



Trade Station

The engineering company you can trust

Corporate Profile



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Get to know us

Trade Station (Pvt) Ltd is a wholly Zimbabwean owned company founded and registered on the 31st of May 2014. At Trade Station, we specialise in the production and manufacturing of castings, spares, fittings and general engineering as per customer specifications.

We are committed to excellence and customer satisfaction and we ensure that all work is completed on time while meeting the highest quality standard levels our clients expect from us. Overallly, our success is dependent on our unity of purpose as we recognise that our individual abilities collectively enable us to deliver quality products and services.

Our Vision

To be the preferred foundry engineering provider of all times.

Our Mission

To partner our clients through the provision of high quality castings timeously while promoting the best business practices that respect our environment.

Our Strengths

- Quality castings at competitive rates.
- Minimum delivery time possible.
- Ability to interact and to listen to our customers concerns.
- Accepting and adapting to change.
- Continuous staff development.
- Flexible financial arrangements.



Scope of work



Patternmaking

The pattern is a replica of the exterior of the casting with dimensional allocation for shrinkage and finishing. If the casting is to be hollow, additional patterns called coreboxes are used to create these cavities in the finished product.

Patterns are usually made of wood, plastic, metal or fibreglass. However, other materials or combinations of materials are used if there are additional specific properties required of the pattern. The number of castings to be made from the mold and the specifications required of the finished casting are two of the criteria that determine which material is selected for the creation of the pattern.

Coremaking

Cores are forms of sand which are placed into the mold to create the interior contours of the casting. They are typically made of sand combined with water and organic adhesives called binders which is baked to form the core. This allows the cores to be strong yet collapsible, so they can be easily removed from the finished casting.

Since cores are made in molds, they require a pattern and mold, called a core box. The core pattern is made in the same fashion as the casting pattern, but the core box is created from a durable material like metal or wood.

Molding

Molding is a multi-step process in which molds are created. In horizontal casting, the mold is contained in a two piece frame, called a flask. The upper portion of the flask is called a cope and the lower portion is a drag.

First, molding sand is packed into a flask around the pattern. After the pattern is removed, gating and runner arrangements are positioned in the drag. Gating systems are necessary for the molten metal to flow into the mold cavity. Cores are also placed in the drag portion of the mold if they are needed. To finish the mold, the cope is placed on the drag and the mold is closed and clamped together.





Melting

Melting is the preparation of the metal for casting, and its conversion from a solid to a liquid state in a furnace. The melting process begins with the metal specification for the casting, determining the type of scrap metal to be used to 'charge' the furnace.

Samples are taken at various stages in the melting process, to ascertain the chemical composition of the molten metal. Using a spectrometer as a guide, alloys are added to the furnace to bring the molten metal to the proper specification.



Pouring

Liquid metal is then transferred in a ladle to the molding area of the foundry where it is poured into the molds. At the pouring lines, molten metal is 'poured' into the requisite molds. Due to the lifting pressure of molten metal, molds will often be 'weighted' or 'clamped' to prevent them from separating at the cope/drag meeting point.

The metal is allowed to solidify and cool before it is separated from the molds. Thereafter the molds go through a vibrator to remove the sand from the castings, a process called shakeout.



Machining/Cleaning

Cleaning generally refers to the removal of all materials that are not part of the finished casting. Rough cleaning is the removal of the gating systems from the casting. Initial finishing removes any residual mold or core sand that remains on the casting after it is free of the mold. Trimming removes any superfluous metal.

The castings are then sand blasted to further remove any mold coats and sand inclusions on the surface of the casting to prepare it for machining and painting. Finally, the castings are inspected for defects and adherence to quality standards.



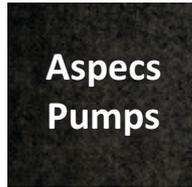
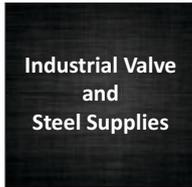
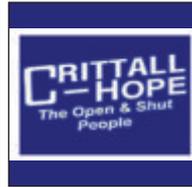
Products

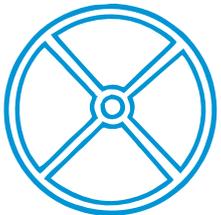


Products are produced as per customer specification, these are mainly industrial, mining, agricultural and commercial products. They include but are not limited to: Impellers (bronze/cast iron), Boiler castings, Gears (blanks/cast tooth), Grates/Fire bars, Billets (Cast iron brass/bronze), Pulleys, Tobacco curing castings, Aluminium fittings for irrigation equipment, Spares and components for different farming and irrigation implements, Manhole covers, Tractor weights, Gym Weights, Ball mill liners, Water pump spares, Machine Spares and white metal bearings.



Our Customers





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