The Foundry of Iran Tractor Manufacturing Company was established in Tabriz in 1974 with the aim of producing cast-iron parts for Massey Ferguson tractors as well as Perkins engines. ITF Co. the largest foundry in IRAN, has paid special attention to taking on specialists and employees who on the basis of years of experience in efficient utilization of cost-reduction management and technical know-how, can meet the requirements for manufacturing complex and elaborate components for tractors, vehicles and other industrial purposes. Also, customer satisfaction has always been regarded as the top agenda of the entire company policy. Different kinds of gray, ductile, and ADI cast-iron can be produced in this leading factory, that covers an area of 513,296 square meters and 61,800 square meters of different roofed workshops.
Technology & Pattern Shop

In I.T.F Co. pattern shop utilizes dexterous, old-handed experts as well as special computer aided facilities such as Solid Work, Power Shape, Power Mill, Catia & etc. Different types of patterns, core boxes and fixtures for a variety of cylinder blocks, cylinder heads, crank shafts, central housings, hubs, axles, etc. have been designed and manufactured in this complex, according to customers' requirements. Also, the tooling department is equipped with high-tech CNC(s), different types of universal milling machines, and CMM machine. This department has the capability of producing various methods of casting patterns, such as lost foam, green-sand, die-cast and other industrial facilities.
Molding line A, with 240 mold capacity per-hour and flask dimensions of 610 * 457 *152 * 152 mm, can produce cast-parts from 100 g, up to 25 kg. The speciality of this line is its great flexibility in manufacturing small size cast-parts using high pressure & high-speed squeeze technology.
Molding line C, with 110 molding capacity per-hour and flask dimensions of 1,420*915*405*405 mm, is one of the greatest molding lines incorporating great dimension, high speed and consequently great cast-part both in quality and volume, up to 250 kg. This Line is generally for production of several kinds of cylinder blocks and other heavy duty requirements of gray and cast-iron components. Jolt, high pressure and squeeze methods are applied in this line to reach optimum cast-part quality.
In lost-foam casting process a pattern of the desired cast-part is made from expanded materials (foam), then the pattern is dipped into a ceramic coating and after drying, it is put in molding sand. After pouring the melt, the foam is lost and vaporized and the cast-part is formed. Lost foam process has several advantages over other casting methods:

1- Environmentally friendly, pollution reducing process.
2- Better quality in acquiring necessary smoother surface quality.
3- Cost reduction in cast-part machining.
4- Flexibility in designing complex components.
5- Omission of sand cores in molds.
6- Additional possibility for weight reduction.

Lost-foam is one of the most intricate and advanced casting processes, aimed at cost-reduction.
Quality control

One of the key factors in competitive markets is quality attainments. Quality control department in I.T.F Co. has three tasks:
1- Controlling of inlet materials.
2- Supervising the production process.
3- Final complete control of mechanical, metallurgical properties and specifications of components.

Of course modern equipment have been of great aid and importance in measuring and coordinating product quality by constant testing in sand, mechanical, wet chemistry, metallographic, non-destructive tests, quanometer, and X-ray laboratories that do their best to give the customer the desired standard end-product.
Melting shop is equipped with 5 coreless induction furnaces each with 14 tons capacity, and 3 channel holding furnaces each with 45 tons capacity. There are also 5 automatic melt pouring machines ranging from 7 to 10 tons of melt per-hour. Around 90,000 tons of melt can be supplied yearly to 4 molding lines consisting of gray, ductile, and ADI cast-iron types. Quantometer, automatic pouring time and inoculation control system are other facilities of melt-shop.

Sand-shop in I.T.F Co. has experienced technicians operating modern equipment to supply molding sand mixture needed in three lines (A, B, C) through huge conveyor-belts. About 400 tons, per-hour, of prepared molding sand is supplied to three lines undergoing nearly 20 specific property tests in laboratories.

Core-shop. There are over 30 core producing machines in 5 types capable of producing 25,000 tons of complex cores ranging from 10 grams to 50 kg. The method of core production is cold-box system. For large and complex components several cores are assembled, coated and put in molds by special fixtures rendering more accuracy.

Molding line B, with 180 mold capacity per-hour and flask dimensions of 965*711*305*305 mm can produce cast-parts up to 60 kg. This unique line has a very high-tech of computer controlled operation to achieve modern specifications of top quality molds & cast-parts. The Dynapulse process causes a high degree of uniform density throughout the mold, that is each area of the molding sand is pressed with a pre-set and desired pressure to obtain higher dimensional accuracy and smoother cast-part surface.

Molding line E, with 180 molding capacity and flask dimensions of 700*550*280*280 mm, is a high-tech line that with regard to its economical productivity specifications can offer an acceptable spectrum for dimensional accuracy in cast parts.

Shot blast workshop consists of two mono-rail shot-blast machines from GF and carlo-banfi companies. This workshop has the capacity to shot 185 tons of cast-parts everyday, rating from 0.5 kg to 500 kg.
Name: Piston 5093  
Material: Gray  
Weight: 14.350 Kg

Name: Hub 2214  
Material: Gray  
Weight: 17.570 Kg

Name: Polly Fan  
Material: Gray  
Weight: 3.750 Kg

Name: Piston 6486  
Material: Gray  
Weight: 10.700 Kg

Name: Support  
Material: Ductile  
Weight: 4.600 Kg

Name: Support 2464  
Material: Ductile  
Weight: 8.850 Kg
Name: Crank Shaft 596
Material: Ductile
Weight: 4 Kg

Name: Crank Shaft 496
Material: Ductile
Weight: 3.170 Kg

Name: Crank Shaft 606
Material: Ductile
Weight: 5.100 Kg

Name: Crank Shaft
Material: Ductile
Weight: 4.470 Kg

Name: Cover
Material: Ductile
Weight: 6 Kg

Name: Support 3961
Material: Ductile
Weight: 8.900 Kg
Name: Spider  
Material: Ductile  
Weight: 31.500 Kg

Name: Hub 2100  
Material: Ductile  
Weight: 21.500 Kg

Name: Hub 6703  
Material: Ductile  
Weight: 35 Kg

Name: Suppot 2538  
Material: Gray  
Weight: 5.200 Kg

Name: Hub 2200  
Material: Ductile  
Weight: 14.900 Kg

Name: Hub 4892  
Material: Ductile  
Weight: 34.900 Kg
Name: Spicer  
Material: Gray  
Weight: 46.300 Kg

Name: Hub 6096  
Material: Ductile  
Weight: 60.800 Kg

Name: Support 1244  
Material: Ductile  
Weight: 9.650 Kg

Name: Axle  
Material: Gray  
Weight: 59.450 Kg

Name: Housing  
Material: Ductile  
Weight: 28.800 Kg

Name: Center Housing 456  
Material: Gray  
Weight: 58 Kg
Name: support Mensolla  
Material: Ductile  
Weight: 117 Kg

Name: Hub 2935  
Material: Ductile  
Weight: 34.150 Kg

Name: ROA Cylinder Block  
Material: Gray  
Weight: 36.450 Kg

Name: Bar Axle Wheel ( Conic Bach )  
Material: Ductile  
Weight: 21.500 Kg

Name: Control Valve  
Material: Gray  
Weight: 2.800 Kg

Name: Tractor 6 Cylinder Block  
Material: Gray  
Weight: 187.700 Kg
Name: 2 Diff Axle
Material: Ductile
Weight: 100 Kg