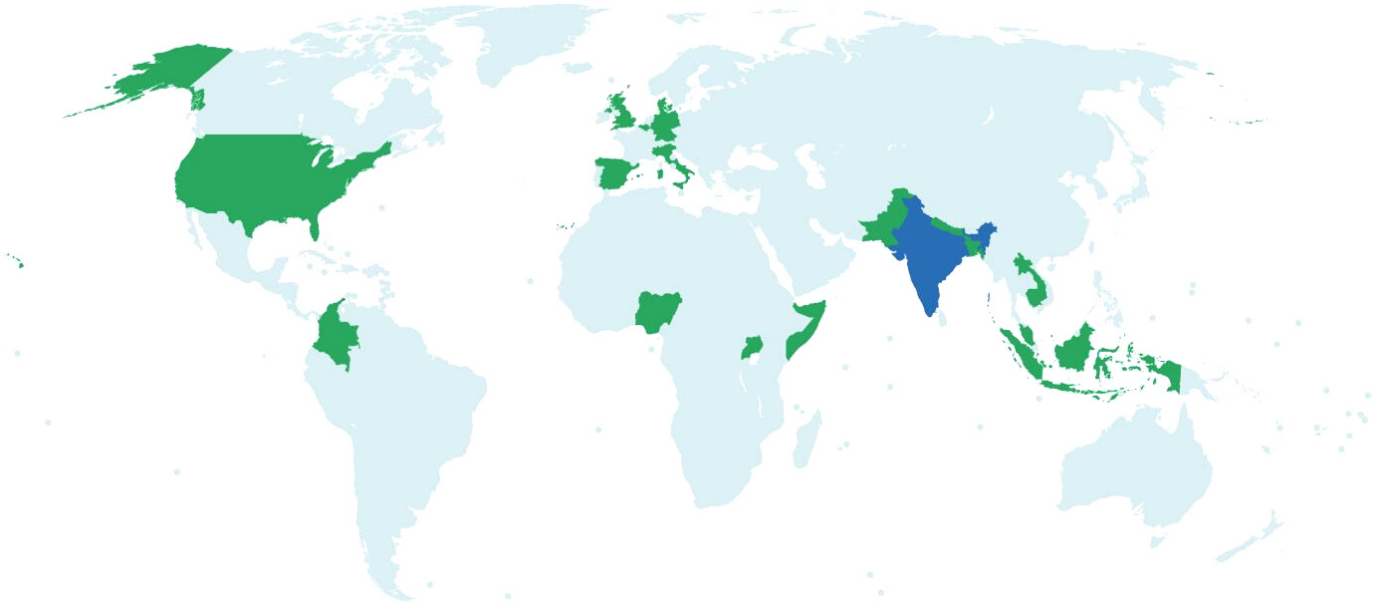
Trushape indigenously developed an Oxygen Flowmeter during COVID - 19 relief initiative. 150 Oxygen Flowmeters were manufactured, assembled and tested in house to provide the best quality flow meters for the needy.
The Oxygen Flowmeter was manufactured using casting, 3D SLA printing and machining, which was made open-source on GitHub so that anyone around the world could manufacture the same.

CSR Activity: Donation to the "Shahid Jawan Fund"

CII Delegation on Study Tour: HR Practices

Blood Donation Camp 2019

Parenting for Peace Workshop



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Survey No. 160,
Bhavnagar - Rajkot Highway,
Sampara, Bhavnagar,
Gujarat - 364060. INDIA

Cell: +91 9601266889
Email: contact@tpclcastings.com
Web: www.tpclcastings.com