



Presidency of the Islamic
Republic of Iran
Vice Presidency for
Science and Technology



Nineteenth Volume

INDUSTRIAL MACHINERY

Knowledge-Based Products and Equipment

مجلس المدینة العلمیة

Nineteenth VOLUME

Knowledge-Based Products and Equipment
Industrial Machinery





Presidency of the Islamic
Republic of Iran Vice Presidency for
Science and Technology

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Export Development &
Technology Transfer Fund

www.etdf.ir



www.ihit-expo.com

Knowledge-Based Products and Equipment Nineteenth Volume: **Industrial Machinery**

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Preface

One of the key factors in a nation's industrialization and economic complexity is technology. Complex economies can connect vast networks of individuals with relevant information to produce a variety of knowledge-based goods. Indeed, the types of goods or products that are ultimately supplied to international markets are taken into account when determining the complexity of an economy.

A knowledge-based economy is one in which the application of knowledge and information plays a significant role in shaping production and distribution, and where investments in knowledge-based businesses have drawn particular attention. Along with enhancing nations' competitiveness, the transformation of economies into knowledge-based economies has the potential to have a significant impact on international trade.

7000 knowledge-based businesses in Iran provide knowledge-based goods that are the result of the expertise and experience of professionals and university graduates. These businesses, which occasionally resemble enormous technology factories, sold more than 10\$ billion worth of goods last year and exported 1\$ billion or so to various nations. The Presidential Deputy for Science and Technology is recognized as the most significant authority for direction, leadership, and development of the technology area in Iran. It serves as a support organization for startups and knowledge-based businesses by finding and selecting these enterprises. This book, along with 19 other books, is a carefully curated selection of goods with a track record or export potential that was put together using data provided by chosen businesses for presentation to foreign clients, business people, and government and academic officials interested in using these goods. To review the company's manufacturing and distribution records, access to technical knowledge and specialized human resources, production and export capacities, and after-sales services, two specialized and commercial committees were formed separately, and each committee reviewed the products in detail with the participation of technical and commercial experts.

In this procedure, specialized committees were held with the collaboration of the experts of the center of companies and knowledge-based institutions of the Deputy for Science and Technology, headed by *Dr Reza Asadi Fard* and Coordinated by *Engineer Mojtaba Houshmandzadeh*. In addition, *Engineer Mehdi Ghaleh Noei* and *Engineer Ruhollah Estiri* presided over commercial committee meetings, which also included businessmen from the private sector, and I want to express my gratitude to these two groups for their work and assistance.

I also want to appreciate the project manager, *Zahra Afzali*, who has taken on a lot of responsibility and given close attention to the project's design and development from the beginning with innovative ideas.

I also think it's important to recognize and express my gratitude to my other colleagues for their efforts in gathering, reviewing, contacting firms, selecting, and rewriting texts, and finally editing and creating this book:

Project monitoring and editing team: *Mohammad Torabi, Fereshte Elahi*

Evaluation team: *Maryam Mehrabi*

Editorial team: *Fatemeh Mohammadi Siani*

Design team: *Mohammad Hossein Pourdabbaq, Masoud Khalili*

I want to underline that the aforementioned goods may be offered in a variety of ways in the country of destination, including export of end products, export of semi-finished and assembled products at the destination, joint production in the destination country and other economic cooperation. In each of the aforementioned scenarios, the Export Development and Technology Exchange Fund is prepared to co-invest in the target countries and guarantee the purchases as a financial sponsor of knowledge-based export enterprises.

The book's conclusion also includes a list of export management firms authorized by the Deputy for Science and Technology for communication, Iran Houses of Innovation & Technology (iHiTs), located in several countries, and commercialization and technology transfer agencies. Finally, I am hoping that this book will be beneficial to the readers and provide them with a thorough grasp of Iranian technological advancements.

Regards,
Mehrdad Amani Aghdam
CEO of Export Development and Technology Transfer Fund

Industrial Machinery



Knowledge-Based Products and Equipment

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Introduction

The Origin of Industry and Export in The Eyes of Iranians

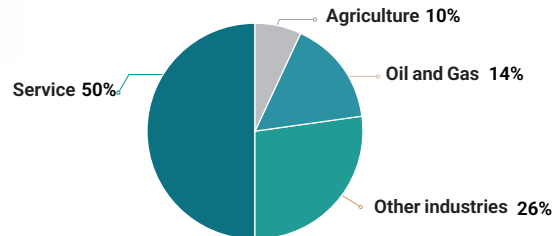
The ancient land of Iran has long been the source of knowledge and industry, and Iranians have played a significant role in the development, evolution and promotion of science and human awareness. Most historians of the world believe that most of the advances in science and human civilization are owed to Iranian civilization and the most brilliant works of art and the highest industrial levels has come from the minds of Iranians. Metalworking industries, agricultural industry, pharmacy and alchemy with themes including tile glazing, carpet dyeing, fabrics and glass were some of the industries that were considered by ancient Iranians. In parallel with the special attention to the development of industry, the history of mutual trade relations between Iranians and other civilizations in East and Central Asia, Europe and Africa has a long history, and Iranians have played a significant role in the expansion of global altruism since long ago by being on the route of the Silk Road and maritime trade.

We Iranians today, like our ancestors, consider industry, art and production in our ancient land to be a transformative and constructive place, and we consider the development of technological interactions and the trade of knowledge-based industrial products with other countries as an opportunity for friendship and the expansion of ties.

Industry and Export in Today's Iran

Industrial development has a very important place in the plans and policies of the Islamic Republic of Iran due to the creation of value added, job creation, increase in exports and reduction in imports, and the transition from an economy dependent on oil and mineral raw materials to an industrial and manufacturing economy, especially an economy dependent on new technologies, is a grand plan that has been adopted for this purpose. Currently, 50% of Iran's gross domestic product is allocated to services and another 50% to industry and manufacturing, which includes 10% agriculture and food industry, 14% oil and gas industry, and 26% other manufacturing industries.

The Share of Various Activities in Iran's GDP

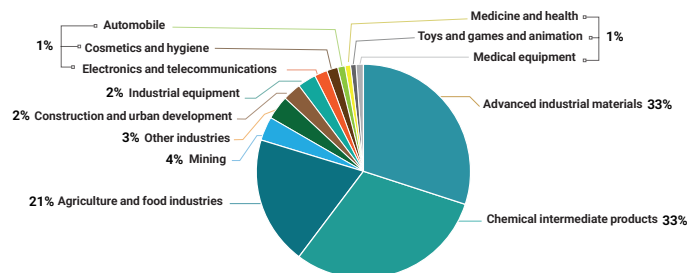


In the meantime, various industries such as pharmaceuticals, medical equipment, construction, communications and telecommunications, energy, mining, chemicals, etc. have a special share of Iran's gross domestic product, and their production, in addition to covering a considerable amount of country's domestic needs, are exported to various destinations.

According to World Customs Organization data, in 2021, the Islamic Republic of Iran had exports equal to 75 billion dollars, almost half of which is allocated to non-oil industries and processed industrial products. Advanced industrial materials, chemical intermediate products, agricultural products and food industry are all among the biggest exporting industries with more exports.

Iran's Exports in 2021

Ref: Trade Statistics for International Business Development ¹



Regarding the main export destinations of Iran, it should be noted that China, India, Indonesia, Russia, Uzbekistan, Ghana, Germany and South Africa, as well as among the regional neighbours, Iraq, Turkey, UAE, Afghanistan, Pakistan, Oman, Turkmenistan, and Azerbaijan account for the largest dollar value of imports from Iran.

Where the New Technologies Stand in Iran's Industry

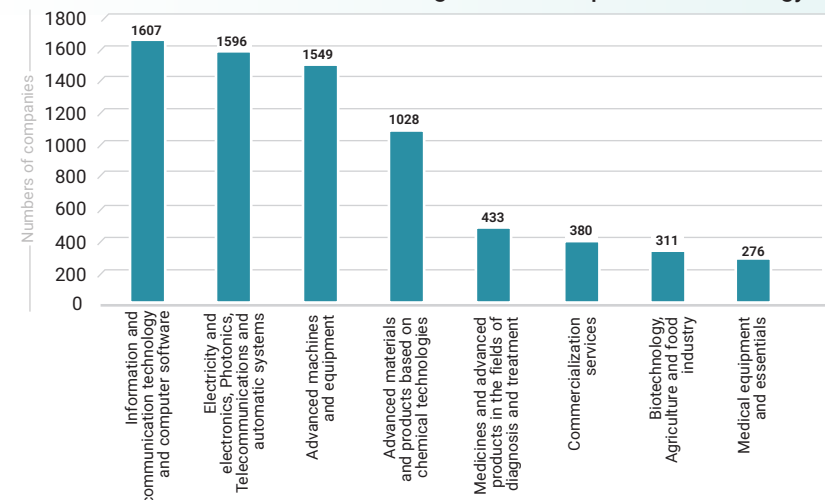
Paying attention to the development of new technologies, commercialization and its influence on manufacturing industries has caused the Islamic Republic of Iran to experience a growing progress in this field in the last decade; An issue that has taken place in Iran in the form of the development of knowledge-based enterprises. Based on this, the meaning behind knowledge-based enterprise is as follows:

A private company that produces products or provides services that have the following three features:

1. The product or service provided by the company has a high or medium to high technology level and its technical knowledge has a significant technical complexity (technology level condition).
2. The product or service design in the company is based on internal research and development or technology transfer (Research and development-based design condition).
3. The company is able to produce and provide the mentioned goods or services to the market (production condition).

Currently, more than 7 thousand knowledge-based enterprises in Iran are producing products and providing services in the field of various technologies. These companies produce more than 15,000 products or services in total, and their direct employees, which generally include people with a high level of education, are around 250,000 people.

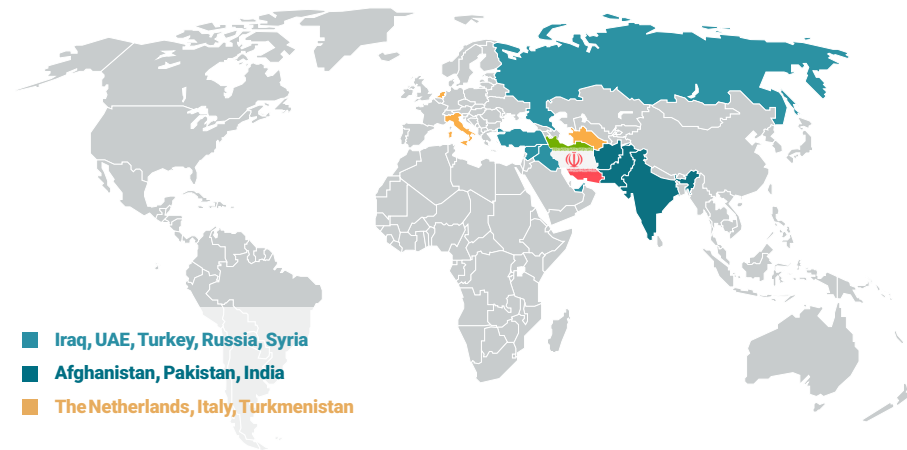
The Number of Knowledge-Based Companies - Technology Fields



¹ www.trademap.org

The export of Iran's knowledge-based enterprises has been growing in the last 5 years, and these companies currently account for about %2 of Iran's non-oil exports.

The Largest Export Destinations of Iranian Knowledge-Based Enterprises in the Last 5 Years



The Status of Knowledge-Based Products in Industrial Machinery

Machinery industry is known as one the primary industries all over the world. The machinery industry, also known as the machinery manufacturing industry, is regarded as an engine of technology in every country and is linked to a range of key technologies such as electronics, materials, robotics and software and is advancing toward the fourth paradigm of industry. This industry is in need of knowledge, skills and experience together at the same time which has always been considered in Iran. Moreover, paying more attention to this industry will enable the equipment of domestic industries with up-to-date machinery and avert massive outflows of foreign currency.

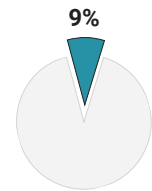
Due to the presence of the machinery industry in all sectors (industry, mining, agriculture, and oil and gas), the share of this sector in the GDP cannot be accurately extracted, but something like 50 million dollars, which accounts for about %0.1 of Iran's total exports is annually allocated to the machine industry.

Due to the great consumer market and the reliance of most industries on the machinery industry, the foundations for the growth of many knowledge-based technologies and products have been provided in it. The activity of more than 600 Iranian knowledge enterprises and the supply of more than 1100 technological products demonstrates this point.

In the last few years, considering the special attention to the self-sufficiency and maximum development of country on a national scale, the activity and production of knowledge enterprises related to the machinery industry have been accompanied by good growth, and allocation of about %20 of Iran's knowledge-based production and employment to this field confirms this point.

Finally, regarding the export of knowledge-based products of this industry, it needs to be mentioned that a total of 100 million dollars worth of products of knowledge enterprises active in the field of industrial machinery have been exported outside Iran in the last five years.

The Percentage of Industrial Machinery Companies from All the Knowledge-Based Enterprises

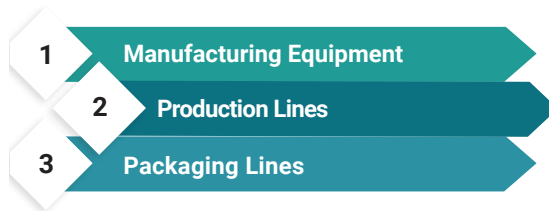


The Main Export Destinations of Iranian Knowledge-Based Enterprises in the Field of Industrial Machinery



The Division of Knowledge-Based Products in Industrial Machinery

As previously mentioned, the importance of machinery industry among the primary industries as well as the reliance of most industries on this sector have provided the foundations for the growth of many knowledge-based technologies and products in it. In this book, products have been collected that can be divided into the following categories:



The following describes each category and their subcategories in order to give a general understanding of these areas.

1 Manufacturing Equipment

In this category, various types of equipment and machinery used for the manufacture of different products are introduced which include furnaces, lathes and turning machines, welding machines and metal forming equipment.

- **First Section | Furnaces and Heat Treatment Equipment:**

One of the applications of heat treatment furnace is increasing the strength of the produced metal. There are also different methods of heat treatment such as surface carburizing, normalizing, full annealing and finally quenching and tempering. Industrial furnaces are classified into two general classes depending on their function:

- * Wet furnaces (melting furnaces): Refers to the furnaces in which objects change phase and transform from solid phase into liquid phase.
- * Dry furnaces (heat treatment furnaces): Refers to the furnaces in which the focus is on the microstructure of objects and the change of solid to liquid phase does not occur.

- **Second Section | Milling and Machine Tools:**

Machining is a prototyping and manufacturing process that creates the desired final shape by removing unwanted material from a larger piece of material. In this method, a tool bit or a blade rubs against the primary raw workpiece in a rotational manner, and due to the friction between two metals, the unwanted and excess parts of the raw workpiece are gradually separated from it in the form of shavings, and the piece gets its final form and shape.

- **Third Section | Welding Equipment:**

Welding is the process of permanently joining two or more metal parts by melting both materials. The molten material cools rapidly and the two metals are permanently bonded. According to the types of welding methods, different pieces of equipment are used for manufacture and production.

- **Fourth Section | Mixer:**

Mechanical mixers are the equipment used to mix liquid compounds with a certain number of revolutions and for a certain amount of time. This equipment is used in various industries such as pharmaceutical companies, chemistry and biology laboratories, paint companies, etc.

- **Fifth Section | Coating and Printing Equipment:**

In this category, several printing machines in different fields, including printing in the pharmaceutical industry and printing in the textile and fabric industry have been discussed.

[Start chapter at page 24](#) »

2 Production Lines

Production lines are continuous and successive processes in factories and workshops that are employed to produce a final product from raw materials, or to prepare and adapt raw materials to be used in the next stage of producing the finished goods. The production line can include all the different pharmaceutical, chemical, textile, agricultural, food, metals, ores, etc. industries.

- **First Section | Food, Pharmaceuticals and Health Industries:**

Medicine and food industry machinery can generally be divided into two groups of processing and packaging. Some of the knowledge-based machines in this field have been introduced in this book.

- **Second Section | Chemical, Polymer and paper industries:**

In each of the chemical, polymer and paper industries, different machines and equipment are used in different stages of production. In this subcategory, only some of the knowledge-based machines of these industries have been mentioned.

- **Third Section | Metal Industries:**

In the metalworking industries, a wide range of industrial tools such as press brakes, impact press machines, rolling machines, etc., is used with the aim of implementing automation, increasing speed and quality to create metal parts with the desired shape and size and for cutting and shaping metals in the metal industry.

- **Fourth Section | Construction Industries:**

In all construction operations, including any building, bridge, dam, and road construction operations, appropriate machinery is required to improve speed, quality, safety, and also for economical and timely completion of the project. Some of the machines of this industry are mentioned in this subcategory.

- **Fifth Section | Automotive Industry:**

Most of the machines introduced in this subcategory are devices and equipment used to make tires. However, the variety and number of machines in this section is generally much more than the mentioned cases.

[Start chapter at page 128](#) »

3

Packaging Lines

Packaging machinery is one of the main factors in boosting the production line of any business. All kinds of filling, labeling, sealing, packing, vacuum, sewing, etc., machines are included in this category.

- **First Section | Packaging:**

Packaging and cartoning machines in the food industry, pharmaceutical packaging, sheet and paper are introduced in this subcategory.

- **Second Section | Labeling and Printing:**

The labeling machine is actually a type of printer that prints letters, barcodes and numbers on a label using a thermal head.

- **Third Section | Sorter:**

The term “sorting” means classifying or separating the product from other materials. In a sense, it means keeping the essential items and removal of unnecessary materials. The products are segregated from each other through a series of operations and with different methods.

Start chapter at page 196 »

Industrial Machinery

First Chapter

Manufacturing Equipment

- Furnaces and Heat Treatment Equipment
- Milling and Machine Tools
- Welding Equipment
- Forming Equipment
- Mixer
- Coating and Printing Equipment



Second Chapter

Production Lines

- Food, Pharmaceutical and Health Industries
- Chemical, Polymer and Paper Industries
- Metal Industries
- Construction Industries
- Automotive Industry



Third Chapter

Packaging Lines

- Packaging
- Labeling and Printing
- Sorter



First Chapter

Manufacturing Equipment



1st CHAPTER

First Chapter

Second Chapter

Third Chapter

Manufacturing Equipment

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<i>Furnaces and Heat Treatment Equipment</i>	○
<i>Milling and Machine Tools</i>	○
<i>Welding Equipment</i>	○
<i>Forming Equipment</i>	○
<i>Mixer</i>	○
<i>Coating and Printing Equipment</i>	○



Application:

Annealing and restoring the crystal structure of steel after the rolling process (thickness reduction by tension and pressure)

➤ **Hydrogen Annealing Furnace**

◆ Makhzan Foolad Rafe` (Daboo Sanat) Co.

www.doboosanat.com



Product Introduction:

One of the best and most advanced types of heat treatment for forming cold rolled steel is the annealing process, which takes place in box annealing furnaces. This process includes heating the material to a suitable temperature, keeping it at this temperature for certain and sufficient period of time and then cooling it at a suitable speed to the ambient temperature. This operation is generally carried out to soften metal materials, and as a result, properties such as machinability, electrical properties, cold workability, dimensional stability, and alloy structure change significantly.

Main Export Destinations:

Azerbaijan, Armenia, Uzbekistan, Turkmenistan, Kazakhstan, Iraq, Afghanistan

Export History:

Between 1,000,000 - 10,000,000 \$

Founded:

1999

This product is final B2B equipment.

Technical Specifications:

Length	6500 cm
Diameter	※ External: 3800 cm ※ Internal: 2400 cm
Maximum temperature	950 degrees Celsius
Insulation thickness	250 mm

Advantages:

- ※ Lower price compared to similar products
- ※ Ability to increase production capacity

**Application:**

Producing parts, heat treatment

➤ Industrial Furnaces (Gas & Electric)

◆ ATRA Industrial Group Co.

www.atra.ir

**Product Introduction:**

Today, with the ever-increasing developments of the industry, the use of industrial furnaces for heat treatment and the production of parts with special properties is very common, and in practice, many industrial furnaces use gas burners to provide the required heat, which is due to the lower price and the limitations of using electric current, these furnaces are more welcomed in the industry. Convergent or divergent burners are used in these furnaces. The heating system is mainly radiant whereas the furnace system is muffled so that the combustion gases do not destroy the work pieces. The types of industrial furnaces of this company are as follows:

- * Chamber Tempering Furnace
- * Bogie Hearth Tempering Furnace
- * Industrial Gas Furnace
- * Industrial Continuous Furnace for gas-fired heat treatment
- * Industrial Vacuum and Atmosphere Controlled Furnaces

Founded:

2010

This product is final B2B equipment.

Technical Specifications:

Chamber Tempering Furnace	<ul style="list-style-type: none"> * Temperature: 800 °C * Temperature accuracy: ±5 °C
Bogie Hearth Tempering Furnace	<ul style="list-style-type: none"> * Temperature: 800 °C * Temperature accuracy: ±5 °C * Power Consumption: 180 kW
Industrial Gas Furnace	<ul style="list-style-type: none"> * Dimensions: 125 Liters * Thermal tolerance: 10 °C
Industrial Continuous Furnace for gas-fired heat treatment	<ul style="list-style-type: none"> * Temperature: 1100 °C * Thermal tolerance: 20 °C
Industrial Vacuum and Atmosphere Controlled Furnaces	<ul style="list-style-type: none"> * Maximum operating temperature: 1750 °C * Furnace volume: 120 liters



➤ Multipurpose Fluidized Bed Heat Treatment Furnace with Controlled Gas Atmosphere

◆ Kavian Novin Fardanegar Co.

Product Introduction:

The product is capable of performing all heat treatments and surface engineering on various metals and alloys. In this furnace, heat is introduced into the reactor by a gas burner. This furnace has a steel body frame that is insulated by fireproof materials and surrounds the heating elements of the crucible. The reactor of this furnace has various components such as gas distribution plate, chimney, chemical gases inlet, burning flame of exhaust gases and micronized alumina powder. With the entering chemical gases with a specific pressure and flow rate, the reactor is activated and the micronized powders are agitated, so to speak, a fluidized bed of solid and refractory alumina powders is created. The temperature range of the furnace is from ambient temperature to 1200°C, which is automatically controlled using a temperature control panel.

Founded:

2016

Application:

This product can be used in all industries that require heat treatment and surface engineering of metal parts. The product is especially used in the following industries:

- ✧ Automotive industry
- ✧ Shipbuilding industry
- ✧ Defense industry
- ✧ Aerospace industry
- ✧ Oil and petrochemical industries

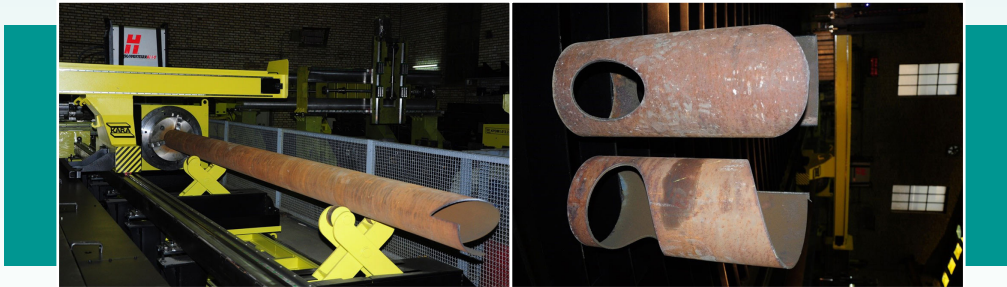
This product is final B2B equipment.

Technical Specifications:

Dimensions of the cylindrical reactor	Diameter: 50 cm Height: 1.5 cm
Reactor material	SS310 alloy
Temperature range	25 - 1200 °C

Advantages:

- ✧ Lower price compared to similar products
- ✧ Reducing the consumption of chemical gases

**Application:**

Production of tubular structures

➤ CNC Tube Cutting Machine with Bevel

◆ Kara Sazeh Welding & Cutting Industry Co.

www.karasazeh.com
**Product Introduction:**

This machine can cut all types of steel or stainless steel pipes up to 4 meters in length, with a maximum diameter of 500 mm and a maximum thickness of 25 mm, and is used for the production of tubular structures.

In this system, in the interpolation mode 4 axes operates at the same time, and the necessary commands are sent to the controller by a special software developed by Kara company which can be run on a computer, through a network cable. This software receives the information such as the diameter, thickness of the pipe, the type of required hole, the value of the bevel angle, and the collision angle and displays it in a VISUAL form. The software after issuing the cutting command, the shape is displayed, and the cutting process is performed.

Pipe beveling is the edging of the end corner of the pipe. When the end of the pipe is edged to a certain extent, this process is called beveling. The beveling process is necessary to prepare the welding and joining process of the pipe.

Main Export Destinations:

India, The Netherlands, Qatar, Iraq, Afghanistan

Export History:

Between 1,000,000 - 10,000,000 \$

Founded:

1997

*This product is final B2B equipment.***Technical Specifications:**

Mechanical components	<ul style="list-style-type: none"> * Pipe circulation part * Head and chassis of the pipe * Torch holder base * Torch pantograph part * Pipe holders
Electronic components	<ul style="list-style-type: none"> * Electrical panel including servo drive, CNC control, etc. * CNC controller * Plasma cutting



➤ 5-Axis Spider Cutting Machine

◆ Radox Group

www.radoxgroup.com



Product Introduction:

This RADOX SPIDER CNC model with the ability to move in 5 axes can be equipped with various cutting facilities such as plasma, water jet and air gas. RADOX SPIDER CNC can be used in cutting the body of tanks at a high height, cutting the body of pipes and curved surfaces, etc. RADOX SPIDER CNC bases are equipped with vacuum and magnets for stable placement on surfaces to enable cutting with higher precision.

The device with a weight of about 700 kg is portable, which is used to perform plasma cutting at height. This device is moved to the desired place for cutting by a lift or crane.

Founded:

2017

Application:

Performing plasma cutting at a height such as on the surface of tanks, ship hulls, etc.

This product is final B2B equipment.

Technical Specifications:

Effective cutting width	1500 mm
Effective cutting length	1500 mm
Overall width	2100 mm
Total length	2200 mm
Height	1700 mm

Advantages:

- ※ Reasonable price
- ※ High accuracy of the device and its ability to be adjusted according to the customer's needs
- ※ Product warranty and service provided for 5 years as a guarantee

International Standards or Permissions:

CE standard



Application:

- * **Vertical milling:** making automotive, military, etc.
- * **Gate milling:** milling of large parts in the molding and machine-making industry

➤ **3-Axis CNC Vertical and Gate Milling Machine**

◆ Fara Control Toos Co.

www.fara-control.com



Product Introduction:

The CNC gate milling machine is used for milling all kinds of metal and non-metal parts with high precision in the tolerance range of hundredths and thousandths of millimeters. The high accuracy of machining and the large space for milling large parts have made this machine the ideal option for machining parts in the molding and machine-making industry and milling services. By using the software features of the machine control panel and also by CAD/CAM software, milling complex parts with high precision is possible by this device.

Founded:
2003

This product is final B2B equipment.

Technical Specifications:

Vertical model	
Axis coarse	* X: 1150 mm * Y: 600 mm * Z: 800 mm
Spindle rotation speed	8000 - 12000 RPM
Tool tank capacity	24/20/16 Tools
Gate model	
Axis coarse	* X: 2200 mm * Y: 1650 mm * Z: 900 mm
Spindle rotation speed	6000 RPM
The power of the spindle motor	30.22 kW



➤ CNC Punching and Cutting Machine for Busbar

🏠 Paya Press Co.

www.payapress.ir



Product Introduction:

This machine is used to cut, punch and bend copper and aluminium ingots. Aluminium and Copper ingots are used instead of cables in electric panels. This machine cuts the ingot from different cross sections, punches it so that the screw can fit and attach to it and then bends it at different angles.

Main Export Destinations:

Germany, England, China, Australia, Tunisia, Oman, Colombia, Qatar, Egypt, Lebanon, Iraq

Export History:

Up to 500,000 \$

Founded:

2013

Application:

- ※ Companies manufacturing high, medium and low voltage electrical panels, power plants and transformer manufacturing

This product is final B2B equipment.

Technical Specifications:

Dimensions	1m × 2m × 2m (H)
Motor	Three -1.5kW electric motors
Pump	Three 250-bar pumps

Advantages:

- ※ Bender equipped with spring back compensation technology
- ※ Puncher equipped with digital setting and laser center finder
- ※ Cutter equipped with digital setting
- ※ Unique control system (designed by the company itself)



Application:

- * Machining large and bulky Teflon and metal parts
- * Plasma cutting

➤ CNC Plasma Cutter and Gate Milling Machine

◆ Novin Ebtakar Co.

www.novinebtekarco.com



Product Introduction:

The gate milling machine is one of the various milling machines that are eminently suitable for machining large and bulky parts. Due to the very large dimensions of the table and the high travel course, this machine must be very accurate.

Plasma cutting is also a process in which steel or other metals are cut in different thicknesses by a torch. In this cut, a gas is blown at a high speed from the nozzle and at the same moment, an electric arc is created between the gas at the head of the nozzle and the cutting surface, and the gas goes into the plasma state. The plasma is hot enough to melt the metal and cut. Compressed air also has enough pressure to push the molten metal away from the cutting path.

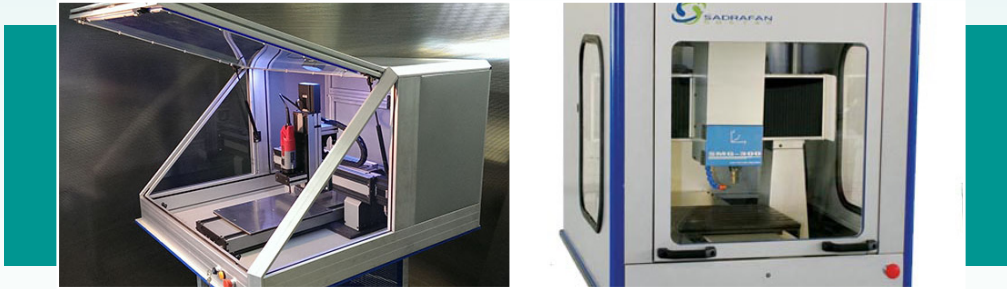
Founded:

1991

This product is final B2B equipment.

Technical Specifications:

Table length	6000 × 2000 mm
Device accuracy	0.01 mm
Spindle	4 kW



➤ 3-Axis CNC Milling Machine

◆ SADRA FAN GOSTAR Co.



Product Introduction:

CNC milling machine is a machining and milling device that is controlled by computer programs and human intervention is minimized. Due to their inherent characteristics, these devices are used for cutting and machining many materials and can perform the production process of some parts from A to Z. The milling process with this device is done by creating a two-dimensional or three-dimensional design with the help of AutoCAD software. The prepared design must be converted into a file format compatible with the CNC machine, whose format is G-Code. In the next step, by turning on the motor of the machine, the cutting and milling process can be performed and finally the workpiece can be delivered.

Founded:

2002

Application:

- * Industrial applications such as modeling, molding, industrial engraving, component manufacturing, goldsmithery, art pieces, etc.
- * Educational applications
- * Electronics, software and mechanics fields
- * Biomedical Engineering

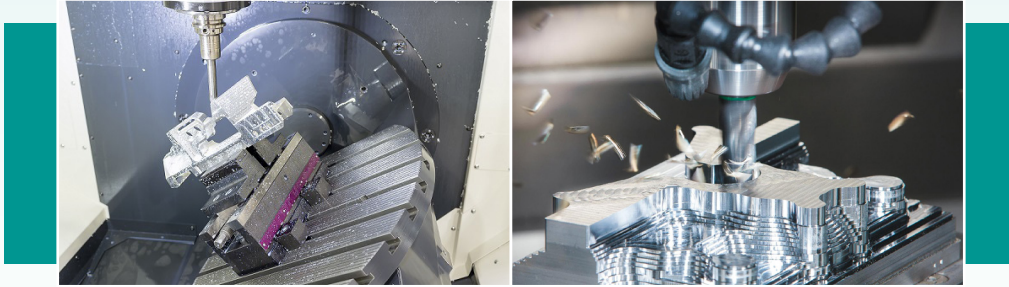
This product is final B2B equipment.

Technical Specifications:

Maximum machining range	80×360×360 mm
Table dimensions	360 × 360 mm
Spindle power	1000 watts
Machine weight	115 kg
Workpiece material	graphite, wood, plastic, wax

Advantages:

- * Reasonable price and favorable after-sales service
- * Design and manufacture of complex electronic boards and related software
- * Advanced architecture of electronic circuits
- * Using high-speed and high-power spindles



➤ 5-Axis CNC Lathe

◆ Parlaq Ishiq Electrode Co.

www.electrodepi.com



Product Introduction:

CNC is a process in which a cutting tool systematically removes material to achieve a final geometry. In this reduction process, a computer is responsible for converting the three-dimensional CAD designer into three-dimensional coordinate axes. These coordinates are converted into instructions that are sent to the cutting tool to produce the final object by removing and cutting material. 5-axis CNC machines are actually an advanced model of conventional engraving machines in which the cutting tool moves in five different axes. It is only with this freedom of movement that this machine can produce complex geometries. Conventional three-axis CNC machines, which are popular among many users, cannot move the cutting spindle in every direction.

Application:

Carrying out chipping operations automatically and at high speed

This product is final B2B equipment.

Founded:

2017



Knowledge-Based Products and Equipment



Application:

Milling bulky and heavy parts on different types of stone

➤ **3-Axis CNC Gate Milling Machine**

◆ Niroo Sazan Sabalan Co.

www.microcont.com



Product Introduction:

One of the different machining processes is the milling operation which generally refers to reducing the mass of the workpiece with the help of cutting tools. Considering the wide field of milling which includes all kinds of parts in different sizes and for different applications; Various machines have also been produced. With the advancement of technology, the old milling machines have been replaced by modern type equipped with computer numerical control (CNC) systems, which have the ability to control and guide the cutting tool by computer, and as a result, the speed and accuracy of machining processes have been significantly improved.

Founded:

2012

This product is final B2B equipment.

Technical Specifications:

Motor	5.7 kW
Air cooled	Accuracy of 0.01 mm
Air-cooled spindle motor speed	24000 rpm
The overall accuracy of the machine in the length of two meters	0.01 mm

Advantages:

- * Using set dispatching
- * Not using balance weights

**Application:**

Drilling parts

➤ High Speed Fully Automatic CNC Machine for Machining and Drilling

◆ Pooya Energy Tanha Rah Avar Pars Co.

www.pooyaenergy.ir

**Product Introduction:**

Generally, Machining is a process during which a raw piece of plastic, wood, metal, etc. becomes a final product. In this process, parts of the raw material are removed and the desired design is implemented. The automatic performance of activities in the CNC machine has increased the speed and accuracy in performing various machining activities. This advantage of CNC is very important when working on expensive and valuable materials. This device is a kind of CNC drill, which, in addition to the ability to carry out the drilling process, has the ability to perform milling operations in the form of CNC in three coordinate axes simultaneously.

Founded:

2012

This product is final B2B equipment.

Technical Specifications:

Accuracy of equipment	0.05 mm
Working dimensions of the device	0.6 × 6 × 3 meters



Application:

Applying cut on gold balls with a diameter of 2 to 15 mm and a thickness of at least 0.1 mm

Ball Cutting Machine

Salehi Machines Co.

www.salehimachines.ir



Product Introduction:

This product is a CNC machine specially designed for cutting balls in jewelry. Working with this machine requires a semi-skilled worker and the cutting operation is done in 5 to 10 seconds. In this machine, thanks to the rotating diamond discs and programming by the controller, different designs and patterns are applied on the spherical objects. In the conventional method, it takes about 1 minute to cut each ball, but with this machine, 5 to 10 seconds are enough to do so. In fact, in conventional method, each operator could produce 100-200 grams of balls per day, however, with this machine, 1000 grams are produced per day. On the other hand, many designs that once were not possible to implement by hand, now can be carried out by this machine.

Main Export Destinations:

India, UAE, Azerbaijan, Iraq, Syria, Afghanistan

Export History:

Up to 500,000 \$

Founded:

2011

This product is final B2B equipment.

Technical Specifications:

Power consumption	5 kW
(spiral) Gearbox	1 to 60 type 40
(solar) Gearbox	1 to 81



➤ Flow Forming Machine (CNC Spinning Machine)

◆ Ideh Pardazan Vatan Co.

www.ipvatan.com



Product Introduction:

The production of seamless thin-walled pipes with high dimensional accuracy is one of the basic needs of advanced industries. The only device capable of producing such pipes is the flow forming machine. The flow forming machine transforms a short tubular part with high thickness by means of three or more rollers and simultaneous rotation of the workpiece into a long, low thickness tube. which in terms of metallurgy, according to the type of production process, has products with the strength of metal properties much higher than other production methods.

Founded:

2011

Application:

Defense, aerospace, nuclear, automotive and oil industries

This product is final B2B equipment.

Technical Specifications:

Maximum diameter	500 mm
Minimum diameter	40 mm
The number of rollers	3
The length of the part by the combined method	3000 mm
The length of the part in reverse method	6000 mm

Advantages:

Using the most advanced and highest levels of mechanical hydraulic and control mechanisms of the device



Application:

- * To create flatness, roughness & shining on metal surfaces
- * Seat & Gate valves for oil and gas wells
- * Safety Valve Seat
- * Gate valve plates
- * Mechanical Seal Mechanical Seal

➤ **Lapping Machine**

◆ OPET Co.

www.opet-co.com



Product Introduction:

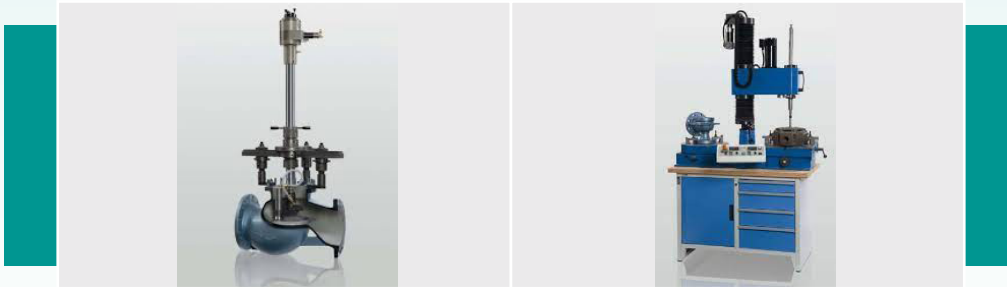
In oil and gas industry pipe fittings, and industrial valves in oil, gas, petrochemical, power plant and atomic energy, in order to prevent fluid leakage, there is a need for high level smoothness between flanges, fittings and sealing surfaces. Therefore, the finishing of these levels is of particular importance in terms of safety and economy. Lapping, which is part of the chipping processes in micrometer layers, is used as the final machining process and creating the required quality. Lapping is a polishing method in which an abrasive stone is circulating at a low speed and at the same time is pressed to the surface of the workpiece with low pressure, and between the surface of the stone and the surface of the workpiece, slurry of abrasive materials is resupplied. With this process, previously corroded parts can be chipped to a final finish of 10 microns and a highly polished surface can be obtained.

Founded:
2006

This product is final B2B equipment.

Technical Specifications:

Power	380 VAC 3-Ph
Activation type	Electric motor and gearbox
Range	380 to 2000 mm
Speed	0 to 60 RPM
Lapping degree	5 to 40 microns



► Portable Lapping Machine

for Valves of 100 - 400 DN Size with 0.07 μm Finishing

◆ Arad Industry Co.

Product Introduction:

In the power plant and refinery industries, there are fluids that are used at high temperatures. This increase in temperature causes pressure in the existing valves in this industry and with the passage of time, it causes damage to the surfaces of these valves. These damages, due to the created cracks, eventually lead to the notch and failure of the part. Replacing these parts is burdensome and costly. To solve this problem, there are alternative solutions depending on the type of damage. In the cases where the scratch level is low, the damaged surfaces can be polished with the lapping method and the problem and (steam, etc.) leakage can be solved by smoothing the surface. This method can be applied for cracks that are part of the machined part surface.

Lapping is a machining method for finishing and polishing surfaces in which replaceable abrasive tools are circulating and simultaneously pressed against the surface of the workpiece to produce a perfectly polished surface. This method allows faster repair, returning to polished point, and initial sealing as the easiest, fastest and least expensive way.

Founded:

Application:

Lapping various types of industrial valves used in oil, refinery and power plant industries

This product is final B2B equipment.

Technical Specifications:

Machine operating range	DN200 - DN400 valves
The degree of freedom (DoF) of the bearing part	from 20 to 160 degrees
Degree of finishing	0.07 Microns

Advantages:

- ✧ The smallest and most efficient mode possible for very narrow working space in gate valves
- ✧ Operation of the machine at different angles
- ✧ Easy adjustment of the height of the main disk relative to the fruiting table
- ✧ Adaptation of the device to the initial surface of the workpiece and the degree of freedom in all axes



➤ Lapping Machine

🏠 Ilia Mechanic Iranian Co.



Product Introduction:

To prevent fluid leakage in oil and gas industry pipe fittings and fittings in industrial valves of oil, gas, petrochemical, power plant and atomic energy, there is a need for high level smoothness between flanges, connections and sealing surfaces. Therefore, the finishing of these surfaces is of particular importance in terms of safety and economy. Lapping, which is part of the chipping processes in micrometer layers, is used as the final machining process or lapping to create the desired quality. Lapping is a chipping method in which an abrasive stone is rotating at a low speed and at the same time is pressed to the surface of the workpiece with low pressure, and between the surface of the stone and the surface of the workpiece, slurry of abrasive materials is charged. With this process, it is possible to remove the parts that have already been chipped for a final finish of 10 microns and obtain a highly polished surface.

Founded:

2017

Application:

Veloshop units related to the repair of valves and machinery related to the repair of rotating equipment such as turbines, pumps and compressors

This product is final B2B equipment.

Technical Specifications:

Device model	IMI-LM400
Plate diameter	380 mm
Diameter and number of rims	3 rims with an inner diameter of 145 mm
Dimensions	<ul style="list-style-type: none"> * Length: 700 mm * Width: 700 mm * Height: 500 mm
Total weight	75 kg without pressure system

Advantages:

- * Warranty and after-sales service
- * Using quick connection modular chassis
- * The ability to quickly install and replace the screen
- * Fully dynamic and straightforward user interface



➤ CNC Press Brake

◆ Payaboresh Industrial Machinery Co.

www.payaboresh.com



Product Introduction:

This press is a type of brake press that controls the bending process through the moving and rearward jaw, and for this, you only need to enter the number of bending parts and the bending angle. Finally, the bending process is done in the simplest possible way with the help of CNC controller. There are different configurations of this type of brake press, the main difference of which is the number of axes under CNC control. In general, the CNC press brake can control between 3 and up to 14 axes.

Main Export Destinations:

Turkey, Afghanistan

Export History:

Up to 500,000 \$

Founded:

2014

Application:

Precision bending of metals

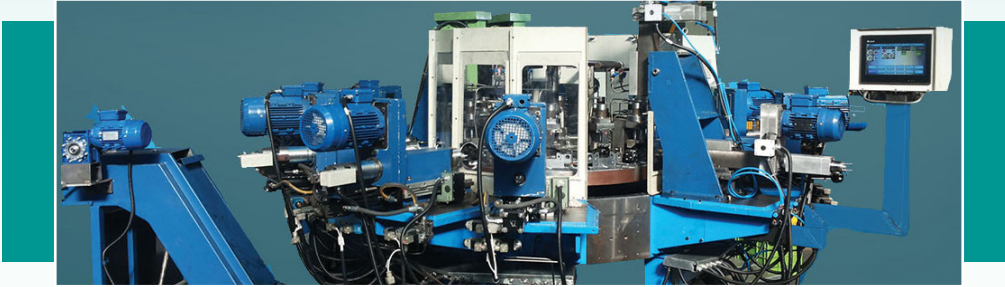
This product is final B2B equipment.

Technical Specifications:

Bending power of the machine	63 tons
Hydraulic pump	210 vane bar
Electric motor	10 HP

Advantages:

- ※ Equipped with sliding system and precise guide
- ※ Having a standard mandrel and matrix
- ※ Equipped with a free fall system



➤ Machining Transfer Machine

◆ Faragaman Sanat Paydar Co.

www.faragamansanat.com



Product Introduction:

Transfer machines are a set of machines that have 4 to 12 stations. The machining operations are done in this stations, consecutively without opening and closing the part in one step. This device is used to perform simultaneous machining operations by several machining spindles (from 3 spindles to 17 spindles) at the same time and specific dimensional settings for the correct performance of each spindle in the desired geometric and dimensional specifications.

Founded:

2009

Application:

Machining of all kinds of metal parts (for example, brake parts, brackets, water pumps, hand grips, dynamo parts, ball joint, etc.) and other parts used in the automotive industry, parts manufacturing, household appliances, military industry and facilities

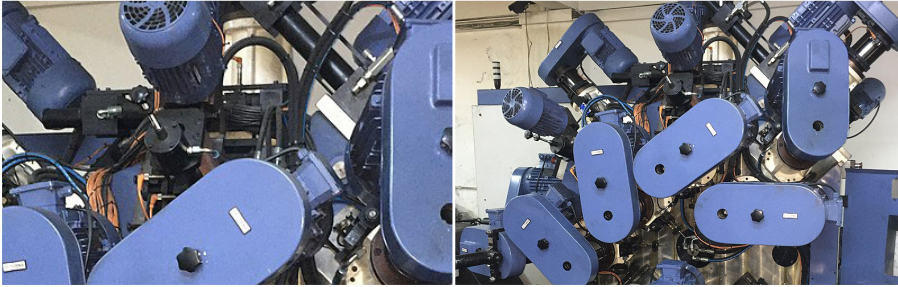
This product is final B2B equipment.

Technical Specifications:

Machine structure	sheet mm 50 material St37
Number of workstations (vertical type)	6 to 8
Installable index table type	hydraulic - servo
Movement coarse of spindles	Max 100 mm
Rotation speed of spindles	Max 4000 rpm

Advantages:

- * Quality Increasing
- * Reducing production time
- * Reducing the space used in production
- * Reducing the manpower needed to produce parts



➤ 8-Station Rotary Transfer Machine

◆ Farnad Machine Kianmehr (FAMCO) Co.

www.famko.ir



Product Introduction:

This machine is a rotary transfer with 8 stations, including 7 work stations and one loading and unloading station, and has 7 machining units, including 5 BT30-type hydraulic drilling and boring units, and 2 tapping units with the ability to adjust the units in three directions (tangential to peripheral circle, along the center radius and the height). Having two three-jaw pneumatic chucks of 110 size can help perform operations at high speed with reproducibility in a set of parts whose machines are on one side of the part and include drilling, boring, recessing and threading operations.

This machine has the ability to save 6 manpower per shift and its production speed of parts is between 300 and 600 parts per hour equipped with one operator (depending on the complexity of the parts).

Founded:

2014

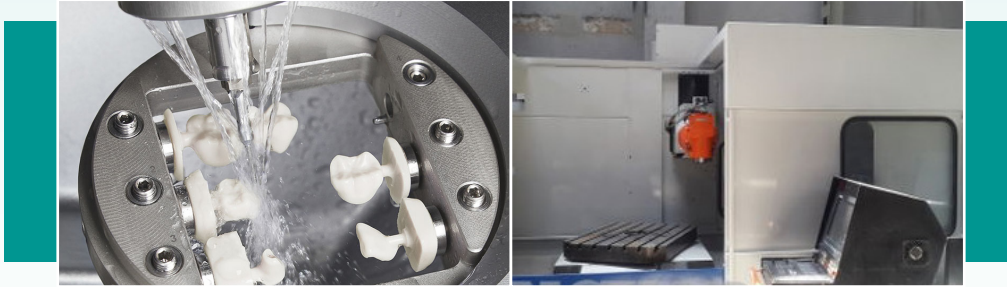
Application:

Machining of iron (metals)

This product is final B2B equipment.

Technical Specifications:

Part by part production time	10 seconds
Dimensions (length × width × height)	1.5 × 3 × 3 meters
Approximate weight	3000 kg
Index table	hydraulic rotation



➤ 4-Axis CNC Milling Machine with Simultaneous Interpolation for Dental Veneer Burnishing

◆ Rayan Fan Madiyar Co.

Product Introduction:

This machine is in category of the CNC milling machine and is used to produce dental prosthesis. CAD/CAM dental restorations are carved from solid blocks of ceramic or composite resin that are almost like the enamel. The operating procedures of the device are as follows:

- * The empty space of the tooth and the side and opposite teeth are scanned, the output of the scanner is a file with stl extension.
- * Analyzing the intended file in the design software (CAD) and designing the decayed/missing (burnished) part of the tooth
- * The designed file is inserted into the production software (CAM) and the G-Code of the device axes is extracted.
- * G-codes are given to the device controller
- * The raw piece is placed in fixture and the tooth veneer is burnished.

Founded:

2020

Application:

Filling a burnished tooth by a doctor

This product is final B2B equipment.

Technical Specifications:

Maximum movement speed of three axes (XYZ)	1000 mm/min
Maximum spindle angle change	30 degrees
Spindle speed	40,000 rpm
Computer base controller	with Radonix Pro software



➤ Multifunction STUD Welder

◆ Joosha Co.

www.jooshaweld.com



Product Introduction:

This product is a multi-functional device that not only has the ability to perform TIG and MMA welding, but also provides the chance of STUD WELDING with tip ignition. In this welding method, the end of the screw and the working surface are melted locally due to the heat caused by the electric arc and at a certain moment the arc is cut off and the tip sinks into the working surface due to the pressure exerted on it and after cooling down the connection process is done

Application:

Shipbuilding, machinery manufacturing, and switchboard

This product is final B2B equipment.

Main Export Destinations:

China, Italy, UAE

Export History:

Up to 500,000 \$

Founded:

1996



Welding Equipment

Industrial Machinery

Knowledge-Based Products and Equipment



➤ Ultrasonic Plastic Welding Machine

◆ Topsonics Co.

www.ultrasonic.co.ir



Product Introduction:

Ultrasonic plastic welding machine is used to connect plastic parts to each other. This machine consists of three main parts: ultrasonic generator, ultrasonic transducer and titanium probe. In this device, the ultrasonic generator is employed to generate electric current with high voltage and frequency and transfer it to the ultrasonic transducer. The ultrasonic transducer, on the other hand, is used to convert electrical energy into sound waves with a frequency of 91 kHz (ultrasound) and finally transfer the sound energy to the probe or the amplifier.

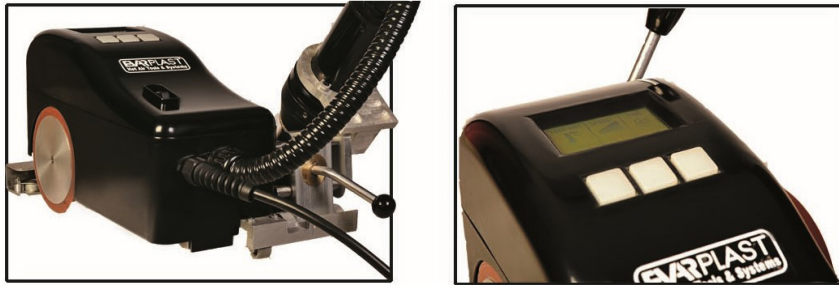
Application:

Production of auto parts, production of household appliances and production of electrical equipment

This product is final B2B equipment.

Technical Specifications:

Constant frequency of vibrational motion	~95 kHz
Vibrational motion range	variable between 15-95 μm



➤ Automatic Thermoplastic Welding Machines

◆ Evarplast Co.

www.evarplast.com



Product Introduction:

The automatic plastic welding machine is a small robot developed based on the mechatronic knowledge to perform the welding process in an automatic, continuous and uniform manner with high work capacity. In these machines, various parameters such as pressure, speed and temperature can be controlled in analog and digital form.

Founded:

2004

Application:

- * Welding all types of geomembrane sheets including HDPE, LDEPE, PVC
- * Insulation and Lining of subway tunnel walls, lagoons, concrete pipes for sewage transfer and landfills
- * Construction of reservoirs and tanks for water storage and transfer, fish farming ponds
- * Welding of all types of propylene sheets, industrial fabrics and thermoplastics
- * Welding the flooring of sports halls, hospitals, urban train cars and buses
- * Welding and construction of camping tents, fabric instruments, canopies, camps, residences and field hospitals.

This product is final B2B equipment.

Technical Specifications:

Voltage	60/50~220 Hz
Power	SMT model: 1700 W TENT model: 3000 W
Temperature	SMT model: 40 – 500 °C TENT model: 60 – 600 °C
Speed	SMT model: 1 - 3 m/m (meters per minute) TENT model: 1 to 6 m/m (meters per minute)

Advantages:

- * Capable of precise electronic control of hot air from 40 to 500°C
- * Light, compact and portable
- * Ability to install on machines
- * Non-stop and heavy duty working tool



➤ Ultrasonic Welding Machine up to 3 kW

◆ Zagros Ultrasonic Co.

www.fszultrasonic.com



Product Introduction:

The ultrasonic welding machine actually consists of a generator (converter of urban alternating current to high voltage and high frequency power) whose output is given to an electrical to mechanical energy converter. The ultrasonic transducer converts electrical energy into mechanical energy with high vibration. Then, a booster is connected to the end of the transducer, which has high frequency mechanical vibrations, that amplifies the amplitude of the vibrations, and at the end, by an end tool (horn), the mechanical vibrations along with the simultaneous application of static pressure, cause friction on the desired (plastic, metal or fabric) surface and the heat produced causes two surfaces to be welded together.

Application:

- ※ In medical industry for sewing spunbond fabrics (production of masks or medical/nursing clothes)
- ※ In medical industry for welding parts that need sealing, such as catheters or serum equipment
- ※ In automotive industry for welding and sealing all kinds of car sensors and lights, dashboard welding, bumpers and plastic parts, welding wires and flats.
- ※ In Computer industry for welding all kinds of copper flats

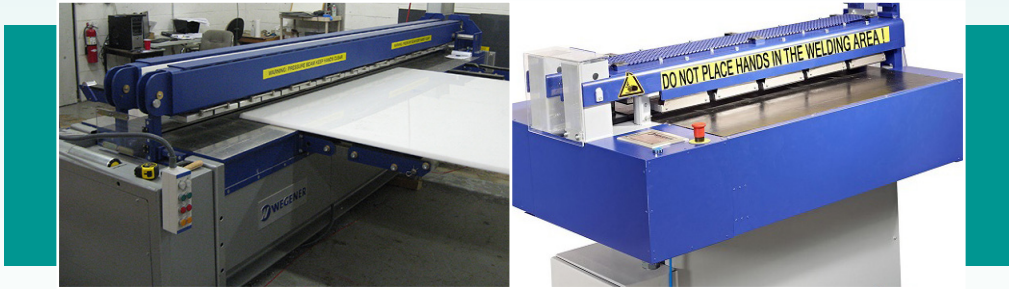
This product is final B2B equipment.

Technical Specifications:

Input voltage	220 V single phase
Operating temperature conditions	-20 to +60 °C
Power	50 – 3000 W
Dimensions	60 × 60 × 180 cm
Device weight	200 kg

Advantages:

- ※ Very low development cost
- ※ Low energy consumption



Application:

Plastic industries for gluing (welding) plastic parts up to dimensions of 900 x 400 mm

➤ **Plastic Welding Machine**

🏠 Nik Pey Tech Co.

www.nikpey.com

Product Introduction:

There are countless uses of plastic in everyday life. From toy manufacturing to medical industries, everyone has parts that are made of plastic. Plastic parts are often used in all fields. Plastic has malleability, good resistance to pressure and high resistance to corrosion. Plastics are divided into two categories, thermoset and thermoplastic. In these two groups, only thermoplastics are weldable. Molded thermosets can no longer be deformed by applying heat; But the thermoplastic group can be softened and reshaped by heat. For this purpose, plastic welding can be done on them. For this purpose, a plastic welding machine is used.

Founded:

2018

This product is final B2B equipment.

Technical Specifications:

Movements of the machine	No-load movement by three-phase AC motors Movement with pressure by pneumatic jacks
Thermal plate power	4000 watts
Controller	Embedded controller touch screen

Advantages:

- * Using the in-house controller
- * Using the in-house industrial IO board
- * Using in-house advanced light curtains



➤ Ultrasonic Welding Machine

◆ ALFA (Afarinesh Lavazem Fany Alborz) Co.

www.alfapower.ir



Product Introduction:

The ultrasonic welding machine is a product developed by this company, which is designed and produced by using a piezoelectric transducer, an ultrasonic power source, and by adding a mechanism, which applies force to the workpiece. This product is widely used in the industry for welding plastics.

In welding with the help of ultrasonic waves, the parts are heated and connected due to the applied mechanical vibrations and friction between the surfaces.

Founded:

2014

Application:

Welding plastic parts used in various industries (for example, in automobile manufacturing)

This product is final B2B equipment.

Technical Specifications:

Input power	Single phase, 220 V 50 Hz
Power	2000 W
Voltage	0 – 1500 V
Current	0 – 2 amps
Frequency	15 – 35 kHz

Advantages:

- * Having a technology for detecting and tracking the resonant frequency of an electrically variable load due to mechanical loading; Temperature and changes in material properties
- * Using force, power and displacement parameters in evaluating proper weld formation
- * Creating a software interface for the power source to monitor the welding force, power and displacement of the transducer collar.
- * Having a lower price compared to similar products



Application:

- * Welding different plastic parts together
- * Connecting the edge of valved masks
- * Connecting the ear loops of valved masks
- * Connecting elastic to the body of all types of face masks
- * Connecting handles in Spunbond bags

➤ Ultrasonic Welding and Sewing Machines

◆ Atin Machine Parsian Co.

www.atinmachine.ir



Product Introduction:

Using the vibrations created by the ultrasonic transducer, this machine has the ability to connect different small and medium-sized plastic parts to each other. In this machine, the ultrasonic generator increases the frequency and voltage of the city electricity and transfers it to the transducer, which is a vibration transducer. The transducer is placed along the pneumatic jack and the desired design or fixture for welding is installed on the leveling plate. The desired parts are placed on the positioning fixture, and by pressing two push buttons simultaneously, the pneumatic system operates and the horn presses the transducer on the desired parts.

In the other model of this machine, the ultrasonic transducer is placed under the table and the desired design for welding (mandrel) is placed on the pneumatic jackshaft and on the upper side of the table. The desired parts are placed on the ultrasonic horn for connection, and by pressing the foot pedal of the mandrel, the pneumatic jack puts pressure on the parts so that the connection operation takes place. In these machines, the desired design for welding or cutting is machined on a roller and rotates on the horn so that the desired design is welded or cut on the plastic fabric.

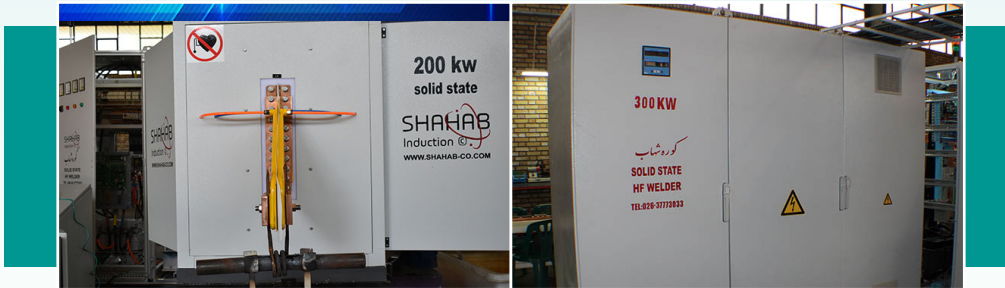
Founded:

2019

This product is final B2B equipment.

Technical Specifications:

Frequency conversion	50-60 kHz to 20 kHz
Power	In normal/idle mode: 100 W In Operating mode: up to 1000 W
System Temperature	Up to 130-140 °C
Device time for each strike	0.2 seconds



➤ Induction Welding Seam Machine from 200 to 800 kW

◆ Shahab Industrial Co.

www.shahab-co.com

SHAHAB
Induction

Product Introduction:

The production of welded seam pipes or high frequency induction welding is one of the methods of steel pipe production that takes place in a continuous process of forming, high frequency induction welding, sizing, cutting as well as packaging and applying non-destructive and destructive tests. It is worth mentioning that the hot steel sheets are entered into the factory in the form of rolls and after being cut, they enter the production lines. The two cut steel sheets are brought together by the horizontal and vertical rollers of the forming machine in several stages, and in the welding stage, their edges are welded together with the high frequency induction welding machine.

After that, the pipe enters the sizing section, passing through several rollers and crack heads and becoming the desired product, it is cut to the specified dimensions in the cutting section, and if necessary, after performing the required tests, it is packed and ready for delivery.

Main Export Destinations:

Iraq

Export History:

Up to 500,000 \$

Founded:

1997

Application:

Production of all kinds of steel profiles in pipe and profile factories

This product is final B2B equipment.

Technical Specifications:

200 kW Machine	
Input specifications	Input: 380V-AC Ampere: 350A-AC
Output specifications	Input: 440V-DC Ampere: 450A-DC
300 kW Machine	
Input specifications	Input: 380V-AC Ampere: 525A-AC
Output specifications	Input: 440V-DC Ampere: 675A-DC
600 kW Machine	
Input specifications	Input: 380V-AC Ampere: 1050A-AC
Output specifications	Input: 440V-DC Ampere: 1400A-DC

Advantages:

- * Reducing the dimensions of the device along with increasing the output power
- * Lower price compared to similar products

International Standards or Permissions:

- * Quality certificate
- * ISO 9001: 2008
- * ISO 14001: 2004
- * OHSAS 1800:1 2007
- * CE standard



Application:
Solid state welding

➤ Electromagnetic Pulse Welding System

◆ Pulse Niru Co.

www.pulseniru.com



Product Introduction:

Magnetic pulse welding is a solid state welding process that uses magnetic forces to weld two workpieces together. This product is a surface welding system of non-homogeneous metals (aluminum and magnesium) that is done using electromagnetic force, which is similar to the forming process. In fact, the Eddy current is discharged at the target point (target piece). Eddy current plus the field causes the Lawrence force, which in turn, causes the part get supersonic speed and the two parts are mixed together. The product has a control system and emergency discharge capability. High spark gap, Coulomb capacitor bank, charge control circuit and magnetic coil are the components of this product. The position of the coil, part, and mold toward each other determines the different working modes of the device.

Founded:

2005

This product is final B2B equipment.

Technical Specifications:

Total energy	20 kJ
Charging voltage	8 kV
Current peak	50 kA
Discharge frequency	50 kHz

Advantages:

- * Reduction of welding time
- * Production of millions of parts in a short period of time



Application:

Connecting and welding very small metal parts together

➤ **Micro Spot Welder**

◆ Tebyan Afzar Hakim Co.

www.tebyanmed.com



Product Introduction:

Spot welding is one of the types of welding based on electrical resistance, which is used for spot welding all kinds of metal parts. In this type of welding, a positive electrode and a negative electrode are connected to two parts that need to be welded together, and the two parts are brought together as much as possible by exerting sufficient pressure. After applying pressure, a strong pulsed (electric) current flows between the positive and negative electrodes in a short period of time, and the heat produced by the resistance of the metal to the electric current causes the metal to melt and connect the two surfaces in a small point. By controlling the amount of electric current, voltage, frequency and pulse shape, it is possible to control the welding process and distortions of the welding site.

Compared to other types of welding, such as laser welding and pulsed arc welding, in spot welding, the energy applied to the welding area can be very low. In this way, by using spot welding, it is possible to connect heat-sensitive parts with minimal damage. Also, concentrating the energy in one point and establishing a point connection in this type of welding significantly reduces the distortions that usually occur during the welding process.

Founded:

2013

This product is final B2B equipment.

Technical Specifications:

Input power	220 V
Main power supply	AC-DC power converter with 12V voltage output and 20A current output
Control board	Arduino Mega 2560
Adjusting the charging voltage of the capacitor bank	from 0 - 60 volts on the electronic board



➤ Hybrid Friction Welding Machine

◆ Fartak Amiran Co.

Product Introduction:

The use of copper-aluminum joints is inevitable in some industries due to its unique properties, including high electrical conductivity, heat transfer, corrosion resistance, and mechanical properties. If an aluminum or copper cable lug is used to connect an aluminum cable to a copper BusBar, or if aluminum or copper connectors are used to connect an aluminum cable to a copper cable, as a result of the connection of two dissimilar metals, oxidation (corrosion) occurs at the connection point. And in a short time it leads to energy waste or disconnection. Therefore, in order to prevent the formation of a galvanic cell and, as a result, the corrosion and destruction of the aluminum part of the connection, copper-aluminum bimetallic connections are used these days, which is a very cost-effective solution.

Due to the high difference in the melting point of these two metals, it is not possible to connect them through fusion welding, and in order to connect these two metals, friction welding is used. Friction welding process is used in the conventional production processes of this product, which is used in other manufacturing companies. This company succeeded in using the Hybrid Friction Welding process in the production of this part with fundamental changes in the implementation of this process during the research and development process in many years.

Founded:

2017

Application:

Medium pressure and high pressure power industries in the distribution network

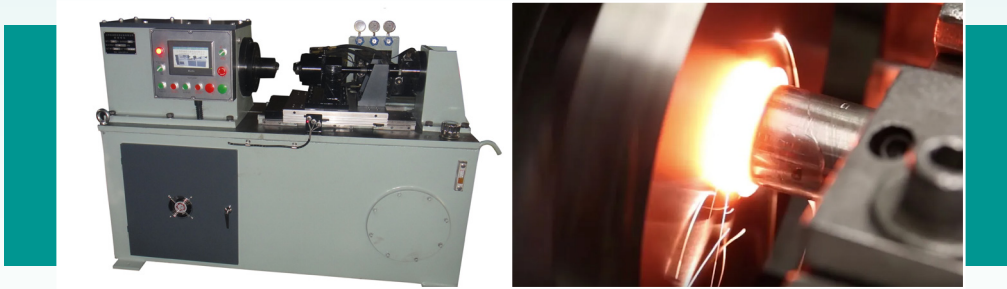
This product is final B2B equipment.

Technical Specifications:

Maximum working force	118 kilonewtons
The maximum speed of the machine spindle	2000 rpm
Main engine power	20 horsepower

International Standards or Permissions:

- * AWS B4.0:2016 test
- * ASTM E8-E8M test
- * CEI IEC 61238-1 standard



Application:

Solid state welding and joining of two metals, especially dissimilar metals

➤ Intelligent Friction Welding Machine

◆ Farsan Teb Fanavar Parsian Co.

Product Introduction:

The friction welding machine provides the ability to connect metals, including two dissimilar metals, by using the friction during rotation and forge pressure. This machine is designed to suggest welding parameters for a connection with an intelligent system. The components of the device include the following:

- * **Table and structure and mechanical system:** This part, which is welded and machined for the installation of other parts, includes the jaws and equipment necessary for the rotation and strength of the machine.
- * **Electric system and motor:** including three-phase electromotor, magnetic brake according to the power of the motor, electrical panel including motor driver inverter and brake resistor for quick stop.
- * **Hydraulic system:** which includes cylinder, pump, valve, oil tank, and piping necessary to create pressure
- * **Controller system:** including PLC automation hardware and software, HMI monitor, valve, proportional board, and transmitter, which is responsible for controlling pressure, speed, time, and other welding parameters at different moments.

Founded:

2016

This product is final B2B equipment.

Technical Specifications:

Machine dimensions	0.5 × 1 × 1.5 meters
Number of part clamping jaws	2 pcs
Ability to apply pressure	up to more than 200 bar
Cross-sectional diameter	50 mm
Spinning ability	1400 rpm

Advantages:

Lower price compared to similar products



➤ Fully Automatic Argon Welding Machine

for Shaped Welds Inside Wellhead Valves in Oil and Gas Industries with The Ability to Control The Distance Between The Torch And The Part

◆ Poshesh Joosh Co.

Product Introduction:

Argon welding (TIG) has replaced laser welding in this machine. To perform the welding operation, the operator adjusts the information of the welding location by means of the control panel of the machine and installs the welding wire spool according to the required coating material and directs the torch to the position of the welding hole and detects the centering of the torch by touching the inside of the hole. After the operator reviews the placing and alignment, it gives the start command.

Founded:

2015

Application:

Shaped Welds Inside Wellhead Valves in Oil and Gas Industries

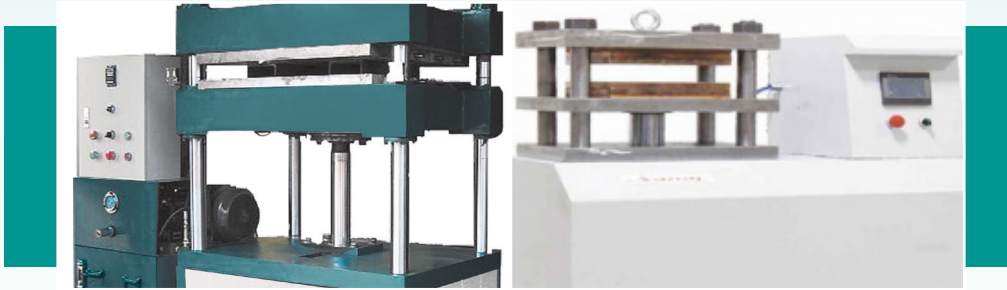
This product is final B2B equipment.

Technical Specifications:

Device chassis material	Grooved aluminum profiles
Modules used in the device panels	24V DC power supply Central processor Output relays Controller of servo motors Stepper motor Pneumatic steering valves

Advantages:

- ※ Lower cost compared to similar products
- ※ Creating a welding penetration control method in thin sheets with the help of argon welding software



Hot Press Machine

Sanaf Ariya Co.

www.sanaf.com

Sanaf
Future Technology

Product Introduction:

This machine is used for producing plastic plates from granules and rubber plates from compounds, in such a way that tensile, impact and bending test samples can be obtained from plastic plates, and tensile, tearing, HDT-vicat, etc., test samples from rubber plates. This machine is offered in two capacities: 50 tons automatic and 30 tons manual.

Main Export Destinations:

Turkey, Oman, Turkmenistan, Azerbaijan, Uzbekistan

Export History:

Up to 500,000 \$

Founded:

2002

Application:

Producing plastic plates from granules and rubber plates from compounds

This product is final B2B equipment.

Technical Specifications:

- * PLC controller system
- * Ability to apply temperature up to 250°C and equipped with PID controller
- * Ability to apply pressure up to 50 bar
- * Having K type thermocouple
- * Ability to display pressure and temperature
- * Equipped with a micro switch to limit the range of movement

Advantages:

- * Equipped with cooling (system)
- * Equipped with hydraulic system to apply the power of the machine



➤ Mechanical Transfer Press

◆ Khavar Press Co.

www.khavarpress.com



Product Introduction:

Transfer presses are widely used in various industries. In these presses, by combining progressive dies for the production of a part and transferring it from one station to another by the transfer system, in order to produce a part with different procedures, that one (multi-stage) part can be produced with each press stroke. Instead of using multiple presses, multiple molds, and multiple operators, it can use one transfer press, one transfer mold, and one operator to produce a part. This machine makes it possible to consolidate the pressing processes for the production of parts in one machine. In other words, instead of gathering a number of presses and feeding each press from the product of the previous press, it is possible to carry out this operation with a much lower cost and less error by using an appropriate number of stations in a transfer press. Each station installed in this press is in fact a separate press and after conducting the pressing process, the part created by the mechanical mechanism is transferred to the next station to continue following the required processes until finally after passing the required stations based on the production process of that part, the final product is removed from the machine.

Founded:

2007

Application:

Providing the main body of products of various industries such as:

- * Automotive manufacturing
- * Fittings
- * Food industry
- * Military industry

This product is final B2B equipment.

Technical Specifications:

Approximate total weight	9000 kg
Approximate required floor space	5000 x 4000 mm
Sliding pressure	200 kN (kilonewtons)
Work capacity	1600 Nm

Advantages:

- * Less energy consumption
- * Higher production speed
- * Less space required



➤ Floating-Mandrel Indirect Extrusion Machine

◆ Alumfa Co.

www.falum.ir



Product Introduction:

Metal Extrusion is the process of forming metals through a mold with a certain cross-sectional area. This is done by cold, hot, direct, indirect, and impact extrusion methods. By using mechanical or hydraulic press pressure, the part that is extruded is driven out of the machine. The reduction of production costs and producing sections with complex shapes are among the advantages of extrusion. The design, mold, extrusion ratio or coefficient, the temperature of the lubrication billet and the extrusion speed are the factors that affect the quality of the work. The type of metal and its thickness are among the factors that should be taken into consideration before doing the work; alloys, steel, aluminum, brass and copper can be formed by extrusion method. Fragile metals are not suitable for this process. The thickness of the section in aluminum extrusion should be at least one millimeter and for steel section should be 3 mm.

Founded:

2016

Application:

In architectural, construction, commercial, industrial, aviation and military industries

This product is final B2B equipment.

Technical Specifications:

Approximate weight	10 tons
Machine capacity	450 tons
Pressure	220 bar
Main piston diameter	42 cm

Advantages:

Using floating mandrel simultaneously and applying pressure in reverse



➤ Cold Isostatic Pressing Machine

◆ Khala Poushan Felez (KPF) Co.

www.kpfvt.com



Product Introduction:

Cold isostatic press is a device that is used to uniformly compress metal, plastic and ceramic powders and turn them into usable parts. This press is a high pressure process and is suitable for parts that need high pressure to form and reach high density. The fluid used in this device is a combination of stainless water and oil. In order to shape the required parts using a cold isostatic press machine, suitable molds must be used. These molds are flexible and prevent fluid from entering the powder. Cold isostatic press includes three main parts: compressor, tank and control circuit.

This process is mostly used to produce parts with complex shapes and to achieve parts with very high density. In fact, in normal pressing methods, pressure is applied in two directions, which causes the lack of access to the equal distribution of density. Using isostatic presses, it is possible to pressurize the part equally from all directions and produce a part with better mechanical properties. K CIP 303 isostatic press is an oil and piston-operated one, the basis of which is to apply force on the oil chamber and accordingly, the oil pressure inside the chamber increases.

Founded:

2011

Application:

Compressing metal, plastic and ceramic powders uniformly and turning them into pieces

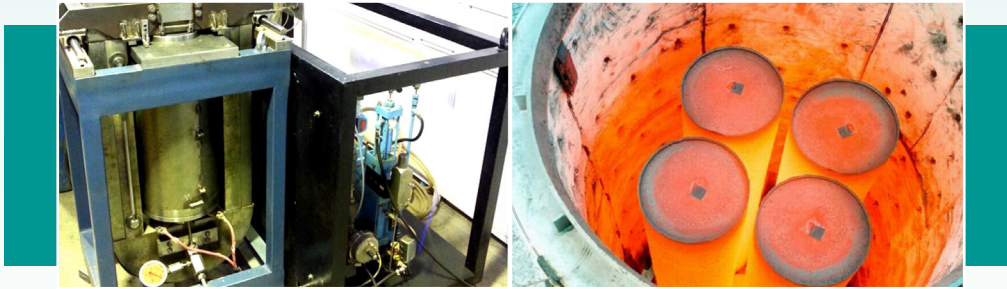
This product is final B2B equipment.

Technical Specifications:

Pressure chamber dimensions	Diameter: 30 mm Height: 120 mm
Type of isostatic press	piston
Ultimate pressure	300 MPa (3000 bar)
Total weight of the device	620 kg

Advantages:

- * Touch screen system with the ability to draw graphs and the ability to save and retrieve information
- * PLC central controller system with necessary protections



➤ Hot Isostatic Pressing Machine

◆ Ati Sanat Paad Co.

www.paad-co.com



Product Introduction:

Hot isostatic pressing is a production or finishing process that is used to reduce porosity, fix structural defects including micro-cracks, and increase the density of many metal and ceramic materials. Hot isostatic pressing increases the mechanical properties and efficiency of materials.

Since the process is carried out under pressure and high temperature, there is a possibility of chemical reaction of the part with the gases inside the chamber. Therefore, the operation is performed using an inert gas (usually argon). The pressure inside the tank is usually between 100 MPa and 300 MPa, and its temperature rises between 1000 and 2000 °C. Since the part inside the tank is subjected to the same pressure from all directions (isostatic pressure), as a result, the part will not change its shape.

Founded:

2014

Application:

Aerospace, medical, energy, additive manufacturing and all kinds of casting and powder metallurgy industries

This product is final B2B equipment.

Technical Specifications:

The dimensions of the press chamber	Diameter: 8 cm Height: 15 cm
working pressure	1000 bar
Operating temperature	1000 °C

Advantages:

- * Reducing maintenance costs due to improvement of mechanical properties and strength and fatigue life of materials
- * Reducing fuel consumption and improving system efficiency



Application:

Producing parts for various industries such as military, automotive, household appliances and photography

➤ **Servo Press-Fine-Blanking Press**

◆ Andishe Pajuohan Sharif Co.



Product Introduction:

The use of press and mandrel and matrix system is one of the conventional methods of producing parts from sheets. Hydraulic presses are widely used in the parts manufacturing industry. Servo hydraulic presses can be called the newer generation of these types of presses. As their name suggests, in these presses, servo-electric motors are used as a source of power generation, and through them, it is possible to control the position and the moving speed of the press more accurately, and this possibility is realized by using control systems.

The product under review is a hydraulic servo press for fine cutting of metals, which is produced in different models of 80, 160, 250 and 500 tons and a table with dimensions of 600 x 600 mm.

Founded:

1911

This product is final B2B equipment.

Technical Specifications:

Press speed	230 to 300 mm/s
Cutting speed	10 to 50 mm/s
Accuracy	0.1 mm
Ram course	0 - 20 tons adjustable with a speed of 130 mm/s



► PBT Hydraulic Plasma Stone Crusher

◆ Sadra Atiyeh Mahour Co.

www.samhightech.ir



Product Introduction:

The hydraulic plasma stone crusher is a new method based on the use of plasma and electrical energy discharge for stone extraction in open mines and tunnels. This method is one of the developing methods in the field of extraction. Some of its advantages are reducing the environmental effects, reducing the production of toxic gases, removing legal obstacles in the use of explosives with insensitive materials and with less dangerous maintenance, controlled destruction and higher energy efficiency. This device is offered in cartridge and probe format; Also, in stone crushing applications with very cheap materials and without any energy-generating and chemical substances and a shot of energy discharge, and using only bio-friendly and clean electrical energy, it makes it possible to break stones with dimensions of 1-2 square meters.

Founded:

2019

Application:

- * Crushing large rock pieces
- * Crushing the concrete foundations of buildings inside the city in the form of controlled demolition
- * Controlled demolition for unloading building parts in earthquakes and difficult places
- * Open mine demolition operation
- * Controlled demolition operations in the tunnel

This product is final B2B equipment.

Technical Specifications:

Maximum output power	2 GW
Maximum current	150 kA
Maximum voltage	22 kV
Maximum energy	36 kJ
Maximum power consumption	2200 watts

Advantages:

- * Achieving the controlled stimulation method of insensitive and safe energetic materials
- * Three switches operable at the same time for the simultaneous explosion of wire and gap
- * Solving the mechanical problems of the load and probe system and the transmission path



➤ Vacuum and Atmospheric Homogenizer Mixer

◆ Arkan Felez Industrial Co.

www.arkanfelez.com



Product Introduction:

The vacuum homogenizer mixer is a homogenizer, mixer, and spreader system used in the food, cosmetic, pharmaceutical, and chemical industries. This combination of technology conducts effective homogenization with the highest reproducibility and ease in a short period of time and cost-effectively. Thanks to the various configurations, robust design for different production conditions, as well as aligning the design with the latest developments and demands, a system has been designed that meets all market needs.

Founded:

1984

Application:

Producing emulsions and suspensions used in food, cosmetic, pharmaceutical and chemical industries

This product is final B2B equipment.

Technical Specifications:

Size of tanks	8-25-50-125-300-500-700-1000-1300-1800-2000-2400 liters
Applications	Dispersion, homogenization and simultaneous emulsion
Pumps	<ul style="list-style-type: none"> ※ Homogenizer pump with different powers according to the volume of the tank ※ Vacuum pump and vacuum sensor to maintain the vacuum until the end of the production process inside the homogenizer mixer

Advantages:

- ※ Programmable parameters for reliable repeatability in all production processes
- ※ Short production time through rapid emulsion formation and rapid absorption of large volumes of dry materials
- ※ Minimum time required for cleaning and low cost maintenance in order to have an optimal relationship between cost, resource deployment and performance
- ※ Having Sight Glass
- ※ Having an all-steel circulation and discharge mechanism
- ※ Having a dedicated electrical panel



➤ Turbo Mixer

◆ Amin Asia Fanavar Pars Co.

www.amin-asia.com



Product Introduction:

The Turbula mixer is used for homogeneous mixing of all kinds of powdery substances in dry and wet state, with different particle sizes and densities. The mixing container rotates in a space orbital motion which makes it possible to homogenize materials in three directions, which in turn, results in high quality mixtures in a minimum of time.

Founded:

2014

Application:

- * Mixing both dry and wet materials
- * Mixing materials, especially when they are of different densities
- * Mixing materials with different particle sizes

This product is final B2B equipment.

Technical Specifications:

Motor	0.18 kW
Speed setting system	0 - 100 rpm
Capacity	2 liters
Input power	220V single phase

Advantages:

- * Lower price compared to similar products
- * Speed and uniformity of motion
- * Warranty and after-sales service

International Standards or Permissions:

CE

**Application:**

Pharmaceutical, food, etc. industry

➤ Magnetic Stirrer

◆ Sepahan Magnet Co.

www.semag.ir

**Product Introduction:**

A magnetic mixer or stirrer is used for the homogenization of various materials, especially pharmaceuticals and food (without physical contact between the drive motor and the propeller inside the tank), so that the material inside the tank is completely disconnected from the outside of the tank, and unlike previous mixers, no contamination will enter the tank. This device is very suitable for reactors and tanks under high pressure and temperature. The system of this stirrer is similar to the magnetic coupling and it is installed only instead of the inner shaft of its propeller. It should be mentioned that the rotor and the propeller in this system do not have any physical contact with each other and this power transmission is in such a way that the propeller and flange are fixed and its bearing are welded to the container from the inside and right opposite of it, the outer part is also welded to the container. The power transfer is done only by creating a magnetic field.

Founded:

2011

*This product is final B2B equipment.***Technical Specifications:**

Transmissible nominal torque	52 Nm
Maximum operating temperature	about 80 degrees Celsius
Maximum operating speed	RPM500

Advantages:

Lower price compared to similar products



Application:

- * Intensifying the reactions and performance of catalysts in the chemical industry
- * Improving the electroplating process and maintaining the composition of the electroplating solution homogeneous
- * Separating Nano materials from each other
- * Cell alteration for analysis
- * Homogenizing materials
- * Oil extraction from plants
- * To disperse and homogenize in the pharmaceutical industry

➤ **Ultrasonic Homogenizer**

◆ AVA Teks Co.



Product Introduction:

Ultrasonic homogenizer is a device to convert an electric current into a mechanical vibration that causes homogenization of the solution. This device works by creating strong pressure waves in a liquid medium. Pressure waves cause flow in the liquid and cause cavitation under the right conditions. The bursting of the bubbles produces a shock wave with enough energy to break the covalent bond. The shearing force resulting from the bubble explosion as well as the turbulent currents caused by the acoustic vibration are used to homogenize and destroy the cell.

Founded:
2015

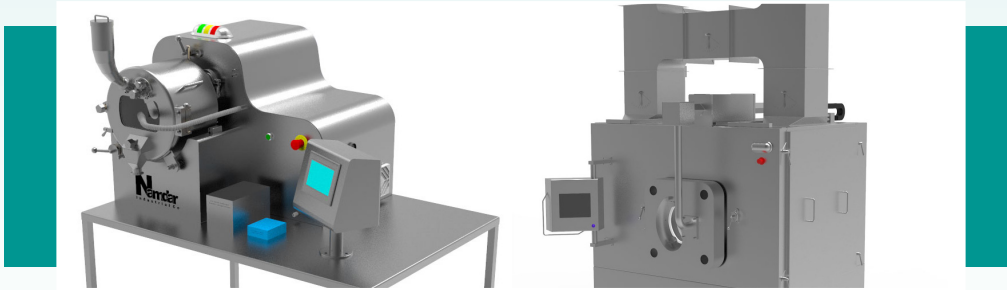
This product is final B2B equipment.

Technical Specifications:

Input	Urban electricity
Output	Powers of 500, 1000 and 200 watts and frequency of 20 kHz

Advantages:

Lower price compared to similar products



➤ Automatic Tablet Coating Line

◆ Namdar Industrial Co.

www.namdarco.com

Namdar

Product Introduction:

This system is used to implement the tablet coating process. The coating of medicinal tablets is done for various reasons, the most important of which is to determine in which part of the digestive system the medicine is digested. It is also used to cover the unpleasant taste, smell and color of the pill. The production of anti-cancer drugs, considering the risks of these drugs, can be done in this device due to the closure of the coating process.

After the air enters the air conditioning system, the incoming air passes through several stages of filtration and is heated by the steam coil. Warm and clean air is transferred to the main part by the inlet channels and simultaneously sprays the solution on the tablets and dries the paint on it. Then, the air stained with paint dust leaves the outlet channel and reaches the dust collector. At this stage, the air dust is taken by the filters of this device, then the clean air is removed from the system by the suction fan.

Founded:

2000

Application:

Implementation of tablet coating process in pharmaceutical companies

This product is final B2B equipment.

Technical Specifications:

Total power of the device	18 kW
Coating accuracy	from 30 to 70 microns with a weight criterion of 3 to 5% of tablet weight
Operating temperature range	15 - 80 °C
Operating pressure	0 - 6 bar
Machine capacity	50 - 150 kg

Advantages:

- * Lower price compared to similar products
- * Using anti-dust spray gun

International Standards or Permissions:

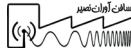
- * ISO 12100 : 2010 – CE
- * ISO 9001: 2008



➤ Atmospheric Plasma DBD Generator

◆ Basafan Engineering Co.

www.basafan.com



Product Introduction:

This system uses the dielectric barrier method, which is a form of gas discharge by placing a barrier in the discharge region and produces cold plasma effectively. Adjusting the frequency and range of applied fields to electrodes to achieve a fully uniform plasma, as well as the ability to adjust the processing time are some of its features. The DBD plasma system made by Basafan Company is capable of working at atmospheric pressure as well as the ability to work at pressure lower than atmosphere (vacuum mode), which can produce more favorable and controlled results in many processes.

These characteristics make this type of plasma a highly effective and useful tool in the fields of medicine, biotechnology, printing and packaging industries, agriculture, chemistry, polymer, and so on. The dielectric barrier plasma can be produced in the high voltage range by using two electrodes, one of which is coated with a dielectric layer, and the distance between the two electrodes is several millimeters. The existence of a dielectric barrier limits the flow and lowers the plasma temperature.

Founded:

2011

Application:

The fields of medicine, biotechnology, printing and packaging industries, agriculture, chemistry, polymer and textile and increasing the absorption efficiency of textile dyes and...

This product is final B2B equipment.

Technical Specifications:

- * Adjustable voltage from 0 to 20 kV peak to peak
- * Voltage and frequency display
- * Having a gas inlet and a gas outlet as an exhaust

Advantages:

- * Customized atmospheric plasma production with the input of any arbitrary gas that must be combined with argon gas
- * Possibility of adding vacuum mode upon the customer's order
- * Completely uniform plasma production.
- * Equipped with arc management system and current limiting protection circuit



➤ Corona Print

◆ Jam Pelasma Tech Co.

www.jam-plasmatech.com



Product Introduction:

The Corona Print device is a new generation of spark ignition systems; Using plasma technology, it can produce a more uniform and high-quality effect in the field of printing and packaging. Using ceramic electrodes, this device can create uniform processing on polymers, plastics and metal rolls. As a result of plasma processing, the surface of polymers, plastics and metal rolls is changed in Nano dimensions and hydroxyl and oxygen chemical materials remain on the surface, which can increase the surface energy and enable a better bond between the paint and the surface. This product can process rolls with a width of 40 cm to 3 meters at a speed of 0 to 200 meters per minute.

Electrons, ions and active particles in plasma eliminate the pollution on the surface by bombarding the surface of polymer and plastic materials. Then the created active materials such as hydroxyl and carboxyl increase the surface energy of the surfaces. This increase in surface energy makes the surfaces hydrophilic and printable.

Founded:

2015

Application:

- * Increasing the ability to print and label on polymers, plastics and metal rolls
- * Increasing the surface energy of polymers, plastics and metal rolls
- * Processing PP and PS polymers at a speed of 10 to 200 meters per minute
- * Processing all types of metallizers and laminates at a speed of 10 to 200 meters per minute
- * Removing glue industry primers

This product is final B2B equipment.

Technical Specifications:

Processing dimensions	45 cm
Device dimensions	840 × 250 × 500 mm
Material of rollers	Stainless steel
Weight	70 kg

Advantages:

- * High speed processing technology
- * Plasma temperature determination technology by Optical Emission Spectroscopy method
- * Effective air suction technology processed in plasma and not releasing it into space



Application:

Direct printing on all kinds of fabrics, carpets and similar textiles

➤ Direct Textile Printing Machine

◆ Parto Abi Sanat Co.

Product Introduction:

Textile printing machines usually print in two general ways. The first method is the direct printing on the fabric, which uses special colors depending on the type and material of the fabric. The second method is printing on fabric with a sublimation printing machine. Sublimation printing machine has two separate but interdependent parts. First, the printing is done on special sublimation paper, and then the printed design is imprinted on the fabric during the pressing and heating stages.

The direct fabric printing machine with blanket technology has the capability of digital printing directly on all types of fabric, carpets and rugs (with low lint) in roll form. With the direct printing method, limitations such as the type of fabric and the need to wash for printing are eliminated.

Founded:

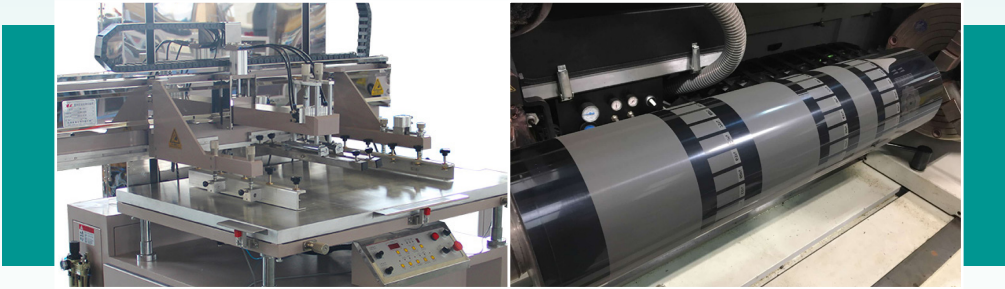
2018

This product is final B2B equipment.

Technical Specifications:

Different parts of the product:

- * **Mechanical part:** body and chassis, roll opening system, input tension control system, fabric movement system in the X axis, thermal roller, conveyor, output tension system, roll collector system, radiation drying system, head movement control system in the Y axis
- * **Electronics and control section:** negative pressure control system, head washing system, head height adjustment system, control panel and electronically controlled heads
- * **Software:** Rip software (RIP) for threading a photo and sending the file as a thread to the printing machine and control software under different systems of the device



6-Color Cylindrical Screen Printing Machine

Batik Machinery Co.

www.batikmachinery.ir



Product Introduction:

Cylindrical fabric printing machine made by RayaRasam Company has the ability to print on all types of fabric up to 6 colors. Also, due to the redesign and innovations, working with this machine is very simple.

In RayaRasam printing machine, instead of using three-phase AC motors and mechanical gearboxes, which are very difficult to adjust the reports, forcing the user to go through trial and error process to the make use of reports manually using a meter, which is the reason that causes a lot of fabric damage. In order to operate each of the printing cylinders independently, the machine is equipped with a Servo motor, all of which are controlled and coordinated by PLC and Servo drive.

Founded:

2019

Application:

Printing on all kinds of fabrics

This product is final B2B equipment.

Technical Specifications:

Power consumption of the printing machine	12 kW
Dryer speed	adjustable from 0 to 60 m/min
Print speed	0 to 60 m/min adjustable
Dryer type	gas

Advantages:

- * Automatic adjustment of reports (patterns) with micrometer accuracy
- * Very low energy consumption even when using the full capacity of the device
- * Pneumatic control of rubber rollers

Second Chapter

Production Lines



2nd CHAPTER

First Chapter

Second Chapter

Third Chapter

Production Lines

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Food, Pharmaceutical and Health Industries ○

Chemical, Polymer and Paper Industries ○

Metal Industries ○

Construction Industries ○

Automotive Industry ○



➤ Glass Lined Equipment and Reglass Lining Services

Including All Types of Glass Lined Reactors, Glass Lined Storage Tanks, Glass Lined Heat Exchangers, Glass Lined Columns, Glass Lined Pipes & Fittings, Glass Lined Valves

◆ Shimi Azar Jam Co.

www.azarj.com



Product Introduction:

In the industry, the issue of corrosion protection and increasing the service life of equipment is of utmost importance. When equipment suffer from corrosion, it in turns causes the production loss and incur the costs of repairs and reproducing of the equipment. As the base metal of various parts, iron alloys are always at risk of corrosion and rusting. The glass glaze that is applied on a metal base (usually steel) is called metal glaze or glass lined. Due to its non-crystalline (amorphous) structure, glass is one of the most resistant materials against all kinds of corrosive environments, in a way that its chemical resistance is comparable to special and expensive alloys such as titanium, tantalum, etc. Metallic glazes are designed to achieve special properties such as resistance to atmospheric and liquid corrosion and resistance to heat and thermal shock.

Main Export Destinations:

◆ India

Export History:

Up to 500,000 \$

Founded:

2010

Application:

Corrosion protection and increasing the sevice life of equipment

This product is final B2B equipment.

Technical Specifications:

Working environment temperature	between -20°C and 220°C in acidic environments
Surface smoothness	0.08 μm
Compressive strength	0.01- 8 GPa

Advantages:

- * High surface smoothness
- * Ability to withstand pressure
- * Not having catalytic properties
- * High cleaning ability
- * High wear resistance



➤ Industrial Fluidized Bed Coater FBC for Pharmaceutical Pellets

◆ Part Darou Alvand Co.



Product Introduction:

FBC (Fluidized Bed Coater) is a device used for coating and drying pellets used in the pharmaceutical industry. This device is generally in the form of a large chamber through which the air flow passes and the powder inside the tank is suspended in the air. When the powder is suspended, the coating material is sprayed on the powder by a spray nozzle with an adjustable capacity between 4 and 10 liters per minute. This nozzle has two air inlets and coating materials. Coating materials are transferred to the nozzle head through a peristaltic pump.

Application:

Coating and drying pellets used in the pharmaceutical industry

This product is final B2B equipment.

Technical Specifications:

Volume capacity inside the tank	300 liters
Tank weight	100 kg
Centrifugal fan capacity	6000 CFM
Centrifuge motor	18 kW

Advantages:

Creating a proper flow of materials inside the machine in order to properly coat the pellets



Application:

Drying food, fruits, etc.

➤ **Freeze Dryer**
with 95% Humidity Reduction

◆ Royeshgar Co.

www.royeshgar.com



Product Introduction:

Due to maintaining the better quality of the materials, the freeze drying method which is applied by the freeze dryer for drying food, fruits, etc. are preferred to the usual drying methods (such as thermal drying). Currently, freeze-drying technology in reduced pressure (near vacuum state) is the advanced technology of drying process in the world. Compared to the conventional drying method, the freeze-dried food produced by lyophilizer has long-term quality assurance, the nature of re-hydration, good color, good aroma, good taste are high content of nutrients of the dried food, which basically remains unchanged and in terms of volume And the shape looks spongy and doesn't shrink. Lyophilization and freeze drying are terms that are equivalent depending on the industry and the place where the drying takes place. The working principles of freeze dryers are based on the freezing the water in the material and then undergoing the process of sublimation of ice resulting from freezing in the reduced pressure below the triple point of water, ice and water vapor.

Founded:

2012

This product is final B2B equipment.

Technical Specifications:

Temperature range	-30 to -40 °C
Air pressure	Decrease to below 10 Pascal
1 st phase drying temperature	-10 to +5 °C
2 nd phase drying temperature	+5 to +25 °C



Application:

Production of three-layer surgical masks

➤ Three-Layer Mask Production Line

◆ Arsham Machine Farzam Co.

www.arshammachine.com



Product Introduction:

The three-layer mask production machine consists of two sets of machines, the first one produces the body of the mask and the second machine performs the sewing of it. The body forming machine puts three or four layers of fabric on top of each other and after folding and placing the wire on the nose, it sews and cuts. Then the body of the produced mask is placed in the stretching machine and the elastic is cut to a specific size and attached to the body. Needless to say that fabrics and elastic are sewn by ultrasonic machines.

Main Export Destinations:

Iraq

Export History:

Up to 500,000 \$

Founded:

2011

This product is final B2B equipment.

Technical Specifications:

Sewing module	ultrasonic
Voltage	220 V Single phase
Chassis type	Anodized aluminum Chassis
Display	7.0" touchscreen display
Controller	PLC Delta



➤ Design & Implementation of Paper Production Line Through Recycling

◆ Shimi Pajouhesh Sanat Co.

www.shimipajouheshsanat.com



Product Introduction:

During the last few decades, the use of wastepaper to produce all kinds of paper products has been growing and has been raised as a necessity in the world. Therefore, in most countries, due to the increase in per capita consumption of paper, the growing shortage of wood and forest cellulose resources, the need for investment to create new wood and paper complexes, and the environmental problems caused by such complexes, the development of the cellulose fiber recycling industry from waste paper has been inevitable. The process of preparing and producing paper through recycling generally consists of two main parts: pulp preparation process and paper machining process. The pulp preparation process is carried out on waste of old corrugated container (OCC) and includes stages and devices such as pulping, coarse screen, fine screen, refining and dilution. In addition, the paper machining process is carried out on the output pulp from the pulp preparation process and includes parts and devices such as wet terminal, finishing, cutting or packaging and pulping while cutting.

Application:

Paper recycling

This product is final B2B equipment.

Main Export Destinations:

Turkey, Afghanistan

Export History:

Between 1,000,000 - 10,000,000 \$

Founded:

1998



Industrial Machinery

Knowledge-Based Products and Equipment



➤ Automatic Thermal Paper Roll Slitting Machine

◆ Tavan Machine Pouya Co.

www.tmmachine.ir

TM

Product Introduction:

This slitting machine with automatic system can produce small rolls with adjustable width and length, and cut all kinds of paper. These rolls are mostly used in ATM-POS devices. Their production capacity is different depending on their model. The models of this device manufactured by the company are:

- ※ **Model S63 and S62 slitting machine:** It is a semi-automatic system that is suitable for cutting and producing POS and ATM rolls, calculators and all kinds of small rolls. The production rate of this machine in an 8-hour shift is 8000 rolls.
- ※ **Model S84 slitting machine with automatic system:** which enables economical and industrial production with one operator. Other features of this machine include the ability to produce small rolls with adjustable widths and lengths, cutting all kinds of paper, aluminum foil, and all kinds of polymer layers. The production capacity of this model is 15,000 rolls in an 8-hour shift.

Founded:

2013

Application:

- ※ Semi-automatic cutting of writing paper, thermal paper and film
- ※ In ATM, POS, laboratory rolls, cash register rolls, etc.

This product is final B2B equipment.

Technical Specifications:

Specifications of the S84 machine	
Effective width	110 cm
TM air brake capacity	600 Nm
Input roll diameter	105 cm
Output roll diameter	27 cm
Maximum machine speed	250 meters per minute

Advantages:

- ※ Automatic traction control system
- ※ Equipped with 6 caliper pneumatic brakes
- ※ Electronic speed control
- ※ Roll feeding hydraulic system



Application:
Printing Machines

➤ Toner Production Line

◆ Samaneh Pooy-e Shargh (Aster Toner) Co.

www.astertoner.ir



Product Introduction:

Toner is a powder that is used to print documents, images, etc. in photocopiers, printers, fax machines, and so forth. The current product consists of all machines, devices and connections between them, which includes a complete line for toner production.

Founded:

2003

This product is final B2B equipment.

Technical Specifications:

The particle size of toner powder should be between 7 and 15 microns. The toner ingredients are:

- ※ Resin
- ※ Pigment (carbon black or metal oxides of iron, cobalt, etc.)
- ※ Low melting point wax
- ※ Titanium dioxide
- ※ Etc.

Advantages:

- ※ Lower price compared to similar products
- ※ Vibrant color of copied or printed texts and images
- ※ Texts and images are not easily erased
- ※ High durability
- ※ High adhesion to paper



➤ Automatic Pipe (Pipe Welding) and Profile Production Line

◆ Foulad Gostar Hadad Co.

www.fooladgostar.com



Product Introduction:

The production method of welded seam pipes and profile is similar and they differ in the way of shaping. These products become close to the final dimensions with the help of cold forming and reach the desired size after welding. In the pipe and profile production line, cold rolling and induction welding are used to produce pipes and profiles with different sizes from 1.5 to 12 inches. The pipe and profile production line has different units of cutting, strip feeding, guillotine, welding part at the top and bottom of the strip, warehouse, forming, which consists of two parts, the primary shaper and the final shaper, the two edge welding part of the profile, machining, cooling, sizing with 4 to 6 gates, bending and twisting, cutting with an automatic saw and finally the discharge table.

Founded:

2007

Application:

Production of welded seam pipes and profiles

This product is final B2B equipment.

Technical Specifications:

Forming section	<ul style="list-style-type: none"> * Size: from 1 to 12 inches * Production speed: 65 meters per minute * NC cutting accuracy: 1 mm
Capacitor	<ul style="list-style-type: none"> * Diameter: 6 meters * Amount of sheet storage: 30 working minutes
Seam welding machine	<ul style="list-style-type: none"> * Power: between 200-400 KW * Frequency: 300 kHz



➤ Design, Supply, Manufacture and Implementation of the GRP Pipes Production Machine | by the Method of Continuous Winding of CFW Fibers

◆ Farabard Sakht Dalin Co.

www.farabard.ir



Product Introduction:

Currently, GRP pipes play a very important role in the water transmission industry, and these pipes have gained a good position in Iran in recent years. The machine uses a very powerful electric motor and gearbox to provide the torque and power required for a high-tonnage pipe. The machine is fully automatic and the coordination of the production process, baking, production speed control, and pouring material and resin into the mold is controlled by PLC. The pipes produced with raw materials of polyester and vinyl ester resins plus glass fibers and silica sand are continuously produced on the mold of the machine and transferred out of the machine for cutting.

Founded:

2017

Application:

Water transfer industry

This product is final B2B equipment.

Technical Specifications:

Diameter	300 - 4000 mm
Stiffness	2500 - 20000 pascal
Operating pressure	1 - 100 bar
The length of the pipes	12 meters

Advantages:

- * Intelligent control of volume measurement and heating of tanks
- * Real-time reporting by provided software



➤ Plastic Injection Molding Machine

◆ Parsian Plastic Prosses Machines MFG. Co.

www.parsian-ppm.com



Product Introduction:

Injection molding machine, which is also known as molding press, is a device for producing plastic products by injection molding process. Injection molding is the most practical production process for making all kinds of plastic parts. A wide variety of products are produced using this method, which differ from each other in terms of size, complexity and application. In the process of plastic injection, a variety of plastic compounds such as polycarbonate, polystyrene, polyethylene, polypropylene, polyvinyl chloride, acrylic and Teflon are used to produce the final product. Injection molding machines consist of feeding hopper, spiral injection drill and thermal unit. The molds are locked in the clamp plates of the machine and then the plastic is produced from the sprue opening to the inner mold and the injection piece. Injection machines are categorized in different tonnages depending on the amount of applied force of their clamping plates.

Founded:

2015

Application:

Producing plastic products by injection molding process

This product is final B2B equipment.

Technical Specifications:

Injection Machine 250/100	* Dimensions inside the bars: 350 × 350 * Maximum injection weight: 270 gr
Injection Machine 620/200	* Dimensions inside the bars: 505 × 505 * Maximum injection weight: 603 gr
Injection Machine 1100/320	* Dimensions inside the bars: 660 × 660 * Maximum injection weight: 1230 gr
Model A injection machine	* Dimensions inside the bars: 820 × 820 * Maximum injection weight: 2300 gr
Plastic injection machine 3200/800	* Maximum injection weight: 4300 gr
Plastic injection machine 12300/1300	* Dimensions inside the bars: 1250 × 1250 * Maximum injection weight: 8880 gr



➤ Rubber Injection Molding Machine

◆ Fan Baspar Sepahan Co.

www.fanbaspar.com



Product Introduction:

This machine is used to produce rubber parts. In these machines, first, the rubber is processed in the rolling and roller machine and the relevant additives are added to it, so that the baking conditions are prepared; Then it is inserted into the cylinder of the machine in the form of a strip and the spiral of the machine makes it completely mixed and homogenized under controlled temperature. After that, it pours it into the injection cylinder. After the mold is locked, the rubber material, which is in the form of a paste, is injected into the mold with high pressure. Then, by heating under the control of the PLC system, the rubber material is cured, and after the curing time, the mold is opened and the part is removed.

Founded:

2011

Application:

Production of all kinds of auto rubber parts and military industrial parts

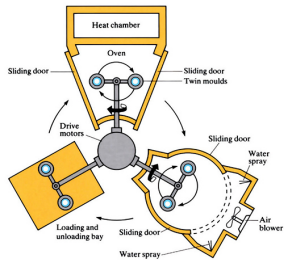
This product is final B2B equipment.

Technical Specifications:

Clamp lock tonnage	from 160 to 350 tons
Rubber injection volume	1600 to 2500 cc

Advantages:

- ※ Lower price compared to similar products
- ※ Ability to install various options
- ※ Having higher injection ability and higher speed than similar products

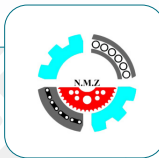


Application:

Making various parts, including plastic boats, plastic tubs, industrial trash cans, water tanks, play huts, entertainment equipment for green spaces, etc.

➤ **Rotational Molding Machine**
for Hollow Polyethylene Products

◆ Novin Mechanic Zogh Co.



Product Introduction:

Rotational molding machine is one of the types of rotary molding process furnaces that can produce bulky plastic products. According to the desired polyethylene product, a certain amount of material is placed inside the mold. The mold rotates around two axes and enters the furnace. During the rotation of the mold, heat is transferred through the furnace and the polyethylene material melts and sticks to the walls of the mold and forms.

The machine includes furnace, furnace door, wagon transporting arm and mold, direction and power transmission mechanism that has movement around two axes, engine and gearbox to provide power for the movement of wagons, rotation of the mold, opening and closing of the furnace door, etc. , holding structure, cooling fan, suction fan, mobile crane, switchboard, inverter, current timer to schedule the movement of the arms according to the type of production, microswitches for the safety of the device and control panel.

Founded:
2019

This product is final B2B equipment.

Technical Specifications:

Water tanker production	up to 5000 liters
Production time of a 5000 liter tanker	40 minutes
Furnace temperature	up to 300 degrees Celsius



➤ Plastic Net Making Machine

◆ Arka Fidar Plast Co.

Product Introduction:

The working mechanism of this machine is such that the polymer granules enter the single-spiral mardon from the hopper, and after melting, they enter the semicircular molds of the machine from the end of the mardon. These molds are rotated in opposite directions with the help of two or one electromotor and a gearbox, and the created molten polymer threads by passing through these molds are connected to each other and form a net. Next, the created net enters the cold water pool, and then, after being cut, it is opened as a sheet in one direction and passes through the nip rolls. It is worth mentioning that the mesh strength, thickness and size of the mesh networks can be adjusted by controlling the rotation speed of the molds and the rotation speed of the nip rolls. At the end, the gatherer collects the created net.

Founded:

2017

Application:

Making nets and plastic fences

This product is final B2B equipment.

Technical Specifications:

Operating temperature	200 °C
Capacity	Depending on the type of net to be produced, from 4 kg per hour to 60 kg per hour

Advantages:

Modern and Simple design with lower depreciation compared to similar products



➤ Polypropylene Woven Bag Cutting and Sewing Machine

◆ Azim Industrial Group (Mehr Electronic)

www.azim-group.com

AZIM
Industrial Group

Product Introduction:

In the process of producing polypropylene woven bags, after the production of the roll, usually in the phase of converting the roll into a bag with the required dimensions, before the production of this machine, the production process goes through troublesome and difficult phases until final product is manufactured. After the production of this machine, which is actually a 2- and 4-axis robot; The process of completing the bag has changed significantly and in a word, the roll entered into this in-line structure, it is printed, gusseted, cut, sewn and baled completely and fully automatically.

Founded:

2020

Application:

Cutting and sewing polypropylene woven bags

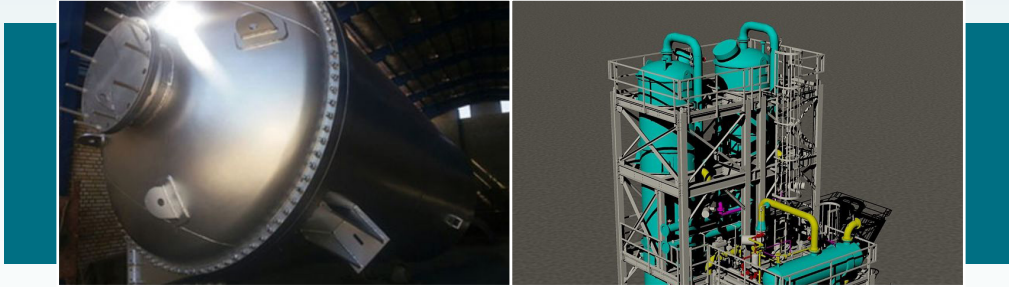
This product is final B2B equipment.

Technical Specifications:

Additional car dimensions	12.5 x 4.7 meters
Maximum allowed roll diameter	1500 mm
Allowed bag width	300 to 800 mm
Allowed width of the printing plate	200 to 600 mm

Advantages:

- ✦ The ability to print all kinds of bag sizes without changing the cylinder
- ✦ Ability to add similar printing to produce multi-color printing
- ✦ Having a bag perforating unit
- ✦ Ability to adjust gusset depth



➤ Designing and Manufacturing Advanced Ethanol Dehydration Equipment

◆ Fara Tech Co.

www.faratechco.ir



Product Introduction:

This product includes the design of the processes and the manufacturing of all the equipment needed to dehydrate ethanol and bring its purity from 96% to about 99.5% and above using the process of adsorption with alternating pressure. This product includes the following components:

- * **Absorption and disposal column:** In order to absorb water and then dispose of it from the absorbent
- * **Boiler feed heat exchanger:** This exchanger is used to prepare the temperature conditions of the feed to enter the absorption stage.
- * **Condenser:** It is used to liquefy the obtained product in the vapor phase.
- * **Super heater heat exchanger:** It is used to bring the tower feed up to the supersaturated temperature.

The designed package is used to produce fuel grade ethanol. It is also used by making changes and modifications in other gas phase separations, such as H₂S separation from the return flows of hydrocracking units, etc.

Application:

- * Production of fuel grade ethanol
- * Gas phase separation such as H₂S separation from the return flows of hydrocracking units etc.

This product is final B2B equipment.

Founded:

2003

Industrial Machinery



Knowledge-Based Products and Equipment

**Application:**

Production of nanofibers on an industrial scale

➤ Industrial Electrospinning Machine without Nozzle

◆ Nanozistsanaat Ahoora Co.

www.nanozistsanaat.ir

**Product Introduction:**

The electrospinning process is one of the simplest and most diverse methods of producing all kinds of nanofiber structures, such as hollow, core-shell, and porous nanofibers with a uniform diameter. This method is similar to the commercial production of microfibers with the mechanical spinning method, except for the creating electrostatic repulsion between surface charges instead of shear or (mechanical) force to continuously reduce the diameter of the viscoelastic jet. Compared to spinning, mechanical electrostatic spinning or electrospinning has the ability to produce fibers with a smaller diameter. The electrospinning process is very similar to the electrostatic or electro spraying process. In both of these methods, high voltage is used to form a liquid jet.

Founded:

2018

This product is final B2B equipment.

Technical Specifications:

Machine internal temperature	90 - 100 °C with the ability to control with HMI
Injection speed	4500 ml/hour for P.P mask media and PAN fibers
The number of spinning wires	It has two drums in the form of two wires and two automatic nozzles with reciprocating movement across the machine.
Chassis material	iron sheet with furnace color

Advantages:

Manufacturing voltage sources and unique design of the device for producing uniform fibers



➤ Automatic Electrospinner

Model: ESPINER NF CO

◆ Yoshita Co.

www.yoshitaco.com

YOSHITA
يوشيتا

Product Introduction:

Electrospinning is one of the most suitable and popular industrial methods in the production of polymer nanofibers from suspension solutions (polymer precursor). In some ways, this method is very similar to its more conventional type, namely Dry Spinning, in which, like the extrusion process, the polymer precursor is injected into a die (spinner), so that after the solvent evaporates, they turn into polymer filaments and fibers. However, there is an important difference in the electrospinning method. Since the goal is to produce fine polymer fibers (micrometer to nanometer in diameter), the spinning unit must consist of a capillary tube to produce a narrow stream of polymer precursor solution (less than 1 mm diameter). Another difference is the application of a high potential difference (several tens of kV) to the spinning unit, which causes the polarized solution to be absorbed by the electric field.

Founded:

2012

Application:

Various fields, especially medical, pharmaceutical and cosmetics fields, industrial fields including defense and security, separation and filtration, chemical, paint and coating, textile, oil, gas and petrochemical, aerospace, automotive, construction, food, information and communication technology, energy production and storage and optimization of energy consumption, nanocomposite and carbon nanofibers, various biological and chemical sensors, fields related to biotechnology, environment, agriculture, etc.

This product is final B2B equipment.

Technical Specifications:

Machine production volume	* Maximum: 2.5 kg per hour * Normal: 80-100 grams per hour
Cover, body and chassis	metal
Power supply	variable in different models from 20 to 35 kV with tolerance below 1 kV in different ranges



Application:
carpet weaving

➤ 3D Weaving Machine for Any type of knot and Design

◆ Tabi Bita Co.

Product Introduction:

This machine is an old (gunne) loom that has been added with equipment and mechanisms to mechanize it to tie all kinds of knots and create carpets with different designs. One of the differences between conventional machine-woven carpets and the carpet woven by this machine is that it is not knotted in machine-made carpets, however, this machine can tying all kinds of conventional knots in hand-woven carpets in a mechanized way and much faster than humans. In order to achieve this goal, the machine has been designed and built as a result of a research and development work that has various versions in the company. A knotting part has been added to it which can be called the heart of this machine. Choosing a simple, accurate and reliable mechanism is the most important feature of this part, which fully restrains the thread in three-dimensional space and moves its two ends to reach the desired knot. Catching and releasing the thread to tie each knot is controlled by a stepper motor, and four stepper motors are responsible for moving the thread in the x and y directions (two motors in each direction). It should be noted that x and y movements are independent of each other.

This product is final B2B equipment.

Advantages:

- ※ Innovation and novelty
- ※ Ability to be industrialized
- ※ Product competitiveness (affordability)



Application:

Melting of aluminum ingots and scraps

➤ **Aluminium Melting Furnace**

🏠 Navard Aluminum MFG. Group

www.navardaluminum.com



Product Introduction:

Aluminum, like iron, is one of the abundant metals in the earth's crust and can be extracted from minerals and ores. This beautiful metal has capabilities and features that have made it known and popular as a widely used metal in large and small industries. Aluminum is extracted through the electrolysis method. It should be noted that this metal can be reused and recycled like iron. To prepare aluminum metal, like metals such as iron, smelting furnaces are needed to extract it from ores and purify aluminum. However, the furnaces used for melting and processing different metals are not the same and have differences. In the case of aluminum, we can mention several different furnaces, each of which works in a way to extract and produce aluminum and may use different fuel. These furnaces include: waste recycling and melting furnaces, alloying furnaces, and casting furnaces.

Main Export Destinations:

Turkmenistan, Iraq

Export History:

Between 1,000,000 - 10,000,000 \$

Founded:

1972

This product is final B2B equipment.

Technical Specifications:

Main Incoming Charge	1000 pound peaks with 99 purity
Capacity	20 tons of melt
Number of gas burners	2



➤ Vacuum Induction Melting Furnace (VIM)

♣ Arta Javid Asia Co.



Product Introduction:

The induction method is one of the most widely used methods used in advanced materials industries and laboratories, which is employed for alloying and producing precision casting parts. Vacuum Induction melting systems with VIF (Vacuum Induction Furnace) and in general VIM (Vacuum Induction Melting) have many engineering applications in the industry.

Founded:

2014

Application:

- ✳ Production of pure copper without oxygen to increase electrical conductivity
- ✳ Production of super alloys
- ✳ Production of medical alloys
- ✳ Melting and casting, alloying, precision casting of super alloys (turbine parts such as blades and discs), melting of advanced alloys, degassing, heat treatment, brazing

This product is final B2B equipment.

Technical Specifications:

Ability to charge during melting	melting temperature up to 1800 degrees and up to 40 kg of melt
Body material	316 steel
Automatic and manual control of power and frequency	up to 70 kW power and 10 kHz frequency

Advantages:

- ✳ Equipped with a pressure relief valve (PRV)
- ✳ The ability to melt under a special gas atmosphere
- ✳ Equipped with rotary, roots and diffusion pumps



➤ Magnesium Ingot Production Line

🏠 Rahavard Mg Parsian Co.

www.rahavard-mg.ir

Product Introduction:

This process is used to convert magnesium scraps into magnesium ingots for alloying and the production of various parts. This line includes a preheat furnace, two melting furnaces, a holding furnace and a billet casting system. Magnesium ingot production process takes place in this line. The preheated furnace of this set is used when the ingot casting process is done from magnesium scraps, and it is not used in the case of ingot casting from pure materials of this furnace.

Founded:

2017

Application:

Converting magnesium scraps into magnesium ingots

This product is final B2B equipment.

Advantages:

- ✦ Production of very clean ingots
- ✦ Non-oxidization and burning of melt
- ✦ Analysis of production ingots according to the customer's request



➤ **Seamed Pipe and Profile Production Line**
by Electrical Resistance Welding (ERW) Up to 24 Inches

◆ Pars Zagros Heavy Machinery (P.Z.M) Co.

www.psrolling.com



Product Introduction:

Seamed profile and pipes are made of strips produced by cutting oiled sheet or black sheet.

In the industry, pipes made by the ERW method are known as hidden seam steel pipes. In this method, the smooth strip of oiled sheet is gradually formed by passing through a set of rounding molds (roll forming) and becomes a hollow cylinder with an open seam.

At the end of this section, the welding machines weld the sheet along the length of the pipe and its seam line after forming of the strip is completed and the two edges of the seam are precisely aligned together.

In the ERW method, welding is done without adding extra sand and filler.

This product is final B2B equipment.

Application:

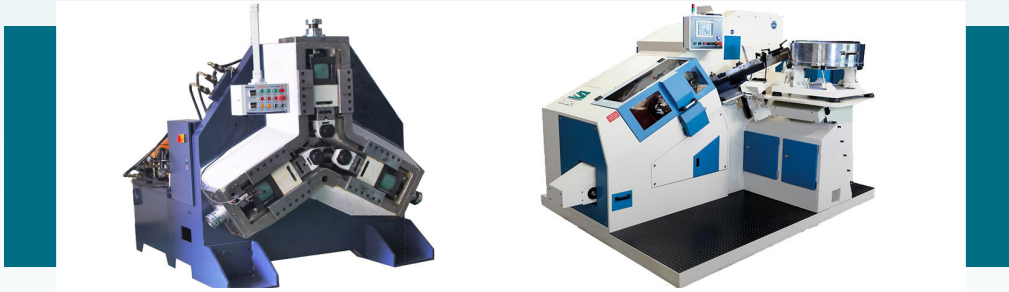
Production of welded seam pipes and steel profiles with square, rectangular and special sections

Founded:

2002



Knowledge-Based Products and Equipment

**Application:**

Linear threading

➤ Thread Rack Rolling Machine

◆ PART SANAT Co.

www.partsanat.com

**Product Introduction:**

Threading is mainly done by the traditional roller method by technicians and manpower, which in addition to the lack of accuracy, the need to repeat the settings of the device in short periods of time, and the dependence of the performance accuracy on the manpower are among the disadvantages of traditional methods. In the automatic threading device of the linear type presented here for threading the piston shaft of the car shock absorber, the device while checking the dimensions of the part is put in place by magnetic clamps, and threading is done by moving in the vertical direction of the linear threader. The designed and developed device has the main parts of the part dimension measurement set, the part moving set, the part placement set in the center of the threading jaws, the oil injection system and the controller system.

Founded:

2013

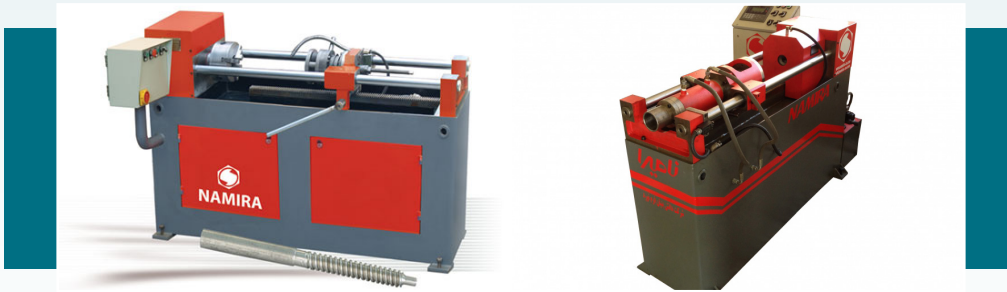
This product is final B2B equipment.

Technical Specifications:

Threading capacity	120,000 piston rods per month
Measurement accuracy of the piston part	2 μm tolerance
Threading accuracy	0.6G

Advantages:

- ✧ Ability to thread with high precision
- ✧ The ability to separate incompatible parts produced in the previous process by a laser device
- ✧ Capable of linear threading with two movable jaws
- ✧ No need for human intervention and operator, automatic production



Application:

- * Construction
- * Shed construction
- * Workshop expenses

➤ Automatic Rolling Machine

🏠 Namira Co.

www.namira-co.com



Product Introduction:

The Namira two-roller screw rolling machine is used to produce all kinds of precision screws from 4 to 40 mm in diameter with unlimited length and threads with different diameters, pitches and profiles (by changing the rollers), as well as creating spline and various spirals by cold rolling method. In this machine, the workpiece is placed between two rotating rollers without needing to be clamped by hand or robot, and the thread profile is created and completed by applying pressure on it (up to 70 tons of force). This machine has the ability to fully thread the screw up to the last tooth. The Namira two-roller screw rolling machine is produced in two types, automatic and semi-automatic, which in both types, the amount of force applied to the screw, the roller reciprocating speed, and the threading speed can be adjusted through the PLC and touch HMI system. The main components of this machine are: chassis, gearbox, rolling body (axles, rollers, rails, support, pressure regulation system), hydraulic system (hydraulic jacks, hydraulic valves), (HMI, PLC) control system and its programming.

Founded:

2010

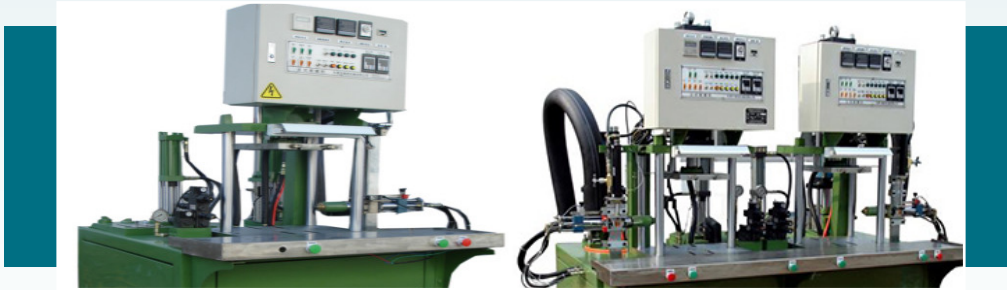
This product is final B2B equipment.

Technical Specifications:

Threading diameter	5 - 50 mm
Thread profile	fine, coarse, trapezoidal in both left-handed and right-handed ways
Accuracy of threading diameter	0.02 mm
Engine power	8 kW
Axis output power	100 kW

Advantages:

Cold rolled



► Dual-Station Wax Injector

◆ Parmida Refractory Ceramic Co.

www.parmidarc.com



Product Introduction:

In the precision casting industry, in order to produce the metal parts, first a wax part is produced by a wax injection machine. The process is that based on the dimensions of the metal part and considering the general contractions, the metal mold is manufactured for injection, and then the wax with temperature and pressure control conditions is injected and the wax part is prepared for covering the ceramic shell. The presented product is a device that is used to inject wax. This machine has 7 main modules including the main body frame, clamp, wax melting, hydraulic module, pneumatic module, injection unit and control unit.

Founded:

2005

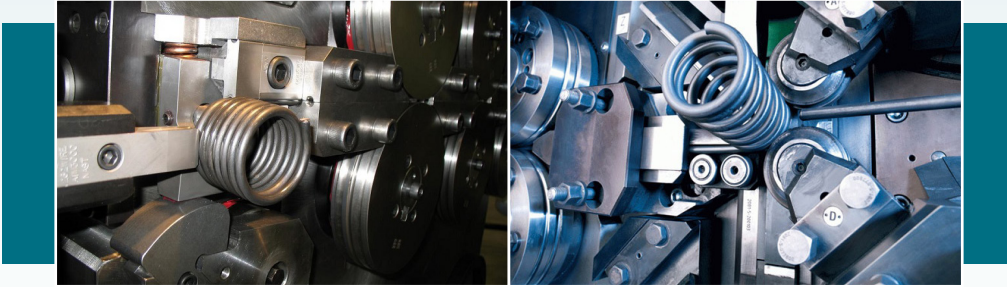
Application:

Producing metal parts in the casting industry

This product is final B2B equipment.

Technical Specifications:

Electric power	15 kW
Clamp material	CK 45
Clamping power	10 tons
Dimensions of the molding table	50 × 50 × 20 cm



Application:

Automatically producing coil springs

➤ Automatic Spring Coiling Machine

◆ Smart Industrial Innovation Company of Bijar

www.bijar.smart.com



Product Introduction:

This product is an automatic spring coiling machine, which consists of mechanical and electrical parts using material engineering technology in the selection of parts with creative systems. Spring forming machines are available in two types: CNC with servo motor and mechanical with electric motor. In smart mechanical systems, given the limitation by the designer and manufacturer, the machine with only one motor forces them to apply several different actions to form the spring wire which in turn, brings forth a lot of creativity. In automatic mechanical machines, maintenance costs are lower than CNC machines, and the price of the spring coiling machine is less, which makes it possible to create a profitable business by using this machine in a small workspace.

This product is final B2B equipment.

Technical Specifications:

Power	1 - 5 kW
Accuracy	0.01 - 0.1 cm
Torque	25 - 100 tons
Operating temperature	-12 to 25°C



➤ Concrete Block Making Machine

◆ Toz Iran Industrial Co.

www.tozmachine.com



Product Introduction:

A concrete block making machine is a device for producing concrete blocks that is used in workshops, buildings and factories. This machine is a mobile machine with hydraulic system. The way this machine works, is that users pour the material on the tray of the block machine with a wheelbarrow, then directed it into the block mold, and fill the block mold with cement and vibrate it at the same time until the material is dense and then hardened. This machine is an equipment with a maximum weight of 5 tons, which by pouring cement material into its tank and moving the machine along the path, it can produce all kinds of different shapes of wall and ceiling cement blocks needed in the construction industry with high production rate and quality.

Main Export Destinations:

Turkey, Oman, Iraq, South Africa

Export History:

Up to 500,000 \$

Founded:

2002

Application:

Making all kinds of wall and ceiling concrete blocks in the construction industry

This product is final B2B equipment.

Technical Specifications:

Feeding tank capacity	1000 kg
Feeding tank height	2010 mm
Machine's dimensions (mm)	Length: 2850 Altitude: 3000 Width: 2338
Required power with maximum vibration during operation	15 kW

Advantages:

- * High production rate
- * Reasonable price compared to similar foreign products

International Standards or Permissions:

- * ISO 9001-2008
- * CE Erupa



Application:

Production of construction beams

➤ Automatic Construction Beam Production Line

◆ Azmoon Neka Co.

This product is final B2B equipment.

Product Introduction:

This product is a construction beam production line. To produce these beams, it is necessary to connect three thick rebars by two thinner rebar strands. This product consists of several modules which include:

- ※ **Uncoiler:** This module is used to uncoil rebars and has a simple mechanism.
- ※ **Rotary:** in the case where the rebars are used as coils, its bending should be removed. For this purpose, the company has used a device called rotary.
- ※ **Straightener:** This module consists of 7 pulleys, which is responsible for guiding the bars before entering the main part of the machine.
- ※ **Front and rear pullers:** This module is used twice in this production line. It is used once at the beginning and once again at the end of the main part of the machine (where welding is done).
- ※ **Hydraulic control board:** In some versions of this production line, hydraulic system is used instead of induction motor in the tractor part.
- ※ **The main part of the machine:** This part is used for welding.
- ※ **Scissors:** This module is used to cut parts of a certain size and divides the beams prepared in the previous section into different parts.
- ※ **Beam mover:** After the prepared beams are sheared, this device is used to remove the beam from the table and drop it on a ramp.
- ※ **Control panel and HMI:** This panel includes PLC, inverter and other essentials of the panel such as power supply, contactor, fuse, etc.

Founded:

2003

Technical Specifications:

It has the following modules:

- ※ Uncoiler
- ※ Rotary
- ※ Straightener
- ※ Front and rear pullers
- ※ Hydraulic control board
- ※ The main part of the machine
- ※ scissors
- ※ Beam mover
- ※ Control panel and HMI



➤ Automatic Fence Net Machine

◆ Pars Baft Golestan Co.

www.pbgco.com



Product Introduction:

The automatic fence netting machine is a type of weaving machine in the field of wire industry, which with a fully automatic process, produces black steel, galvanized steel and PVC-coated galvanized steel fence net with the ability to program length and width measurements. The Machine is equipped with a touch screen in order to enter the length and width dimensions. This machine is manufactured with different configurations in the factory, which have different price tags according to their different capabilities.

Founded:

2013

Application:

- ※ Wire industry companies and metal production lines
- ※ Natural resources and agricultural jihad and petrochemical industry
- ※ Oil fields and military and security regions

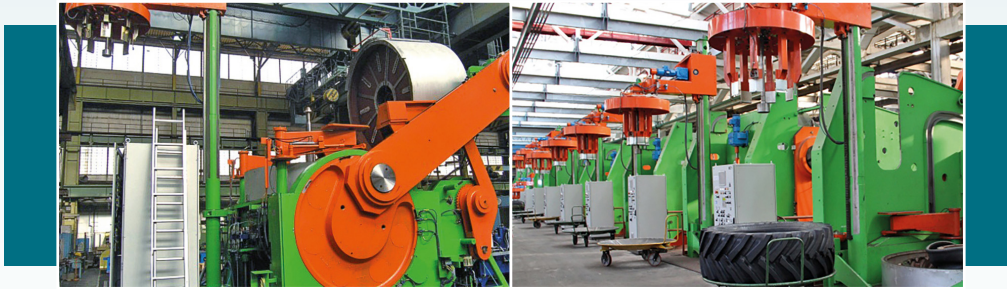
This product is final B2B equipment.

Technical Specifications:

Collection type	rolling
System Mechanism	Electromechanics
Minimum space required	2 × 6 × 6

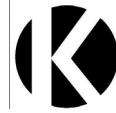
Advantages:

- ※ Easy to use
- ※ Very low sound
- ※ Low power consumption, designed to work with household electricity



➤ Tire Curing and Post Curing Press Machine

◆ KARA GOSTAR Eng Co.



Product Introduction:

The final stage in the production of car tires is its curing stage. The tire curing process is the last stage of tire production in which the tire obtains its final shape and mechanical-dynamic properties, which is the curing or vulcanization stage. Therefore, at this stage, by using the curing materials that are added when mixing the rubber compounds, the tire takes its final shape after being placed in the curing press, and with the heat of the mold and after creating transverse joints in the rubber compounds, it becomes elastic or stretchy. Unlike the majority of chemical industry processes, tire manufacturing is a non-continuous or "scaled" process. In this process, some of the semi-finished materials are made in non-continuous batch processes and are combined together in the next processes to provide the feed for the next continuous and ongoing processes. From this stage onward, the obtained semi-finished materials become separated elements, which are transformed into tires through the process of tire making and curing. In this section, it is very important to use the capacity or, in other words, the high utilization rate of machinery.

Main Export Destinations:

Germany, Russia, The Netherlands, Hungary, Turkey

Export History:

Between 500,000 - 1,000,000 \$

Founded:

1993

Application:

Tire curing

This product is final B2B equipment.

Technical Specifications:

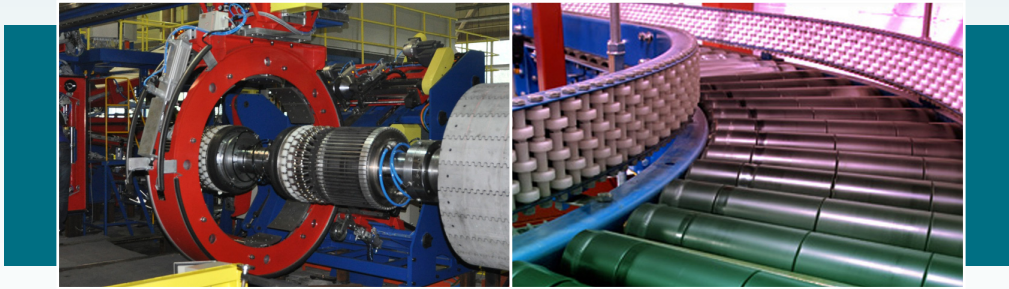
Pressure height from the floor	4600 mm (approx.)
Bottom Plate Surface to Ground (Largest Mold Installed)	1200mm (approx.)
Press width including side protection	3870 mm (approx.)
The maximum height of the loader from the floor level to change the mold	2440 mm (approx.)

Advantages:

Very high dimensional accuracy

International Standards or Permissions:

ISO 9001-2008



Application:

Producing tire in rubber industry

➤ **1st Stage Tire Making Machine**

◆ Novin Fanavaran Neda Co.

www.nfneg.com



Product Introduction:

The 1st stage tire making machine is the main and primary part of the production process of the rubber industry. In this machine, which is also a large equipment, the initial core of the tire is created and in the next steps, the entire structure of the tire is completed. The components of this machine are servicer, concentrators, measuring conveyor, cutting sets, centerlight set, stager bead set, understitcher set, machine head set.

Founded:
2004

This product is final B2B equipment.

Technical Specifications:

Producible tire size	13 to 17 inches
Production time	47 seconds
Number of layer stations	2
Number of Inner Liner stations	1
Air pressure	8 bar



► Hydraulic Steering Gearbox Assembly Line for Pride and Peugeot 206 cars

◆ Paya Fan Ilam Co.

Product Introduction:

The steering gearbox assembly production line consists of 17 devices that are arranged in accordance with the process designs that have been intended for this purpose, all the parts of the steering gearbox have been assembled in order, and the final product is a hydraulic steering gearbox that is ready to be assembled on the car. Initially, All parts are procured as CKD from foreign companies, then the assembly operation and design of the assembly method, as well as the required tests, are performed on these parts in this production line.

Application:

The automotive industry

This product is final B2B equipment.

Technical Specifications:

The assembly and testing devices available in this assembly line are as follows:

- * Two-bar press machine for inserting the pipe into the shell
- * Lubrication device for lubricating inside the shell and pipe
- * Machine for placing the felt bowl on the rack
- * Rack-in-shell insertion device
- * Bush rack assembly device on the shell
- * Press double valve machine
- * Device for closing pressure pipes
- * Leakage testing device
- * Matching machine
- * Yoke and friction adjustment device
- * Oil draining device
- * Ball joint and steering joint fastening device
- * Bracket closing device
- * Device for closing pressure and return pipes and brackets
- * Leakage testing device
- * The final control table of the steering box

Third Chapter

Packaging Lines



3rd CHAPTER

First Chapter

Second Chapter

Third Chapter

Packaging Lines

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Sections

- Packaging ○
- Labeling and Printing ○
- Sorter ○



Application:

Packing and placing different products in half cartons in all food industries and factories with high production capacity.

➤ **Tray Packer**

◆ Bahrevar Machine Alborz Co.

www.bahrevar.com



Product Introduction:

This device is used to place the product in tray cartons. The carton is entered into the machine in a flat form (loaded) and the process of making and shaping the carton is completely done by the machine. The device is equipped with PLC and HMI and the Pick & Place process is performed by the device using designed grippers (vacuum, magnetic or mechanical grippers). The device is equipped with a conveyor belt and a product line, and the automation used in it is advanced which uses different sensors to detect the limits. Using the algorithms written in HMI, the user will be able to pack glass, plastic and metal bottles.

Main Export Destinations:

The UAE

Export History:

Up to 500,000

Founded:

2009

This product is final B2B equipment.

Technical Specifications:

Body material	steel or 304 steel depending on the customer's order
Machine equipment	PLC - HMI
Machine capacity	7 - 14 cartons per machine

Advantages:

- ✦ Lower price compared to similar products
- ✦ After-sales service
- ✦ Reduction of manpower costs



➤ Automatic and Semi-automatic Tray Sealers

◆ West Asia Steel Co.

www.wasi.ir



Product Introduction:

Today, cheap packaging, which comes with modern designs and increased durability, is of special importance for manufacturers. Factories producing food products are looking for simple, economical and fast methods in terms of equipment and materials required for packaging so that they can supply their products with low cost and high quality to the market.

According to the mentioned items, today we see that the use of packaging products in disposable and plastic containers has gained special importance.

In general, the desired containers for product packaging which are obtained from container manufacturing companies are placed inside the tray sealer packaging machine. Once the placing is done, they are packaged either by the MAP method or in a regular simple way. The meaning of packaging in this system is to place and seal (stitch) the film on the container. Of course, before packaging, the machine can execute the MAP method on the product so that the durability of the product can increase by 2 or more times after that.

Main Export Destinations:

Denmark

Export History:

Up to 500,000

Founded:

2012

Application:

Small and medium-scale daily packaging in stores, restaurants (for take-out) and laboratories

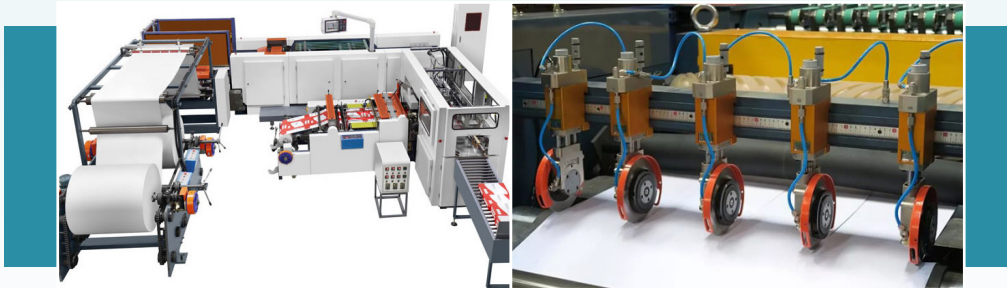
This product is final B2B equipment.

Technical Specifications:

Machine drive system	Electro motor (grade B), servo motor (grade A)
Machine speed	<ul style="list-style-type: none"> * In vacuum system and gas injection packaging mode: 5 to 7 cycles per minute * In simple seal packing mode: 7 to 8 cycles per minute
Mold material	High quality aluminum alloy
Device material	Corrosion-resistant 304 steel body

Advantages:

- * Equipped with precise control systems for more correct operation of the device
- * Having very high quality electronic and pneumatic parts
- * Very low error and precise control
- * Requiring low space
- * Very reasonable price



Application:

A4 paper packaging

➤ **A4 Paper Packaging Machine**

◆ **Sepanta Machine Co.**

www.sepantamachine.com



Product Introduction:

This machine carries out several steps including unrolling, cutting, sheeting and packaging in one machine.

Main Export Destinations:

England, UAE, Republic of Macedonia, Iraq

Export History:

Up to 500,000

Founded:

2006

This product is final B2B equipment.

Technical Specifications:

Ability to open rolls	rolls with a width of 85 and 106 cm up to a diameter of 180 cm
Material of paper transfer belts	Swedish-made Habazit
Packing	inside paper, OPP and cellophane wrappers with hot glue
Capacity	250 packages per hour in a single roll 500 packages per hour in two rolls 700 packages per hour in four rolls

Advantages:

- * Equipped with a hydraulic system with high-quality parts, it is possible to quickly and easily change the rolls by using two electric moving wings
- * Having a sensor for detecting the end of the roll, the possibility of moving the center of the roll while the machine is working
- * With a wrinkle part to improve the quality and increase the accuracy of cutting across the paper
- * Drive system of mechanical and pneumatic device with accurate and reliable performance



➤ Fully Automatic Effervescent Tablet Counter

◆ Naghshejahan Green Machine Co.

www.ngmachine.com

Product Introduction:

The fully automatic effervescent tablet counting, filling and packaging capping machine is designed and manufactured with the aim of counting effervescent tablets, filling them in special plastic tube containers & desiccant stoppers of different sizes, checking the correctness of filling and closing the tubes in compliance with European GMP standards.

Founded:

2012

Application:

Counting, filling and packaging effervescent tablet plastic tube containers in pharmaceutical factories

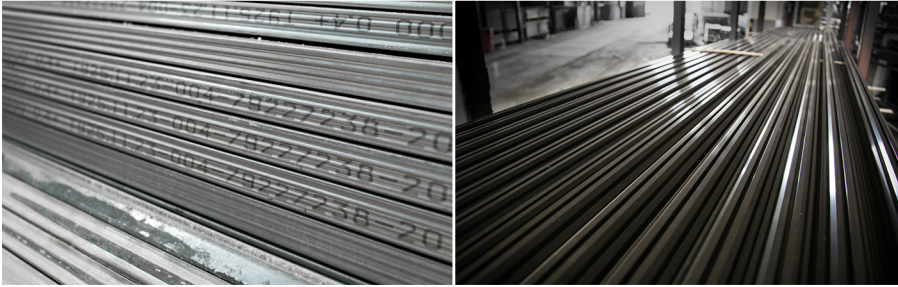
This product is final B2B equipment.

Technical Specifications:

Capacity	24 - 120 cans per minute (according to the number of tablets)
Material of body frame and parts	Stainless steel 304, 316, PA, AL 7000, PU, POM
Tube storage	1500 pcs
Machine weight	850 kg

Advantages:

- * Lower price compared to similar products
- * Product warranty and full after-sales service to the customers



➤ Sheet Packaging Machine

◆ Rasa Sanat Co.

www.rasa-sanat.com



Product Introduction:

The sheet packaging machine consists of 5 main parts, which are:

- * Machine frame (fixed frame and movable frame)
- * Machine mandrel set
- * Machine matrix set
- * Hydraulic units and jacks
- * Machine electrical panel and control

Without any cutting, this machine bends the sheet in adjustable dimensions, in a wide range of length, width and height.

Founded:

2003

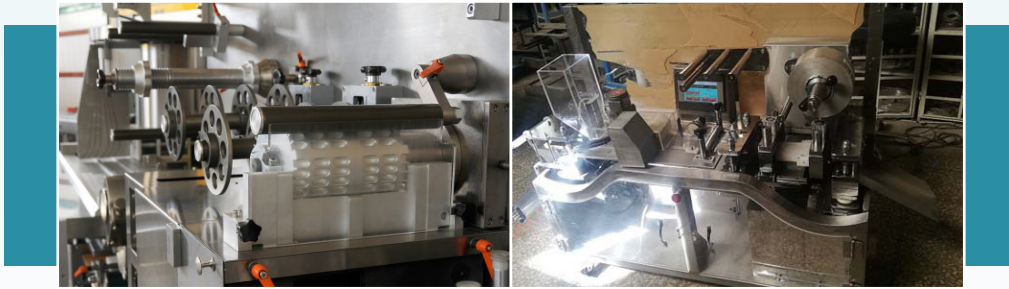
Application:

Making protective covers for cut and sized sheets in thin sheet factories

This product is final B2B equipment.

Advantages:

- * The ability to produce covers in different sizes and depths by one machine and in one step without any cutting of the raw sheet
- * The innovativeness of the sheet bending mechanism and method



► Blister Packing and Filling Machine of all Kinds of Tablets, Capsules, Powder materials, and Ampoule Filling

◆ Gilan Machine Pars Sanat Co.

Product Introduction:

Blister is a type of packaging method for food, medicine and other goods, which is a low-cost and integrated packaging method, where all packaging operations, including making the container, filling the container, sealing the container, are performed in one process and by one machine. One of the advantages of this packaging method is its speed and hygiene due to the lack of human intervention in the processes mentioned above, which is why it is highly favored in the pharmaceutical and food industries. This machine receives the raw PVC sheet in the form of a roll, heats or cools it depending on the desired shape and application, then the bubbles created on the PVC roll are filled with the desired product (pills, capsules, chocolate dragees, etc.). And in the next step, it is covered by aluminum cover or so-called foil, and in the final step, the final shape of the package is obtained by the cutting machine.

Founded:

2014

Application:

Packaging food, medicine and other goods in pharmaceutical and food industries

This product is final B2B equipment.

Technical Specifications:

Power	2 kW
Pressure	from 2 to 6 bar in various processes
Accuracy	0.01 mm for gorse

Advantages:

- * Very high adjustment stability of the machine due to the use of a ballscrew system instead of a crank system
- * Very high precision of PVC and aluminum pullers due to the use of electric valves instead of mechanical valves

International Standards or Permissions:

- * GMP standard
- * European CE standard



Application:

Boxing cream, glue and toothpaste tubes in adhesive & sealants, and pharmaceutical industries

➤ **Cartoning Machine**

◆ Forohar Tisfon Engineering Co.

www.tisfon.ir



Product Introduction:

Cartoning is a type of packaging that can be used in many products. Cartoning machine for products such as food, pharmaceuticals, sanitary materials, etc. plays a very important role in maintaining the quality of materials. Food and pharmaceuticals can use the cartoning system in their packaging to maintain quality in the packaging process.

In general, cartoning is the process of placing a product in a box or carton. This process can be fully automatic or semi-automatic. Automatic cartoning is usually used in products that need to maintain the health and quality of the product. Also, materials or products that must be placed in the box without manual intervention due to hygiene use this system.

Cartoning is the process of placing the product in the package. This type of packaging has different methods.

Main Export Destinations:

Iraq

Export History:

Up to 500,000

Founded:

2014

This product is final B2B equipment.

Technical Specifications:

Coder	embossing coder
Body material	full steel and aluminum
Sealing jacks brand	FESTO

Advantages:

With torque clutch



➤ High Speed Roller Coding Machine

◆ Gashta Sanat Mashhad Co.

www.gashtasanat.com



Product Introduction:

Today, in the packaging industry, there are various standards for printing variable information (production and expiration date, price, manufacturing series, etc.) on product packages. To print this information, the packaging industry needs its own code printing machines and printers; Therefore, in terms of function and structure, the printing machines of the packaging industry have many differences with conventional printing machines and printers, because these machines, in addition to being independent and maintaining the integrity and coordination between their different parts, must be installed and run on a main machine, which is the code printing and packaging machine. Therefore, the structure and geometric shape of the machine as well as the electronic part are very important to be compatible with the commands of the main machine which make them different from other printing devices.

The machine manufactured by "GashtaSanat Mashhad" company is a high-speed thermal contact type roller coder with solid ink, which by using its own stereotypes. can print on all kinds of cellophanes and labels of packaging machines used in the food, detergent and sanitary, medical, pharmaceutical industries. With its unique design and geometric shape, this device can be easily installed on all packaging devices.

Founded:

Application:

All kinds of cellophane and labels for packaging machines used in food, detergent and sanitary, medical, pharmaceutical, etc. industries

This product is final B2B equipment.

Technical Specifications:

Printing speed	350 to 450 pieces per minute
Print length	70 mm
Number of printing lines	11 horizontal lines and 10 vertical lines
Number of letters per line	15 characters
Maximum print dimensions	38 x 70 mm
Ink working temperature	110 to 130 degrees

Advantages:

- * High printing speed
- * No contamination of the machine's ink for the environment
- * Used on all packaging machines due to the type of design and the geometric shape of the parts and the main body



Application:

- * Goldsmithing workshops in fields such as engraving and fine cutting on gold and silver and thin and quality cutting with the least possible waste.
- * Manufacturing industries in fields such as serial number engraving on the product and company logo engraving on the product
- * Wood and plastic industries in the field of engraving on wood and plastic
- * Medical industry and engraving on various tools such as surgical blades and implants

➤ **Laser Engraving Machine**

◆ **Novin Laser Saba (NLS) Co.**

www.novinlasersaba.ir



Product Introduction:

This system is capable of engraving and cutting different materials using a laser. The laser used in this system is a solid state laser using a side pump that is pulsed using the acousto-optic method. In this engraving method, which is also known as the slow burning method, the use of pulse mode has better efficiency and less thermal effects in the engraving area. During the engraving process, using two or three-dimensional scanners, the image is engraved in two or three dimensions, or the desired piece is cut. This system can be used in thin cuts and delicate carvings.

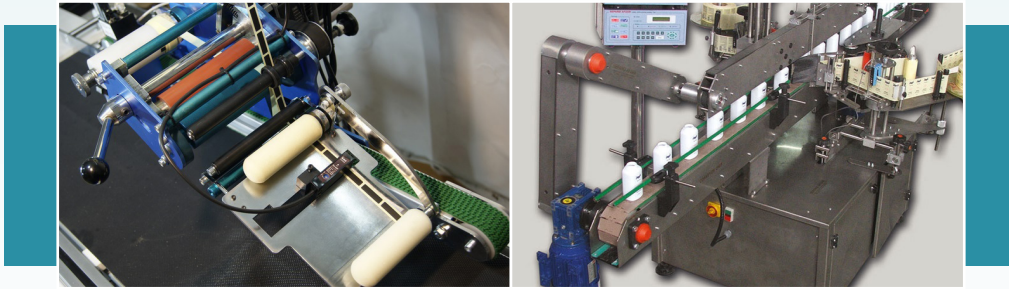
Founded:

2018

This product is final B2B equipment.

Technical Specifications:

Laser type	Laser class, side IV pump, Q-switched, Nd:YAG
Average output power	50 to 80 watts
Wavelength	1064 nm
Pulse width	100 to 150 nanoseconds
Maximum engraving speed	4000 mm/s



Application:

- * Packaging lines in general
- * Production of top-up cards of prepaid SIM cards
- * Production of authenticity labels for health-oriented products
- * Cold holographic lines

➤ Industrial Label Applicator

◆ Rotonix Co.

www.rotonix.ir



Product Introduction:

Label Applicator or Labeling Machine is a device whose task is to label products. The labels used in this machine are rolled and peeled, and the labels are attached to the product from the release liner by the peeler mechanism.

The way this device works is that the labels are placed inside the device as a roll; Then, with the rotational movement of the device and the movement of the desired object on the conveyor system, the roll will be opened and the labels will be placed on the object based on the adjusted distances and locations. The labeling speed of this product is about 4 to 5 labels per second.

Founded:

2014

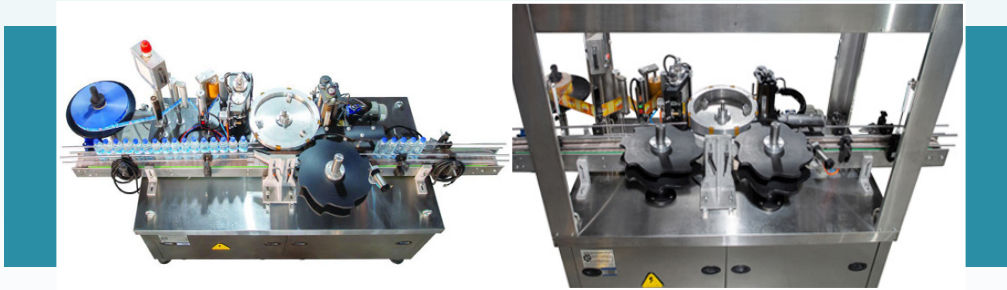
This product is final B2B equipment.

Technical Specifications:

Linear labeling speed	1 m/s (meter per second)
Number of labeling per minute	Up to 300
The maximum diameter of the label roll	300 mm
Minimum label length	10 mm
Maximum label width	120 mm

Advantages:

- * Equipped with a motorized puller with encoder and closed loop control
- * Equipped with a separate motorized opener with adaptive control
- * Equipped with optical and induction sensors



➤ O.P.P Label Applicator

◆ Esfandiar Sanat Karaj Co.

www.esfandiarsanat.com



Product Introduction:

This device is suitable for labeling cylindrical containers made of PET, plastic, metal cans and glass containers. In this machine, hot glue is used and it has the ability to adjust the consumption of minimum glue. The functional mechanism of this device is that at specific time intervals, the label roll is cut to the size of the bottle diameter, one side of the label is coated with glue and labelled on the bottle. By rotating the bottle, the label is wrapped around the bottle and the other end of the label is coated with glue and stuck on the other end of the label.

Founded:

2002

Application:

Labeling cylindrical containers made of PET, plastic, metal cans and glass containers

This product is final B2B equipment.

Technical Specifications:

Engine power	1.5 kW
3-phase electricity	50 Hz
Air pressure	6 to 8 bar
Operating temperature	140 to 180 degrees Celsius
Production capacity	4000 to 16000 labels per hour

Advantages:

- ✧ Very high speed
- ✧ Increasing the accuracy and quality of production, productivity
- ✧ Reducing production costs and product competitiveness
- ✧ Reducing the use of manpower



➤ Product Sorting Machine (Sorter)

Based on Image Processing and Barcode Reading

◆ Brema Co.

Product Introduction:

In mail processes, the classification of manufactured goods, baggage of air travelers and alike, the separation of goods is done based on various factors such as address, weight, etc. Performing these processes manually and by people is slow and may not be error free.

The operation mechanism of this device is that the goods reach the processing system at a suitable distance by the conveyor and according to the need, it separates the packages using barcode reader, weighing, RFID, etc. and the rest of separation operation is done by mechanical mechanisms. This device should have a high speed and perform the separation process according to the need.

Founded:

2003

Application:

Automatic Separation of order packages in processing centers

This product is final B2B equipment.

Technical Specifications:

The different parts of the device are as follows:

- ※ **Input and output conveyors:** Conveyors can be simple or with adjustable speed controlled by the device PLC.
- ※ **Spacer:** In order to process, each product must be entered into the processing system at a certain distance from each other according to the processing speed.
- ※ **Product identification system:** It is the main core of the device that identifies products using barcode readers and image processing.
- ※ **Sorter:** In this part, by using mechanical mechanisms, according to the command of the control system, the goods are directed to the desired output.

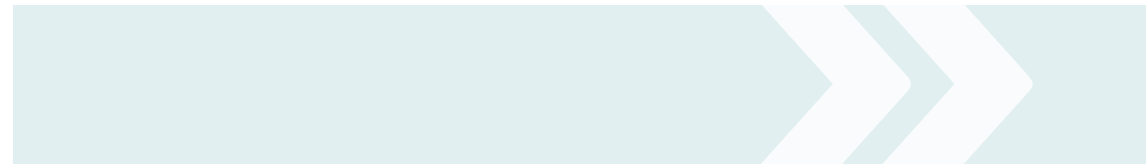
Advantages:

- ※ Combined use of image processing and barcode reader
- ※ Reduction of errors in classification
- ※ Reducing the cost of the assortment part of the order processing process
- ※ Customization of device layout design upon customer's order



Iran House of Innovation and Technology (iHiT)

Iran House of Innovation and Technology (iHiT) is one of the types of export intermediaries that launched under the auspices of the Vice President for Science and Technology in Kenya, China, Russia, Turkey, Syria and Iraq. In addition to accessing the export instructions, these houses provide variety of services for companies to enter the interactional service markets such as: private and shared workspace, permanent exhibition of products, finding business partners and investing in the target countries of export, company registration, product registration, medicine, medical equipment and trademarks registration, dispatch and admission of business delegations, hiring local specialists to present products and service.





TEHRAN iHiT

Manager: Mohammad Karami

Field of Activity: Permanent International Exhibition | Export of products and services of knowledge-based, creative and technology companies in Tehran

Country: Islamic Republic of Iran – Tehran

Services:

- Holding permanent exhibition of knowledge-based products and services
- Holding specialized events and meetings
- Providing dedicated and shared workspace in Tehran
- Identifying export opportunities
- Identifying opportunities for scientific, technological and industrial cooperation

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NAIROBI iHiT

Manager: Ali Baniamerian

Field of Activity: Export of products and services of knowledge-based, creative and technology companies

Country: Republic of Kenya – Nairobi

Services:

- Holding Permanent exhibition of products and services
- Providing dedicated and co-working space
- Holding the National Pavilion of the Islamic Republic of Iran in international exhibitions
- Export development of knowledge-based products
- Identifying opportunities for scientific, technological and industrial cooperation
- Providing export instructions of the Center for International Science and Technology Cooperation

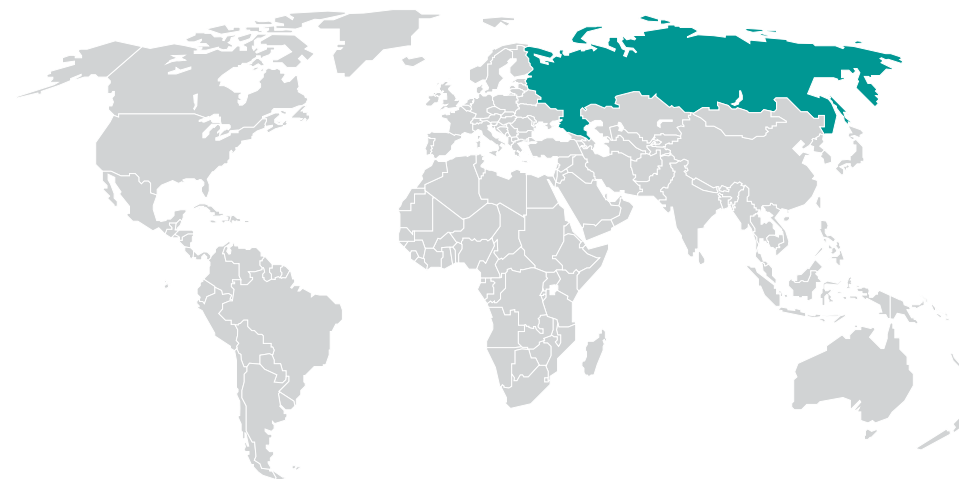
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Country: People's Republic of China - Shanghai

Services:

- Holding Permanent exhibition of products and services
- Export development of knowledge-based products
- Providing dedicated and co-working space
- Identifying opportunities for scientific, technological and industrial cooperation
- Holding the National Pavilion of the Islamic Republic of Iran in international exhibitions
- Providing export instructions of the Center for International Science and Technology Cooperation

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MOSCOW iHiT

Manager: Mahdi Deilam Salehi

Field of Activity: Export of products and services of knowledge-based, creative and technology companies

Country: Russian Federation – Moscow

Services:

- Holding Permanent exhibition of products and services
- Providing dedicated and co-working space
- Holding the National Pavilion of the Islamic Republic of Iran in international exhibitions
- Export development of knowledge-based products
- Identifying opportunities for scientific, technological and industrial cooperation
- Providing export instructions of the Center for International Science and Technology Cooperation

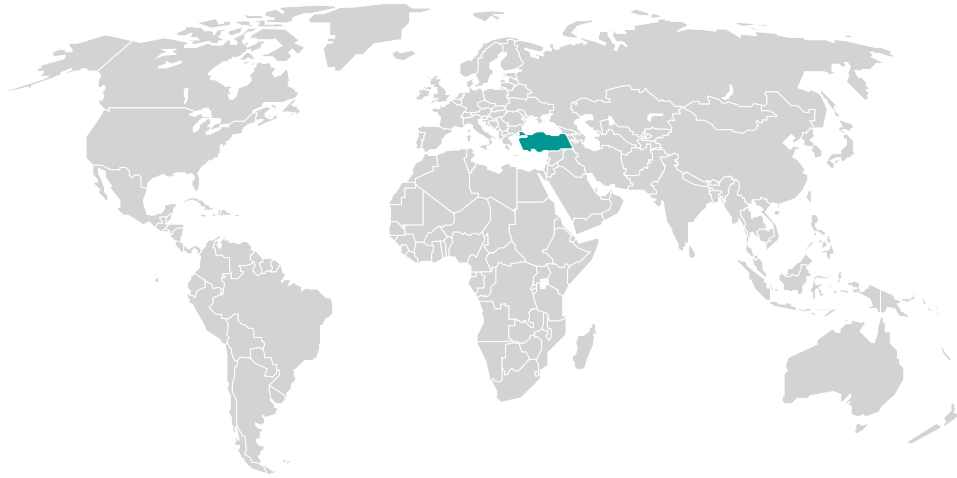
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Services:

- Holding Permanent exhibition of products and services
- Providing dedicated and co-working space
- Holding the National Pavilion of the Islamic Republic of Iran in international exhibitions
- Export development of knowledge-based products
- Identifying opportunities for scientific, technological and industrial cooperation
- Providing export instructions of the Center for International Science and Technology Cooperation

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DAMASCUS iHiT

Manager: Mohammad Hadi Zeighami

Field of Activity: Export of products and services of knowledge-based, creative and technology companies

Country: Syria – Damascus

Services:

- Holding Permanent exhibition of products and services
- Providing dedicated and co-working space
- Export development of knowledge-based products
- Identifying opportunities for scientific, technological and industrial cooperation
- Holding the National Pavilion of the Islamic Republic of Iran in international exhibitions
- Providing export instructions of the Center for International Science and Technology Cooperation

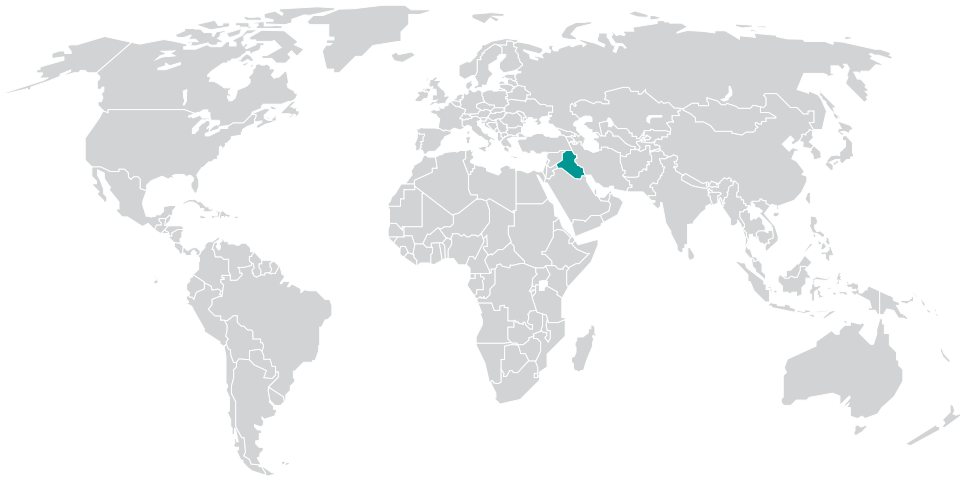
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Iraq (Sulaymaniyah) iHiT

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Field of Activity: Export of products and services of knowledge-based, creative and technology companies

Country: Iraq – Sulaymaniyah

Services:

- Holding Permanent exhibition of products and services
- Providing dedicated and co-working space
- Holding the National Pavilion of the Islamic Republic of Iran in international exhibitions
- Export development of knowledge-based products
- Identifying opportunities for scientific, technological and industrial cooperation
- Providing export instructions of the Center for International Science and Technology Cooperation

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