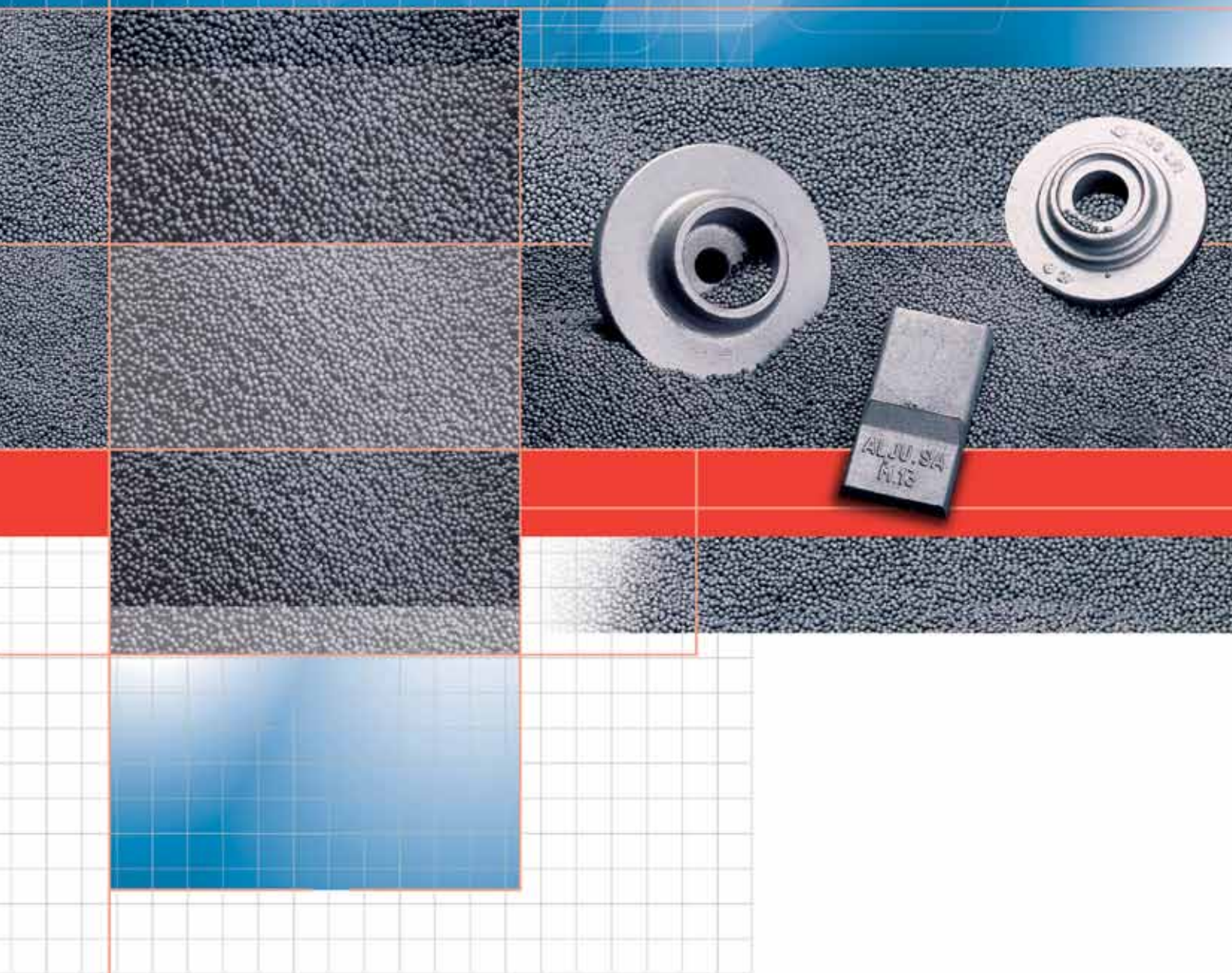


Shot blasting  
machines

Industrial  
Ventilation



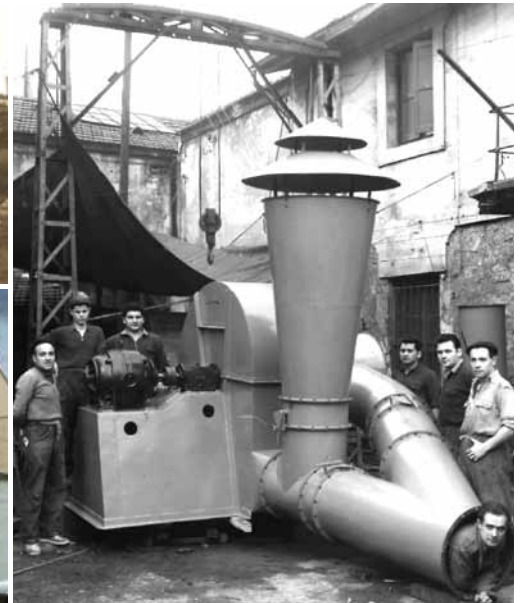




# PRESENTATION

## COMPANY

Founded in 1959 in one of the locations with the highest concentration of industry in Europe, Talleres Alju is a national and international reference in the design and construction of machinery and installation for **surface treatments** and auxiliary equipment for **cleaning and control** of contaminating emissions.



## FACTORY

The Alju factory has a surface area of 10,000 m<sup>2</sup>, 5,000 m<sup>2</sup> under roofing, where all our equipment is designed, manufactured and submitted to comprehensive tests from beginning to end.

Our state-of-the-art fleet of machinery, our **own engineering** department and the availability of the most advanced design technology allow us to prepare projects for any type of installation using our more than 50 years of experience with the needs of the industry and our commitment to research and development of new solutions.





## HUMAN TEAM

Our technical staff is highly qualified to respond to all our customers' needs and requirements, constantly adapting to the new production and design technologies of the sector.

## TECHNICAL SERVICE

One of ALJU's most important assets is our after-sales service. Our highly qualified staff is prepared to provide our customers with continuous and effective service, which includes a large warehouse to guarantee immediate delivery of the most commonly requested spare parts.

## OUR COMMITMENT

Proof of ALJU's business commitment are:

- Our processes comply with **ISO-9000:2008**
- Our products are designed and manufactured according to current directives and regulations regarding **machinery safety**
- The exclusive use of the **the highest quality** material and components
- Technical and sales **counseling**
- **Training** of our customers' maintenance personnel
- **Immediate delivery** of any spare part or component
- Sending our technicians for **revisions and repairs**
- Individual **preventive maintenance** plans adapted to each customer





## MANUFACTURING PROGRAMME

Our products are classified in three large groups:

**Shot blasting machines and surface treatment equipment** that use solid abrasive materials propelled by a centrifuge turbine and/or compressed air.

**Installations for air suction and purification**, equipped with a variety of filtering systems.

**Metal structures, we specialise in special anti-wear steel.**

**General industrial machinery.**

### APPLICATIONS / SECTORS

Steel, iron, copper and brass casting  
Forging and die-stamping  
Heat treatments  
Iron and steel works and laminates  
Treatment for springs (shot peening)  
Automotive machinery and components  
Structures and boiler works  
Construction materials  
Aeronautic Industry  
Stone finishes  
Railway Industry  
Mould recovery  
Maritime Industry  
Wind Power Industry  
Domestic wares  
Valves



Shot blasting machines and surface treatment equipment.



Metal structures and general industrial machinery.



Air suction and purification installations.



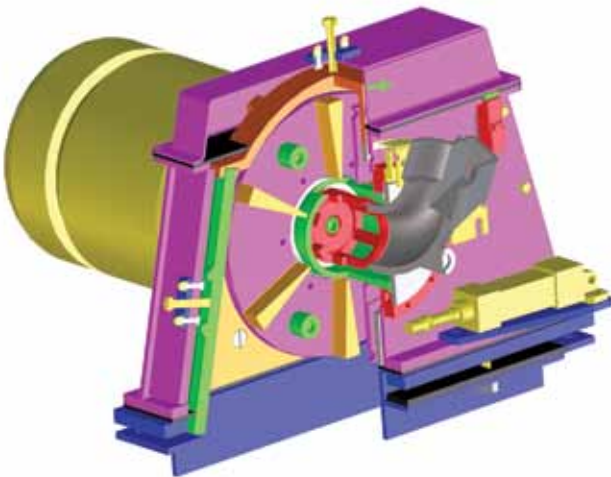
## SHOT BLASTING MACHINES AND SURFACE TREATMENT EQUIPMENT

### TURBINE

The turbine is the heart of any shot blasting equipment. It is the element responsible for the continuous projection of the abrasive material being used. It must therefore have a series of features that guarantee its performance and duration over time. ALJU turbines allow the impact velocity and shot flow-rate to be adjusted, achieving different finishes without the need to change the type of abrasive.

ALJU turbines offer:

- **High performance** due to their advanced design that obtains an excellent ratio between motor power and blasted shot.
- **Fast and easy maintenance**, because the parts are accessible and extremely easy to assemble and disassemble.
- **A very versatile turbine**, that allows rotation in different directions.
- **Multipurpose** protection components that adapt to several positions and therefore ensure maintenance with fewer parts.
- **High abrasion resistance**, proven by the constant research we perform on new materials to improve unit performance and profitability.
- **Greater duration** thanks to using both sides of the turbine blade.
- The possibility of **automatic orientation of the blast beam**, even during the cleaning cycle.



ALJU TURBINES. ALJU turbines can vary impact velocity and blast flow to obtain different finishes without the need to change the type of abrasive material.



## SHOT BLASTING MACHINES

Shown below are the various types of equipment, distinguished by the loading system or the placement of parts in the machine during shot blasting. Nonetheless, all the machines can be used in different industrial sectors.

### TABLE SHOT BLASTING MACHINES

Table shot blasting machines are those where the parts to be cleaned are placed on a rotary table.

These are specially recommended for the following cases:

- Parts with shapes that prevent them from being hung on hooks or parts that cannot be turned over due to fragility.
- Parts that have to be shot blasted on one side only.
- Moulds for glass containers or metal extrusion.

We have equipment with different table diameters, depending on the production and weight of the parts to be treated. Equipment with two tables for simultaneous loading and unloading, as well as table machines that can be equipped with a drum for bulk parts.



"JUNIOR" model with an 800 mm diameter table.



"CONTINENTAL" shot blasting machine with a 2 m diameter table.



"DUPLEX" model that can be fitted with one or two tables or a table and a drum.





## TUMBLING SHOT BLASTING MACHINES

These shot blasting machines perform cleaning by tumbling the parts.

Due to the type of process involved, this system covers a wide range of needs. In general terms, it is indicated for any part that, due to its shape and material, can be tumbled.

All our tumbling machines can be easily integrated in ongoing manufacturing processes and are provided with a variety of dosing, loading and unloading systems.

In addition, various tumbling systems are available:

- **Tumbling rubber conveyor belt:** This performs an even shot blasting of parts by gentle and constant tumbling of a highly wear resistant belt that is perforated to evaluate the shot. Manufactured in a wide range of capacity formats to adapt to all production needs.
- **Metal rotary drum:** This model is appropriate for shot blasting bulk parts that can be tumbled. It performs even shot blasting of parts by gentle and constant tumbling. The drum is manufactured entirely in anti-wear steel with no joints. Therefore, neither the parts nor the machine are subject to risk.



"ALJUBAN" conveyor belt shot blasting machine.



Detail of the metal drum.

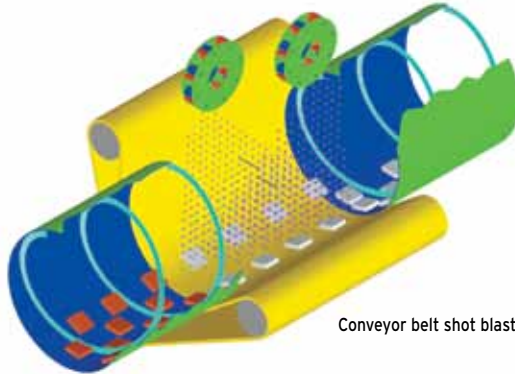


"TAMBRO" constant rotary metal drum shot blasting machine.



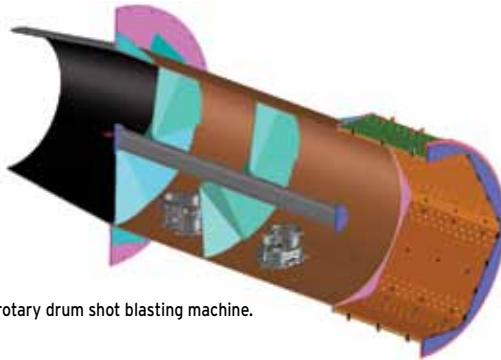


- **Conveyor belt.** Designed especially for continuous part production. It has the advantage of gentle, constant tumbling with the option of changing production by modifying the rotation speed or the belt angle.



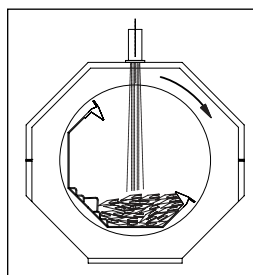
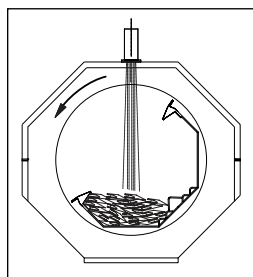
Conveyor belt shot blasting machine.

- **Constant rotary drum.** Designed especially for continuous part production. It has the advantage of gentle, constant tumbling with the option of changing production by modifying the rotation speed or the drum angle.



Constant rotary drum shot blasting machine.

- **Alternating rotary metal drum.** Due to its special design, it achieves even and continuous shot blasting in high production conditions. Its major advantage is that, like the metal drum, it is entirely manufactured in anti-wear steel with no joints, providing very high resistance and very low maintenance.



"ALJTROM" alternating rotary metal drum shot blasting machine.



"ESTRELLA" double-hook shot blasting machine.

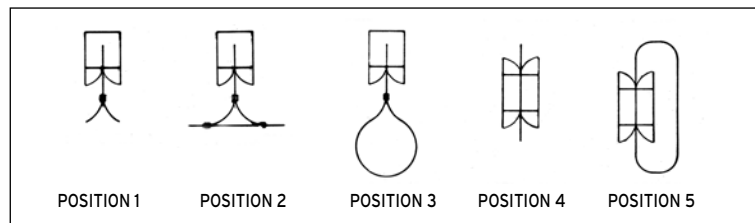
## OVERHEAD RAIL SHOT BLASTING MACHINES

These shot blasting machines clean parts by hanging them on hooks, either individually or in bundles and exposing them to the action of the turbines. This general description covers a very wide range of equipment whose main feature is the great variety of part sizes and load settings that can be used.

The shot blasting cabins housing the hooks are entirely manufactured in anti-wear steel and reinforced on the areas of direct shot impact with replaceable parts made of the same material.

■ **Standard hook shot blasting machines** are those where the loads enter the shot blasting cabin suspended on hooks. This allows the shot blasting area to be insulated. These shot blasting machines adapt to the available area needs of the customer, with a variety of rail configurations for aerial transport.

POSSIBLE RAILS



Model 161 double-hook shot blasting machine.



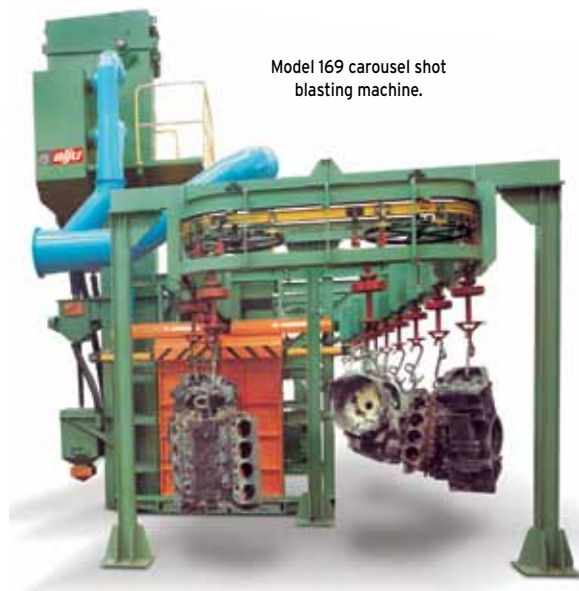
"REGINA" double-door shot blasting machine.



"MONDIAL" dual-chamber shot blasting machine.



- **Special overhead rail shot blasting machines.** For applications where it is necessary to adapt the design to the customer's parts. In some cases, these are used in continuous processes that are usually interconnected with other painting or finishing installations. The advantage is that once the parts are hung on hooks, their handling becomes unnecessary.



Model 169 carousel shot blasting machine.



Shot blasting machine for large, heavy parts, with hoists or derricks.



Model 88 carousel shot blasting machine.







## SHOT BLASTING MACHINES WITH ROLLER OR TROLLEY CONVEYOR



Model 34 shot blasting machine for continuous cleaning of metal structures.

These shot blasting machines transport the parts through chain activated rollers or trolleys. They are mainly used for shot blasting parts of great length and volume.

- **Shot blasting machines for large volume boiler parts.** These machines use rollers, trolleys or sleds to transport the parts through a shot blasting cabin and are especially indicated for complex parts such as boiler works parts. Once the parts have been welded and finished, they are placed in trolleys or directly on the sections and pass through the shot blasting machine at variable speeds, receiving the shot from the various positions of the turbines. This is a profitable substitution for manual compressed air shot blasting in large cabins.
- **Shot blasting machines for sections, tubes and plating, with painting equipment.** These machines are especially designed for shot blasting commercial laminated products.

The parts placed on the rollers are transported at variable speeds through a tunnel, where they are shot blasted on all sides. Once shot blasted, the shot is completely removed from the parts. Continuous painting or finishing equipment can be supplied after shot blasting.



Model 155 shot blasting machine for commercial formats of plates and sections.



## HORIZONTAL LOAD BELT CONTINUOUS SHOT BLASTING MACHINES

- **Wire mesh shot blasting machines.** These machines shot blast all the surfaces of the parts. This machine has the advantage of continuous shot blasting of complicated parts that require shot blasting free of handling. They adapt to various widths and a variable number of turbines, depending on the complexity of the part. The wire mesh is manufactured in highly wear-resistant steel.
- **Rubber belt shot blasting machines.** These are especially indicated for parts that cannot receive impacts and only require treatment on one side. They are normally used for aesthetic finishes of all types of artificial and natural stone. They can work with different configurations to treat tile, parts with multiple surfaces (steps, pillars) and boards. The machine is normally equipped with multiple adjustments to obtain the desired finish, as well as the most advanced shot decontamination systems.



Model 175 shot blasting machine.



Conveyor belt detail.



Wire mesh detail.



## SPECIAL AND CUSTOMISED SHOT BLASTING MACHINES

The experience accumulated over the years and our design capabilities allow us to provide a solution to any turbine shot blasting requirement.



Model 142 shot blasting machine for large chains.



Shot blasting machine for internal and external cleaning of containers.



Model 162 shot blasting machine for automobile wheel rims.



"ALJUWIND" shot blasting machine for large pipes and tanks.



Model 152 shot blasting machine for billets, bar stocks, square sections and similar.



Model 122 shot blasting machine for tubes, rounds and diverse bar stocks.



## COMPRESSED AIR BLASTING

### ABRASIVE MATERIAL PROPELLING SYSTEMS

This system propels the solid granulated abrasive material by compressed air.

#### SUCTION OR ASPIRATION

Ideal for applications with delicate parts and low-density abrasives since suction and shooting of the abrasive material is carried out by the Venturi effect that occurs in the gun and draws in the abrasive.

#### OVERPRESSURE

This system is especially indicated for high-density abrasives that require high-intensity and high-velocity propulsion.

### SLEEVE-EQUIPPED ABRASIVE BLAST CABINS

In these machines, the parts are placed inside the cabin and the worker introduces his hands inside the cabin to clean the parts.

These cabins are prepared to work with suction or overpressure systems, depending on the type of work to perform.

These cabins are equipped with the means to recover and select the abrasive material, as well as with filters to eliminate dust from the cabin, so the operator always works in a healthy environment and is protected from impacts by the abrasive.

The cabins can be equipped with loading and unloading elements, accessories, roller tables and removable tables in the event of heavy parts.



Suction system gun.



Overpressure sprayers.



Sleeve-equipped booth for sections, bulk parts and other parts.



Interior detail.



## ABRASIVE BLAST ROOMS

These machines are especially designed for manual blast or shot blasting of large parts. Once the part is introduced in the cabin, the operator, duly protected with special equipment, enters the cabin to spray the parts.

The cabins are prepared with ambient exhaust and abrasive recovery equipment so they can be cleaned and reused.

The cabins are covered with anti-wear material. The inside of the cabin is perfectly lighted so the work can be carried out easily and comfortably.

The cabin structure is made of modular panels that are easy to assemble.

There are various entry and exit configurations for parts using trolleys, aerial carousels or placed directly on the floor.

The abrasive material is collected using various systems and even with **draggers** without the need for construction work.

The cabins can be equipped with a special vibrating sieve located in the windsifter that prevents nozzle jamming and maintenance work.

## SPECIAL ABRASIVE BLAST EQUIPMENT

These are designed and manufactured for special applications.



Automatic overpressure cabin for cleaning the interior of automobile engines.



Pretreatment cabin for applying anti-adhesive coating.



Blast cabin for part interiors.



Manual blast cleaning room for large parts.





## AIR SUCTION AND PURIFICATION INSTALLATION

We design and manufacture complete installations for air uptake and cleaning in any industrial process.

We have the engineering capable of collecting data and proposing the installation that best adapts to the specific needs of our customers.



Suction filter.



Suction and purification installation for multiple grinding and polishing work stations.





## OTHER INDUSTRIAL EQUIPMENT

As manufacturers with our own engineering department, we are capable of providing a solution for other industrial applications, for both surface treatments and specific capital goods for a variety of applications.

Some of the applications that we provide are mentioned below:

- Buckets for metal casting.
- Vats for degreasing by liquid immersion.
- Pendular grinders for deburring large parts.
- Customised pressurised equipment and containers.
- Capital goods for part maintenance and transport.
- Boiler works in general.



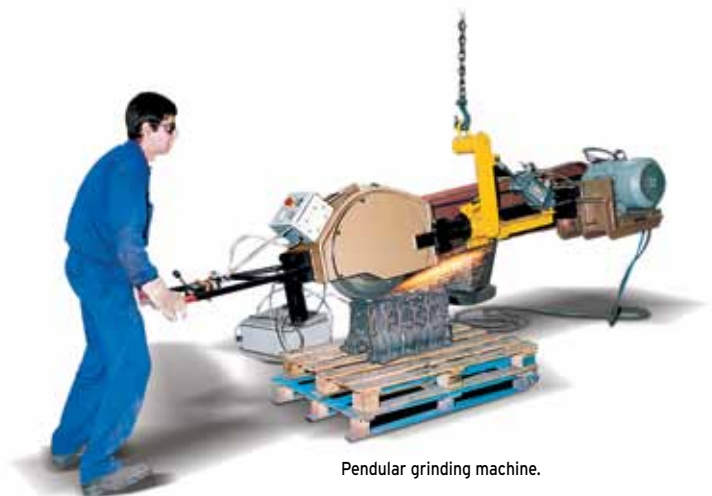
Buckets for melting metal.



Equipment for continuous degreasing of parts prior to shot blasting.



Boiler works in general.



Pendular grinding machine.



#### INDUSTRIAL APPLICATIONS:

- Casting of iron, steel, bronze, aluminium, copper, brass, etc.
- Forging and die-stamping.
- Heat treatments.
- Metal structures.
- Laminated products.
- Treatments for springs (shot peening).
- Processing prior to painting and finishing.
- Stonework finishing.

**ALJU** products cover a wide range of industrial applications. Our technical departments are at your service to resolve any problems in the application or use of our products.

#### OUR PRODUCTS:

- Shot blasting machines of many types: tumbler, table, hook, hoist.
- Special shot blasting machines for sheets, sections, tubes, laminated products, etc.
- Abrasive spray cabins and equipment.
- Filters and air suction and purification installations.
- Centrifugal and helicoidal fans.
- Metal structures in general.
- Pendular grinders.



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