ماشین سازی اراک
Machine Sazi Arak

Machine Sazi Arak Presentation

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The first and largest industrial complex in Iran

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Machine Sazi Arak Co. (MSA) was founded in 1967 in an area of 134 hectares in Arak city to meet the country's industrial needs and build industrial units, produce all kinds of machinery, equipment and other industrial products as the first Iran heavy industry.

MSA has the ability to carry out large national and international projects and produces 77 different types of products in the following business areas:

- ☑ Oil, Gas, Refining and Petrochemical Industries
- ☑ Mineral and Steel Industries
- ☑ Heating Facilities and Boilers
- ☑ Alloy Casting and Forging
- ☑ Power Plants and Renewable Energies
- ☑ Bridge, Steel Structures and Port Facilities

Board Members

Reza Saraie

Managing Director and Vice-chairman of the Board

Abulfath Ebrahimi,

Chairman of the Board

Mohammed Saadatmandi

Member of the Board

Abbas Naeimi

Member of the Board

Esmail Farhadi Moghaddam

Member of the Board

Certification

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l. ISO 9001-2015 from TUV INTERCET

2.ISO 14001-2015 from TUV INTERCET

3.ISO 3834 from International Welding Institute

4. Global Quality Management (GQM) from UK

5. National Standard Certificate from Iranian Institute for Standard & Industrial Research (for steam boilers)

6. Lioyd's Register Certificate for Valves

7. Organizational Excellence Certificate based on EFQM

8. Green Economy Crystal Statue (Twice)

9.Product Quality Certificate from Iranian Petroleum Association (NACI)

10. Kaizen Official Citation

11. Qualification certificate of the company as a contractor awarded by Vice - Presidency for Strategic Planning and Supervision

Grade 1 for industry and mine

Grade 1 for oil and gas field

Grade 3 for Installations & Equipment

Grade II for Power / Electricity

Grade 3 for road and transportation

Grade 4 for water

12. Certificate of competency for engineering and construction

Grade 1 for Oil and gas

The company has a basic contractor certification for an oil and gas field under the field of "transmission lines, tanks, pumps and oil and gas networks.

13.Certificate of competency for consulting services

Grade 1 for oil and gas transmission lines

14. Qualification certificate of Designing and Fabrication awarded by Vice - Presidency

15. Crystal Statue for Sport, Labour and Industry

16. Total Quality Management (TQM)

17. Superior exporter of the country in 2001

18. Superior industrial unit for productivity in two consecutive years 2001 & 2002

19. Certificate awarded by Khwarizmi Festival and Ministry of Industries & Mines in 2001 and 2002

20. Superior R & D Unit for Izeh Open Spandrel Arch Bridges

21. Official Citation awarded by the Ministry of Petroleum for successful execution of South Pars Gas Field Development Project - Phases 4&5

22. Certificate awarded by the Department for Supervision over Industrial Safety of the Republic of Belarus.

Manufacturing Group

Machine Sazi Arak is the only industrial complex in the country that has a wide range of various production and implementation of industrial projects and has an organization consisting of various manufacturing groups and executive departments in form of five manufacturing groups:

- **Metallurgy Manufacturing Group**
- **Equipment Manufacturing Group**
- **Steam Boiler Manufacturing Group**
- **Bridges and Steel Structure Manufacturing Group**
- **Machining and Assembly Group**

Products

- Railway Tires
  Steel Balls
- Steel Making
  and Casting
- Production of oil and gas, pipeline equipment, industrial rings

Metallurgy Manufacturing Group

Facilities

- Steel Balls Manufacturing Workshop
- Workshops of Steel making, casting and forging
- 88,000 m^2 workshop space

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Products

- Oil, Gas, Refining and Petrochemical Industries
- Dam & Power Plant Equipment
- Mineral Industries

Equipment Construction Group

Facilities

- Heavy steelworking workshop
- Initial operations workshops
- 66,000 m^2 workshop space

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Dena petrochemical industries and Siraf energy Petrochemical Equipment

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Products

- Machineries and factory equipment
- Dam, power plant and cement equipment
- Wellhead equipment

Machining & Assembly Group

Facilities

- Heavy machining workshop
- Modern and advanced machineries and production lines
- 34,000 m^2 workshop space

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Modern and advanced machineries

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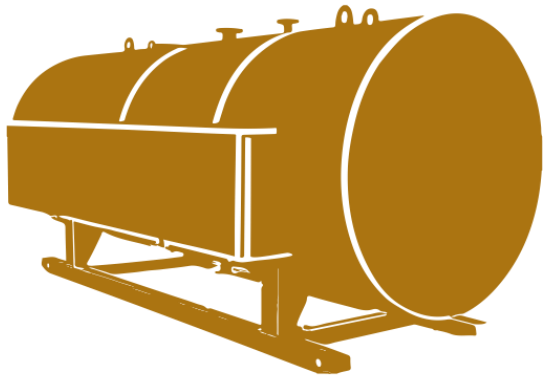
Steam Boilers Group

Products

- Fire Tube, Water Tube Steam Boilers and Hot Water Boilers
- Mobile Steam Boilers
- Design and construction of a 120,000 pound boiler for the first time in the Middle East

Facilities

- Corrugate in fire tubes furnaces
- Improvement and optimization of the performance of the boiler control system
- 15,000 m^2 workshop space



Design and construction of a 120,000 pound boiler for the first time in the Middle East

New Products

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Products

- Design and installation of more than 300 bridges in Iran and outside of Iran
- Design of floating bridges with different spans for critical times
- The only designer and manufacturer of steel arc bridges in Iran

Bridge & Steel Structures Group

Facilities

- Design of new truss bridges
- Design, construction and install a variety of steel structures
- 12,000 m^2 workshop space


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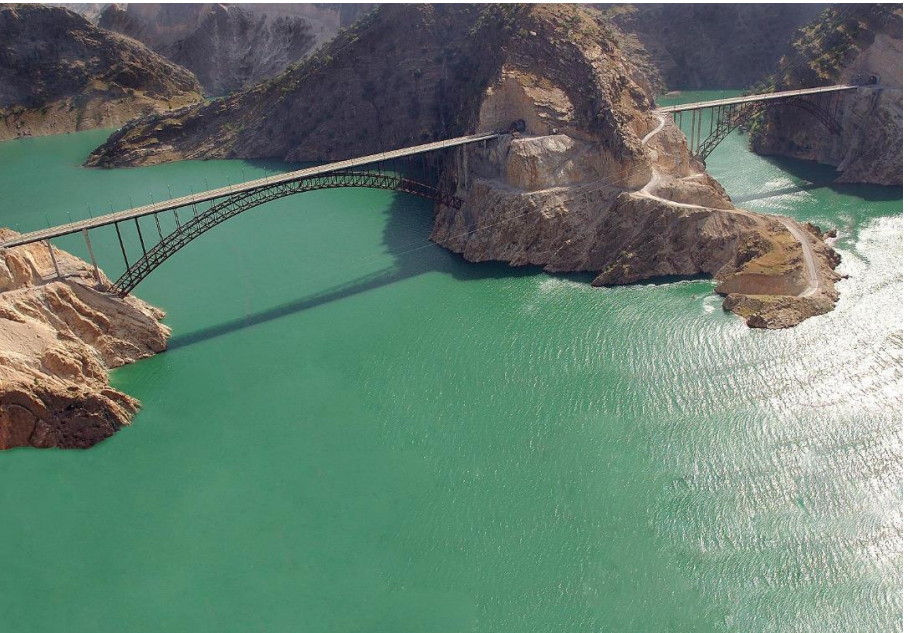

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Business areas

Bridge, Steel Structures and Port Facilities

Oil, Gas, Refining and Petrochemical Industries

Heating Facilities and Boilers

Mineral and Steel Industries

Power Plants and Renewable Energies

Alloy Casting and Forging

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The major products in the field of oil, gas, refining and petrochemical

- Gas indirect heaters
- Launcher and Reach
- Gas straight heaters
- Storage tanks
- Ball valves
- Gate valves
- Wellhead equipment
- Christmas Tree
- Safety gate valves
- Draw works
- Drilling rig
- Pressure Vessels
- Oil and Petrochemical Towers
- Heat exchangers
- Air conditioners
- Spherical tanks
- Gas stations
- Scrubber
- Filter separator
- Dry gas filters

Pressure Vessels

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Pressure vessels are designed and manufactured in various sizes and applications.

Machine Sazi Arak have a good experience in refineries and petrochemical plants including phases 1, 4, 5, 6, 7, 8, 9, 10, 14, 15, 16, 17, 18, 20, 21 South Pars, Ilam petrochemical tanks, Arvand Petrochemical, Ilam Gas Refinery Tanks, Separator of South Oil, Gas Refining Khangiran and in foreign countries including Turkmenistan, Sudan, Cyprus.

Towers of oil and petrochemical industries

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Machine Sazi Arak is honor to participated in most refineries and petrochemical plants such as Imam Khomeini Refinery, Shazand- Arak, Towers 14,8,7,6,1, Phases of South Pars, Ilam petrochemical towers, Arvand Petrochemical tower, towers Methanol fourth and Fifth, Ilam Gas refinery towers, Jam Petrochemical and have effective role in the design and construction of their towers.

Shell heat exchanger tube/ two-tube

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Heat exchangers constructed by Machine Sazi Arak

- 5 heat exchangers for Baku, Azerbaijan Gas Refinery
- 8 heat exchangers for Sri Lanka Refinery Gas
- 35 heat exchangers for Amir Kabir Petrochemical Sixth Olefins No. 35 in 17 types
- 41 heat exchangers for South Pars Phase 1
- 50 heat exchangers for South Pars phases 4 and 5
- 94 heat exchangers for South Pars phases 6, 7 and 8
- 81 heat exchangers for South Pars Phase 14- 60 heat exchangers for Ghatran Project
- 6 heat exchangers for Amir Kabir Petrochemical HDPE
- 23 heat exchangers for Petrochemical PART – XYLENE
- 82 heat exchangers for Bandar Abbas Refinery
- 4 heat exchangers for Gas Refinery Khangiran
- 25 heat exchangers for Lavan refinery
- 8 heat exchangers for Methanol of Kharg
- 26 heat exchangers for Ilam Petrochemical
- 51 heat exchangers for Arvand Petrochemical
- 1 DEU heat exchangers with a design pressure of 195 bar design temperature of 272 ° C
- SA266 / SA336 and weight of 34 tons Isomax for single for Arak Refinery

Air Coolers

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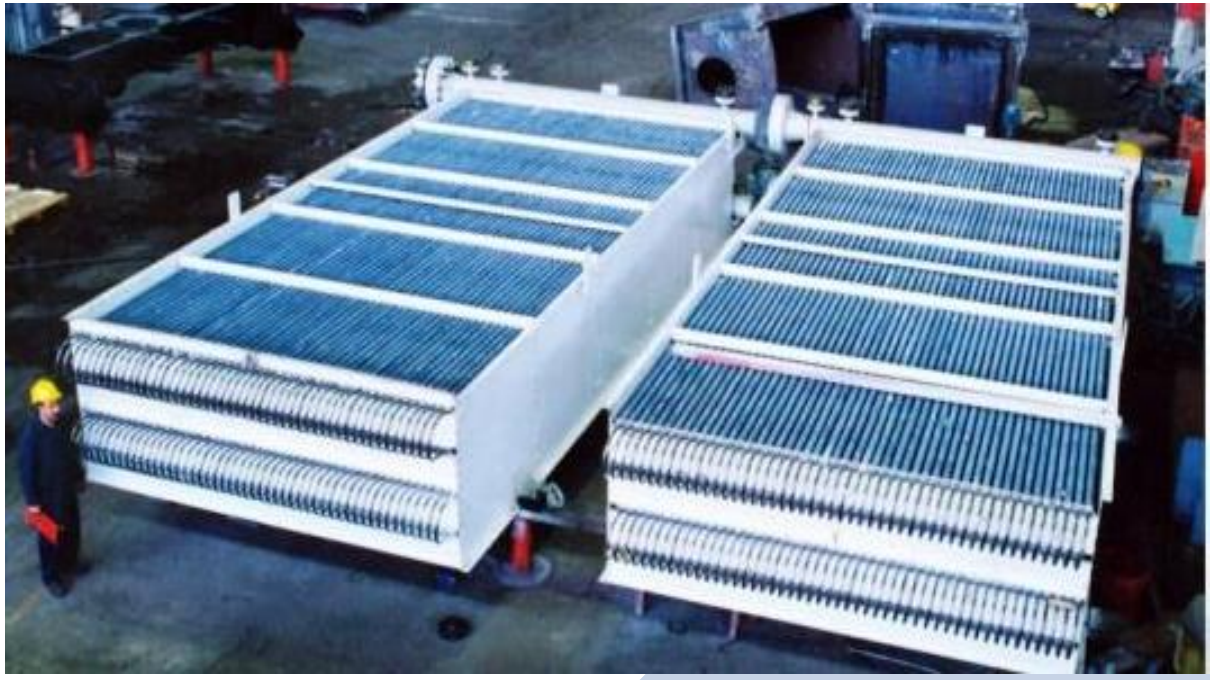
Air coolers are one of the most important equipment in the refining, petrochemical and gas stations which are used by blowing air over the fins of the tubes and reduces heat of fluid inside the pipe. The fluid may be natural gas, liquids, oil and water. In terms of technology header of air coolers have very high sensitivity and in a state of Induced / Forced Draft so designed and produced according to the standards of API-661, ASME, TEMA



Some air coolers which manufactured by Machine Sazi Arak

- South Pars Phase 1: 16 units with weight of 748 tons
- South Pars phases 4 and 5: 78 units
- South Pars Phase 14: 52 units with weight of 3,200 tons
- Yasouj Compression Station: 69 units with a design pressure of 91 bar and weight of 1,100 tons
- National Drilling Project: 18 units with a design pressure of 150 PSI and weight 36 tons
- Lavan Project: 10 units with pressure ranging from 20 to 38.7, with the weight of 138 tons
- Ramshir Project: 3 units with design pressure of 304 bar and weighing 50 tons
- Sarkhon Project: 1 unit with design pressure of 92/13 bar and weight of 10 tons
- Esfahan Mobarakeh Steel Co.: 2 units with design pressure of 3 bar and weight of 271 tons
- Arak Petrochemical: 1 unit with design pressure of 3/79 and weight of 370 tons
- Bandar Abbas Refinery: 16 units with design pressure of 3/79 and weight of 200 tons
- Ilam Petrochemical: 17 units with design pressure of 30 bar and weight of 500 tons

Spherical tanks

Spherical tanks are manufactured for the first time in the country by Machine Sazi Arak. Constructing about 90 spherical tanks in Iran and other countries are the glories of Machine Sazi Arak. All mechanical and structural design, purchase of raw materials, forming sheets, cutting, assembly and installation is done by the company. Spherical tanks are using for storage of petroleum refineries and petrochemical industries at high volume and pressure.

Spherical tanks

The first spherical tank in Iran designed and constructed by Machine Sazi Arak for Petrochemical Complex of Isfahan.

Construction and installation of spherical tanks for the followings owners:

Bandar Abbas Refinery, Imam Petrochemical MTBE Project, Tabriz Petrochemical, Arak Petrochemical, Amir Kabir Petrochemical, Bu Ali Petrochemical, Turkmen Kianly Port, Persian Gulf Refinery, Tehran Refinery

Gas stations

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Natural gas in mail pipeline of gas have high pressure which may not be suitable for use in home and industrial usage. Gas stations reduce the gas pressure in main lines and adjust it according to the distribution lines pressure. Other operations, such as measuring the flow of gas stations, heating, filter and odor of gas can be performed.

Indirect gas heaters

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Indirect gas heaters are widely used in manufacturing, processing and distribution of oil and gas. The most important use of indirect gas heaters is heat transfer to the high-pressure gas flow.

Reactors

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Reactors in a wide range of temperatures and pressures and with different materials ranging from carbon steel, stainless steel, Cold, Duplex, Inconel, chrome, molybdenum, etc., and according to various standard such as ASME, PD5500, AD_Merkblatt, UBC , ANSI, ... and with refractory lining and the use of the Half Pipe Full Pipe are designed and built outside reactors.

Storage tanks

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These tanks are used to store petroleum materials, including crude oil, semi -finished products and final products available to the market in most refineries and petrochemical complexes.

Fixed roof tanks are in two types: dome roof tanks - convenient roof tanks

Floating roof tanks are of two types: Panton floating roof tanks (one wall) - floating roof tanks with double store (double wall roof)

Depending on the needs of the Iranian and region market, as well as our capabilities and potentials to design and construction of ball valves in sizes 2 to 56 inch and 300 to 2200 class rates in accordance with 6D API standard and from size 2 to 9 inch and work pressure has come from 3000 psi to 10,000 psi in accordance with the API 6A standard and has so far designed and manufactured from size 2" to 30 "with 300 to 900 working class.

Wellhead Gates

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This type of valve covers all standard API 6A requirements and encompasses a wide range in size, pressure class, type of material and quality levels.

42-inch Gate Valves

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For the first time in the Iranian oil industry, construction of 42-inch gate valves compatible with sour fluids is on the agenda of Machine Sazi Arak, and now the process of manufacturing these valves to be used in the pipeline to transfer crude oil from Goreh to Jask is underway.

X-MAS TREE & Tubing Head Spool

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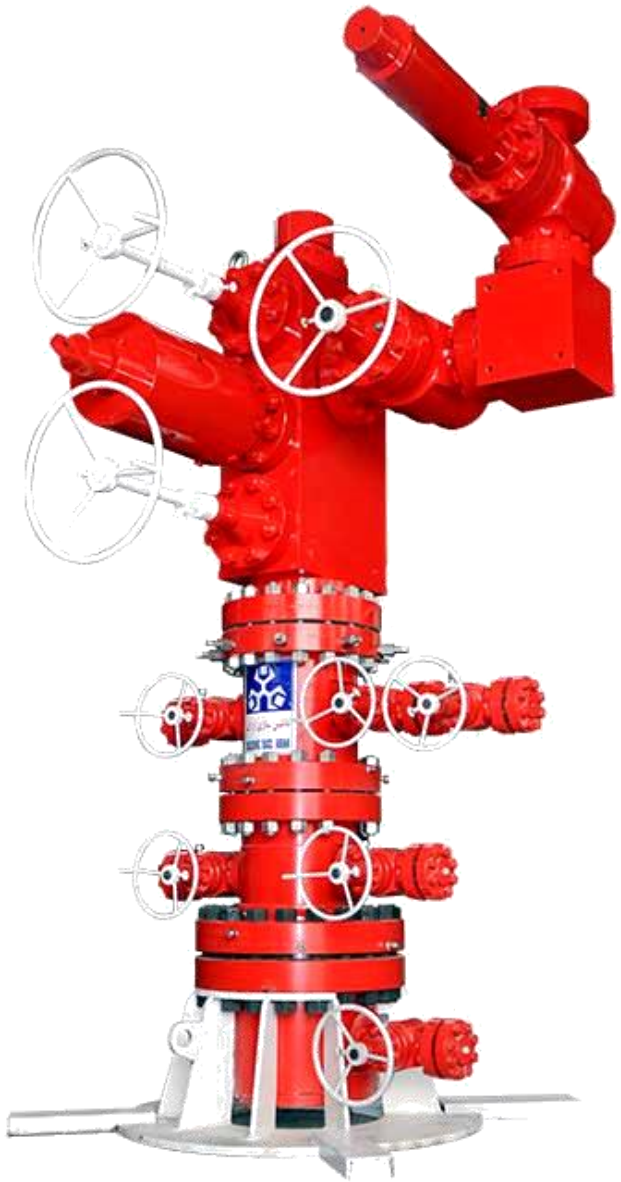
MSA with modern machinery, advanced production lines and experienced engineering staff, produces all kinds of valves and equipment used in the oil, gas and petrochemical industries in accordance with the latest valid standards. In all stages of construction and testing of these valves steel making high facilities used to provide the required raw



Surface Safety Valve (SSV) with Hydraulic Actuator

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SSV is a gate valve used for providing safety in pipeline and wellhead equipment. These valves are designed as per API 6A and NACE MR 0175. In normal conditions when there is not sufficient pressure in actuator's housing, a strong spring retains the valve in closed state. The valve opens as soon as enough pressure exists in actuator's housing.

Drilling Rig

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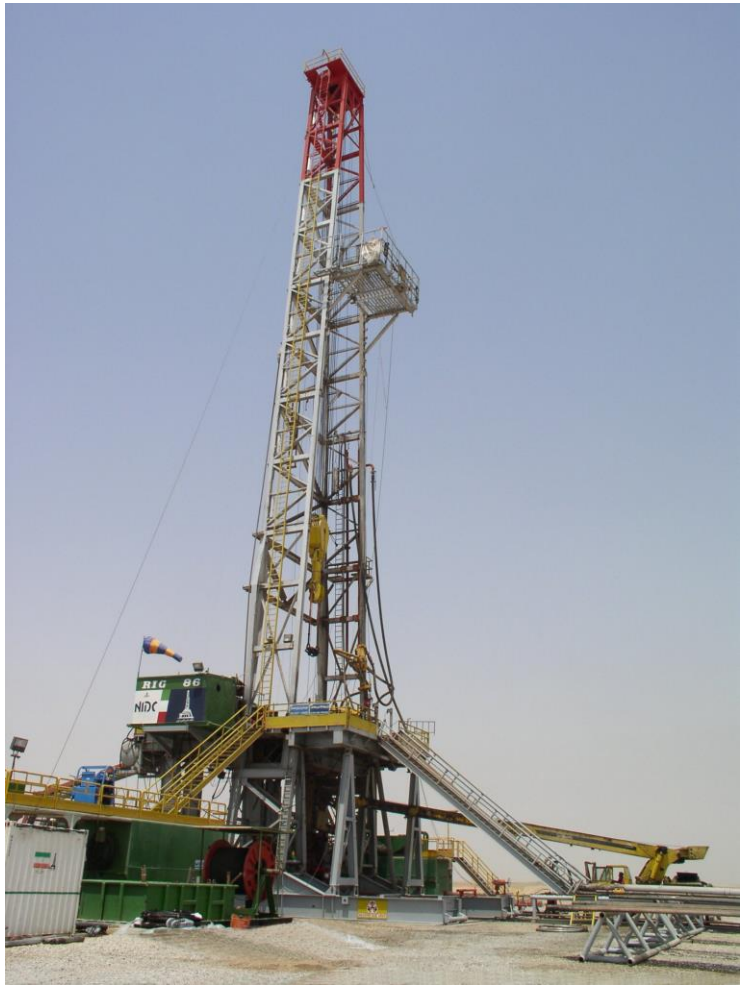
Drilling rig is very important equipment in oil and gas upstream industries through which drilling and preparation of wells for operation is accomplished. In 2006, Machine Sazi Arak Co. fabricated the structure of Fath 86 drilling rig currently in service for National Iranian Drilling Company. This is a pyramid type structure weighing 210 tons, 54 m height with a Derrick floor area of 100 m2.This mechanism is capable of resisting a force of 1000,000 pounds and drilling to a depth of 6000m.



Draw works

Machine Sazi Arak has, for the first time in Iran, accomplished the design and manufacture of draw works or the main driving part of a drilling rig, with input HP rating 2000. This 50-ton assembly with two DC traction motors is employed for Rig up, Rig down and pull out of hole & Run in hole of Drill string & Casing string.

Fire Tube Steam Boilers and Hot Water Boilers

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In this type of boilers, combustion products are driven into the pipes intended to transfer heat after passing through the furnace and transmit their thermal energy to the water that swept these pipes, so the name of this boiler have fired tube fires

Design and construction of a 120,000 pound boiler for the first time in the Middle East

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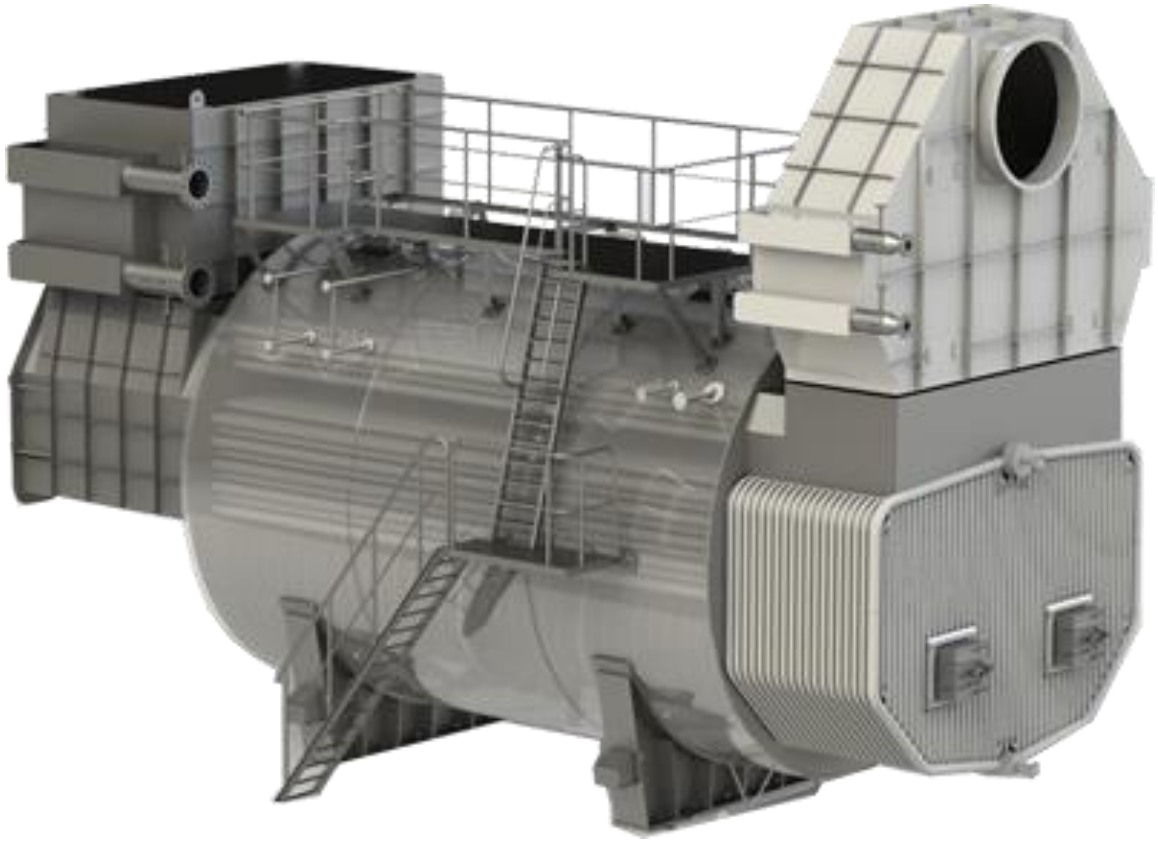

Mobile Steam boilers

Mobile boilers produce in various sizes and pressures according to the order of industries such as road construction, rubber, mines, concrete processing, especially in cold areas, oil pipelines and industries, airplanes, accident disaster headquarters during natural disasters and also emergency boilers are used when major repairs to various industries, especially foodstuffs.

This type of boiler due to the ability to move to different locations for cross-sectional and short-term applications, without the need for road escorts, and independence on additional facilities.

Water tube steam boilers

Due to the lack of sufficient production of this kind of boilers for domestic firms and high demand of customers and their referral to foreign companies, MSA began to design this kind of stream boilers besides production of fire tube boilers and steam generators of the HRSG power plant. Now MSA has produces water tube steam boilers in three types of O-Type, A- Type, D-Type, which builds on a variety of capacities and pressures combined with super heater and economizer, either in the form of a package or installation.

Combined steam boilers

Combined steam boilers are fire tube steam boilers with water tube combustion chamber which, like other conventional boilers, have furnace and heat transfer in two stages.

Special features of this design are the possibility of installing super heater in the combustion chamber. So the resulting steam temperature will increase dramatically.

225 psi / 15/5 bar g working pressure

Outlet steam temperature with super heater: 320 ° C

Capacity: 15ton / hr.

HRSG Combined Cycle Boilers

Combined Heat Cycle Boilers or Heat Recovery Steam Generator (HRSG) is used in power plants to generate electricity and produce higher fuel efficiency. Hot gas from the gas turbines, which is about 550-560 C is passed through the equipment and convert water to steam. The resulting steam is simply used to turn the steam turbines for power generation.

- Composite plate girder bridges
- Emergency truss bridges
- Arch bridges
- Continuous composite plate girder bridges
- Composite box girder bridges
- Special truss bridges
- Railway bridges
- Cable stayed bridges
- Steel Structures

Composite plate girder bridges

Length: 203 m

Width: 41 m

Weight: 2150 tons

Material: ST52-3

Location: Hamedan Province

Emergency truss bridges

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Length: 86 m

Width: 6 m

Weight: 3100 tons

Material: ST52-3

Location: Sistan Province

Usage: water piping line

Arch bridges

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Length: 380 m

Arch Span: 300 m

Width: 11/8 m

Weight: 3800 tons

Location: Karoun 4 dam lake

Continuous composite plate girder bridges

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Length: 259 m

Width: 9/27 m

Weight: 1760 tons

Materials: ST37-2

Location: Arak

Composite box girder bridges

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Length: 1300 m

Width: 22 m

Weight: 800 tons

Location: Tehran

length: 800 m

Width: 9 m

Weight: 4000 tons

Location: Bandarabbas-Bafgh

Cable stayed bridges

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Length: 3800 m

Width: 20/9 m

Weight: 1900 tons

Location: Karoon 4 dam’s lake

Fabrication and erection of triplet salon steel structure roof Tehran Shahr-e-Aftab Exhibation

Total width: 2700 tons

Location: Tehran

This project is located in Khuzestan in 160 kilometer north-east of Ahvaz and 25.5 kilometer north-east of Masjed Soleiman city. Masjed Soleiman dam is located on Karun River in 26 kilometer downstream of Shahid Abbaspour dam (Karun 1)

Having the greatest spillway in country with the discharge capacity of 21700 m3/s Using the most advanced technologies in power industry

Masjed Soleiman Dam and power plant

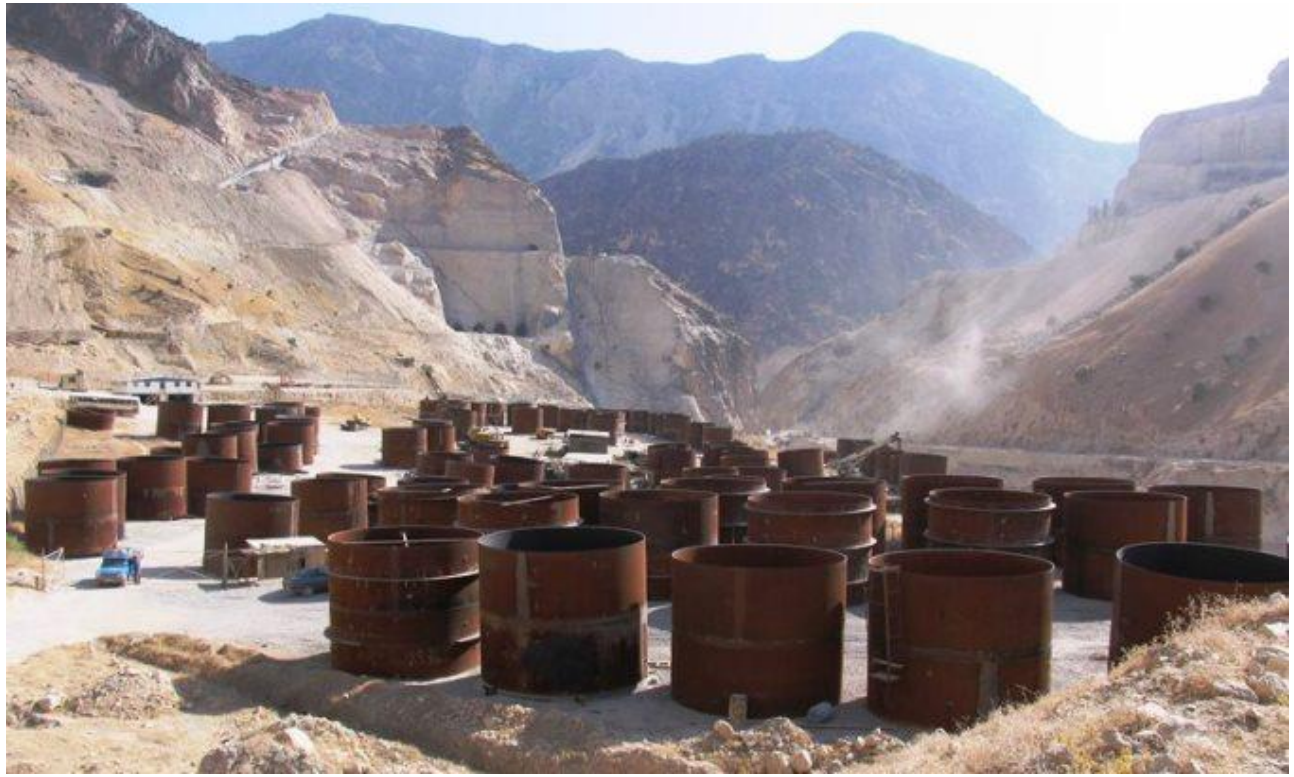
Fabrication and erection of orifice and steel Structures of Kaoun 3 Dam and Power plant

Karun 3 dam and powerhouse are located in 28 km of Izeh City in 610 km of Karun River-mouth in north-east of Khuzestan Province.

Steel lining of Karoun 4 Dam and Power Plant

There are 4 steel lined and concreted under ground tunnels with the of 850 meters. The diameter of steel lining is from 5 to 6.5 meters.

MSAEC Co. was responsible for design, fabrication and installation of these equipment with weight of 9610 ton.



Siah-Bishe Pumped Storage Power Plant

Construction and installation of steel lining.

The most important factors of this project are fabrication of steel lining in the temporary workshop and installation of constructed lining in an inclined shaft with angle of 56 degree and length of 450m

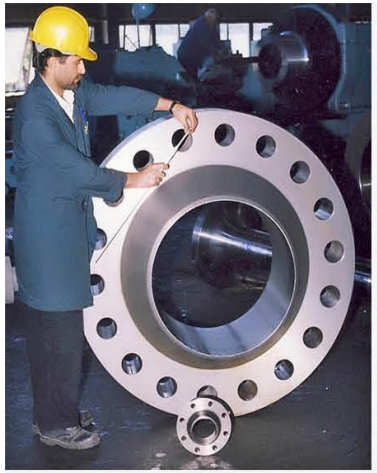
Main chimney of Shahid Rajaie power plant with height of 220m, and weight of 5300 ton. the highest of its kind in Iran is used to discharge of resultant fumes from power plant boilers. The chimney four cylinders each with the diameter of 5.75m.

Casting

The casting section of Machine Sazi Arak Co. Metallurgy Group using electric arc furnaces, LF, VODC (Vacuum Oxygen Decarburization Convertor), one of the most advanced methods of steel refinement, is capable of producing carbon steel, low-alloy and high-alloy steel and special steels such as stainless and refractory steels of high qualities.

Flange

MSA metallurgy production group employing first-rate services of forging equipment such as hydraulic hammers, presses, ring rolling machines and research and laboratory facilities is one of the greatest manufacturers of high pressure flanges used in oil and gas industries and low pressure water flanges as per the latest universally acknowledged standards.






Anchor flanges

Anchor flanges are among main parts of oil and gas pipelines carrying high pressure fluids and MSA metallurgy production group, possessing the required technological capabilities, knowledge and equipment, is the manufacturer of these parts in different sizes up to 56" made of carbon steel and micro-alloy steels such as ASTM A105 and all grades of ASTM A694.

Industrial Rings and Bushes

Various industrial rings and bushes used in oil, gas and other industries are produced in MSA metallurgy production group in different sizes as per the customer specifications and requirements. These parts are produced with modern ring rolling machines using hot rolling method and 1600- ton press employing mandreling method.

All forgeable materials such as carbon steel, stainless steel and other UH alloy steels are used in the production of these items as per EN10025, DIN17350, EN10083 standard and/or any other standards required by customers under the general standard of open die forging DIN7527.

Railway Tires

Railway tires are among routine products of MSA metallurgy production group. Different production stages of which consist of steel making, ingot casting, cutting, forging, rolling, heat treatment, shot blasting and packing delivered to customers as normalized forgings.
Different mechanical tests such as tensile, impact, and hardness tests, macroscopic and microscopic structural examinations,100% ultrasonic tests along with constant inspections and controls during production processes emphasized in the related QC plan are all measures taken to ensure high quality of the products.

Steel Parts and Sections

Steel sections/segments such as plain and stepped sections, round and square bars, steel blocks and other special sections are produced in this production group using open die forging technique. All forgeable materials such as carbon steel, stainless steel and high alloy steels are used in the production of these items as per EN10025, DIN17350, EN10083 and/or any other standards required by customers under the general standard of open die forging DIN7527.

Steel Balls

MSA metallurgy production group, the first manufacturer of steel grinding balls, enjoying its exclusive equipment facilities in steel making, forging and rolling, is actively involved in producing steel grinding balls used in copper, iron ore, cement, coal, phosphate, and gold mines/industries and aeronautic structures etc. as per the latest well-known international standards up to 100 mm. in dia. Using rolling and from 100 mm. to 300 mm. dia. using die forging.

H.P. TYPE INCINERATORS RANGE 150 TO 1000 KG/H TECHNICAL FEATURES

For the first time in the country with the participation of a reputable French company, ATI, an HP1000 industrial waste incinerator with a capacity of 3 tons per day according to the latest European Environmental Standard (Directive2000/76/EC) for Tehran Oil Refinery.

- Mahshahr Oil Product Terminal Revamp - On Shore
- Engineering, Procurement and Construction of Karun 4 Bridges
- Engineering, Procurement and Construction of Karun 4 Cable Stayed Bridges for Oil Pipeline
- Borzoueh Perochemical
- South Pars gas field development phase 14 (SPGFD Phase 14)

Mahshahr Oil Product Terminal Revamp - On Shore

The plan of Mahshahr Export Port was handed over to Machine Sazi Arak , Khatam-ol-Anbia and Rampco companies via National Iranian Oil Products Distribution Company as the owner of project in three parts of land, offshore and pipelines in the form of three EPC projects.

The project site of the Mahshahr Export Port is located at a distance of 11 kilometers from Imam Khomeini port and has 6 berths for loading oil products. P

The outline of the EPC works done in this project is as follows:

- Engineering and implementation of protection dikes
- Gasoline and fuel oil storage tanks,
- Land extraction from the sea of 32 hectares and pre-loading
- with soil and water
- Piping
- Power line and Substation
- Fire extinguishing and Terminal control system
- Electrical Equipment
- Pumps and two fuel oil heater units

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Engineering, Procurement and Construction of Karun 4 Bridges

Bridge type: Arch

Deck Type: Orthotropic

Deck length: 380 meters

Arc span: 300 meters

Arch deflection: 70 meters

Deck width: 11.8 m

Weight: 3800 tons

Owner: Iran Water and Power Resources Development Company

Engineering, Procurement and Construction of Karun 4 Cable Stayed Bridges for Oil Pipeline

This project includes engineering, procurement, construction and commissioning of a large cable stayed bridge with a length of about 380 meters on the Karun 4 dam for passage of oil and gas pipelines which was carried out by Machine Sazi Arak Co. within 18 months

Bridge type: Cable Stayed

Deck Type: Orthotropic

Total length of the bridge: 380 m

Width: 9.2 m

Weight of deck and pylons: 1900 tons

Weight of cable: 100 tons

Owner: Iran Water and Power Resources Development Company

Borzoueh Petrochemical

Civil and structure activities and engineering, procurement and construction of 6 spherical tanks with capacity of 9000 m different capacities and 4 fixed roof storage tanks and 8 floating roof storage tanks including piping ,firefighting, mechanical equipment(pumps, drums, thermal transformers, compressors and etc.), electrical activities, instrumentation and insulation equipment with a total weight of 34000 tons.

South Pars gas field development phase 14 (SPGFD Phase 14)

Designing, constructing, installing and commissioning four sea platforms equipped with 44 wells including 2 appraisal wells, 2 vertical wells and 40 development wells. These platforms also provide sewage water separation facilities along with gas from platforms and MEG injection and other related equipment.

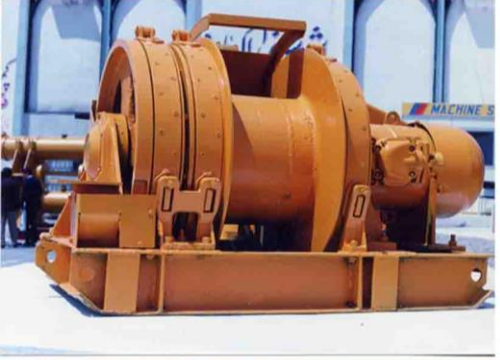
Design, implementation and commissioning of two 32 inch marine pipelines to connect the platforms to the refinery with length of 211 km.

The design, implementation and commissioning of two 18-inch sea-line pipelines, with length of 16 km, and installation of 4-inch sea pipelines on the pipelines 32" and 18" for the transfer of glycols (inhibitor) with length of 228 km.

Design, construction and commissioning of a refinery on 170 hectares of land in the Pars-2 region including sour gasification facilities, extracting gas condensate, producing and exporting LPG, Ethan and Sulfur.

Due to the capabilities of MSA in the design and construction of precision structures of mineral and steel equipment and due to the high range of iron ore mines in the country, MSA with the participation of large and reputable domestic companies in the field of mining start to design and manufacture of precision and heavy equipment needed for the extraction and processing industries.

Currently, the first Iranian hydraulic hammer has reached the production stage. The manufacture, assembly and installation of autoclaves, well drilling machine, resuscitation furnace, are more than other products in this area.








Some equipment made MSA in Mining and Steel Industries

1. **Azerbaijan** - Refinery equipment; Steam boiler
2. **Bangladesh** - Steam boiler; LPG tanks; Storage tanks, the huge Shisha bridge
3. **Belgium** - Air conditioner
4. **Cyprus** - Mobile liquefied gas tanks
5. **Turkmenistan** - Refinery equipment, Steam boiler
6. **France** - Cranes and oil wellhead parts
7. **England** - Flanges of the oil industry
8. **Oman** - Steam boiler
9. **Jordan** - LPG tanks
10. **Italy**- Crane
11. **Korea** - LPG tanks
12. **Kuwait** - Steel flanges, Steam boiler
13. **Pakistan** - Mobile liquefied gas tanks
14. **Belarus** - Steam boiler
15. **Afghanistan** - Steam boiler
16. **Pakistan** - Clifton Strategic Bridge
17. **Qatar** - Pressure tanks and boilers
18. **Saudi Arabia** - Flanges of the oil industry
19. **Sudan** - Boilers, fixed and mobile gas tanks
20. **Syria** - Steam boiler, Crusher hammers
21. **UAE** - LPG tanks, Oil equipment
22. **Yemen** - LPG tanks, Oil equipment
23. **Sri Lanka** - Heat exchangers
24. **UAE** - Steam boiler, Flanges of the oil industry
25. **Iraq** - Steam boiler, Bridge

Pakistan Clifton Bridge

Type: Continuous rigid frame

Length: 606 m

Width: 15/4 m

Weight: 2300 tons

Max. height: 17/25 m

Location: Karachi Pakistan

One Million Barrels Tanks at Chita Gong Refinery (Bangladesh)

Double Deck & Floating roof, inadequate access to technical facilities on site, frequent street strikes in Chittagong, torrential rains, swamps and seasonal storms were some of the problems with the project. Landscaping, foundation laying, installation and commissioning of this 3,000 ton project, after the hydrostatic part, was successfully handed over to the project employer, the Government of Bangladesh.

Export of 40 mobile tanks to Jordan

The design, construction and installation of liquefied natural gas storage tanks on bogies. It is noteworthy that each of these tanks had a capacity of 12,000 gallons of liquefied gas.

9800 gallon LPG tanks exported to Pakistan

These tanks were also produced and exported to Pakistan by the order of Pakistan Foundation Case Co. in an international tender. The capacity of each of these mobile tanks was 9800 gallons of liquefied gas.

- The first and largest industrial unit in the country that integrates the ability to melt, cast, design, fabricate and machining to final products
- The first Iranian company to obtain an international certificate of ISO 9001
- The first and largest designer and manufacturer of steam boilers in Iran
- The first manufacturer of mobile oil refinery in Iran
- The first manufacturer of methanol process equipment for Dena and Siraf petrochemicals
- The first manufacturer spherical tank in Isfahan Petrochemical Complex
- The first manufacturer of large arch bridges of Iran
- The first builder of floating bridges in Iran

- The first manufacturer of petrochemical methanol equipment
- The first manufacturer of largest distillation tower in Imam Khomeini Refinery
- The first manufacturer of cereal suction machines in Shahid Rajaee Port
- The first 42 -inch valve in Iran for Gore Crude Pipeline to Jask
- The first manufacturer of steam boiler in Iran and the Middle East
- The first manufacturer of drilling rig
- triplet salon steel structure roof Tehran Shahr-e-Aftab Exhibation
- The first manufacturer of wind power plant in Iran
- The first manufacturer of automobile production line in

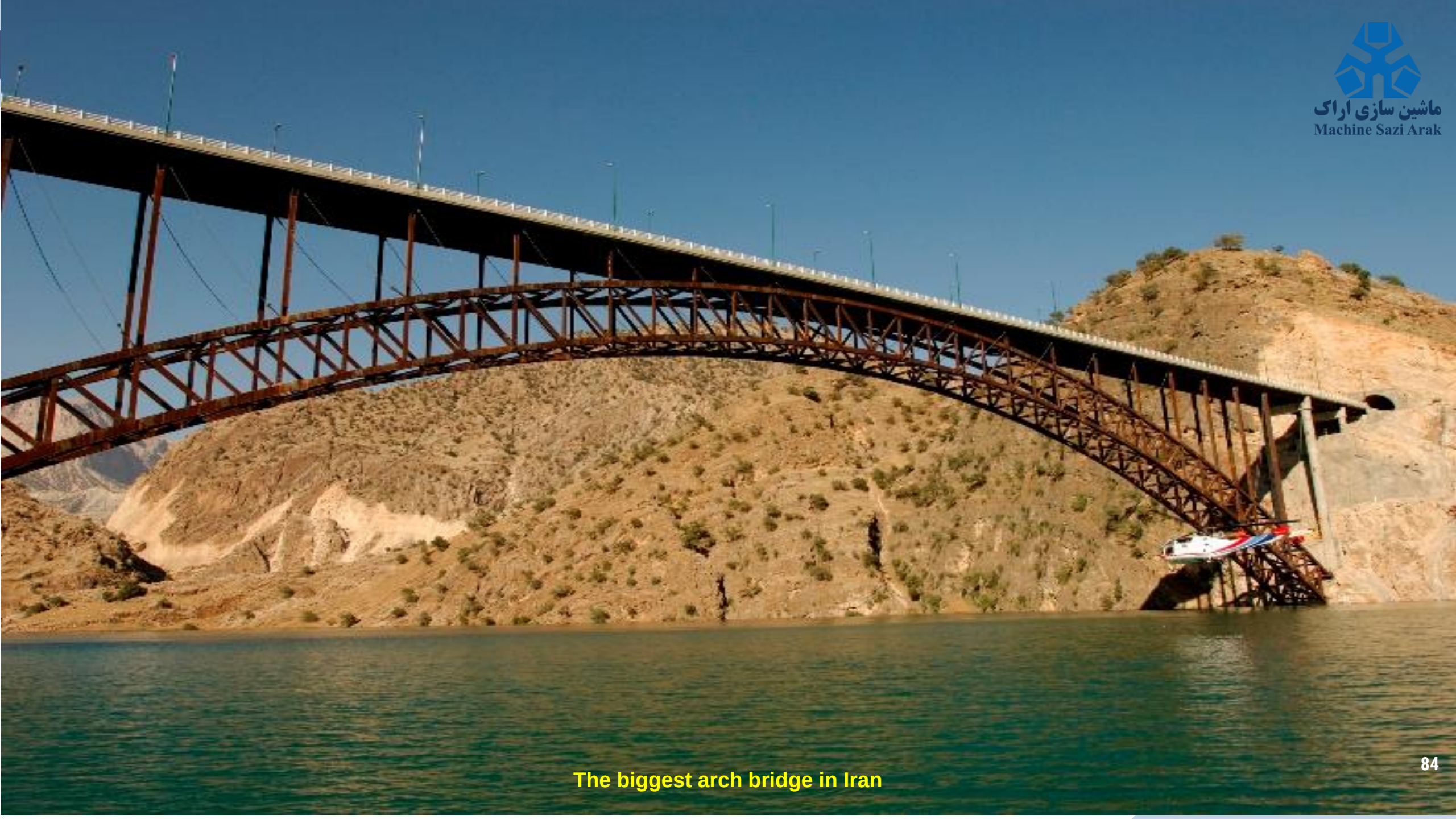
Manufacturer of the first and largest industrial equipment in Iran

ماشین سازی اراک
Machine Sazi Arak

- The first manufacturer of emergency bridges with corrosion-resistant
- The first manufacturer of titanium Shell heat exchanger
- The first manufacturer of gas industry equipment, filters, heaters, launches and receivers
- The first modern Iranian industrial educational complex
- The first designer and manufacturer of crude oil furnace in Iran (Mahshahr Export Port)
- Manufacturer of the largest storage tank in Isfahan Refinery 1/33 million barrels
- Manufacturer of the largest spherical tank in Kangan Petroleum 90,000 cubic meters
- Manufacturer of the largest steel structures for the 747 aircraft with 40,000 square meters and 154 meters span
- Manufacturer of the largest Iranian power plant chimney at Shahid Rajaee Power Plant
- Manufacturer of the largest and most thickest distillation tower for Mehrepetrochemi Petrochemical

The first and largest industrial unit in the country that integrates the ability to melt, cast, design, fabricate and machining to final products

ماشین سازی اراک
Machine Sazi Arak



ماشین سازی اراک
Machine Sazi Arak

The biggest arch bridge in Iran


ماشین سازی اراک
Machine Sazi Arak
The biggest arch bridge in Iran


ماشین سازی اراک
Machine Sazi Arak
The first manufacturer of steam boiler in Iran and the Middle East


ماشین سازی اراک
Machine Sazi Arak
DANGER
The first manufacturer of petrochemical methanol equipment

The first manufacturer of petrochemical methanol equipment

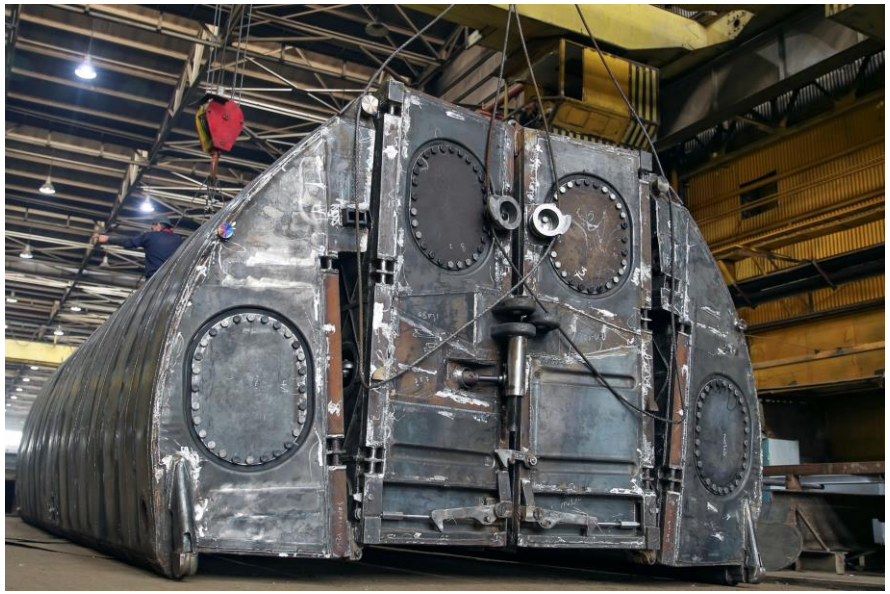
ماشین سازی اراک
Machine Sazi Arak

The first manufacturer of cereal suction machines in Shahid Rajaee Port

ماشین سازی اراک
Machine Sazi Arak

The first manufacturer of mobile oil refinery in Iran

ماشین سازی اراک
Machine Sazi Arak



Manufacturer of the largest Iranian power plant chimney at Shahid Rajaee Power Plant

ماشین سازی اراک
Machine Sazi Arak

Manufacturer of the largest steel structures for the 747 aircraft with 40,000 square meters and 154 meters span

ماشین سازی اراک
Machine Sazi Arak

Training complex

This complex founded in 1969 and has research educational activities and has trained many skilled forces for the country's industries so far.

Area: 92,000 square meters

including 22 technical workshops,

14 laboratories,

17 training classes,

2 conference halls,

2 computer sites,

3 dormitories with a capacity of 600 people, libraries and restaurants

Subsidiaries and partners

- MSA Engineering and Construction Company
- Paysaz Company
- Akam Oil and Gas Consortium Company
- Rakpad Company
- Kansar Technology Development Management Company

ماشین سازی اراک
Machine Sazi Arak

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Our Catalogues

Many thanks for your attention

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