



**SAIPAMALLEABLE**

**1969**

SINCE



**SAIPA**



**SaipaMalleable**

[www.saipamalleable.com](http://www.saipamalleable.com)



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## History

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▶ Saipamalleable is founded in 1969 to produce casting and aluminium parts.

In the last few years, Saipamalleable company has been able to significantly increase its production capacity by implementing several developmental projects in production lines and machinery.

At the moment the production capacity in iron casting line is equivalent to 52,000 tons, in aluminum casting line is 5000 ton for the production of all types of cylinder heads, and other aluminum industrial parts and machining hall is equivalent to 1.850.000 homogeneous automotive and industrial parts.







MALLEABLE

► Due to the needs of Saipa Automotive Group, the concentration of Saipamalleable Company was on the production of local products. However, due to the availability of appropriate technical knowledge, the export of products as one of the important strategies of this company is in the process by exporting cast parts.

► The use of efficient and experienced workforce at all organizational levels has created the certainty to achieve the goal sets . Therefore with ongoing efforts and coordination of all employees, Saipamalleable is able to accomplish all stages of production including design, simulation, model making, casts, tools, fixtures and finally manufacturing auto parts with the desired quality at the level of global standards, beyond the needs of internal automotive industry.



## Mission of Saipamalleable company

► Production and supply of iron casting parts, aluminium castings and machining required by Saipa Automotive Group (as the main beneficiary) and other domestic and foreign customers, with the aim of creating value for other stakeholders.





# Vision

## Vision of Saipamalleable Company (2025)



▶ World class manufacturing with the aim of:

- The first selection of the countrys automotive industry and their trading partners for the supply of raw and machined parts of iron casts and aluminium

- Active presence in domestic and foreign non-automotive industries

- Active presence in global supply chain and leading in export of various and complex parts



## Obvious properties of the company

- ▶ - One of the largest manufacturers of iron castings for automobiles and aluminium cylinder heads in the country
- Main supplier of casting parts for Saipa automotive group
- Using the most advanced design and simulation software and hardware in construction of model and template
- Production and export of raw and machined parts according to international standards

## Achievements and honors

- ▶ - The only supplier of France Renault iron castings in Iran (Brake disc, wheel bowl and cantilever of L90)
- Selected by French Citroën for the production of cylinder block parts EC5 and brake discs
- Design and manufacture of various models and molds required by the customer within the company using the latest design and simulation software and CNC machines with the least cost and appropriate time consumption.
- certificate of quality management system based on ISO 9001
- certificate of quality management system of the automotive industry based on IATF 16949
- certificate of energy management system based on standard ISO 50001
- certificate of environmental management system based on ISO 14001
- certificate of occupational safety and health management system certification based on OHSAS18001
- Receiving the crystal statue of the national award for productivity and organizational excellence
- certificate of first rank and the golden mark of Saipa group excellence award among manufacturing parts companies
- certificate of letter of commendation (gradeA) SHRD
- certificate of statue of the superior company in observing the environmental requirements of Saipa Group
- Use of quality engineering tools such as statistical process control, analysis of measurement systems, auditing manufacturing process , auditing products and problem solving methods (8D)



PROPERTIES

## Engineering Unit

► Engineering unit is responsible for the development of new products in accordance with the feasibility steps, process design, part design, model design and fabrication, required molds and fixtures, testing and sampling based on parts standards and obtaining customer approval for mass production. In order to achieve the goals and great strategies of the company this unit in the areas of design, iron casting technology, aluminium technology, CAM / Fixture and molding is active and for this purpose, advanced and specialized software is used.

## | Design and technology department

► The department of design and technology assumes the responsibility of developing the product from the feasibility stage, designing the production process, designing the parts and production equipment, testing and sampling according to the latest quality standards, at the request of the customer, obtaining customer approval and obtaining a mass production license.

The section of part design and production equipment with taking advantage of experienced and capable experts and using world-renowned software such as: Pro Engineer , CATIA and Rapidform, constructs the parts design, using MAGMA simulator software, the system design validates the gate system and guarantees the integrity of the section.



TECHNOLOGY



## | Fixture/Cam section

► Fixture/Cam sector is benefiting from experienced experts and using world-renowned software such as powerMill and pro/engineer, it also undertakes designing machining programs, manufacturing production equipment and required fixtures in the process of segment productions and dimensional control of manufactured equipment and production .



## | Molding and modeling section

► Benefiting from experienced staff and modeling equipment, cutting and milling, molding sector undertakes supplying the mold, model and mould core boxes of aluminum and iron casting production lines as well as their maintenance. In the modeling unit, advanced equipment and tools are also used to make progress casting molds and models .





## Iron casting production line

► The capacity of this unit is 52,000 tons for the production of various types of gray iron casting and ductile in different grades.



## Core making

► This section has 5 Hottinger Coldbox core making machines 20 to 60 liter , 4 Loramendi Coldbox core making machine 25 to 40 liters and has two lines of paints and drying ovens.



## Melting

► In this section, gray and ductile melting is done with different grades by the following furnaces:

- A medium frequency furnace, twin ABB induction melting machine with a capacity of 4 tons of melting
- A medium frequency twin induction furnace with a capacity of 6 tons
- Four network frequency induction furnaces with a capacity of 8 tons per each
- An induction melting furnace machine holding ASEA core with a capacity of 50 tons
- An induction furnace holding ABB with a capacity of 40 tons to maintain the melt



## Molding lines

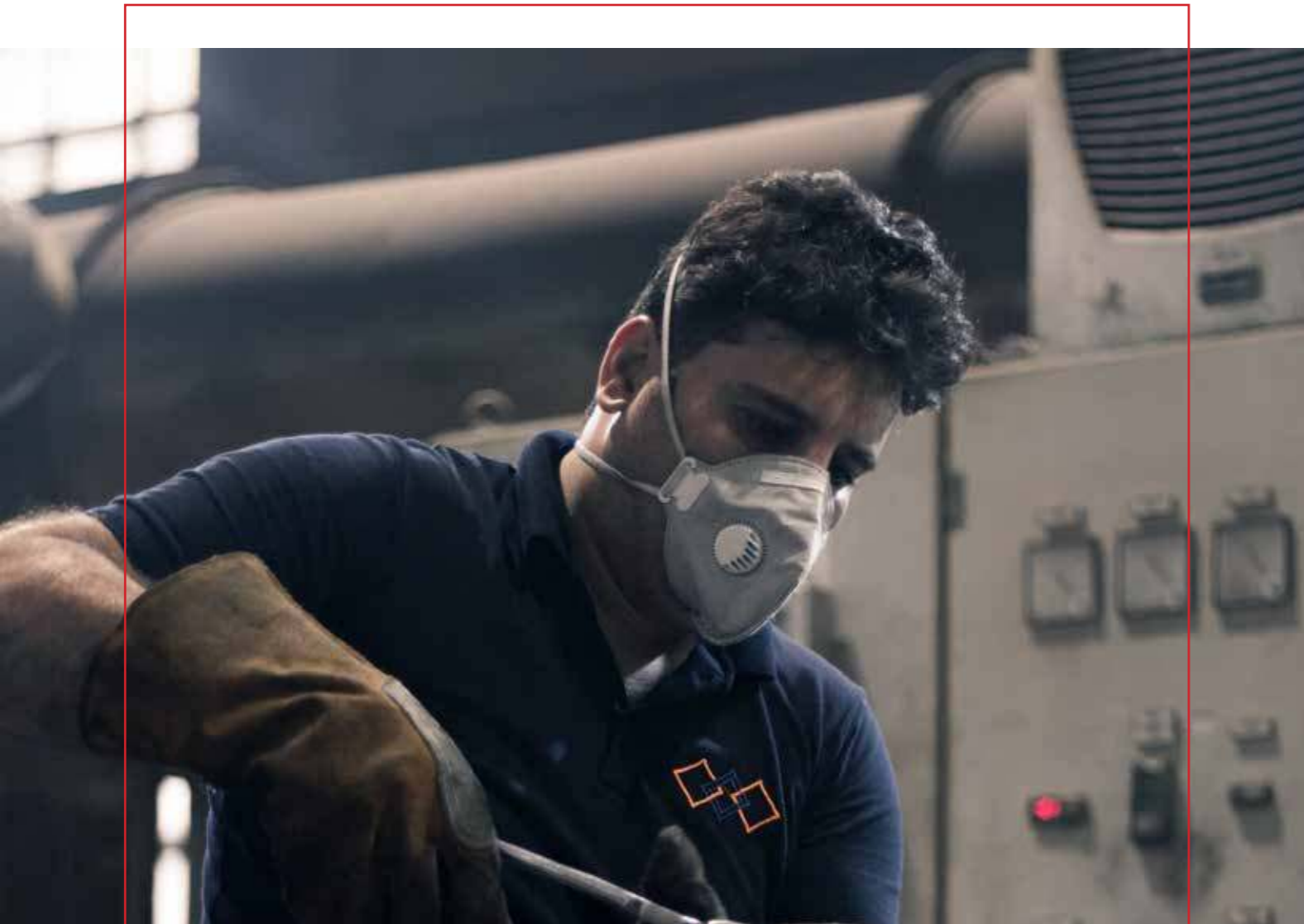
► Two DISAMATIC molding lines, (MK2013-4 and 230A) models with dimensions of 600 \* 480, with molding speed of 180 and 350 mold per hour with the availability of 2 automatic microwave oven devices (POURING) with a capacity of 3.5 and 8 tons, produce gray and ductile iron casting segments. Two BMD molding lines with dimensions of 250/250 \*790\*890 , 300/ 300\*740 \*890 with molding speed of 60 and 90 mold per hour, with the availability of 8 ton (POURING) automatic melting furnaces produce ductile iron casting and gray segments.





## | Fetting Unit

► This unit is equipped with seven shot blast machines (drum blast, tumblast, casting pendant) and three cylinder block completion line include : four two-sided stone machines and one coating line (cylinder block colour) and three leaking testing devices and so on . Also 24 penitent rock and fiberstones are responsible for completing produced parts in casting line production for small iron casting and a hand-painted line and so on.

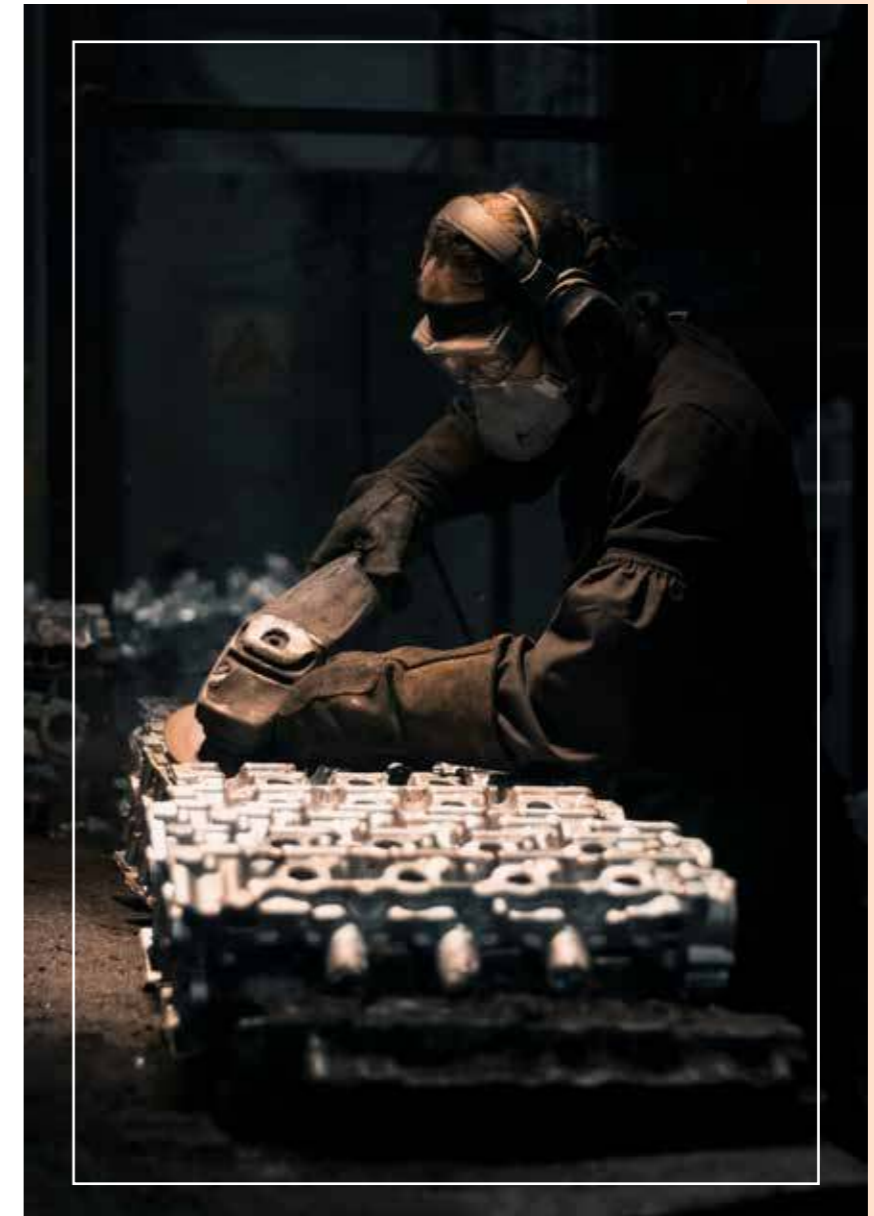


## Aluminum casting production line

► The capacity of this unit is to produce all kinds of aluminum parts at the rate of 5000 tons per year.

### | Core making

- - 4 GISAC two-station core making machines through the shell mode method
- 2 Euro core single station core making machines through the shell method
- 3 batch dryer ovens electric and gas core





## | Melting

► For melting in an aluminum casting hall a melting furnace (Melt tower) is used from a Spanish company named Inserterc with a capacity of 500 kg per hour and 6 gas pot furnaces, 3 degassing machines (produced by FOSECO and PYROTEC) . This unit also has density measuring equipment. It is a matter of ensuring the degassing and disinfection system.

## | Casting

- - 7 sets of aluminum injection machine (LP) KURTZ company
- 2 sets of aluminum injection machine (LP) LPM company
- 2 gravity machine of KURTZ company



## | Thermal processing

- - 6 thermal processing furnaces (Solution annealing and Age hardening)
- Complete line of leakage operations (IMPREGNATION)



## CNC machining shop

► This unit launched by the aim of machining produced automotive and industrial parts and in-line casting up and in the last few years equipped with the best machinery, material removal and precise measurement such as:

Different types of horizontal lathe CNC machines, Vertical lathe, Carousel CNC, milling, CNC milling gate, Milling and drilling unit, CNC horizontal milling center and a precision measurement laboratory with two CMM.

CNC unit, with experienced staff consists of manufacturing CNC, CNC technical and engineering center (fixture design, technology, repairs, maintenance and accurate measurement units) and also quality assurance.

In addition to the daily production of parts required for axle vehicle, engineering and technical team of this section designs and builds milling units to produce parts inside machining salon, that construction units for drilling and milling cantilever of Pride and Tiba, Tiba And Saina flange index and ... can be mentioned.



## Technical department

► All technical and support services such as maintenance responsibility, repairs and manufacturing equipment in Saipa Malleable is the responsibility of technical unit. Repair and technical services units of this section include electric power repair shop, central mechanical repair shop, electronic repair and instrumentation, general electricity and high voltage current, Dusters, turning, modernization, facilities, vehicles, technical office, document archives and calibration.

One of the most important activities of the technical unit in Saipa Malleable Company was constructing and upgrading equipment and devices using the potential power and knowledge of the company's personnel, even in many cases, the internalization of foreign purchases, which, due to the localization of their construction knowledge, if needed, there is also possible to provide services to other industries and domestic or foreign companies.



## Specialized laboratory

► The specialized laboratories of Saipa Malleable Company are equipped with the best and most accurate devices for various types of tests on iron casting and aluminum casting products that are prepared for services to various industries, universities and research centers. Some of these devices include:

- Base Al and Base Fe (Arl) quantometer devices
- 40 tons tensile testing machine (Walter & Bai Swiss)
- ultrasonic devices (UT)
- (ZIEFERT) X-ray device
- EDDY CURRENT testing devices ET
- Carbon and sulfur testing machine (Ieco)
- Automatic crack detection machine (MT)
- Speed of sound testing device (SONIC TEST)
- Penetrant testing equipment (PT)
- Universal digital Hardness measuring device (EMCO TEST)
- Impact testing machine
- Stereo microscope machine
- Remelting machine
- Color and coating thickness testing machine
- Raw material control equipment
- Sand molding properties control equipment
- Metallography equipment



## Export

► Using its successful technical knowledge and experience, Saipa Malleable has been able to enter overseas markets and has been certified as a manufacturer of car safety components by Renault and France Citroen. In recent years, Saipa Malleable export iron casting parts needed in various industries to European countries, such as Germany, Italy, Turkey, France and Russia.



## TRANSPORTATION



## Saipa Malleable Company Products

### | Iron casting

- ▶ Automotive industries:
  - Pride, Tiba and Nissan cylinder block,
  - Shahin turbocharge cylinder Block,
  - Tiba Nissan and Pride crankshaft,
  - Tiba, Nissan and pride flywheel,
  - Tiba , Nissan and pride bearing caps,
  - Tiba, Nissan and Pride wheel bowl,
  - Tiba and Pride stirrup and cylinder caliper,
  - L90 brake disc,
  - Shahin brake disk,
  - L90 wheel bowl,
  - Tiba, Nissan, Pride, 206, L90 and Patrol disk, cantilever and clutch
  - All kinds of export flywheels
  - Export bearing heap
  - Shahin cylinder caliper
  - Shahin stirrup caliper
  - Shahin cantilever
- ▶ Other industries
  - Gearbox Body
  - Overspeed Governor Pulley
  - Overspeed Governor Lever

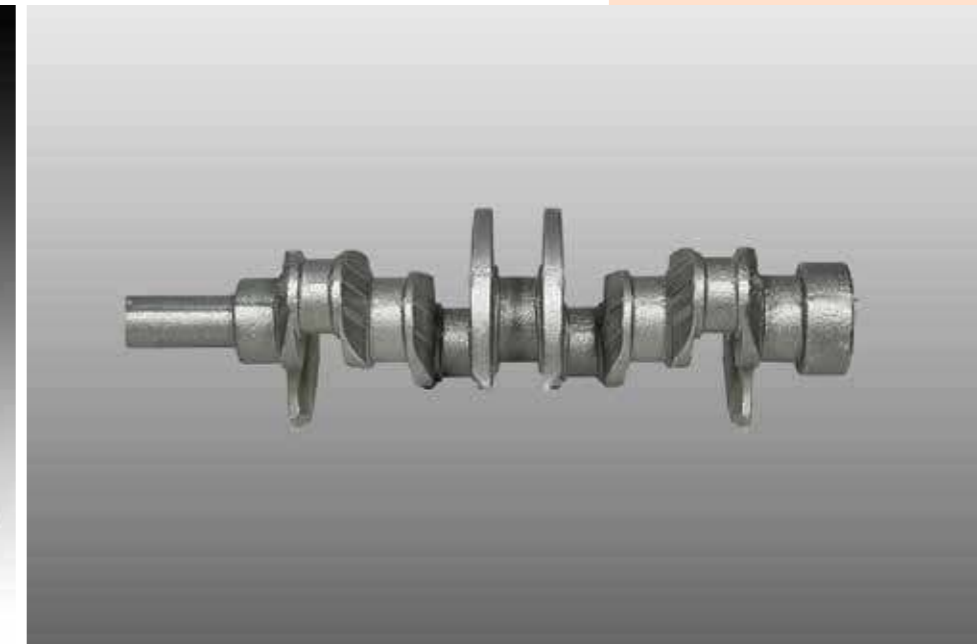


### | Aluminium casting

- ▶ Automotive industry:
  - Pride, Tiba, Nissan and Shahin cylinder head, and Nissan aluminum cap
- ▶ Other industries:
  - Electrical industry parts

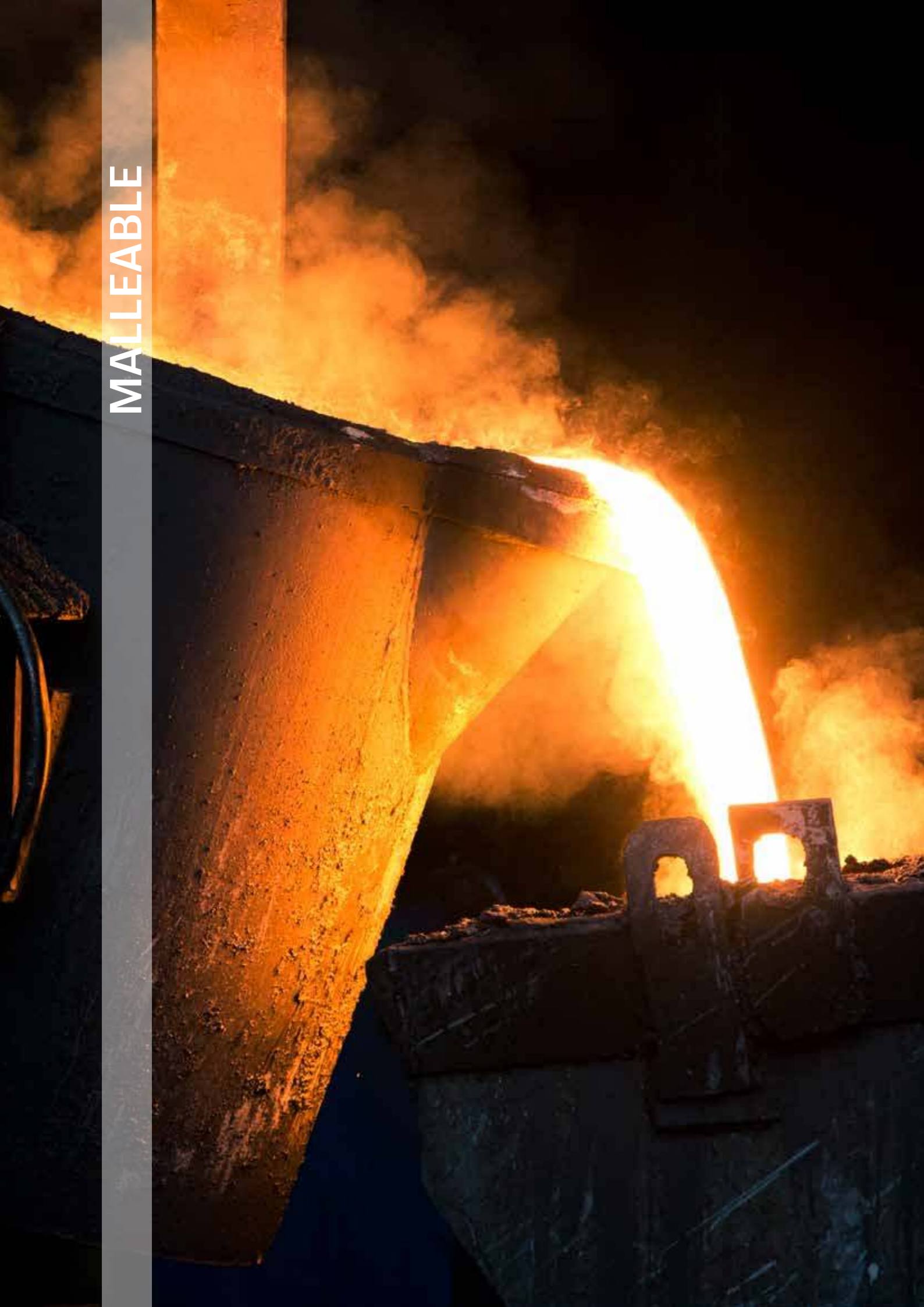
### | CNC Machining

- ▶ Automotive Industry:
  - Pride and Tiba brake disks,
  - Pride and Tiba cantilever,
  - TIBA and L90 wheelbowl,
  - Brilliance disk 220 and 320,
  - Export regulator part
  - Different types of export flywheels,
  - Export caps,
  - Nissan brake disk and rear wheel bowl of Nissan
  - Gazelle wheel bowl, Shahin brake disk,
  - Shahin cantilever
- ▶ Other industries:
  - Machined refrigerator compressor,
  - Machined expansion tank
  - Machined fitting
  - Machined top cover

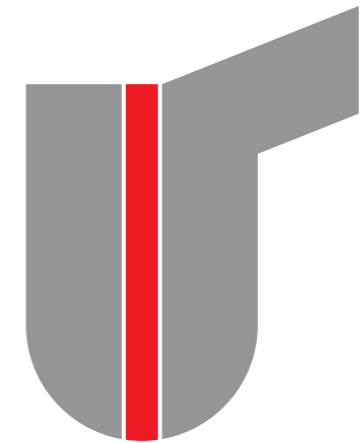




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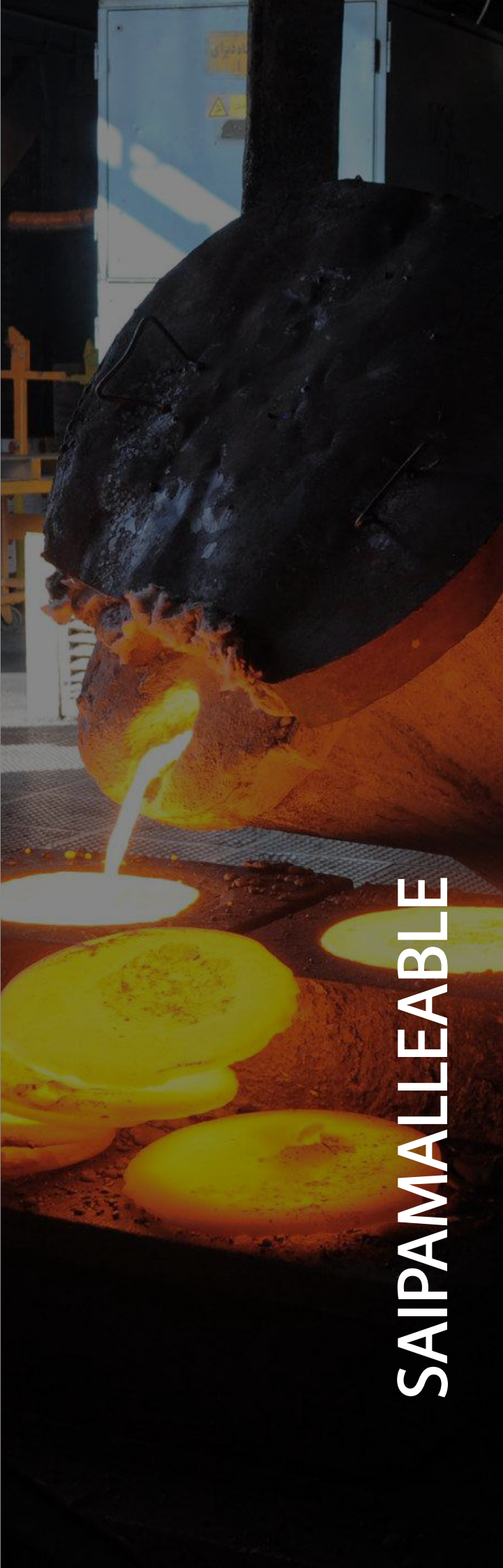


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