



The Largest Designer and
Manufacturer of Complex
Cast-Iron Parts for
Vehicles & Industries in IRAN



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The Foundry of Iran Tractor Manufacturing Company was established in Tabriz in 1974 with the aim of producing cast-iron parts for Massy 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 managment 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 diffrent roofed workshops .



Technology & Pattern Shop



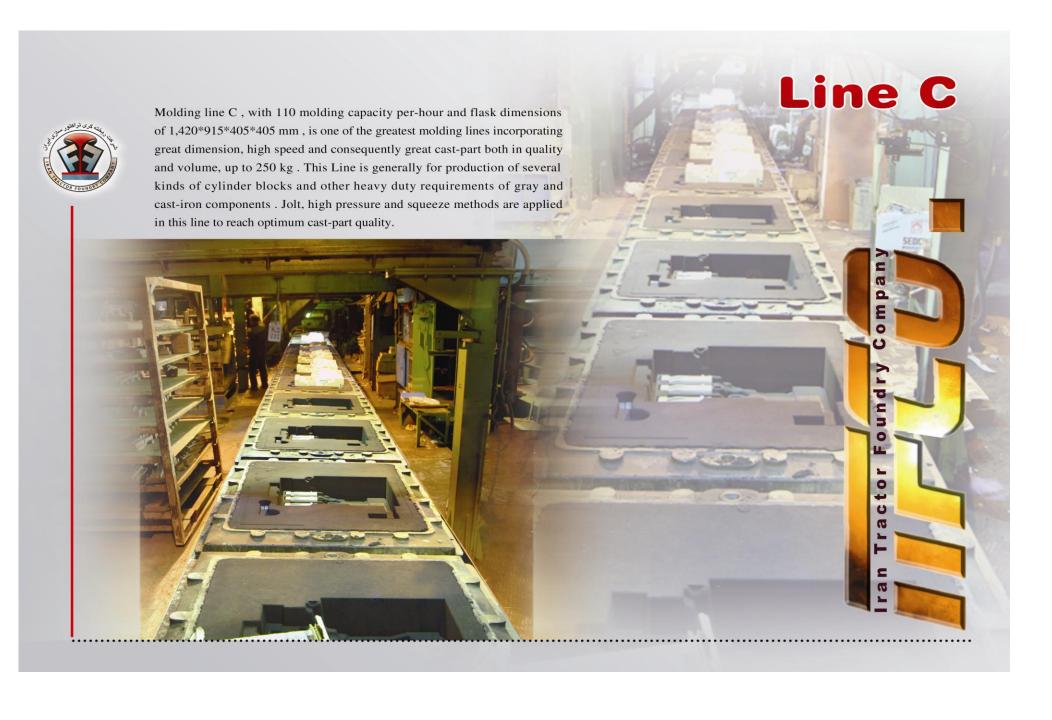
In I.T.F Co. pattern shop utilizes dexterous, old-handed experts as well as special computer aided factilities such as Solid Work, Power Shape, Power Mill, Catia & etc. Different types of patterns, core boxes and fixtures for a variety of cylinder blocks, cylinder heads, crank shafts, central housings, hubs, axels, etc, have been desinged and manufactured in this complex, according to customers requirements. Also, 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.

Line A



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.







Lost Foam



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 ceamic 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, none-destructive tests , quantometer , and X-ray laboratories that do their best to give the customer the desired standard end-product.





Melting shop is equippped 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-banf companies. This workshop has the capacity to shot 185 tons of cast-parts everyday, rating from 0.5 kg to 500 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



Material : Ductile
Weight : 8.900 Kg





Name : Fork Material : Ductile Weight: 2.100 Kg



Name : Support 8635 Material : Ductile



Name: Support Barra Material : Ductile Weight: 2.400 Kg



Name: Fork 393 Material : Ductile Weight: 5.470 Kg

Weight: 2.170 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 4692 Material : Ductile Weight : 34.900 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

Weight: 46.300 Kg



Name : Housing Material : Ductile Weight : 28.800 Kg



Name : Center Housing 456 Material : Gray

Weight : 58 Kg





Material : Gray

Weight: 71.250 Kg



Name : Hub 2935 Material : Ductile Weight : 34.150 Kg





Name : manifold Material : Ductile Weight : 4 Kg





Name : support 7184 Material : Ductile Weight : 10.650 Kg



Name : Bar Axle Wheel (Conic Bach)

Material : Ductile Weight : 21.500 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

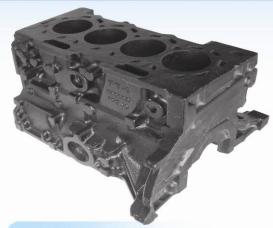
Material : Gray Weight : 187.700 Kg





Name: EF7 Cylinder Block

Material : Gray Weight : 47.250 Kg



Name: TU5 Cylinder Block

Material : Gray Weight : 48.700 Kg



Name: Turbo Cylinder Block

Material : Gray Weight : 122 Kg



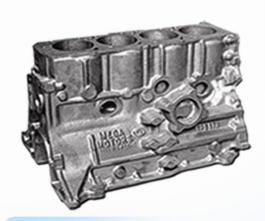
Name: Tractor Cylinder Block

Material : Gray Weight : 129.400 Kg



Name: KIA Motors Cylinder Block (Pride)

Material : Gray Weight : 37.250 Kg



Name: Nissan Cylinder Block

Material : Gray Weight : 57.300 Kg



